INFOSILEM TIMETABLER™ 12.0

USER GUIDE

INFOSILEM

SCHEDULING SOLUTIONS BY BERGER-LEVRAULT

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INTRODUCTION

DOCUMENT SCOPE AND PURPOSE

The purpose of this guide is to introduce the reader (the user) to **Infosilem Timetabler**. It describes the appearance and specific uses of the application as well as elaborates briefly on ideas and concepts behind this system. This document also discusses the tools used in the scheduling process and explains how they can be configured to meet your timetabling requirements.

TARGET AUDIENCE

This guide is intended for users responsible for preparing, creating and/or modifying the master course timetable.

SECTION 1 – THE FUNDAMENTALS

CHAPTER 1 - GETTING STARTED

To login:

(1) Navigate to the «Start» menu.

(2) Select the application shortcut to open the login screen.

(3) In the «User Name» field, enter your user name.

(4) In the «Password» field, enter your password.

(5) In the «Server» drop-down list, select the appropriate server to connect to.

(6) In the «Database» drop-down list, select the appropriate database to be used.

(7) Click on «Login».

Fields Description _____

Login Name

- The user's login name

Password

- The user's password

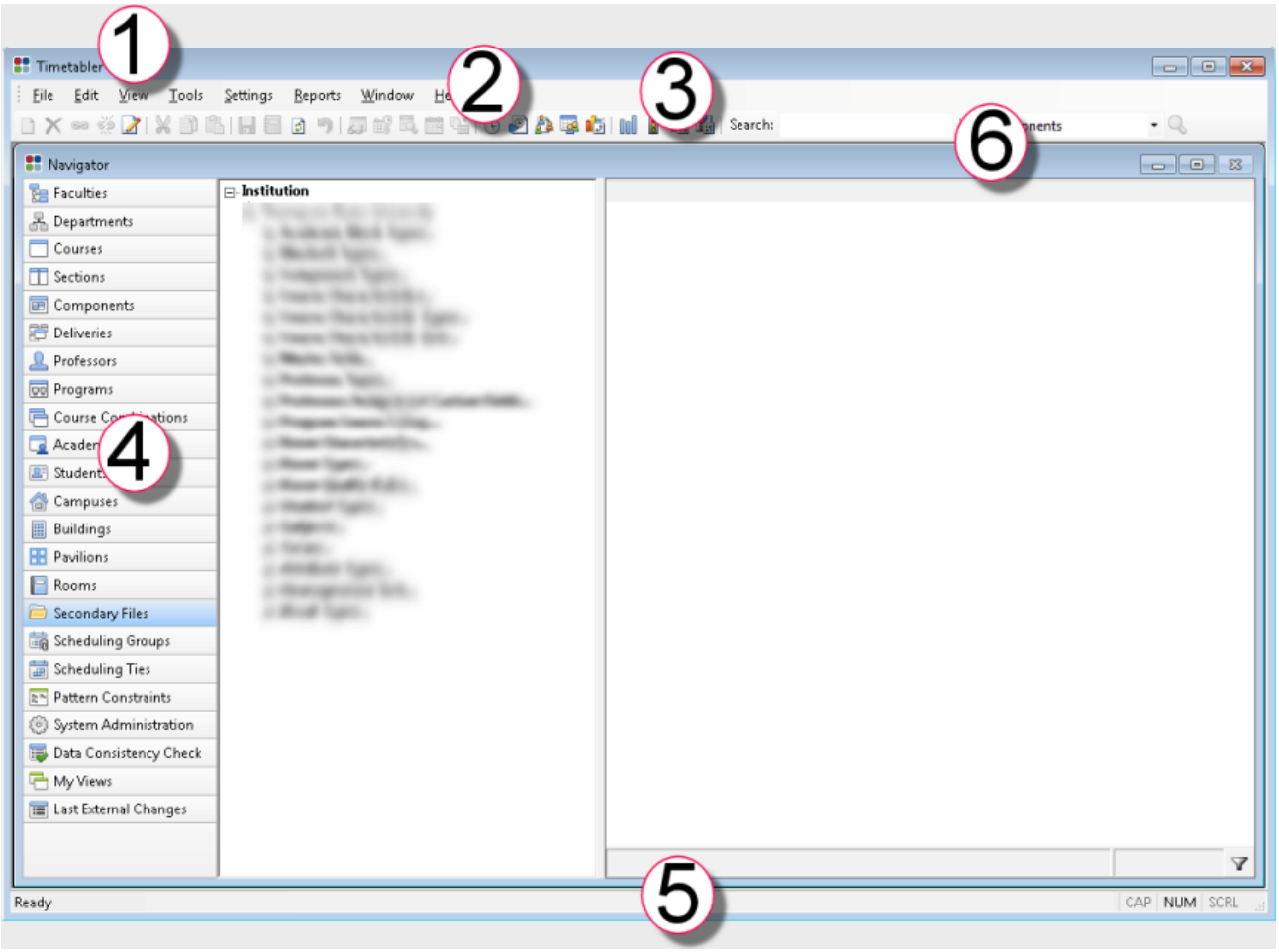
Server List

- Lists the available database servers
- The appropriate server must be selected.

Database List

- Lists the databases that reside on the selected server
- The appropriate database must be selected.

NAVIGATING WITHIN THE APPLICATION



Interface Structure _____

(1) Title Bar

- The title bar displays the product name, module name and version number.
- Use the minimize, maximize and exit buttons to minimize, maximize and exit the application.

(2) Main Menu

- Similar to most main menu's in Window applications.
- The main menu provides access to the system functions.
- Select any of the menu headings to access the submenus.
- Please refer to the section «Using the Main Menu» for an in-depth explanation on how to use the main menu.

(3) Toolbar

- Allows access to application specific functions through command buttons
- Please refer to the section «Using the Toolbar» for an in-depth explanation of all the available functions.

(4) Navigator

- Allows access to data elements with the application
- Please refer to the section «Using the Navigator» for an in- depth explanation of the Navigator's structure and functionality.

(5) Information Bar

- Displays connectivity information (login ID, server and database)

(6) Search Bar

- The Search bar allows users to search within Components, Deliveries, Rooms, Courses, Professors, Academic Blocks and Students for the character string the user entered in the Search field.
- Users can click within the Search field or can simply press CTRL + F on the keyboard to enter the string to search.
- From the drop-down menu located within the In field, select the element in which the system must search. Please note that the search is not case sensitive.
- The maximum length users can enter in the search field is 30 characters.

USING THE MAIN MENU

The main menu allows access to system specific functions.

To select an option from the main menu, do one of the following:

(1) Navigate to the desired menu option.

(2) Click on the option's name to access its submenus.

OR

(3) Simultaneously press the <ALT> key with the first letter in the menu option's name.

USING THE SUB-MENUS

- Once you select an option from the main menu, its sub-menu will appear:

- Sub-menu options displaying arrowheads allow access to a set of side menu options:
- To select an option from the Sub-Menu, do one of the following:

(1) Navigate to the desired menu option.

(2) Click on the option's name — the submenu will appear.

(3) Click on the desired option — the submenu screen will appear.

OR

(4) In the submenu, use the up and down arrows to navigate to the desired option.

(5) Hit the <Enter> key to select it — the submenu screen will appear.

OR

(6) In the submenu, press the first letter in the submenu option's name — the submenu screen will appear.

USING THE TOOLBAR

- The toolbar provides access to application specific functions through command buttons. The availability of these buttons depends on the screens and tools that are open.

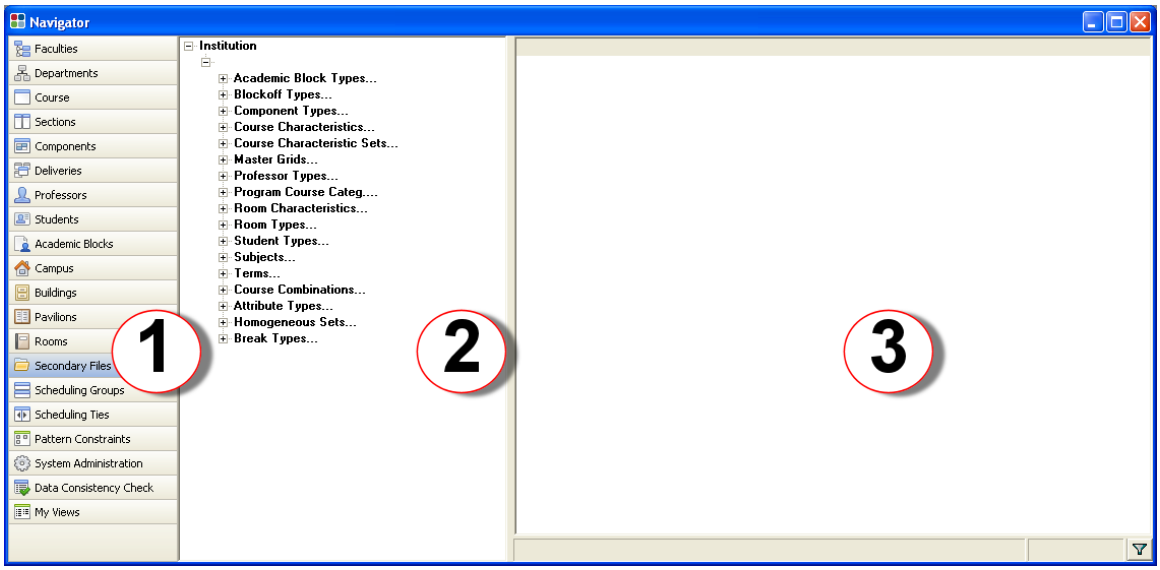
Command Buttons

New	Creates a new record.
Delete	Deletes the selected item.
Attach	Attaches an item.
Detach	Removes an attachment.
Edit	Allows you to edit the selected item.
Cut	Cuts the selected item.
Copy	Copies the selected item.
Paste	Pastes the previously cut or copied item.
Save	Saves changes.
Report	Generates reports for the selected list or list of items.
Refresh	Refreshes the current screen. Pressing the <F5> key will also refresh the current screen.
Lookup	Looks up existing values for a selected field. This button will only appear in fields where you can choose existing elements in the database.
Move Screen	This function is enabled only for deliveries. The move screen allows you to move the selected delivery.
Show Constraints	This function is enabled only for deliveries and can only be used once the move screen has been opened. It displays the time slots where professor and academic block constraints would be broken.
Stacked Timetable	This function is enabled only for these elements: Courses, Sections, Components, Professors, Academic Blocks, Students, Rooms and Subjects. The stacked timetable displays a stacked schedule for the selected item.
Staggered Timetable	This function is enabled only for these elements: Courses, Sections, Components, Professors, Academic Blocks, Students, Rooms and Subjects. The staggered timetable displays the same information as the stacked but on several schedules.

	**Show Available Start Time**	This function can be used only on the move screen. Once the delivery to be moved is selected its available start times are displayed.
	**Show Available Pattern Time**	This function can only be used via the move screen. It will show every pattern subset related to the pattern request.
	**Room Search**	This function can only be used on a delivery. Clicking on this button will allow users to search for rooms with several or few parameters.
	**Timetabler**	Clicking on this button will open the Timetabler.
	**Group Statistics**	Clicking on this button will open the group statistics screen.
	**Scheduling Ties Statistics**	Clicking on this button will open the scheduling ties statistics screen.
	**Student Assigner**	Clicking on this button will open the Student Assigner.
	**Student Sectioner**	Clicking on this button will open the Student Sectioner.
	**Chart**	This function allows the Room Distribution Report and the Course Distribution Report to be displayed graphically in chart form.
	**Matrix**	This function allows the Course Distribution Report to be displayed in a matrix form.
	**Administrative Tools**	Only accessible to users with administrator rights. Allow users to create and restore backups.

NOTE: By placing your cursor over any command button, a tool tip will appear indicating the button's functionality.

USING THE NAVIGATOR



Navigator Structure

The navigator consists of three sections:

(1) Data Element Button List

(2) Directory Tree Pane *(not available with all data elements);*

(3) List Pane

(1) Data Element Button List

- The data element button list is located on the left-hand side of the navigator.
- Clicking on any of these buttons will display information pertaining to the selected data element in the directory tree.

(2) Directory Tree Pane

- The directory tree pane is located in the middle section of the navigator and graphically displays the hierarchical relationship between data elements. Once having reached the last level for a given data element, the Directory Tree Pane is not displayed (example: Deliveries, Professors, Students, etc.)
- Click on the «+» to view all information associated to the selected data element appearing in bolded text.

(3) List Pane

- The list pane is located on the right-hand side of the navigator and lists all information associated to the selected data element within the directory tree pane.

Columns within the list pane can be:

- Resized
- Sorted
- Moved

A list pane can be:

- Filtered

HOW TO RESIZE A COLUMN

To resize the width of columns within a list:

(1) Place the cursor at the end of the column to be resized — the cursor will appear as such:

(2) Hold the mouse key down.

(3) Drag the column to the left or right until the column is of the desired width.

(4) Release the mouse button — the column will now be resized.

HOW TO SORT DATA WITHIN A COLUMN

- The data within a list can be sorted in ascending or descending order.
- Text fields will sort alphabetically (A-Z or Z-A) and numeric fields will sort numerically (0-999 or 999-0).

(1) Place the cursor over the column header that you wish to sort on.

(2) Click once to sort the column in ascending order. An ascending arrow will appear on the column header.

(3) Click again to sort in descending order. A descending arrow will appear on the column header.

(4) To remove the sort, hold the <CTRL> key and click again on the sorted column. The arrow will be removed.

(5) The List will be updated to reflect the sort.

To sort a list based on more than one field (multi-sort):

(1) Place the cursor over the column header that you wish to sort on.

(2) Click once or twice depending if the sort is to be ascending or descending. The appropriate arrow will appear on the column header.

(3) While holding down the <CTRL> key, click on the next column header that you wish to sort on.

(4) Again, click once or twice depending if the sort is to be ascending or descending. A number «1» will appear in the column header of the first column sorted on A number «2» will appear in the column header of the second column sorted on.

(5) Repeat steps 3 and 4 as many times as necessary.

To clear a multi-sort:

- Release the <CTRL> key and click on a column header.

HOW TO MOVE COLUMNS

(1) Click and hold down the left mouse button on the column header that you wish to move.

(2) Drag the column header to the desired position.

(3) The column header will become transparent during the move.

(4) Release the mouse button to drop it in the desired location on the list header.

HOW TO SELECT COLUMNS

- Users will be able to customize most list by selecting the columns to display within a given list.

(1) To do so, simply right-click within the list and select the «Select Columns» option — the Select Columns screen opens.

(2) From within the Select Columns screen, select the columns to display. To remove a column from a list, simply deselect the column.

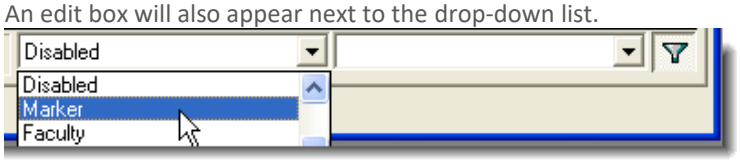
(3) Select the OK button once the selection is complete. The list will now display only the selected columns.

HOW TO FILTER A LIST

At the bottom of each list there is a filter button: 

(1) Click on the filter button.

- A drop-down list will appear containing all the column headings of the list.
- An edit box will also appear next to the drop-down list.



(2) In the drop-down list, select the appropriate field to filter on.

(3) Enter the filter criteria in the edit box and press the <ENTER> key.

(4) The list will then reflect your filter choice.

(5) To remove your filter, click on the filter button.

NOTE: Wild card characters can be used in the searching field.

- Use the <*> (asterisk) to substitute a part of a word, or a string of numbers.
- Use the <?> to substitute a single letter or number.

Example:

If your filter criteria= «ab*», all records within the desired field that begin with «ab» will appear.
If your filter criteria= «a? » all records within the desired field that contain 2 characters and begin with «a» will appear.

USING THE LOOKUP LIST

- Lookup list displays all possible values for a selected field.

Can I use the lookup function on every field?

- The Lookup function cannot be used for fields that require unique values (Identification fields).
- The Lookup function can be used for fields where their values have been defined within the database.

How do I know when I can use the Lookup function?

- The «Lookup» option will be active once you right click in a selected field, or;
- The lookup command button in the toolbar will be active, or;
- There will be a "…" button next to fields when the lookup function is available.

How do I use the lookup function?

- Open the desired element's edit window by double clicking on the appropriate record in the list pane.
  - Right click in the selected field and select «Lookup» or;
  - click on the ellipsis (…) button next to the desired field or;
  - press the F9 key in the selected field.
- The Lookup List will appear.

How do I select an item in the lookup screen?

- In the Lookup list, double click on the desired value or select the desired value and close the lookup list.

MANIPULATING DATA WITHIN THE APPLICATION

- The following section will describe basic manipulations such as how to Add, Edit, Copy, Paste, etc. data elements within the application.

HOW TO ADD AN ITEM

- The application follows a hierarchical structure.
- In order to add an element, it must be associated to its parent.

Example: *A course can only be added if it is associated to a department.*

To add an item:

(1) Highlight the item title in the directory tree pane and do one of the following:

- Press the <INSERT> key.
- Click on the «New» command button in the toolbar.
- Click on «Edit» in the main menu and select «Add» from the sub-menu.
- Press the <CTRL>+<N> keys simultaneously.

(2) Highlight an item in the list pane and do one of the following:

- Press the <INSERT> key.
- Right click anywhere inside the list pane and select «Add New».
- Click on the «New» command button in the toolbar.
- Click on «Edit» in the main menu and select «Add» from the sub-menu.
- Press the <CTRL>+<N> keys simultaneously.

(3) An edit window will appear. Enter all the appropriate information.

(4) Save the item by:

- Clicking on the «Save» command button in the toolbar.
- Pressing the <CTRL>+<S> key simultaneously.
- Clicking on «File» in the main menu and selecting «Save» from the sub-menu.

- If the item was not saved and you attempt to close the edit window, you will be prompted to save your changes.

HOW TO EDIT AN ITEM

- All changes to an item must be made within its respected edit window.

To edit an item:

(1) Highlight the desired item in the tree pane and do one of the following:

(2) Double click on the desired item in the directory tree pane.

- Click on the «Edit» command button in the toolbar.
- Click on «Edit» in the main menu and select «Edit» from the sub-menu.
- Press the <F2> function key.

(3) Highlight the desired item in the list pane and do one of the following:

- Double click on the desired item in the list pane.
- Right click on the desired item and select «Edit».
- Right click on the desired item in the list pane and select open viewer.
- Click on the «Edit» command button in the toolbar.
- Click on «Edit» in the main menu and select «Edit» from the sub-menu.
- Press the <F2> function key.

(4) Make all necessary changes in the edit window.

(5) Save the item by:

- Clicking on the «Save» command button in the toolbar.
- Pressing the <CTRL>+<S> keys simultaneously.
- Clicking on «File» in the main menu and select «Save» from the sub-menu.

- If the item was not saved and you attempt to close the edit window, you will be prompted to save your changes.

HOW TO EDIT MULTIPLE ITEMS

- The batch edit function allows a user to simultaneously update multiple records.

> **NOTE:** The modification(s) will be applied to all records selected.

(1) Make sure that the list pane is populated with the desired records

(2) Select the records using the <Ctrl> keys or <Shift> key

(3) Right click and select «Batch Edit»

- One edit window will appear
- The number of selected records will appear in the title bar of the edit window
- Fields with common values will appear in one color
- Field containing different values amongst the selected records will appear highlighted in another color

(4) Make the necessary modifications

(5) Save the item by:

- Clicking on the «Save» command button in the toolbar.
- Pressing the <CTRL>+<S> keys simultaneously.
- Clicking on «File» in the main menu and select «Save» from the sub-menu.
- Click on the «Save» command button in the tool bar to save the modifications

- All selected records will be updated with the modification(s)

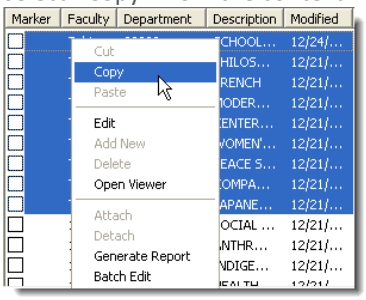
> **NOTE:** If the item was not saved and you attempt to close the edit window, you will be prompted to save your changes.

HOW TO COPY AND PASTE A LIST

- You can copy and paste any list that is displayed in the list pane and paste it in a text editor or a spreadsheet such as MS Word, or MS Excel.

To copy elements from a list pane:

- Select the elements inside the list pane that you want to copy. Once those elements are highlighted, right click and select «Copy» from the context menu.



To paste the copied elements:

- If it is not already done, open the text editor or the spreadsheet application.
- You can now paste the data inside the application with a right click on the location where the content is to be pasted and selecting «paste» from the context menu.

BATCH EDIT WINDOW EXPLANATION

- The Batch Edit window allows a user to simultaneously edit multiple records within the working database.
- Any changes made to the applicable fields within the batch edit window will be applied to all of the selected records.

Example: *The batch edit window is opened for five course records. The description field is changed to «DUMMY COURSES». «DUMMY COURSES» will now appear in the description field for all five course records.*

NOTE: Fields containing the same value for the selected records will appear in white. Fields containing different values (i.e. ID fields) will appear highlighted in color. All fields can be edited within the batch edit window

THE BATCH EDIT COLOR OPTIONS

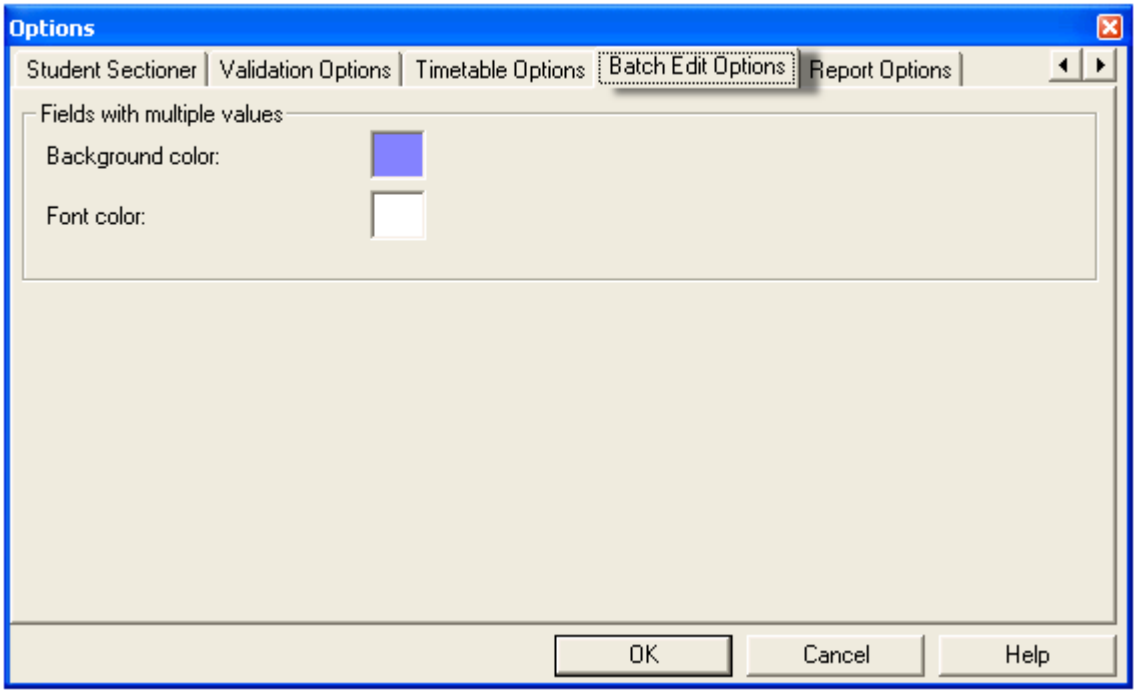
- The batch edit option form is accessible via the «Options» submenu under the «Tools» menu in the main menu.

Multiple values field color

- Select the color to be displayed for fields that differ amongst records selected in the batch edit window.

Multiple values font color

- Select the font color to be displayed for fields that differ amongst records selected in the batch edit window.



HOW TO DELETE AN ITEM

- The application follows a hierarchical structure.
- An item can only be deleted by doing so in its parent.

Example: *A course can only be deleted from its department.*

To delete an item:

(1) Highlight the desired item in the directory tree pane and do one of the following:

- Press the <DELETE> key.
- Click on the «Delete» command button in the toolbar.
- Click on «Edit» in the main menu and select «Delete» from the sub-menu.

(2) Highlight the desired item in the list pane and do one of the following:

- Right click on the desired item and select «Delete».
- Press the <DELETE> key.
- Click on the «Delete» command button in the toolbar.
- Click on «Edit» in the main menu and select «Delete» from the sub-menu.

- A pop-up message will appear to confirm the delete command. Click on Yes to delete this record or click on No to cancel this command.

NOTE: Cascading deletions are possible.

- Cascading deletions will delete the selected item, all its children elements and related links. For example, if you delete a component, all the children elements and links related to that component (deliveries, links to academic blocks, links to professors, etc…) will also be deleted.

HOW TO ATTACH OR DETACH AN ITEM

- Items that were previously defined within your database can be attached to selected items.

Example: *A blockoff can be attached to a professor. Blockoffs have to be defined within the selected database before they can be attached to a professor.*

(1) Navigate to the appropriate item.

(2) Open the selected item's edit window.

(3) Navigate to the appropriate tab within the edit window.

(4) To attach an item, do one of the following:

- Right click in the appropriate tab and select «Attach» or «Detach».
- Click on the «Attach» or «Detach» command button in the toolbar.
- Click on «Edit» in the main menu and select «Attach» or «Detach» from the sub-menu — the «Attachment» list will appear listing all of the items that can be attached.

(5) Select the appropriate item(s).

(6) Close the «Attachment» list.

NOTE: Multiple items can be attached at once.

- In the «Attachment» list, hold the <CTRL> key down and select the appropriate items to attach.
- Close the «Attachment» list. All selected items will be attached.

HOW TO CUT AN ITEM

- The application follows a hierarchical structure. An item can only be cut from its parent object.

Example: *A course can only be cut from a department.*

To cut an item:

- Highlight the desired item in the directory three pane and do one of the following:
  - Press the <SHIFT> + <DELETE> keys.
  - Press the <CTRL> + <X> keys.
  - Click on the «Cut» command button in the toolbar.
- Highlight the desired item in the list pane and do one of the following:
  - Right click on the desired item and select «Cut».
  - Press the <SHIFT> + <DELETE> keys.
  - Press the <CTRL> + <X> keys.
  - Click on the «Cut» command button in the toolbar.
  - Click on «Edit» in the main menu and select «Cut» from the sub-menu.
- In the List pane, the «Disabled» and «Marker» checkboxes will become gray.
- The cut item will remain in its original location until it is pasted.

HOW TO COPY AN ITEM

An item can be copied in any list allowing additions and deletions.

- This action can be performed via:
  - The right click of the mouse,
  - The toolbar buttons or,
  - By pressing <CTRL>+<INS> or <CTRL>+<C> on the keyboard.
- Certain items, when copied and pasted, will lose their linked elements.

HOW TO PASTE AN ITEM

- The application follows a hierarchical structure.
- An item can only be pasted by associating it to a parent object (unless there are no parent objects).

Example: A course can only be pasted in a department.

To paste an item:

(1) Highlight the desired item in the directory tree pane and do one of the following:

- Press the <SHIFT> + <INS> keys.
- Press the <CTRL> + <V> keys.
- Click on the «Paste» command button in the toolbar.

(2) In the list pane:

- Right click on the desired item and select «Paste».
- Press the <SHIFT> + <INS> keys.
- Press the <CTRL> + <V> keys.
- Click on the «Paste» command button in the toolbar.
- Click on «Edit» in the main menu and from the sub-menu select «Paste».
- A pop-up message will appear to confirm the paste command.
- The edit window for the pasted item will appear.

(3) Save the item to complete the paste command.

HOW TO USE THE DISABLED CHECK BOX

- The disabled check box is located in the bottom left hand corner of most edit windows.
- Use the disabled checkbox to identify the data elements that the system should ignore while scheduling.
- Marking an item as disabled is equivalent to deleting the item.
- Cascading disablement is possible.
- When an item is marked as disabled, all its child elements are also disabled.

HOW TO ENABLE/DISABLE OR MARK/UNMARK ELEMENTS FROM A LIST

- In applicable lists, selected records can have their Marker or Disabled checkboxes activated or deactivated by using a right-click on the desired record(s) and selecting from the context menu the option «Enable», «Disable», «Mark», «Unmark». Please note that the options made available to the user depends on the current state of the selected record(s).

WORKING WITH THE EDIT WINDOW

- An edit window can be opened for any data element in (i.e. course, department, component, etc.).
- The edit window displays all information pertaining to the selected data element. Wherever possible, this information can be edited, added or deleted.
- To access the edit window, do one of the following:
  - Double click on the desired item in the list pane.
  - Right click on the desired item and select «Edit».
  - Right click on the desired item in the list pane and from select open viewer.
  - Click on the «Edit» command button in the toolbar.
  - Click on «Edit» in the main menu and from the sub-menu select «Edit».
  - Press the <F2> function key.
- The screens contain one or more of the following field types:
  - Data Input Fields
  - System-disabled fields
  - User permission-disabled fields
  - Grids
  - Date and Time Fields

DATA INPUT FIELDS

- Use data input fields to input the appropriate data for new or existing records.

NOTE:	Use the <TAB> key to move the cursor from one active field to the next. Use the <SHIFT> + <TAB> return to the previous field.

SYSTEM-DISABLED FIELDS

- The application follows a hierarchical structure, which implies that an item must be associated to a parent item.
- The inactive fields represent the parent items associated to the child item.
- These values cannot be changed via the child element.

NOTE: Open the inactive field's edit window by double clicking in the inactive field. By changing the value of the inactive field through its edit window, all related child elements will be affected.

USER PERMISSION-DISABLED FIELDS

- Permissions assigned to a specific user dictate what viewing rights the user possesses.

Example: *With «Read- only» permissions, all fields will appear inactive thus preventing the user from making any data modifications.*

DATA INPUT GRID

- Data Input Grids allow you to input data in a grid format.
- To enter values in a data input grid:

(1) Click in the field where you wish to input data.

(2) Input the desired data.

(3) Hit the «Enter» key.

(4) Use the arrow keys to navigate to the next field.

(5) Repeat this process until all of the desired fields are filled.

NOTE: Some fields allow you to choose a value from a drop-down list. (Ex. Day).

DATE AND TIME FIELDS

- The date format reflects the date format set in the Regional Settings of the Control Panel in Windows.

HOW TO ENTER A VALUE IN THE START AND END DATE FIELDS

Manual modification:

- Click on the day, month or year (the value will appear highlighted)
- Input the desired value.

OR

Using the calendar:

- Click on the drop-down arrow in the desired field — the Calendar pop-up will appear.

To change the Year value:

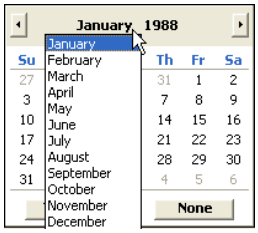
- Click on the year — up and down arrows will appear to the right of the year value.
- Use the arrows to increase or decrease the year value.

To change the Month value:

- Click on the Month name — a list of the 12 months will appear.
- Select the appropriate month.

OR

- Use the arrows appearing to the left and right of the Month and Year Value.



To change the Day value:

- Once the appropriate year and month have been selected, click on the desired day. This day will be selected.

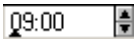
How to Enter a Value in the Start and End Time Fields

- Time values adhere to a HH:MM format and are based on a 24 hour clock.

Example:	*2 PM = 14:00* *8 AM = 08:00*

To enter a time:

- Click in the appropriate time value field.
- Enter the appropriate time.
  OR
- Double click in the appropriate time value field — the field will appear with up/down arrows and the cursor under the first character of the time value.



- Point the cursor under the character in the time value that you wish to change.
- Use the arrows to increase or decrease this value.

WORKING BETWEEN SCREENS

- Multiple screens can be opened, but only the screen in the forefront can be active.
- To move from one open screen to another, do one of the following:
- Click on any portion of the opened inactive screen — this will bring the screen to the forefront.
  OR
- Select «Window» from the Main Menu — a list of opened screens will appear.
- Select the desired screen name — this will bring the selected screen to the forefront.

> **NOTE:** A checkmark appears to the left of the active screen in the «Windows» sub-Menu.

OR

- Hold the <CTRL> key down.
- Press the <F6> key to select an open inactive screen.
- Continue to hold the <CTRL> key down and press <F6> in order to move from one open screen to the next.
  OR
- Minimize the active screen by clicking on the «Minimize button» in the top left corner  .

SHOW/HIDE NAVIGATOR ELEMENTS AND TABS

NAVIGATOR ELEMENTS

Users can show or hide navigation elements (located in the left pane of the navigator). To do so, simply right-click in the left pane and select «*Select Navigator Elements*» to open the *«Select navigator Elements»* window. From that window, select the navigator elements to show or to hide (a checkmark next to the navigator element indicates the element will be shown).

TABS

Where available, users can show or hide tabs on screens such as Course, Sections, etc. To do so, simply right-click on any tab (in windows where available) and select «*Select Tabs*» to open the *«Select Tabs»* window. From that window, select the tabs to show or to hide (a checkmark next to the tab indicates that the tab will be shown).

CHAPTER 2 - INSTITUTIONAL FILES

INSTITUTION

- Information pertaining to your institution is stored in the «Institution» file.

«GENERAL INFORMATION» TAB

ID

- Institution's identification field
- Usually the institution name

Contact

- Institution's contact field
- This field represents the person who is responsible for the application usage at the institution.

Client #

- Institution's client number field
- This unique client number is assigned by Infosilem.

Institution Logo _____

- This is where users can customize the logo that is to appear in certain reports.

Select Image

- By selecting this button, the image selection dialog box will open. Navigate to the appropriate directory where your institution image resides. Select the image to incorporate this image inside the Institution screen. Supported formats are .bmp, .jpg (24 bit depth) and .gif.

«ADDRESS» TAB

Tel. 1

- Institution's phone number

Tel. 2

- Institution's alternative phone number

Fax

- Institution's fax number

Address

- Institution's address

«PRIVATE BLOCKOFFS» TAB

- The «Private Blockoffs» tab displays the list of private blockoffs (unavailabilities) associated to the institution.
- See the «How to Add an item» section to add a private blockoff.
- A private blockoff at the institutional level is used for creating an unavailability for the entire institution for a specific period of time. This type of blockoff overrides any other type of blockoff.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

FACULTIES

- A grouping of departments is considered a Faculty.
- A department can belong to only one faculty and a faculty is composed of one or more departments.

«GENERAL INFORMATION» TAB

ID

- Faculty's identification field
- It is the unique identifier for a faculty. Duplicate faculties cannot exist.
- This is a required field.

Description

- Faculty's description field

Marker

- Use the marker check box as an indicator (Ex. Faculty is new, to be deleted, etc.)
- This is a user-specified field.

«DEPARTMENTS» TAB

- The «Departments» tab displays the list of departments associated to a Faculty. See the «How to Add an item» section to add a department.
- A faculty can consist of one or more department.
- A department can only be added by associating it to a faculty.

«COURSE TIE WEIGHTS» TAB

Course Tie Weights

- This part of the screen is used to define the weights of different types of course ties for this particular faculty.

Override with these weights

- The global setting of course tie weights can be found in «Course Scheduling Rules» under the «Settings» menu. You may override the global settings at the faculty level by enabling this check box. If you choose to do so, the weight fields will then become active.
- The weight fields are used to specify the importance of each type of course tie in relation to each other.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

DEPARTMENTS

- A grouping of professors and/or courses is considered a Department.
- Courses and professors can only belong to one department.

«GENERAL INFORMATION» TAB

Faculty

- This field reflects the department's faculty. This is a system-populated field.
- The user cannot change the Faculty that a department belongs to via the department screen.
- The faculty ID along with the Department ID makes the unique identifier for a department.

ID

- This field reflects the department's identification field. Duplicate departments cannot be created under the same faculty. This is a required field.

Description

- Department's description field

Room Quality Rule

- Using the lookup tool, select the Room Quality Rule to apply to the current department. By doing so, the department will not be affected by the global Room Quality Rule that is defined in the Course Scheduling Rules screen.

Marker

- Use the marker check box as an indicator (Ex. Department is new, to be deleted, etc.)
- This is a user-specified field.

«COURSES» TAB

- The «Courses» tab displays the list of courses associated to a department. See the «How to Add an item» section to add a course.
- A department can consist of one or more courses.
- A course can only be added by associating it to a department.

«PRIVATE BLOCKOFFS» TAB

- The «Private Blockoffs» tab displays the list of private blockoffs (unavailabilities) associated to the department. See the «How to Add an item» section to add a private blockoff.
- A private blockoff at the departmental level is used to define departmental meetings. Professors defined as having to attend departmental meetings will inherit the specified blockoffs.

«PROFESSORS» TAB

- The Professors tab will display all professors associated with the selected department. To open the desired professor's screen, simply double-click on that professor's name.

«ACADEMIC BLOCKS» TAB

- The Academic Blocks tab will display all Academic Blocks associated with the selected department. To open the desired Academic Blocks screen, simply double-click on its name.

«COURSE TIE WEIGHTS» TAB

Course Tie Weights

- This part of the screen is used to define the weights of different types of course ties.

Override with these weights

- The global setting of course tie weights can be found in «Course Scheduling Rules» under the «Settings» menu. You may override the global settings at the department level by enabling this check box. If you choose to do so, the weight fields will then become active.
- The weight fields are used to specify the importance of each type of course tie in relation to each other.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

PROFESSORS

- A professor is an instructor that belongs to a department and may be attached to one or more deliveries.

«GENERAL INFORMATION» TAB

Faculty and Department

- Professor's department and faculty
- These are system-populated fields.
- The user cannot change the faculty or department that the professor belongs to via the professor screen.

Type

- Professors type field
- Used to define groups of professors with similar professional characteristics
- The lookup function can be used in this field.

ID

- Professor's identification field
- This field is the unique identifier for a professor.
- This is a required field. Duplicate professor identifications cannot be created.

Description

- Professor's description field

Name

- The professor's first name

Surname

- The professor's surname

Marker

- Use the marker check box as an indicator (Ex. Professor is new, to be deleted, etc.)
- This is a user-specified field.

Disabled

- This check box can be used to disable a professor.
- This is a user-specified field.

«CONSTRAINTS» TAB

- The «Constraints» tab opens on two sub-tabs («Scheduling Constraints» tab and «Break Constraints» tab) letting users define in details the constraints.

Customized Constraints

- Professors will inherit constraints defined within their associated professor type unless otherwise indicated. Check this option to override the defined professor type constraints with customized ones.

«SCHEDULING CONSTRAINTS» TAB

Department Meeting(s)

(Only available if the «Customized Constraints» option is selected)

- Check the «Department Meeting» check box to have the selected professor inherit the departmental private blockoff of his or her department.

Respect Transfer Times

- This option is selected by default and it allows the user to specify whether the individual professor will respect the transfer times defined for buildings and/or campuses.
- To uncheck this option, the «Customized Constraints» checkbox needs to be selected.

Desired Blockoffs Conflicts Allowed

- Public Blockoffs can be defined as desired. Check the «Desired Blockoffs Conflicts Allowed? » check box to allow the system (if necessary) to create a conflict involving the specified public blockoff.

Preference

- The specified «Preference» value indicates the preferred values for the professor constraints.

Limit

- The specified «Limit» value indicates the professor constraint values that the system must respect.

Preference and Limit Example

- Two hours is specified as the «Preference» value and 1 hour is specified as the «Limit» value for the «Min time, after max cons» constraint. This implies that it is preferred that the selected professor has 2 hours free but 1 hour is required.

Weight

- Each constraint has a weight associated to it that indicates how important the preference value is for one constraint in relation to another. For example, if achieving the max time/day preference is more important than achieving the max consecutive time preference, a larger weight should be given to the max time/day constraint.

Daily Constraints _____

Min. Time after max Cons.

- Controls the minimum free time to be scheduled after having reached the maximum number of consecutive hours

If after late pm, min. time until next.

- Controls the number of hours between a scheduled delivery after the specified «late» time and the next morning delivery; this constraint is influenced by the specified late pm time value.

Max. Time/Day

- Controls the maximum number of class-time hours that can be scheduled on any given day.

Max. Consecutive Time

- Controls the maximum number of hours that can be scheduled consecutively

Max. Elapsed Time/Day

- Controls the maximum number of hours that can elapse from the beginning of the first hour scheduled to the end of the last hour scheduled on any given day.

Max. commutes per day

- Define the maximum number of commutes this professor can have within one day (per day).
- The value must range between 0 and 999.

Allow Back-To-Backs

- If checked, this will allow the application to schedule one delivery immediately after another.

Weekly Constraints _____

Min. Free Days per Week

- Number of non-teaching days

Max. AM: early start/week

- Controls the number of times a professor can be scheduled to teach early in the morning during the week. This constraint is influenced by the specified early am time value.

Max. PM: late end/week

- Controls the number of times a professor can be scheduled to teach late in the day during the week. This constraint is influenced by the specified late pm time value.

Max. commutes per week

- Define the maximum number of commutes this professor can have within one week (per week).
- The value must range between 0 and 999.

AM/PM Preference

- AM or PM teaching preference, this feature is currently not implemented.

«BREAK CONSTRAINTS» TAB

Weight:

- The weight associated to this constraint indicates the importance of this constraint over all other constraints that are to be taken into consideration by Timetabler during the scheduling process.
- To enter a value inside this field, either click inside the field and enter a numeric value using the keyboard or click on the slide bar and move it to the desired location (approximate value).

Break

- Select the desired break type from the lookup window (F9) or enter the name of the desired break type as it was created in the «Secondary Files» – «Break Types».

Minimum

- Enter (in hours and minutes) the minimum amount of time of the duration of the break. The amount of time entered must be equal to or less than the maximum duration of the selected break type. The minimum time will be respected by the *Scheduler* when scheduling. If Timetabler is unable to respect the limit set by the user during scheduling, a reject could occur

Preferred

- Enter (in hours and minutes) the preferred amount of time of the duration of the break. If possible, the Timetabler will try to respect the preferred amount of time when scheduling.

«SECONDARY DEPARTMENTS» TAB

- The «Secondary Departments» tab displays a list of secondary departments associated to the professor.
- See the «How to attach an item» section to attach a department
- One or more secondary departments can be associated to a single professor.

NOTE: The professor will inherit all departmental blockoffs of the attached secondary departments.

«DELIVERIES» TAB

- The «Deliveries» tab displays a list of deliveries associated to the professor along with the professor's Teaching Status (Teaching and Non-Teaching). See the «How to attach or detach» section to attach one or several professors to this delivery.
- One or more deliveries can be associated to a professor.
- Furthermore, all deliveries associated to the current professor will be displayed along with their status.
- Authorized users are able to change the status that is associated to the professor by a right click and selecting "Set to teaching" or "Set to Non-Teaching" from the context menu.

Set to Teaching

- Select this option to set the professor that is associated with a given delivery as "teaching".

Set to Non-Teaching

- When this option is selected, the professor, for that given delivery, is attached to the delivery but is not teaching. The professor will therefore not be taken into account when assigning (that delivery), and will not be taken into account for the validations of that delivery and will not be included in reports (for that delivery).

Custom Fields----------

- For more information regarding the custom fields, please refer to "Professor Assignment Custom Fields" section.

Field Name

- The name of the custom field associated with the selected delivery as well as the current professor.

Value

- The value associated with the field name of the associated custom field. User can modify the value in this field by selecting from the drop-down menu.

«BLOCKOFFS» TAB

- The «Blockoffs» tab displays a list of blockoffs associated to the professor.
- Use professor blockoffs to ensure that a professor is unavailable for a specified period of time
- See the «How to attach an item» section to attach predefined public blockoffs. One or more blockoffs can be associated to a professor.

«ADDRESS» TAB

Address

Phone/Office

- The office phone number of the professor

Phone/Fax

- The fax number of the professor

Phone/Home

- The home phone number of the professor

Phone/Mobile

- The mobile number of the professor

Phone/Pager

- The pager number of the professor

Street Address

- The street address of the professor's given address

PO Box

- The PO Box of the professor's given address

City

- The city of the professor's given address

State/Province

- The state or province of the professor's given address

ZIP/Postal Code

- The zip code or postal code of the professor's given address

Country

- The country of the professor's given address

«NOTE» TAB

- Within the Note tab, users insert notes in regards to the current data element.
- This tab may also display notes entered within **Infosilem Timetabler DCU** (a valid **Infosilem Timetabler DCU** license is required).
- These notes can later on be cleared using the Rollover tool.

DCU Course Constraints
(The DCU module needs to be registered)

- This is a read-only field. This field displays the professor constraints created within the DCU

ACADEMIC BLOCKS

- An academic block is a collection of course components that share a common academic program, and/or a common grid of non-availability. Course components attached to an academic block will be scheduled conflict free. A course component may belong to one or several academic blocks.
- Any constraints assigned to an academic block will apply to the attached course sections.

ACADEMIC BLOCK BUILDER SERVICE SETTINGS SCREEN

(Assigner license required)

- The Academic Block Builder service uses course combinations to create academic blocks.
- By default, the Academic block builder service feature is disabled. To enable the feature for the current workspace, select *Settings > Academic Block Builder Service Settings* from the menu bar.
- Within this screen users can enable or disable the academic block builder service as well as access advanced configurations and logs related to the academic block builder service by clicking on the link.

Enable

- Clicking on this button will turn on (enable) the academic block builder service for the current workspace. When the service is enabled, it will run in the background and will automatically generate academic blocks based on the course combinations.

Disable

- Clicking on this button will turn off (disable) the academic block builder service for the current workspace.

ACADEMIC BLOCK SCREEN

«GENERAL INFORMATION» TAB

Faculty and Department

- Academic Block's department and faculty
- These are system-populated fields.
- The user cannot change the faculty or department that the academic block belongs to via this screen.

Program

- The program to which this academic block is associated

Level

- The level of the program to which the academic block is associated

ID

- Academic Block identification field.
- This field is the unique identifier for the academic block. Once created, it cannot be duplicated.
- This is a required field.

Description

- Academic Block description field.
- The value entered for this field (by the system) will also be replicated from the Description field of the associated Course Combination.

Block Size

- Academic Block size. (I.e. number of students the selected academic block represents.)

Type

- Academic Block type field
- The constraints defined for the selected academic block type will apply to the Academic Block
- The lookup function can be used in this field.

Course Combination Name

- The name that is given when a course combination is created will appear in this field. If there is a value in this field, it means that the academic block was generated by the system with a course combination.

Exclude from Academic Block Builder

- By default, when generating new Academic Blocks, the Academic Block Builder takes all existing Academic Blocks into consideration unless this checkmark box is checked off. When this option is selected, the Assigner and the Course Supply vs Demand report will consider the block size of the Academic Block as being equal to zero (0).

System Generated

- Marked when this particular academic block was created as a result of a course combination. In turn, there will also be a value in the Course Combination Name field.

Marker

- Use the marker check box as an indicator (Ex. Academic Block is new, to be deleted, etc.)
- This is a user-specified field.

Disabled

- This check box can be used to disable an academic block.
- This is a user-specified field.

«CONSTRAINTS» TAB

Customized Constraints

- The academic block will inherit constraints defined within their associated academic block type unless otherwise indicated. Check this option to override the defined academic block type constraints with individually specified ones.

«SCHEDULING CONSTRAINTS» TAB

Respect Transfer Times

- This option allows the user to specify whether or not the components and deliveries within an academic block (that have an academic block type attached) will respect the transfer times defined for campus(es) and/or building(s) when the deliveries are scheduled.

Allow conflicts and constraint violations

- Components belonging to the same academic block will, by definition, schedule conflict free. Check the «Allow conflicts and constraint violations» check box to allow the application (if necessary) to create conflicts that do not involve more students than the «maximum cumulative size of academic blocks with conflicts or constrain violations per delivery» value defined in the «Course Scheduling Rules» window under the «Settings» menu.

Desired Blockoffs Conflicts Allowed

- Public Blockoffs can be defined as desired. Check the «Desired Blockoffs Conflicts Allowed? » check box to allow the application (if necessary) to create a conflict with the specified public blockoff.

Daily Constraints _____

Preference and Limit

- This is where you specify the preference for each constraint. An example of the max time/day constraint is that you would prefer students to have 6 hours of class per day (preference), but they can have no more than 8 hours (limit) per day.

Weight

- Each constraint has a weight associated to it. The weight indicates how important the preference value is for one constraint in relation to another constraint. For example, if achieving the max time/day preference is more important than achieving the max consecutive time preference, you would give a heavier weight to the max time/day constraint.

Min. Time After Max Cons

- Controls the minimum free time to be scheduled after having reached the maximum number of consecutive hours

If after late pm, min. time until next

- Controls the number of hours between a scheduled delivery after the specified «late» time and the next morning delivery
- This constraint is influenced by the specified late pm time value.

Max. Time/Day

- Controls the maximum number of class-time hours that can be scheduled on any given day.

Max. Consecutive Time

- Controls the maximum number of hours of class that can be scheduled consecutively

Max. Elapsed Time/Day

- Controls the maximum number of hours that can elapse from the beginning of the first hour scheduled to the end of the last hour scheduled on any given day.

Max. commutes per day

- Define the maximum number of commutes this academic block can have within one day (per day).
- The value must range between 0 and 999.

Weekly Constraints _____

Min. Free Days Per Week

- Number of non-lecture days.

Max. AM: early start/week

- Controls the number of times an academic block can be scheduled to teach early in the week. This constraint is influenced by the specified early am time value.

Max. PM: late end/week

- Controls the number of times an academic block can be scheduled to teach late in the week. This constraint is influenced by the specified late pm time value.

Max. commutes per week

- Define the maximum number of commutes this academic block can have within one week (per week).
- The value must range between 0 and 999.

«BREAK CONSTRAINTS» TAB

Weight:

- The weight associated to this constraint («Break Constraints») indicates the importance of this constraint over all other constraints that are to be taken into consideration by Timetabler during the scheduling process.
- To enter a value inside this field, either click inside the field and enter a numeric value using the keyboard or click on the slide bar and move it to the desired location (approximate value).

Break

- Select the desired break type from the lookup window (F9) or enter the name of the desired break type as it was created in the «Secondary Files» – «Break Types».

Minimum Break Duration

- Enter (in hours and minutes) the minimum amount of time of the duration of the break. The amount of time entered must be equal to or less than the maximum duration of the selected break type. The minimum time will be respected by the Scheduler when scheduling. If Timetabler is unable to respect the limit set by the user during scheduling, a reject could occur

Preferred Break Duration

- Enter (in hours and minutes) the preferred amount of time of the duration of the break. If possible, the Timetabler will try to respect the preferred amount of time when scheduling.

«COMPONENTS» TAB

- The «Components» tab displays a list of components associated to the academic block.
- See the «How to attach an item» section to attach a component.

«BLOCKOFFS» TAB

- The «Blockoffs» tab displays a list of blockoffs associated to an Academic Block. Use academic block blockoffs to ensure that an academic block is unavailable for a specified period of time. See the «How to attach an item» section to attach predefined public blockoffs. One or more blockoffs can be associated to an academic block. Users can add or delete Academic Block Blockoff directly from this tab.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

SHARED RESOURCES

- This feature lets you display the selected items' shared resources (professors, academic blocks, students).
- In order to create a list of shared resources, select the desired data element from the list pane and right click inside the list pane — a context menu will appear. Within this context menu, select «Shared Resources» and then select «Shared Academic Resources»
- A new screen will appear. This new list will contain all the shared resources associated with all the selected data elements. The information is categorized within three main tabs: «Professors», «Academic Blocks» and «Students». The fourth tab displays a list of the selected data element
- The values found within the Shared Academic Resource screen reflect all data elements that are shared among the selected data elements and their groups (if it applies). Please refer to the example described in the «DESCRIBING THE CONFLICT MATRIX» section on page 52 for an example that describes what is taken into account in the calculation of the report.

CHAPTER 3 - COURSE FILES

COURSES

A course is an academic offering that requires one or several institutional resources.

«GENERAL INFORMATION» TAB

Faculty, Department

- Course's department and faculty
- These are system-populated fields.
- The user cannot change the faculty or department that a course belongs to via the course screen.
- These fields, along with the course ID, make up the unique identifier for a course.

Subject

- This is where you attach a subject to a course via the lookup screen.

ID

- Course's identification field
- Duplicate courses cannot be created within the same department.
- This is a required field.

Description

- Enter a description for the current course.

Course Credit

- Enter the amount of credit for this course.

Marker

- The marker check box can be used as an indicator or reminder (Ex. Course is new, to be deleted, etc.)
- This is a user-specified field.

Disabled

- This check box can be used to disable a course and all of its children elements (sections,).
- This is a user-specified field.

«SECTIONS» TAB

- This tab lists the sections attached to this course. See the «How to attach or detach» section to attach one or several sections in this list.

«COURSE GROUPS» TAB

- This tab lists the course groups to which this course is attached. The listed records imply that this course has been grouped with other courses.

«PROGRAMS» TAB

- This tab lists the programs to which this course belongs.

Program Enrollment Projection

- This field displays the Program Enrollment Projection as it was entered at the Program level. It is the sum of all the Program Enrollment Projections of all the courses listed in the Programs tab.

Enrollment Adjustment (+/-)

- If needed, authorized users can enter the amount by which the Program Enrollment Project should be modified. If the Total Enrollment Projection is to be reduced, enter a «-» (hyphen) in front of the value. If the Total Enrollment Projection is to be increased, simply enter the value (without any operand in front of that value).

Total Enrollment Projection

- This field displays the total enrollment projection for this course. It is an accumulation of all programs to which this course is associated (listed in the Programs tab) and it also takes into consideration the adjusted value entered in the Enrollment Adjustment field.

«STUDENTS» TAB

- This tab lists the students that have requested or are assigned to this course. Users can see, by icons, the status of the students' course requests.

Requesting this Course _____

- Within this section are listed students that requested the current course and the status of those student requests.

Green

- Student's course requests were fulfilled

Yellow

- Student's course requests were partially fulfilled

White

- Student's course requests were not fulfilled

Assigned to this Course _____

- Within this section are listed the students assigned to the current course.

Green

- All of that student's requests are assigned

Yellow

- Not all of that student's requests are assigned

Green with purple flag

- Some of that student's requests are alternate requests.

White

- None of that student's requests are assigned

«COURSE COMBINATION REQUESTS» TAB

- This tab lists the course combinations to which this course is associated.
- Users can see, by icons, the status of the course combination requests.

Green

- The course combination request is assigned

Yellow

- The course combination request is partially assigned

White

- The course combination request is not assigned

«ATTRIBUTES» TAB

- This list shows the values assigned to each attribute type visible at the courses level. (For more information on how to create attribute types, please refer to the «ATTRIBUTE TYPE» section). Note that in the «Apply To» section of the Attribute Type screen, the «Course» checkbox must be selected in order for an attribute to be visible at the course level.
- You can assign for the current course, an attribute value to each attribute type by clicking in the Attribute Value column next to the attribute type and by either selecting or entering the desired value.

«ATTRIBUTE SETTINGS» TAB

- This tab displays a list of attribute types that are associated with the sections, components and the deliveries linked to the current course. The list also indicates if the attribute types availabilities are restricted or not.
- Only attribute types with a value type of «*List of possible values*» and whose «Courses» checkbox is selected in the «Apply To» section of the Attribute Type screen will be displayed in this tab

«SECTION ATTIBUTES» TAB

- Any attribute type with a value type of «*List of possible values*» and whose «Sections» checkbox is selected in the «Apply To» section of the Attribute Type screen will be displayed in this tab.
- By double clicking on a listed attribute type, users can edit the «Restrict Available Attribute Values» field.

«COMPONENT ATTRIBUTES» TAB

- Any attribute type with a value type of «*List of possible values*» and whose «Components» checkbox is selected in the «Apply To» section of the Attribute Type screen will be displayed in this tab.
- By double clicking on a listed attribute type, users can edit the «Restrict Available Attribute Values» field.

«DELIVERY ATTRIBUTES» TAB

- Any attribute type with a value type of «*List of possible values*» and whose «Deliveries» checkbox is selected in the «Apply To» section of the Attribute Type screen will be displayed in this tab.
- By double clicking on a listed attribute type, users can edit the «Restrict Available Attribute Values» field.

SECTION ATTRIBUTE SETTINGS SCREEN

Faculty

- The faculty to which the current section attribute is associated with. This is a read-only field.

Department

- The department to which the current section attribute is associated with. This is a read-only field.

Course

- The course to which the current section attribute is associated with. This is a read-only field.

Attribute Type

- The attribute type to which the current section attribute is associated with. This is a read-only field.

Restrict Available Attribute Values

- When this option is selected, then the attribute values for the current attribute are restricted. It will enable the restricted attribute values list. It is in that list that the user attaches the attribute values that will be available.
- When this option is left unchecked, all attribute values for the current attribute are available.

COMPONENT ATTRIBUTE SETTINGS SCREEN

Faculty

- The faculty to which the current component attribute is associated with. This is a read-only field.

Department

- The department to which the current component attribute is associated with. This is a read-only field.

Course

- The course to which the current component attribute is associated with. This is a read-only field.

Attribute Type

- The attribute type to which the current component attribute is associated with. This is a read-only field.

Restrict Available Attribute Values

- When this option is selected, then the attribute values for the current attribute are restricted. It will enable the restricted attribute values list. It is in that list that the user attaches the attribute values that will be available.
- When this option is left unchecked, all attribute values for the current attribute are available.

DELIVERY ATTRIBUTE SETTINGS SCREEN

Faculty

- The faculty to which the current delivery attribute is associated with. This is a read-only field.

Department

- The department to which the current delivery attribute is associated with. This is a read-only field.

Course

- The course to which the current delivery attribute is associated with. This is a read-only field.

Attribute Type

- The attribute type to which the current delivery attribute is associated with. This is a read-only field.

Restrict Available Attribute Values

- When this option is selected, then the attribute values for the current attribute are restricted. It will enable the restricted attribute values list. It is in that list that the user attaches the attribute values that will be available.
- When this option is left unchecked, all attribute values for the current attribute are available.

ATTACHING ATTRIBUTES

- Users can restrict the attribute values that will be available for the current section attribute by attaching attribute values from the list of possible values that was created in the Attribute Type screen.

(1) Make sure the Restrict Available Attribute Values checkbox is selected — the list of attribute values is enabled.

(2) Right-click in the list of attribute values and select «Attach…» — the Select the Attribute windows will open.

(3) From the Select the Attribute window, select the attribute values to attach to the current section attribute.

«HOMOGENEOUS SETS» TAB

- This tab allows you to attach a homogeneous set to the course.

«COURSE TIE WEIGHT» TAB

- Within this tab, users define the weights of the tie constraints.

Override with these weights

- The global settings of tie constraints' weights can be found in «Course Scheduling Rules» under «settings». You may override the global settings at the course level by enabling this check box. If you choose to do so, the weight fields will then become active.
- The weight fields are used to specify the importance of each course tie in relation to one another.

«NOTE» TAB

- Within the Note tab, users insert notes in regards to the current data element.
- This tab may also display notes entered within Infosilem Timetabler DCU (a valid license is required).
- These notes can later on be cleared using the Rollover tool.

DCU Course Constraints

(The DCU module needs to be registered)

- This is a read-only field. This field displays the course constraints created within the DCU

THE CONFLICT MATRIX

- You may use the conflict matrix in order to determine if there are any resource conflicts (students, professors and/or Academic blocks) for courses, sections and/or deliveries.

To Open the Conflict Matrix

- Starting from a courses list, or a sections list, or components list or a deliveries list, select the items (by highlighting them) for which you would like to generate a conflict matrix.
- Once those items are highlighted, right click on the list, a context menu will appear.
- Select the option «Shared Resources» and select the sub-menu option «Conflict Matrix».

NOTE: You cannot display a conflict matrix that contains more than 255 course-related data elements.

DESCRIBING THE CONFLICT MATRIX

«CONFLICT MATRIX» TAB

- The Conflict Matrix tab contains a drop-down list that offers five (5) options:

(1) Student conflict matrix – Number of students

(2) Student conflict matrix – Cumulative weight

(3) Professor conflict matrix – Number of professors

(4) Academic block conflict matrix – Cumulative block size

(5) Academic block conflict matrix – Number of academic blocks

> **NOTE:** These examples use Student IDs as the elements being queried. You can substitute «Student ID» with «Professor» or «Academic Blocks».

Example of Student Conflict Matrix Where the Data Element Are Not Grouped

	Data Element A	Data Element B
Student ID	1	4
	2	5
	3	6

- In this instance, we want to query if there are any conflicts between Data Element A and Data Element B. In this case, there are no conflicts between the queried elements and therefore the conflict matrix will display a value of «0» at the intersection point of those two data elements (Data Element A and Data Element B).

Example Of Student Conflict Matrix Where the Data Elements Belong Are Grouped

- This example is based on the preceding example with the exception that the data elements are now grouped with other data elements. The query is based on data element A and data element B. Since data element A is grouped with data element AA, you must consider all the items associated with data element A and all items associated with data element AA as forming one data element.

	Group1		Group 2	
	Data Element A	Data Element AA	Data Element B	Data Element BB
Student ID	1	4	4	9
	2	7	5	10
	3	8	6	1

Group 1

- Is made up of Data Element A and Data Element AA

Group 2

- Is made up of Data Element B and Data Element BB

- The Conflict Matrix screen will indicate there are 2 conflicting items (student 1 and student 4) between Data Element A and Data Element B (Data Element A is grouped with Data Element AA and that makes one entity. Data Element B is grouped with Data Element BB and that makes another entity).
- Because a group, by definition, contains Data Elements that take place at the same time, whatever item is associated to more than one element that takes place at the same time represents a conflict.
- Student 1 is associated with Data Element A (Group 1) and is also associated with Data Element BB (Group 2).
- Student 4 is associated with Data Element B (Group 2) and is also associated with Data Element AA (Group 1).

Student Conflict Matrix

Number of students

- Represents the number of shared active students

Cumulative Weight

- Represents the sum of the students' «weight» field for shared active students

Professor Conflict Matrix

Number of professors

- Represents the number of shared active professors

Academic Block Conflict Matrix

Cumulative block size

- Represents the sum of the «block size» field for shared active academic blocks

Number of academic blocks

- Represents the number of shared active academic blocks
- Upon the initial (very first) opening of the conflict matrix screen, the drop-down list is set to «Student conflict matrix – Number of students».
- When closing the conflict matrix, the system saves the option that is in the drop-down list and loads it the next time it opens.
- From the conflict matrix, you will be able to:
  - Copy a row to the Windows' clipboard.
  - Copy the conflict matrix to the Windows' clipboard.
  - Generate a report
  - Open the shared academic resources window

To copy a row to the Windows' clipboard

(1) Click on the third tab. Depending on the element from which the conflict matrix has been generated, the third tab could be labelled as one of the following:

- «Selected Course», if the conflict matrix has been generated from the course list, or;
- «Selected Section», if the conflict matrix has been generated from the section list, or;
- «Selected Components», if the conflict matrix has been generated from the components list, or;
- «Selected Deliveries», if the conflict matrix has been generated from the deliveries list.

(2) In the list pane, select the row to copy by right clicking on it and, from the context menu that appears, select «Copy».

(3) Open the text editor of your choice (such as MS Word, MS Excel, Notepad, etc.).

(4) Click on Edit→Paste, or you could also:

(5) Right click on a blank cell, or a blank page, and select «Paste» or;

(6) Press and hold on the «Ctrl» key on the keyboard, and, press «v».

To copy the conflict matrix to the Windows' clipboard

(1) Right click on the conflict matrix — a context menu will appear.

(2) Click on «Copy matrix to clipboard».

(3) Open the text editor of your choice (such as MS Word, MS Excel, Notepad, etc.).

(4) Click on Edit→Paste, or you could also:

(5) Right click on a blank cell, or a blank page, and select «Paste» or;

(6) Press and hold on the «Ctrl» key on the keyboard, and, press «v».

To generate a report

(1) Right click on the conflict matrix — a context menu will appear.

(2) Click on «Generate report» — the report will appear.

(3) Once the report is displayed, you can print the report by clicking on the printer icon or by selecting, File→Print.

To open the shared academic resources window

(1) Right click on the conflict matrix, making sure not to click on self-referring co-ordinates such as (1,1), (2,2), (3,3), etc. A context menu will appear.

(2) Click on «Shared Academic Resources».

- The Shared Academic Resources will open, displaying the shared resources, categorized by professors, academic blocks, and students.

«CONFLICT MATRIX –LIST VIEW» TAB

- The conflict matrix-list view is a list representation of the conflict matrix presented in a linear fashion.
- It displays the Faculty 1, Department 1, Course 1, Faculty 2, Department 2, Course 2, Number of Students, Cumulative Weight, Number of Professors, Number of Academic Blocks and the Cumulative Block Size.

SECTIONS

- Sections are divisions of a course.

«GENERAL INFORMATION» TAB

Faculty

- This field is greyed out; the system fills it up when the item is created. It represents the faculty to which the section is associated.

Department

- This field is greyed out; the system fills it up when the item is created. It represents the department to which the section is associated.

Course

- This field is greyed out; the system fills it up when the item is created. It represents the course to which the section is attached.
- This field represents a part of the unique key, which means that the combination of the fields that represent the unique key must not be duplicated.

ID

- Section's identification field
- This field is required.
- This field represents a part of the unique key, which means that the combination of the fields that represent the unique key must not be duplicated. Depending on the institution, the creation of the Section ID may need to conform to specific specifications such as the maximum number of characters allowed to create a Section ID or the type of characters that can be used and/or if the Section ID needs to be unique within a Term and a Course. Authorized users can open the Timetabler Settings screen (within the Manager module) to establish or modify the Course Section Coding settings.

Description

- This is the description field of the section.

Term Offered

- This field represents the term in which this section is offered.
- The lookup feature is available for this field.

Day in between

- Checking this field implies that the deliveries within a section will be scheduled with at least one free day in between the first day assigned and the last day assigned.
- If the Desired check box is selected, then the level of desirability is based on the weight that is given to it, either at the global level in the Scheduling Rules or at its own level (the course section level).

NOTE: To enable the 'desired' check box, you must first enable the 'required' check box to the left of it.

Different dates

- Checking this field implies that the deliveries within a section will not be scheduled on the same date.
- If «different dates» is applied at this level, it means that all deliveries within this section will follow this rule.
- If the Desired check box is selected, then the level of desirability is based on the weight that is given to it, either at the global level in the Scheduling Rules or at its own level (course level).

> **NOTE:** To enable the 'desired' check box, you must first enable the 'required' check box to the left of it.

Course Credit

- Enter the amount of credit for this course.

Marker

- This check box can be used to indicate that this section is new, to be deleted, etc.

Disabled

- This check box can be used to disable the section.
- This is a user-specified field.

«COMPONENTS» TAB

- This tab lists the components that are attached to this section. See the «How to attach or detach» section to attach one or several components in this list.

«SECTION GROUPS» TAB

- This tab lists the section groups to which this section is attached. If records are displayed, this implies that this section has been grouped with other sections.

«COURSE CHARACTERISTICS» TAB

- This tab lists the course characteristics that belong to this section. See the «How to attach or detach» section to attach one or several course characteristics in this list. The sections' course characteristics will also belong to the section's components.

«STUDENTS» TAB

- This tab lists the students that requested or are assigned to this section. Users can see, by icons, the status of the students' course requests.

Requesting this Section

- Within this section are listed students that have requested the current section and the status of those student requests.

Green

- Student's course request (for the current section) was fulfilled

Yellow

- Student's course request (for the current section) was partially fulfilled

White

- Student's course request (for the current section) was not fulfilled

Assigned to this Section

- Within this section are listed the students that are assigned to the current section.

Green

- All of the student's requests are assigned

Yellow

- Not all of that student's requests are assigned

Green with purple flag

- Some of that student's requests are alternate requests.

White

- None of that student's requests are assigned

«SECTIONING COMBINATIONS» TAB

- This screen defines the component links within a course section to ensure that students are assigned to the proper combination of components.

Allow Combinations

- Selecting this radio button permits the use of the sectioning combinations that are defined below.

Disallow Combinations

- Selecting this radio button does not permit the use of the sectioning combinations that are defined below.

Disabled

- This check box is used to disable a sectioning combination.

ID

- This is the sectioning combination's identification field.
- Duplicate sectioning combinations cannot be created in the same section.
- This is a required field.

Component

- These fields are used to define which components to include (or exclude) in the sectioning combination.

> **NOTE:** Each row must contain at least two components and they each must be of different types.

«COURSE COMBINATION REQUESTS» TAB

- This tab lists the course combination requests in which this section is part of.
- Users can see, by icons, the status of the course combination requests.

Green

- The course combination request is assigned

Yellow

- The course combination request is partially assigned

White

- The course combination request is not assigned

«ATTRIBUTES» TAB

- This list shows the values assigned to each attribute visible at the courses section level. (For more information on how to create attribute types, please refer to the «ATTRIBUTE TYPE» section). Note that in the «Apply To» section of the Attribute Type screen, the «Section» checkbox must be selected in order for an attribute to be visible at the section level.
- You can assign for the current section, an attribute value to each attribute type by clicking in the Attribute Value column next to the attribute type and by either selecting or entering the desired value.

«COURSE TIE WEIGHTS» TAB

- Users can define the weights of the tie constraints.

Override with these weights

- The global settings of tie constraints' weights can be found in «Course Scheduling Rules» under «settings». You may override the global settings at the section level by enabling this check box. If you choose to do so, the weight fields will then become active.
- The weight fields are used to specify the importance of each course tie in relation to one another.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

COMPONENTS

- Components are portions of a section that is differentiated by distinct component types. For example, if a Section 01 has a lecture component coded as C01, then the lab component could be L01.

«GENERAL INFORMATION» TAB

Faculty

- This field is greyed out. The system populates it when the item is created. This field represents the Faculty to which the Component is associated.

Department

- This field is greyed out. The system populates it when the item is created. This field represents the Department to which the Component is associated.

Course and Section

- These fields are greyed out. The system populates them when the item is created. These fields represent the course and section to which the component is attached.
- The course and section fields make up part of the unique key; therefore, the combination of these fields must not be duplicated.

Term Offered

- The Term to which the current Component is associated

ID

- Component's identification field
- This field is required.
- This field represents a part of the unique key, therefore, duplicates are not allowed.

Term to Meet

- This is the term the component meets.
- The lookup feature is available for this field.

Component Type

- This field shows the component type that is attached to this component.
- You can use the lookup on this field.
- This field is required

RN

- This is the registration number field.

Description

- This is the component description field.

Description

- Enter a description for this component.

Scheduling

- This field displays the forecasted enrollment.

Actual

- This field displays the actual enrollment.

Assigned Students

- This field displays the total number of students assigned to this component. To view the list of those assigned students, select the «Course Request» tab.

Total Academic Block Size

- This field displays the total group size of the Academic Blocks associated with this current component.

Total Assigned

- This field displays the total of assigned students and academic blocks associated with this current component.

Prevent Automated Enrollment Modification

- This field is used to prevent the Balance and Demand tool from making any modifications to the enrollments.

Day in between

- Checking this field implies that the deliveries within this component will be scheduled with at least one free day in between the first day assigned and the last day assigned.
- If the Desired check box is selected, then the level of desirability is based on the weight that is given to it, either at the global level in the Scheduling Rules or at its own level (the component level).

> **NOTE:** To enable the 'desired' check box, you must first enable the 'Day in between' check box located to the left of it.

Different dates

- Checking this field implies that the deliveries within this component will not be scheduled on the same date.
- If «different dates» is applied at this level, it means that all deliveries within this component will follow this rule.
- If the Desired check box is selected, then the level of desirability is based on the weight that is given to it, either at the global level in the Scheduling Rules or at its own level (the component level).

> **NOTE:** To enable the 'desired' check box, you must first enable the 'Different Dates' check box located to the left of it.

Disable for Sectioning, Disable for Assigning, Disable for Academic Block Builder

- If checked, the item will not be included in the selected function.

Marker

- This check box can be used to show that this component is new or to be deleted etc.

Disabled

- This check box can be used to disable the component.
- This is a user-specified field.

«DELIVERIES» TAB

- Here you will see the deliveries that are attached to this component. See the «How to attach or detach» section to attach one or many deliveries in this list.
- Furthermore, all deliveries associated to the current component will be displayed along with their status.

«ACADEMIC BLOCKS» TAB

- This tab lists the academic blocks that are attached to this component. See the «How to attach or detach» section to attach one or several academic blocks in this list.

Total Academic Block Size

- This field displays the total group size of the Academic Blocks associated with this current component.

«BLOCKOFFS» TAB

- This tab lists the blockoffs attached to this component. See the «How to attach or detach» section to attach one or several blockoffs in this list. A component blockoff is used when you want to make this component unavailable for a specific period of time.

«COMPONENT GROUPS» TAB

- This tab lists the Component groups to which this component is attached. If records are displayed, this implies that this component has been grouped with other components.

«COMPONENT TIES» TAB

- This tab indicates if this component has been tied to another component.

«STUDENT COURSE REQUESTS» TAB

- This tab lists the course requests that have been assigned to this component.

«COURSE CHARACTERISTICS» TAB

- This tab lists the course characteristics that are attached to this component. See the «How to attach or detach» section to attach one or several course characteristics in this list.

«PROGRAM ALLOCATIONS» TAB

- This tab lists the number of seats reserved in this component for students belonging to a certain program level.

« ATTRIBUTES» TAB

- This list shows the values assigned to each attribute visible at the component level. (For more information on how to create attribute types, please refer to the «ATTRIBUTE TYPE» section). Note that in the «Apply To» section of the Attribute Type screen, the «Component» checkbox must be selected in order for an attribute to be visible at the component level.
- You can assign for the current component, an attribute value to each attribute type by clicking in the Attribute Value column next to the attribute type and by either selecting or entering the desired value.

«COURSE TIE WEIGHTS» TAB

Course Tie Weights

- This part of the screen is used to define the weights of the tie constraints.

Override with these weights

- You may override the global settings at the component level by enabling this check box. If you choose to do so, the weight fields will then become active.
- The weight fields are used to specify the importance of each tie in relation to one another.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

SHARED RESOURCES

- This feature lets you display the selected items' shared resources (professors, academic blocks, students).
- In order to create a list of shared resources, select the desired components from the list pane and right click inside the list pane — a context menu will appear. Within this context menu, select «Shared Resources» and then select «Shared Academic Resources».
- A new screen will appear. This new list will contain all the shared resources associated with all the selected components. The information is categorized within three main tabs: «Professors», «Academic Blocks» and «Students». The fourth tab displays a list of the selected components.
- The values found within the Shared Academic Resource screen reflect all data elements that are shared among the selected data elements and their groups (if it applies). Please refer to the example described in the «DESCRIBING THE CONFLICT MATRIX» section on page 52 for an example that describes what is taken into account in the calculation of the report.

DELIVERIES

- A delivery represents the occurrence(s) of a component. It consists of one or more time requests, room requests and/or professor assignments.

«GENERAL INFORMATION» TAB

Faculty

- This field is greyed out. The system populates it when the item is created. This field represents the Faculty to which the Delivery is associated.

Department

- This field is greyed out. The system populates it when the item is created. This field represents the Department to which the Delivery is associated.

Course, Section and Component

- These fields are greyed out. The system populates them when the item is created. These fields represent the course, section and component to which the delivery is attached and they are parts of the unique key of the delivery, which means that the combination of the fields that represent the unique key must not be duplicated.

Term Offered and Term to Meet

- These fields represent the Term Offered and the Term to Meet associated with the current Delivery.

ID

- Delivery's identification field
- This field is required.
- This field represents a part of the unique key of the delivery and duplicates are not allowed for deliveries within the same component.

Description

- This is the delivery description field.

Availability Index
(Assigner license is required)

- This field displays the Availability Index for the current Delivery.

Prevent Availability Index Automated Modification
(Assigner license is required)

- Select this option to prevent automated system modifications when the user overrides the automated assignment.

Contact Hours

- Enter the contact hours to associate to this delivery. The value must range between 0and 999.999 inclusively.

Marker

- This check box can be used to show that this delivery is new, to be deleted, etc.

Disabled

- The disabled field on the delivery level is greyed out. A delivery cannot be disabled at the delivery level. It can only be disabled at the component level or higher.

Status

- Within the Status indicator users can see at a glance the status of the Delivery's assignment.

«TIME» TAB

DCU Time Request Notes

- ***This field is only visible to users who have Infosilem Timetabler DCU licensed***. If a note is created within Infosilem Timetabler DCU «Time Requirements» field, it will be displayed within this field. This note is not editable (Read-only).

«FREQUENCIES» TABS

- A delivery can have unlimited frequencies. In order to have more than one frequency, right click on the appropriate tab header and select add. If you want to delete a tab, follow the same steps except select delete.

Start Date and End Date

- This is where information regarding the delivery's start and end dates are entered.
- These fields are required.
- These fields represent a part of the unique key of the frequency, which means that the combination of the fields that represent the unique key must not be duplicated for the same delivery.

Every X Weeks

- In this field you have to enter a week number «x» on which the frequency will be repeated every «x» weeks.
- This field is required.
- These fields represent a part of the unique key of the frequency, which means that the combination of the fields that represent the unique key must not be duplicated for the same delivery.

Prevent Automated Modification Time(s)

- The «Prevent Automated Modification Time(s) » check box can be used to indicate that it is unacceptable to have the system change the scheduled time of the selected delivery in order to schedule another delivery (prevent backtracking).

Group frequencies at same time

- The «Group frequencies at the same time» option ensures that deliveries with multiple frequencies will be scheduled at the same time.

«FORCED TIMES» TAB

- In this field, you can manually enter a time to force the assignment of the frequency.

Duration

- The duration is the amount of time for the forced time.
- This field is required if you want to input a forced time.

Day

- This is where you input the day of the week where the forced time will occur.

NOTE: If you enter a value in this field, the duration and start time is required.

Start time

- This is where you input a start time for the forced time.

NOTE:	If you enter a value in this field, the duration and start time is required.

End time

- This field is read only; the system automatically calculates it. It is the sum of the start time and duration.

NOTE:	A validation process will take place to ensure that the forced time of the delivery, does not contain conflicting times or empty time values or does not exceed 11:59PM. A validation process will take place to ensure that the forced time of the delivery, does not contain empty time values A validation process will take place to ensure that the end time of the delivery's forced time, does not exceed 11:59 pm.

«PATTERN REQUESTS» TABS

- This is where you will request the pattern for a frequency. More than one pattern request can be assigned to a frequency.
- A delivery can have unlimited Pattern Requests. In order to have more than one Pattern Request, right click on the appropriated tab header and select add. If you want to delete a tab, follow the same steps except select delete.

Pattern

- This field attaches a pattern to the current frequency. Use the lookup in order to select an existing pattern.
- This field is required.

Order

- This field allows the user to enter a different value for each pattern request. This field is currently not used for assignment.
- This field is required.
- This field combined with the pattern request id makes up the unique identifier. The combination of those fields cannot be duplicated.

Assigned times_____

Assigned Pattern Subset

- This field contains the ID of the pattern subset assigned to the pattern request. These fields can be filled manually or by the application.

Duration, Day and Start Time

- This grid contains the time information for a pattern subset assigned by the system or inputted by the user.

NOTE:	The start time must exist within a pattern subset of the requested pattern.

- These fields are required.

- These fields represent the unique key of the assigned pattern subset in combination with the pattern request id, which is represented in the title of the tab. Therefore, the combination of pattern request id and those fields cannot be duplicated in the same frequency.

Marker

- This check box can be used as an indicator to show that this pattern request is new, to be deleted, etc.

Disabled

- This check box can be used to disable the pattern request.
- This is a user-specified field.

Pattern Request Ties

- This tab indicates if this pattern request has been tied to another pattern request.

«ROOM» TAB

DCU Time Request Notes

- ***This field is only visible to users who have Infosilem Timetabler DCU licensed***. If a note is created within Infosilem Timetabler DCU «Time Requirements» field, it will be displayed within this field. This note is not editable (Read-only).
- A delivery can have an unlimited number of rooms at the same time. In order to request for more than one room, right click on the appropriated tab header and select add. If you want to delete a tab, follow the same steps except select delete.
- The room tab is divided into two parts; the requested and the assigned. The requested is where you enter the room request for this delivery. The assigned is where the room number is manually assigned to the delivery or where the system assigns rooms.

Prevent Automated Modification Room(s)

- The «Prevent Automated Modification Room(s) » check box can be used to indicate that it is unacceptable to have the system change the scheduled room(s) of the selected delivery (prevent backtracking).

Requested Frame_____

Pavilion

- This is where you can enter the pavilion ID of the room that you want to be assigned.
- You can use the lookup on this field.

Campus

- This is where you can enter the campus ID of the room that you want to be assigned.
- You can use the lookup on this field.

Building

- This is where you can enter the building ID of the room that you want to be assigned.
- You can use the lookup on this field.

Room Type

- This is where you can enter the room type ID of the room that you want to be assigned.
- You can use the lookup on this field.

Scheduling/Actual

- (Read-only field) This field displays the enrollment size that is associated to the delivery requesting this room.

Ratio

- The value in this field has a direct impact on room selection. The ratio allows you to over or under book course sections into rooms. The value inputted in this field will be used as a parameter in the following equation:
  Ratio * enrollment = capacity required
- Enter the ratio factor by which the system will multiply the enrollment value for the current delivery. The ratio can be either entered or will be calculated if the required capacity is entered.

Same Room Total (Actual and/or Scheduling)

- This Read-Only field will display the capacity required for all the grouped deliveries.

Room Characteristic _____

- This is where you can enter the room characteristics the assigned room should have. See the «How to attach or detach» section to attach one or several room characteristics in this list.

Required

- When checked, it means that the values in these fields are required.

Assigned Frame _____

Pavilion, Campus, Building and Room Type

- These fields are greyed out. The system automatically populates them once the item is saved. They represent the pavilion, campus, building and room type of the assigned room.

Room #

- When this field is left empty, the system will automatically search for a room during the timetabling process. You can input a room number in this field to force a delivery to an assigned room. If a room number is entered, the campus and building fields are required.
- You can use the lookup on this field.
- In order to run an assignment with any process, you must have previously added a minimum of one room tab. These room tabs are called location specifications.

Stacked Timetable Button

- Once the room field contains a room number, users can view that room's timetable (stacked) by selecting the Stacked Timetable button next to the Room field.

«PROFESSORS» TAB

- This tab lists the professors that belong to a delivery along with each professor's teaching status (Teaching and Non-Teaching). See the «How to attach or detach» section to attach one or several professors to this delivery.
- Authorized users are able to change the status that is associated to the professor by a right click and selecting "Set to teaching" or "Set to Non-Teaching" from the context menu.

Set to Teaching

- Select this option to set the professor that is associated with a given delivery as "teaching".

Set to Non-Teaching

- When this option is selected, the professor, for that given delivery, is attached to the delivery but is not teaching. The professor will therefore not be taken into account when assigning (that delivery), and will not be taken into account for the validations of that delivery and will not be included in reports (for that delivery).

«ACADEMIC BLOCKS» TAB

- This tab lists all the Academic Blocks associated with the current delivery.

«DELIVERY GROUPS» TAB

- This tab lists the delivery groups to which this delivery is attached. If you see records on this screen, it means that this delivery has been grouped with other deliveries.

«DELIVERY TIES» TAB

- This tab indicates if this delivery has been tied to another delivery.

«ATTRIBUTES» TAB

- This list shows the values assigned to each attribute visible at the delivery level. (For more information on how to create attribute types, please refer to the «ATTRIBUTE TYPE» section). Note that in the «Apply To» section of the Attribute Type screen, the «Delivery» checkbox must be selected in order for an attribute to be visible at the delivery level.
- You can assign for the current delivery, an attribute value to each attribute type by clicking in the Attribute Value column next to the attribute type and by either selecting or entering the desired value.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

CHAPTER 4 - PROGRAM FILES

PROGRAMS

- A program is a set of courses constituting an area of specialization.

«GENERAL INFORMATION» TAB

Faculty

- Enter an ID for the faculty. This ID will be associated with the Department ID.

Department

- Enter an ID for the department. This ID will be associated with the program.

ID

- Program's identification field
- This field is required.

This field represents a part of the unique identifier. This implies that the combination of the fields that represent the unique key must not be duplicated.

Description

- This is the program description field.

Level

- This field identifies the level of the program.
- This field is required.
- This field represents a part of the unique identifier. This implies that the combination of the fields that represent the unique key must not be duplicated.

Enrollment Projection

- Enter the number of students that are expected in this program level

Finalized

- Check this box to indicate that the enrollment projection for this program level is finalized.

Original Enrollment Projection

- Enter the original number of students expected in this program level.

Label

- Create a label for the Original Enrollment Projection, for example "Day 1".

Detail

- Enter a detail for the program (for information purpose).

System-generated Course Combination Creation Enabled:
(Assigner license required)

- Select this option to enable the system-generated course combination creation feature. The system-generated course combination will ensure that the number of students in the course combinations is the same as the projected enrollment value of the program associated with the course combination.

- System-generated course combinations, for a given program, will be regenerated when anyone of the following actions occurs:
  - Creating a new program
  - Modifying a program or its contents
  - Modifying the program itself
  - Adding, modifying or deleting the program's requirement groups or their contents
  - Adding or deleting a program content (course) from the program
  - Adding, modifying or deleting a course combination associated with a program
  - Modifying course combination requests
  - Modifying a category associated to a program (through program content)
- Global action such as importing or rolling data will also regenerate the course combinations for all programs, when this feature is selected.

Course Combinations Generated on:

- This field displays the creation timestamp of the last system-generated course combination.

Marker

- This check box can be used as an indicator to show that this program is new or to be deleted etc.

Disabled

- This check box can be used to disable the program.
- This is a user-specified field.

«PROGRAM CONTENTS» TAB

- This tab lists the courses that form the program.
- See the «How to attach or detach» section to attach one or several Program Contents to this list.

«REQUIREMENT GROUPS» TAB

- This tab lists the Requirement Groups that are associated with this program.
- See the «How to attach or detach» section to attach one or several Requirement Groups to this list.
- Please refer to the Requirement Groups section for more information.

«ACADEMIC BLOCKS» TAB

- This tab lists all the Academic Blocks that are associated with this program.
- See the «How to attach or detach» section to attach one or several Academic Blocks to this list.
- Please refer to the Academic Blocks section for more information.

«STUDENTS» TAB

- This tab lists the students that belong to this program as well as each of the student’s assignment status.

Green

- Student request was fulfilled

Yellow

- Student request was partially fulfilled

White

- Student request was not fulfilled

«ALTERNATE COURSE CHARACTERISTICS» TAB

- The fields, «From», «to» and «rank», represent the unique key. This implies that the combination of these fields must not be duplicated.
- This tab represents the alternate course characteristics a program can accept when the initial course characteristics do not meet student requirements.
- For example: a student is requesting course101 with course characteristics «A» and the institution offers these courses:

Course	Section	Component	Component Type	Course Characteristic
101	01	01	Laboratory	A
101	01	02	Tutorial	A
101	01	03	Lecture	A
101	01	04	Laboratory	B
101	01	05	Tutorial	B
101	01	06	Lecture	B

- If it is not possible to give to the student component 03, then component 06 would be a good replacement. However, the characteristic associated with component 06 is B.
- In this case the alternate course characteristics will be examined. An alternate from A to B must exist or else the request will be rejected. If the alternate does exist and its «allow partial move» is not checked, the Student Assigner will try to assign the student to component 04, 05 and 06. If «allow partial move» is checked, the Student Assigner would only be able to replace component 03 for component 06.
- If the characteristic for this student request has been checked as required, no alternatives will be considered.

«PROGRAM ALLOCATIONS» TAB

- This tab displays the number of reserved seats in each course component for this program.

«HOMOGENEOUS SETS» TAB

- This tab displays the homogeneous sets that are attached to the current program.
- Please refer to the Homogeneous Sets section for more information.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

PROGRAM CONTENTS

- Program content is where you define the courses that form your program.

«GENERAL INFORMATION» TAB

Program Name

- This field is greyed out. The system automatically populates this field when the item is created. This field displays the program name.
- This field represents a part of the unique identifier. This implies that the combination of the fields that represent the unique key must not be duplicated.

Program Level

- This field is greyed out. The system automatically populates this field when the item is created. This field represents the program level.

Faculty

- This is where you enter the faculty ID of the course you want to include as program content.
- This field is required.
- You can use the lookup on this field.

Department

- This is where you enter the department ID of the course you want to include under the program content.
- This field is required.
- You can use the lookup on this field.

Course

- This is where you enter the course ID of the course you want to include under the program content.
- This field is required.
- You can use the lookup on this field.
- This field represents a part of the unique identifier. This implies that the combination of the fields that represent the unique key must not be duplicated.

Program Category

- This is where you specify the category of a course for the program.

«SECTION PREFERENCE» TAB

- This is where you define the section preferences for the courses in a program.
- 'Section' refers to the sections belonging to a course that is selected in the General Information tab.
- 'Weight' refers to the degree of desirability for a section — therefore, the higher the weight, the more likely students will be assigned to that section.
- If «restrict to preference» is checked, the Student Assigner will only consider the preferred sections when assigning.
- In other words, if a course offers sections A, B, C and D, and sections A & B are the preferred sections, students will only be placed in those 2 sections.
- By selecting «Guarantee assignment», students within the selected program and level will be guaranteed assignment within the indicated section before any other students are assigned to the indicated section

NOTE: The «Section» field must not be duplicated.

- The «Disabled», «Component» and «Reserved» fields are related to the program allocation fields found in the Program window. In here, you can specify the number of seats you wish to reserve for a specific component belonging to the section specified.

REQUIREMENT GROUP

«GENERAL INFORMATION» TAB

Program

- The program ID to which the requirement group is associated

Level

- The level to which the requirement group is associated

ID

- Enter an ID for the current requirement group

Group Type

- Enter a Group Type for this Requirement Group. The Group Type indicates if a Requirement Group, within a given program, is an elective (meaning it has a Group Type ID) or is required (it does not have a Group Type ID). When several requirement groups have the same Group Type within the same program, then students can choose among one of the requirement groups with the same Group Type.

NOTE: When multiple requirement groups have the same Group Type, users must adjust the percentages (either directly via percentages, or through projection values), to ensure that the sum of percentages for all requirement groups, with the same Group Type, equals 100%.

Percentage

- Enter the percentage value of students taking this requirement group. The percentage entered in this field will help calculate the Enrollment Projection value in the Courses grid (located further down in the Requirement Group screen). The Enrollment Projection value is calculated by multiplying the percentage value entered here and then multiplied by the Enrollment Projection value entered in the Program screen. If no value is entered, the system will calculate an even distribution of students.

Required Number of Courses

- Enter the number of courses that are required for this requirement group. The required number of courses will then be used to calculate the Percentage value in the Courses grid further down in the Requirement Group screen.
- The Percentage value is calculated by multiplying the value entered in the Required Number of Courses field by 100%.

Example: *A value of 3 is entered in the Required Number of Courses field. This means that the total percentage for all the courses listed in the Courses grid is expected not to surpass 300%.*

Courses

- This grid is the definition of the courses that make up this Requirement Group.

STUDENTS

«GENERAL INFORMATION» TAB

ID

- Student's identification field
- This field is required.
- This field is the unique key. This implies that you cannot have duplicate values in this field.

Name

- Student's name

Surname

- Student's surname

Student Type

- Student's type
- You can use the lookup on this field.

Weight
When the system assigns students to components, a student with higher weight is considered before another student who has a lower weight.

Course Characteristic Set
If desired, a course characteristic set can be entered in this field in order to associate this student to a predefined course characteristic set. A student can only be associated to one course characteristic set.

Description

- Enter a description for the current student.

Marker

- This check box can be used as an indicator to show that this student is new, to be deleted, etc.

Disabled

- This check box can be used to disable the student.
- This is a user-specified field.

Status

- Within the Status indicator users can see at a glance the status of the current student's requests.

Green

- The student requests are assigned

Green (purple flag)

- One or more alternate student requests were assigned.

Yellow

- The student requests are partially assigned

White

- The student requests are not assigned

«STUDENT COURSE REQUESTS» TAB

Student Request Frame

- This tab lists the courses that this student has requested.
- See the «How to attach or detach» section to attach one or several course request in this list.

«Assigned Components» Frame

- Users can view this student's assigned components. This tab will also indicate if the assigned component is the student's primary course request or the alternate course request.

CHARACTERISTIC CONSTRAINTS

- Users will be able to indicate the «Maximum Number of Courses» that a student can be assigned at the course characteristic level. Since Course Characteristics are also associated at the section level students requesting the characteristic will be assigned up to the maximum number of indicated courses that have been defined with the selected characteristic within a given timeframe (term, semester, year).
- Users will also be able to associate Course Characteristics to a student, define the maximum number of courses each student can be assigned to and indicate if the Course Characteristic Maximum can be overridden.
- The «Max number of Courses» will ensure that the selected student will be assigned the maximum number of indicated courses defined with the specified characteristic. They may exist scenarios where the «Maximum number of Courses» specified at the Course Characteristic level differs from the «Max number of Courses» indicated at the student level.
- If «Override Course Char. Maximum» is selected at the student level, the assignment process will overlook the course characteristic maximum and respect the maximum indicated at the student level.
- If «Override Course Char. Maximum» is not selected, the assignment process will respect the more constraining maximum value.

«PROGRAMS» TAB

- This tab lists the program(s) this student is enrolled in.

«BLOCKOFFS» TAB

- This tab lists the blockoffs attached to this student.
- See the «How to attach or detach» section to attach one or several blockoffs to this list.
- A student blockoff is used when a student is unavailable for a specific period of time.

«ADDRESS» TAB

Address_____

Street Address

- The street address of the student's given address

PO Box

- The PO Box of the student's given address

City

- The city of the student's given address

State/Province

- The state or province of the student's given address

ZIP/Postal Code

- The zip code or postal code of the student's given address

Country

- The country of the student's given address

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

COURSE REQUESTS

- Course requests are the student's demands.

«PRIMARY COURSE REQUEST» TAB

Student ID

- This field is greyed out. The system automatically populates this field once the item is created. This is the student id to which this course request belongs.
- This field is a part of the unique key, which means that the combination of the fields that represent the unique key must not be duplicated.

Student Name

- This field is greyed out. The system automatically populates this field once the item is created. This is the student name to which this course request belongs.

Student Surname

- This field is greyed out. The system automatically populates this field once the item is created. This is the surname of the student, to whom this course request belongs.

Program

- Identification of the program for the course requested by the student
- This field is required.
- You can use the lookup on this field.
- This field is a part of the unique key, which means that the combination of the fields that represent the unique key must not be duplicated.

Level

- The level of the program, under which the student requests a course
- This field is required.
- You can use the lookup on this field.

Faculty

- The faculty ID of the requested course
- This field is required.
- You can use the lookup on this field.

Department

- The department ID of the requested course
- This field is required.
- You can use the lookup on this field.

Course

- The ID of the requested course
- This field is required.
- You can use the lookup on this field.
- This field represents a part of the unique key, which means that the combination of the fields that represent the unique key must not be duplicated.

Requested Term to Meet

- The term to meet that should be associated to the student request. You can use the lookup function on this field.

Requested Section

- The ID of the requested course section
- You can use the lookup on this field.

Prevent Automated Modification

- If this field is checked, the Student Assigner will never modify the assigned components in the 'Components' tab. Please refer to the section below on the Components tab.

Primary Course Request – Course Characteristics

- Select the course characteristic (by selecting the F9 key) for the course request. Upon saving the Course Request, the Course Characteristic Type that is associated with the selected Course Characteristic Request, will be displayed.
- Once selected, select the «Required » column adjacent to the course characteristic request to indicate that alternative characteristics cannot be used.
- Repeat this process for each course request characteristic for the course request.

Primary Course Request – Assigned Components

- If students have been assigned to components of their «Primary Course Request», the Primary Course Request – Assigned Components frame of the Student Course Request screen will list the assigned components. These assigned components will also be displayed under the «Assigned Components» tab of the Student screen.
- Users can manually assign/unassign a primary course request component by right- clicking and attaching/detaching within the frame.

«ALTERNATE COURSE REQUEST» TAB

- This tab lists the alternate course requests. This tab is referenced if the original course request cannot be fulfilled.
- The course request and the 'course' field above represents the unique key for this alternate course request. This implies that the combination of these fields must not be duplicated.

Rank

- This is where you enter the rank for this alternate course request. The lower the rank is, the higher the priority. This field will determine which alternate request the Student Assigner will try to assign first.
- This field is required.

Faculty

- The faculty ID of the alternate course request.
- This field is required.
- You can use the lookup on this field.

Department

- The department ID of the alternate course request.
- This field is required.
- You can use the lookup on this field.

Course

- The course ID of the alternate course request
- This field is required.
- You can use the lookup on this field.

Requested Term to Meet

- The term to meet that should be associated to the alternate student request. You can use the lookup function on this field.

Requested Section

- The ID of the requested course section
- You can use the lookup on this field.

Alternate Course Request – Course Characteristics _____

- Select the course characteristic (by selecting the F9 key) for the alternate course request. Once selected, select the «Required » column adjacent to the course characteristic request to indicate that alternative characteristics cannot be used. Repeat this process for each course request characteristic for the course request.

Alternate Course Request – Assigned Components _____

- If students have been assigned to components of their «Alternate Course Request», the Alternate Course Request – Assigned Components frame of the Student Course Request screen will list the assigned components. These assigned components will also be displayed under the «Assigned Components» tab of the Student screen.
- Users can manually assign/unassign an alternate course request component by right-clicking and attaching/detaching within the frame.

CHAPTER 5 - COURSE COMBINATIONS

- A course combination is a set of courses that need to be scheduled conflict free. It is defined at the course or section level for the creation of academic blocks.

SYSTEM-GENERATED COURSE COMBINATION CREATION SETTINGS SCREEN

(Settings > System-generated Course Combination Creation Settings)

Default Academic Block Type

- Click on the lookup button to select a default academic block type that will be associated to system-generated course combinations. All course combinations that will be generated by the system will be associated with the selected default academic block type. If no default academic block type is selected, the system-generated course combination creation feature cannot be enabled within a program.
- This default academic block type will also be the academic block type the system will use when the academic block builder service runs.

COURSE COMBINATION SCREEN

«GENERAL INFORMATION» TAB

Course Combination

- Course combination's identification field

Description

- Course combination's description field
- (Academic Blocks generated from the Course Combination will inherit the description of the Course Combination.)

Default Faculty

- This is where you specify which faculty the academic block will belong to when they are generated by the Academic Block Builder as a result of this course combination.

Default Department

- This is where you specify which department the academic block will belong to when they are generated by the Academic Block Builder as a result of this course combination.

Default Academic Block Type

- This is where you specify which type the academic block will be associated to when they are generated by the Academic Block Builder as a result of this course combination.

Student Count

- This field represents the number of students who will be taking all the courses from this course combination.
- This same number will also represent the size of the academic blocks that will be generated by the Academic Block Builder as a result of this course combination.

> **NOTE:** If disabled, course combinations can have a student count of zero (0) and if enabled, the student count must be greater than zero (0).

System Generated

- If the current course combination is created by the system, this field will be activated.

- **NOTE:** It is possible to deactivate this field if the current course combination is generated by the system. By deactivating this field, the current course combination will be disassociated from its current program and the program level and becomes a non-system-generated course combination.

Marker

- This check box can be used as an indicator to show that this course combination is new, to be deleted, etc.

Disabled

- This check box can be used to disable this course combination.
- This is a user-specified field.

Status

- Within the Status indicator users can see at a glance the status of the current Course Combination.

«COURSE COMBINATION REQUESTS» TAB

- Within the Course Combination Requests tab, the course combination requests associated with the current course combination will be listed.
- Users can see, by icons, the status of the course combination requests.
  - Green
    The course combination request is assigned
  - Yellow
    The course combination request is partially assigned
  - White
    The course combination request is not assigned

«ACADEMIC BLOCKS» TAB

- This screen shows the academic blocks created by the Academic Block Builder as a result of this course combination.

«BLOCKOFFS» TAB

- This screen shows the blockoffs attached to the course combination.
- Created Academic Blocks will inherit the attached blockoffs.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

COURSE COMBINATION REQUESTS

- A course combination request is defined where you attach a course to be part of the course combination.

«GENERAL INFORMATION» TAB

- This screen is used to display and select the courses that make up this course combination.
- The 'Course Combination Request Detail' section displays the details of the course that is highlighted in the top-half of this screen.

Course Combination Name

- This field is greyed out. The system populates it when the item is created. It represents the name of the course combination to which the request is attached.

Faculty

- The faculty of the course you attach to the course combination.
- You can use the lookup function on this field.

Department

- The department of the course you attach to the course combination.
- You can use the lookup function on this field.

Course

- The course you attach to the course combination.
- You can use the lookup function on this field.

Program

- The program of the course you attach to the course combination.
- You can use the lookup function on this field.

Level

- The program level of the course you attach to the course combination.
- You can use the lookup function on this field.

Requested Term to Meet

The term to meet that should be associated to the course combination request. You can use the lookup function on this field.

Requested Section

- The course section you attach to the course combination.
- You can use the lookup function on this field.

«COURSE CHARACTERISTICS» TAB

Course Characteristics

- Select the course characteristic (by selecting the F9 key) for the course combination request. Once selected, select the «Required » column adjacent to the characteristic request combination to indicate that alternative characteristics will not be used. Repeat this process for each course request characteristic for the course request.

TIPS ON CREATING COURSE COMBINATIONS

- Scenario: Creating a course combination with more than one program content at the same time.

(1) Go in the tree view of the Program Contents.

(2) In the list pane, select the program contents you would like to use to create your course combination.

(3) Right-click on the selected items and select on «Create Course Combination». A new course combination screen will appear with all the selected program contents making up the course combination requests.

CHAPTER 6 - LOCATIONS GROUP FILES

CAMPUSES

- A campus is a unit, containing a set of buildings in a relatively concentrated geographical location. Your institution may already have defined campuses.

«GENERAL INFORMATION» TAB

ID

- The campus' identification field
- This field is required.
- You cannot have duplicate values for this field.

Description

- The campus' description field

Marker

- This check box can be used as an indicator to show that this campus is new or to be deleted etc.

Disabled

- This check box can be used to disable the campus.
- This is a user-specified field.

«BUILDINGS» TAB

- This tab lists the buildings that are attached to this campus. See the «How to attach or detach» section to attach one or many buildings to this list.

«TRANSFER TIMES» TAB

- A transfer time is used to define the time it takes to travel from one campus to another.
- Users can insert the transfer times for a campus.
- If a value is given to the campus field, then a transfer time is required and vice versa.
- Within each column, select the category for which the transfer time applies — i.e.: Students, Professors, Acad. Block, or All.
- By selecting "Commute", the user indicates that the current transfer time is to be considered as a commute. Indicating that a given transfer time is a commute, will affect the "Max commutes per day" and/or the "Max commutes per week" constraints.
- Users can define different transfer times between campuses based on direction.
  - Example: the transfer time from campus A to campus B can be different from transfer time defined from campus B to campus A.
- Transfer times can be different between professors, students and/or academic blocks.

NOTE: If transfer time from A to B is defined but nothing is defined for transfer time from B to A, the system will then assume there is not transfer time between B and A.

«PRIVATE BLOCKOFF» TAB

- This tab lists the private blockoff created for a campus. A campus «private blockoff» is used when you want to make a specific campus unavailable for a specified period.
- See the «How to Add an item» section to add one or several private blockoffs.

«ADDRESS» TAB

Address

- Street Address
- The street address of the campus

PO Box

- The PO Box of the campus

City

- The city of the campus

State/Province

- The state or province of the campus

ZIP/Postal Code

- The zip code or postal code of the campus

Country

- The country of the campus

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

BUILDINGS

- A building is a physical collection of rooms.

«GENERAL INFORMATION» TAB

Campus

- This field is greyed out. The system automatically populates this field once the item is created. It represents the campus to which this building belongs to.
- This field is part of the unique key. This implies that a combination of fields represents the unique identifier and must not be duplicated.

ID

- The building's identification field
- This field is required.
- This field is part of the unique key. This implies that a combination of fields represents the unique identifier and must not be duplicated.

Description

- The building's description field

Marker

- This check box can be used as an indicator to show that this building is new, to be deleted, etc.

Disabled

- This check box can be used to disable the building.
- This is a user-specified field.

«ROOMS» TAB

- See the «How to Add an item» section to add one or several rooms to this list.

«TRANSFER TIMES» TAB

- A transfer time is used to define the time it takes to travel from one building to another.
- In this grid, you will have to enter the transfer time information for buildings.
- If you input a building, its campus and a transfer time is required.
- Within each column, select the category for which the transfer time applies — i.e.: Students, Professors, Acad. Block, or All.
- By selecting "Commute", the user indicates that the current transfer time is to be considered as a commute. Indicating that a given transfer time is a commute, will affect the "Max commutes per day" and/or the "Max commutes per week" constraints.
- Users can define different transfer times between buildings based on direction.
  - Example: the transfer time from building A to building B can be different from transfer time defined from building B to building A.
- Transfer times can be different between professors, students and/or academic blocks.

NOTE: If you do not input a transfer time, the system will use the campus transfer time defined between the campuses where the buildings are located. As long as campus transfer times are defined.

«PRIVATE BLOCKOFF» TAB

- This tab lists the private blockoffs created for a particular building.
- See the «How to Add an item» section to add one or several private blockoffs.
- A building «private blockoff» is used when you want to make a specific building unavailable for a specified period of time.

«ADDRESS» TAB

Address_____

Street Address

- The street address of the building

PO Box

- The PO Box of the building

City

- The city of the building

State/Province

- The state or province of the building

ZIP/Postal Code

- The zip code or postal code of the building

Country

- The country of the building

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

ROOMS

- Rooms are the physical space where courses take place. A room is attached to a building, which is attached to a campus. Rooms can be regrouped under pavilion.

«GENERAL INFORMATION» TAB

Campus and Building

- These fields are greyed out. The system automatically populates them once the item is created. They represent the campus and building to which this room is attached.

Pavilion

- In this field, you can link a room to a pavilion. This allows you to logically regroup your rooms.
- You can use the lookup on this field.

Room Type

- The room type's description field
- You can use the lookup on this field.

Room #

- The room's identification field
- This field is required.
- This field in combination with the building id represents the unique key. This implies that this combination must not be duplicated.

Description

- The room's description field

Capacity

- The room's capacity field

Infosilem Enterprise Integration _____

Import Date

- This field will display the date of the last import process (from **Infosilem Enterprise**) for that specific room.

Prevent modification from Enterprise

- Select this option to avoid any individual room from being modified or deleted by the import room process (the next time the room import process is launched).

Marker

- This check box can be used as an indicator to show that this room is new or to be deleted etc.

Disabled

- This check box can be used to disable the room. This is a user-specified field.

«ROOM CHARACTERISTICS» TAB

- See the «*How to attach or detach*» section to attach one or several room characteristics to this list.

«DELIVERIES» TAB

- This tab lists all the deliveries assigned to this particular room.
- Furthermore, users can view at a glance the deliveries that are associated to the current room and their status.

> **NOTE:** You cannot attach and detach deliveries from this screen. This screen serves as a view only screen.

«BLOCKOFFS» TAB

- A room blockoff is used when you want to make a room unavailable for a specific period of time.
- Double clicking on a room blockoff opens its edit window.
- This list shows the blockoffs that are attached to this room. See the «How to attach or detach» section to attach one or several blockoffs to this list.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

THE ROOM SEARCH

- When scheduling courses in the application, users may sometimes need to make manual changes to rooms for specific reasons. The Room Search screen will let users search for available rooms for a given time and given room attributes like pavilion, campus etc. Users will be able to save a room from the list once having finished with the search. Users can access the Room Search screen from the Delivery edit screen or from the Deliveries list.

TO ACCESS THE ROOM SEARCH SCREEN

- There are two (2) ways to access the Room Search tool:

Method 1:

- Open the Deliveries screen. Click on the Room Search icon (located in the toolbar) to launch the room search screen.

Method 2:

- Right click on a delivery within the Delivery list and select Room Search

THE ROOM SEARCH SCREEN

Room Filters

Campus

- Enter the campus to search. The lookup function is available for this field.

Building

- Enter the building associated to the room. The lookup function is available for this field.

Room Type

- Enter the room type to search. The lookup function is available for this field.

This room type is required, do not use alternate room types

- Select this option to limit the search to the entered room type and not take Departmental Scheduling Rules for Room Types into account.

Pavilion

- Enter the pavilion associated to the room. The lookup function is available for this field.

This pavilion is required, do not use alternate pavilions

- Select this option to limit the search to the entered pavilion and not take Departmental Scheduling Rules for Pavilions into account.

Scheduling/Actual

- (Read-only field) This field displays the enrollment size that is associated to the delivery requesting this room.

Ratio

- The value in this field has a direct impact on room selection. The ratio allows you to overbook or under book course sections into rooms. The value entered in this field will be used as a parameter in the following equation:
  Ratio * enrollment = capacity required
- Enter the ratio factor by which the system will multiply the enrollment value for the current delivery. The ratio can be either entered or will be calculated if the required capacity is entered.

Same Room Total (Actual and/or Scheduling)

- This is a read-only field. It displays the result of the calculation of the number of seats required in the room.

Display all rooms having sufficient capacity, ignoring capacity limits

- Select this option to display rooms that have sufficient capacity defined for the Department (without considering the enrollment capacity limits.)

> **NOTE:** If the «Required» option of the capacity is selected at the Department priorities screen, then the room search will be limited to rooms with the same capacity. However, if the option « *Display all rooms having sufficient capacity, ignoring capacity limits*» is selected, it will override the room capacity.

Room Characteristics

To attach room characteristics

- Right-click in the Room Characteristics box and select «Attach».

- From the window that opens, select the characteristics to attach and close the window (or press Enter).

To detach room characteristics

- Select the characteristic(s) that need to be detached.
- Right-click in the Room Characteristics box and select «Detach» — a prompt will appear to confirm that the selected characteristics are to be detached.
- Click «Yes» to detach those characteristics or click «No» not to detach those characteristics.
- All these characteristics are required
- Select this option to make all the characteristics listed in the box below required characteristics in the room search.

Available Rooms _____

- The available rooms frame will display the result of the query (if any).

Available Times

- If the box is unchecked, this indicates that there is no potential time (or the time is conflicting) for that room request. When the box is checked, times are available in the room.

Campus

- Displays the campus to which the potential room is associated.

Building

- Display the building to which the potential room is attached.

Room

- Display the room number.

Pavilion

- Display the pavilion to which the potential room is attached.

Pavilion Quality

- Display the pavilion quality of the potential room.

Room Type

- Display the room type of the potential room.

Room Quality

- Display the room quality while taking into account the department's constraints.

Time Quality

- Displays the average time quality of the requested time for that combination (represented in percent)

Assigned

- If the box is checked, this indicates that the room is already assigned.

Capacity

- The seating capacity of that room

Available times: _____

Time quality

- Displays the average time quality of the requested time for that combination (represented in percent)

Start date 1

- Displays the start date for that combination

End date 1

- Displays the end date for that combination

Interval 1

- Displays the interval for that combination

Pattern 1

- Displays the pattern for that combination

Day(s) of the week 1

- Displays the day(s) of the week for that combination

Time(s) 1

- Displays the time for that combination

TO PROCEED WITH THE ROOM SEARCH

- Once the selection and the criteria are entered, select the refresh button in the toolbar or press the F5 key on the keyboard.

SAVING THE ROOM SELECTION

- Once a suitable room has been selected, click on the Assign Room or the Assign Room and Time buttons

Assign Room

- Select this button to save/assign the selected room.

Assign Room and Time

- Select this button to save/assign the selected room and the time in the Available Time(s) frame.

NOTE: This button will be available when a Room and Time is selected.

PAVILIONS

- A pavilion is a logical regrouping of rooms, which can supersede geographical boundaries. A pavilion can be composed of buildings, a set of rooms from several different buildings, or a group of rooms within the same building.

«GENERAL INFORMATION» TAB

ID

- The pavilion's identification field
- This field is required.
- You cannot have duplicate values for this field.

Description

- The pavilion's description field

Marker

- This check box can be used as an indicator to show that this pavilion is new or to be deleted etc.

«ROOMS» TAB

- This list shows the rooms that are attached to this pavilion.

«PRIVATE BLOCKOFF» TAB

- This tab lists the private blockoffs created for this pavilion.
- See the «How to Add an item» section to add one or several private blockoffs.
- A pavilion «private blockoff» is used when you want to make a specific pavilion unavailable for a specified period.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

CHAPTER 7 - SCHEDULING GROUP FILES

GROUP CONSTRAINTS

- Group Constraints is where you define the constraints that the grouped elements must respect in order to have a valid group.
- Grouping consists of taking two or more different items of the same level scheduled with the same structure (deliveries scheduled at the same time) and associating them to group constraints. Once a group has been created, the system will automatically generate children groups by grouping identical objects within the lower levels of the initial group. For example, if two courses are grouped, the system will automatically group the sections, components and deliveries associated to those two courses. These generated groups cannot be modified or changed manually, only the system has access to these groups.

NOTE: When the scheduling group information is imported via the transfer, the grouping information is inactive. To activate them, you need to go to the «Tools» menu and click on the «Scheduling Group Activation» menu. Each tab will display a list of inactive groups. Select the groups you want to activate and click on save. The system will then automatically generate the groups at lower levels.

«GROUP CONSTRAINTS» TAB

ID

- The group constraint's identification field
- This field is required.
- This field represents the unique key. This implies that you cannot have duplicate values of this field.

Description

- The group constraint's description field

Check Boxes

- Clicking on one or more of these constraints will tell the system how to assign the groups attached to this group constraint. For example, if same professor and same building are checked, the items within the group will be scheduled in the same building and the system will allow the items to share the same professor.

Marker

- This check box can be used as an indicator to show that this group constraint is new, to be deleted, etc.

«COURSE GROUPS» TAB

- This tab lists the course groups belonging to a group constraint.
- See the «How to Add an item» section in to add one or several course groups in this list.

«SECTION GROUPS» TAB

- This tab lists the section groups belonging to a group constraint. See the «How to Add an item» section to add one or several section groups in this list.

«COMPONENT GROUP» TAB

- This tab lists the component groups belonging to a group constraint. See the «How to Add an item» section to add one or several component groups in this list.

«DELIVERY GROUPS» TAB

- This tab lists the delivery groups belonging to a group constraint. See the «How to Add an item» section to add one or several delivery groups in this list.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

COURSE GROUPS

- A course group is where the courses that are grouped are defined.

> **NOTE:** In the navigator, the 'Course Groups' level is the level directly under the 'Group Constraints' level. The levels that fall under course groups are the system generated groups. As a result, the addition or deletion of those groups is not allowed.

- You have the option to create course groups directly from the course list in the Navigator. To do so, select the courses to be grouped from the course list and right click on the selection. You will have an option called Create Group. Selecting this option will open the course group screen where you can give the group an ID.

«GENERAL INFORMATION» TAB

Group Constraint

- This field is greyed out. The system automatically populates this field once the item is created. It represents the group constraint that is attached to this course group.

ID

- The course group's identification field
- This field is required.
- This field combined with group constraint id represents the unique identifier. This implies that you cannot have duplicate values in this field under one group constraint.

Marker

- This check box can be used as an indicator to show that this course group is new, to be deleted, etc.

Disabled

- This check box can be used to disable the course group.
- This is a user-specified field.

«COURSE» TAB

- Two or more courses can be attached and grouped together in this tab. The courses you will select do not need to have the same ID. However, the section's, component's and delivery's ID associated to each course must be the same. For example, if course A is grouped to course B and course A has a section 01 then course B also needs a section 01 for the replication to group properly. See the «How to attach or detach» section in order to add one or several course groups in this list.

«SECTION GROUPS» TAB

- This tab lists the section groups that the system generated from this course group.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

SECTION GROUPS

- A section group is where you define the sections to be grouped.

> **NOTE:** In the navigator, the 'Section Groups' level is the level directly under the group constraints level. The levels that fall under section groups are the system generated children groups. As a result, the addition or deletion of those groups is not allowed. You have the option to create section groups directly by using the section list in the navigator. To do so, select the sections to be grouped from the section list and right click on the selection. You will then have an option called Create Group. Selecting this option will open the section group screen where you can give the group an ID.

«GENERAL INFORMATION» TAB

Group Constraint

- This field is greyed out. The system automatically populates this field once the item is created. It represents the group constraint to which this section group belongs.

ID

- The section group's identification field
- This field is required.
- This field combined with group constraint id represents the unique key. This implies that you cannot have duplicate values for this field under one group constraint. In cases where a section group is generated by the system, the field course group id must be added to the unique key.

Marker

- This check box can be used as an indicator to show that this section group is new or to be deleted etc.

Disabled

- This check box can be used to disable the section group.
- This is a user-specified field.

«SECTION» TAB

- This is where you attach two or more sections to group them according to the group constraints. The sections you select do not need to have the same ID. However, the component, and delivery ID below each section must be the same for the system to generate the children groups. For example, if section A is grouped to section B and section A has a component 01 then section B also needs a component 01. See the «How to attach or detach» section to add one or several section groups in this list.

«COMPONENT GROUPS» TAB

- This tab lists the component groups that the system generated from this section group.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

COMPONENT GROUPS

- A component group is where you define the components to be grouped.

NOTE: In the navigator the 'Component Group' level is the level directly under the group constraints level. The levels that fall under component groups are the system generated children. As a result, the addition or deletion of those groups is not possible.
You have the option to create component groups directly by using the component list in the navigator. To do so, select the components to be grouped from the component list and right click on the selection. You will have an option called Create Group. Selecting this option will open the component group screen where you can give the group an ID.

«GENERAL INFORMATION» TAB

Group Constraint

- This field is greyed out. The system automatically populates this field once the item is created. It represents the group constraints to which this component group is attached.

ID

- The component group's identification field
- This field is required.
- This field combined with group constraint id represents the unique key, which means that you cannot have duplicate values of this field under one constraint. In cases where a component group is generated by the system, the field section group id must be added to the unique key.

Marker

- This check box can be used as an indicator to show that this component group is new, to be deleted, etc.

Disabled

- This check box can be used to disable the component group.
- This is a user-specified field.

«COMPONENT» TAB

- This is where you attach two or more components to group them according to the group constraint. The components you select do not need to have the same ID. However, the delivery ID below each component must be the same for the system to generate the children groups. For example, if component A is grouped to component B and component A has a delivery 01 then component B also needs a delivery 01. See the «*How to attach or detach*» section to add one or several component groups in this list.

«DELIVERY GROUPS» TAB

- This tab lists the delivery groups that the system generated from this component group.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

DELIVERY GROUPS

- A delivery group is where you define the deliveries to be grouped.

> **NOTE:** You have the option to create delivery groups directly by using the delivery list in the navigator. To do so, select the deliveries to be grouped from the delivery list and right click on your selection. You will then have an option called Create Group. Selecting this option will open the delivery group screen where you can give the group an ID.

«GENERAL INFORMATION» TAB

Group Constraint

- This field is greyed out. The system automatically populates this field once the item is created. It represents the group constraints to which this delivery group is attached.

ID

- The delivery group's identification field
- This field is required.
- This field combined with group constraint id represents the unique key, which means that you cannot have duplicate values of this field under one group constraint. In cases where a delivery group is created as a result of a replication, the field component group id must be added to the unique key.

Marker

- This check box can be used as an indicator to show that this delivery group is new, to be deleted, etc.

Disabled

- This check box can be used to disable the delivery group.
- This is a user-specified field.

«DELIVERIES» TAB

- This is where you will select two or more deliveries in order to group them according to the group constraint. The deliveries you select do not need to have the same ID. See the «How to attach or detach» section in order to add one or several delivery groups in this list.
- Furthermore, all deliveries associated to the current delivery group will be displayed along with their status.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

DEACTIVATING/ACTIVATING SCHEDULING GROUPS

- To deactivate scheduling groups, user can use the batch scheduling group deactivation feature, simply select Tools — Scheduling Groups Deactivation menu item to open the «Scheduling Groups Deactivation» screen.
- From the «Scheduling Groups Deactivation» screen, users can deactivate:
  - Course groups
  - Section Groups
  - Component Groups
  - Delivery Groups.
- Select the groups to deactivate and select the «Save» icon — the selected groups are now deactivated.

NOTE: Once groups are deactivated, all of their children groups are deleted.
By using jointly the «Scheduling Groups Deactivation» and the «Scheduling Groups Activation» tools, users can deactivate suspected groups that do not respect the group constraints and reactivate those groups in order to enforce the group constraint rules for those newly activated groups.

CHAPTER 8 - TIE CONSTRAINT FILES

TIE CONSTRAINTS

- This is where you specify the rules for the tie constraints that will be attached to scheduling ties.

«GENERAL INFORMATION» TAB

ID

- Tie constraint's identification field.
- This field is required.

Description

- This is the tie constraint description field.

The Rule Types

Conflict Free

- If this is selected, items associated to this tie constraint will be assigned conflict free.

Different Dates

- If this is selected, items associated to this tie constraint will be assigned on different dates.

Sequence or Interval

- Selecting this option will enable the «Sequence or Interval Definition» options. These options allow you to define the sequence/interval rules between tied items.
- A sequence is when you define that one item must go before or after another item. An example of a sequence could be item 1 must go before item 2 or item 1 must go after item 2.
- An interval is when you define that one item can go either before or after another item. An example of an interval could be item 1 could go before or after item 2

Room assignment constraints

- Same Rooms, Same Buildings, Same Campuses, Same Pavilions, Same Room Types
- Select the room assignment constraint that you want to apply to the tie constraint you are creating.

Component Tie Option

- Apply to matched deliveries
- If selected, this option will apply to tied components with matching IDs.

Example:

Component A	← tied to →	**Component B**
1st Delivery01	← tied to →	Delivery01
2nd Delivery02	← tied to →	Delivery02

NOTE: In this example, the 1st delivery's ID for component A is «Delivery01» and the 1st delivery's ID for component B is «Delivery01». Both delivery have the same ID and therefore can be matched together.

Apply to all deliveries

- If selected, this option will apply to all deliveries regardless if they have matching IDs.

Sequence or Interval Definition

Before

Before first occurrence

- The first tied element will happen before the first occurrence of the second tied element.

Before any occurrence

- The first tied element will happen before any occurrence of any tied element.

Limit

- This is where you can define spacing rules between the two tied elements.

Minimum and maximum (Limit)

- These two values create a spacing range for tied elements that are associated to this tie constraint.

Preference

- This is where you define the spacing preference between the tied elements.

Minimum (Preference)

- If minimum is selected the preference range will extend from the minimum of the limit value to its own value (the preference minimum).

Maximum (Preference)

- If maximum is selected the preference range will extend from its own value (the preference maximum) to the maximum of the limit value.

After

After last occurrence

- The first tied element will happen after the last occurrence of the second tied element.

After any occurrence

- The first tied element will happen after any occurrence of the second tied element.

Limit

- This is where you can define spacing rules between the two tied elements.

Minimum and maximum (Limit)

- These two values create a spacing range for tied elements that are associated to this tie constraint.

Preference

- This is where you define the spacing preference between the tied elements.

Minimum (Preference)

- If minimum is selected the preference range will extend from the minimum of the limit value to its own value (the preference minimum).

Maximum (Preference)

- If maximum is selected the preference range will extend from its own value (the preference maximum) to the maximum of the limit value.

Cyclic

- If checked, this field means the last and first day of the week are considered consecutive. In order for this field to be taken into consideration, the 'last and first day of the week are consecutive' option must also be enabled in the institutional files and should only be used if you want to define an interval.

Overrides _____

Override «Allow back to back» at the scheduling resource level

- If selected, deliveries or components defined within the «back to back» tie constraint will be successfully scheduled when an associated resource (professor or student) does not allow «back to back» scheduling — i.e.: The resource (professor or student) «back- to back» constraint will be overridden.

Override «Different dates» at the Section and Component levels

- If selected, this option will ignore the «different dates» constraint (at the section and component levels) for cases where pattern requests are tied (directly or through delivery ties) with a constraint that requires the times to be back to back.

Marker

- This check box can be used as an indicator to show that this tie constraint is new, is to be deleted etc.

Disabled

- This check box can be used to disable the tie constraint
- This is a user-specified field.

NOTE: For more information, please refer to the end of this chapter to see some examples of how to set tie constraint options.

«COMPONENT TIES» TAB

- This tab lists the components that have been tied and that are associated to a tie constraint.
- See the «How to Add an item» section to add one or several component ties in this list.

«COMPONENT TYPE TIES» TAB

- This tab lists the component types that have been tied and that are associated to a tie constraint.
- See the «How to Add an item» section to add one or several component type ties in this list.

«DELIVERY TIES» TAB

- This tab lists the deliveries that have been tied and that are associated to a tie constraint.
- See the «How to Add an item» section to add one or several delivery ties in this list.

«PATTERN REQUEST TIES» TAB

- This tab lists the pattern requests that have been tied and that are associated to a tie constraint.
- See the «How to Add an item» section to add one or several pattern request ties in this list.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

COMPONENT TIES

- A component tie is used to tie two components to be scheduled according to a tie constraint.
- A component can be tied to itself.

«GENERAL INFORMATION» TAB

- This screen is separated into two parts: Component 1 and Component 2. Each part displays one component.

Tie Constraint

- This field is greyed out; the system fills it in when the item is created. It represents the tie constraint to which this component tie is attached.

Description

- This is the component tie description field.

Department

- This field represents the department of the tied component.

Course

- This field represents the course of the tied component.

Section

- This field represents the section of the tied component.

Component

- This field represents the tied component.
- This field is required.
- The combination of both components is the unique key. This implies that you cannot have duplicate values of these fields.

Marker

- This check box can be used as an indicator to show that this component tie is new or to be deleted etc.

Disabled

- This check box can be used to disable the component tie.
- This is a user-specified field.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

COMPONENT TYPE TIES

- A component type tie is used to tie two component types to be scheduled according to a tie constraint.
- A component type can be tied to itself.

«GENERAL INFORMATION» TAB

- This screen is separated into two parts: Component Type 1 and Component Type 2. Each part displays one component type.

Tie Constraint

- This field is greyed out. The system automatically populates this field once the item is created. It represents the tie constraint to which this component type tie is attached.

Description

- This is the component type tie description field.

Component Type

- This field represents the tied component type.
- This field is required.
- The combination of both component types is the unique key, which means that you cannot have duplicate values of these fields in another tie.

Marker

- This check box can be used as an indicator to show that this component type tie is new or to be deleted etc.

Disabled

- This check box can be used to disable the component type tie.
- This is a user-specified field.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

DELIVERY TIES

- A delivery tie is used to tie two deliveries under a tie constraint.
- A delivery can be tied with itself.

«GENERAL INFORMATION» TAB

- This screen is separated into two parts: Delivery 1 and Delivery 2. Each part displays one delivery.

Tie Constraint

- This field is greyed out. The system automatically populates this field once the item is created. It represents the tie constraint to which this delivery tie is attached.

Description

- This is the delivery tie description field.

Department

- This field represents the department of the tied delivery.

Course

- This field represents the course of the tied delivery.

Section

- This field represents the section of the tied delivery.

Component

- This field represents the component of the tied delivery.

Delivery

- This field represents the delivery to be tied.
- This field is required.
- The combination of both deliveries is the unique key, which means that you cannot have duplicate values of these fields in another tie.

Faculty

- This field represents the faculty of the tied delivery.

Marker

- This check box can be used as an indicator to show that this delivery tie is new or to be deleted etc.

Disabled

- This check box can be used to disable the delivery tie.
- This is a user-specified field.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

PATTERN REQUEST TIES

- A pattern request tie is used to tie two pattern requests under a tie constraint.

PATTERN REQUEST TIE SCREENS

«GENERAL INFORMATION» TAB

- This screen is separated into two parts: Pattern Request 1 and Pattern Request 2. Each part displays one pattern request.

Tie constraint

- This field is greyed out. The system automatically populates this field once the item is created. It represents the tie constraint to which this pattern request tie is attached.

Description

- This is the delivery tie description field.

Department

- This field represents the department of the tied pattern request.

Course

- This field represents the course of the tied pattern request.

Section

- This field represents the section of the tied pattern request.

Component

- This field represents the component of the tied pattern request.

Delivery

- This field represents the delivery of the tied pattern request.

Frequency Start Date

- This field represents the start date of the tied pattern request.

Frequency End Date

- This field represents the end date of the tied pattern request.

Frequency Interval

- This field represents the frequency interval of the tied pattern request.

Pattern Request Order

- This field represents the order of the tied pattern request.

Pattern Request Pattern

- This field represents the tied pattern request.
- This field is required.
- Both pattern requests represent the unique key. This means that you cannot have duplicate values of these fields in another tie.

Faculty

- This field represents the faculty of the tied pattern request.

Marker

- This check box can be used as an indicator to show that this pattern request tie is new or to be deleted etc.

Disabled

- This check box can be used to disable the pattern request tie.
- This is a user-specified field.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

THE SCHEDULING TIES LIST

Marker

- This field shows if the scheduling tie has been marked.

Assignment status

- This field uses a color scheme to show if the room and the time assignment constraint are being respected. Each color circle is separated into two halves. The top half represents the room(s) assignment constraint and the bottom half represents the time(s) assignment constraint. The following four colors can appear in either part of the circle:

COLOR	*DESCRIPTION*
WHITE	A top white half of the icon indicates that either *'None of the tied objects are assigned to a room*' or that '*No room assignment constraint are associated to the tie'*. A bottom white half of the icon indicates that either *'None of the tied course part is scheduled*' or that '*Only one part of the tie (either the first or the second tied course part) is scheduled*'.
GREEN	A top green half of the icon indicates that the scheduling tie room constraint is respected. A bottom green half of the icon indicates that the scheduling tie time constraint is respected.
YELLOW	A top yellow half of the icon indicates that the scheduling tie has the <Same Rooms> constraint and not all of the tied deliveries are assigned to a room. A bottom yellow half of the icon indicates that the scheduling tie constraint defines a sequence or interval for which the preference is not respected although the limit is respected.
RED	A top red half of the icon means that the tied deliveries are assigned to rooms that do not respect the room assignment constraints. A bottom red section of the icon means that a «conflict free» tie constraint is not being respected.

Tie Level

- This field indicates the type of scheduling tie. A tie can be of a type 'Component Type', 'Component', Delivery' or 'Pattern Request'.

Faculty 1

- This field indicates the 'Faculty ID' of the first tied course part.

Department 1

- This field indicates the 'Department ID' of the first tied course part.

Course 1

- This field indicates the 'Course ID' of the first tied course part.

Section 1

- This field indicates the 'Section ID' of the first tied course part.

Component Type 1

- This field indicates the 'Component Type ID' of the first tied course part.

Component 1

- This field indicates the 'Component ID' of the first tied course part.

Faculty 2

- This field indicates the 'Faculty ID' of the second tied course part.

Department 2

- This field indicates the 'Department ID' of the second tied course part.

Course 2

- This field indicates the 'Course ID' of the second tied course part.

Section 2

- This field indicates the 'Section ID' of the second tied course part.

Component Type 2

- This field indicates the 'Component Type ID' of the second tied course part.

Component 2

- This field indicates the 'Component ID' of the second tied course part.

Tie Constraint

- This field indicates the 'Tie Constraint ID' of the scheduling tie.

Details

- This field is a textual description of the status icon.

THE DELIVERY LIST

Marker

- This field represents the marker of the delivery.

Assignment status

- This field represents the current status of a particular delivery. Each icon is separated into two halves the top half represents the room requirements and the bottom half represents the time requirements. The following four colors can appear in each part:

COLOR	*DESCRIPTION*
RED	Indicates that there is no request. In other words, there is no location specification on the delivery's room tab (if top half is red) or there is no forced time / pattern request on the deliveries time tab (if the bottom half is red).
GREEN	Indicates a complete assignment. In other words, the delivery already has its room requirements (if top half is green) or the delivery already has its time requirements (if bottom half is green). **NOTE:** Both forced items and assigned items appear in green. At this point in the scheduling process, all deliveries with green portions indicate forced information and the Timetabler will not reschedule green portions.
YELLOW	Indicates a partial assignment. In other words, the delivery is requesting more than one room but at least one room has been assigned/forced (if top half is yellow) or a delivery is requesting more than one pattern but at least one pattern time has already been assigned/forced.
NONE	Indicates that a request has not yet been satisfied. In other words, the delivery is requesting one or more rooms on the location specification tab (if top half is white) or the delivery is requesting one or more pattern requests that have not yet been assigned.

- If you sort on this field here is how the colors will be sorted.

TOP COLOR (ROOM)	*BOTTOM COLOR (TIME)*
RED	RED
WHITE	RED
YELLOW	RED
GREEN	RED
RED	WHITE
WHITE	WHITE
YELLOW	WHITE
GREEN	WHITE
RED	YELLOW
WHITE	YELLOW
YELLOW	YELLOW
GREEN	YELLOW
RED	GREEN
WHITE	GREEN
YELLOW	GREEN
GREEN	GREEN

 # Freq. With Forced Time

- This field indicates the number of frequencies that have forced times for the delivery.

 # Freq. With Schd. Pat.

- This field indicates the number of frequencies that have scheduled pattern requests for the delivery.

 # Freq. With Part. Schd. Pat.

- This field indicates the number of frequencies that have one or more unassigned pattern requests for a delivery.

 # Freq. With Unschd Pat.

- This field indicates the number of frequencies that have no assigned pattern requests for a delivery.

 # Schd. Rooms

- This field indicates the number of rooms assigned to a delivery.

 # Unschd. Rooms

- This field indicates the number of unassigned room requests for a delivery.

Course

- This field indicates the Course to which the particular delivery belongs.

Section

- This field indicates the Section to which the particular delivery belongs.

Component

- This field indicates the Component to which the particular delivery belongs.

Delivery

- This field indicates the delivery ID.

RN

- This field indicates the RN field in the component file related to the delivery.

Scheduling

- This field indicates the value of the scheduling field in the component file related to a delivery.

Actual

- This field indicates the value of the actual field in the component file related to a delivery.

Faculty

- This field indicates the faculty of the delivery.

Department

- This field indicates the department of the delivery.

Subject

- This field indicates the subject field in the course file related to a delivery.

Term To Meet

- This field indicates the term to meet field in the component file related to a delivery.

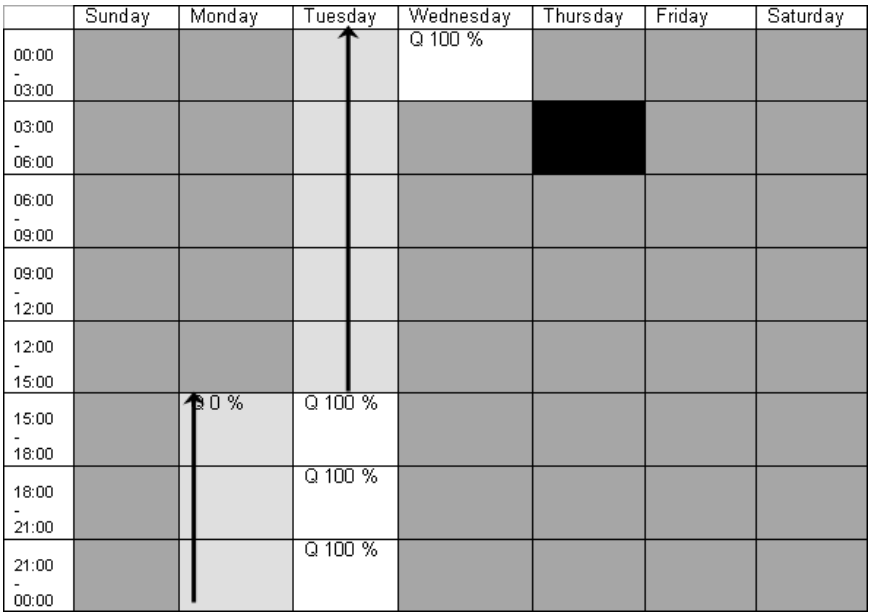
Term Offered

- This field indicates the term offered field in the section file related to a delivery.

TIE CONSTRAINT EXAMPLES

Example 1

- First day of week: Sunday
- After
- Limit min: 24 hours
- Limit max: 60 hours
- Preference min: 36 hours.



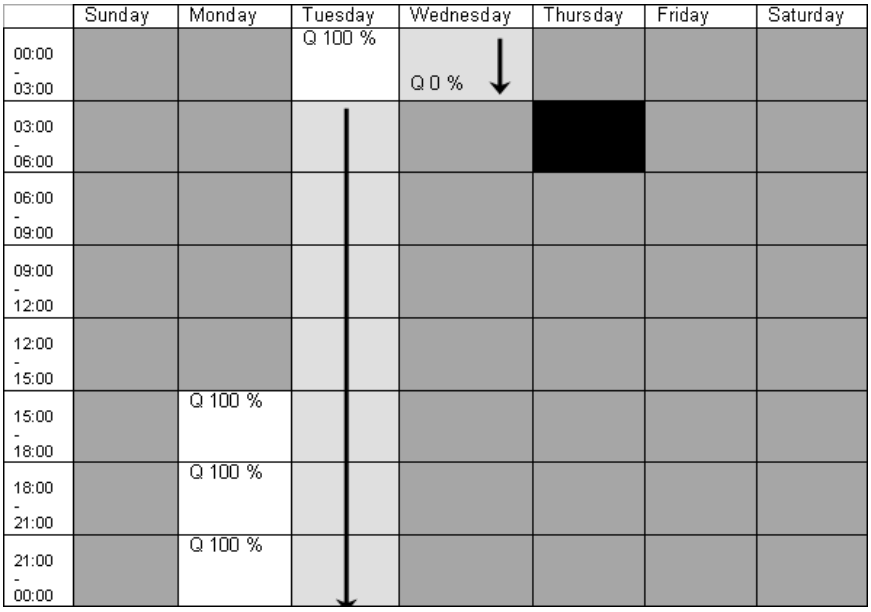
Color legend:

	First tied element
	Cannot schedule
	Preference
	Available
Q	Quality of the time for assignment.

- In this example item 1 must come after item 2. In this case item 1 is already scheduled. With the tie constraints we will try to define where item 2 could be placed in the grid.
- We have set our preference minimum to 36 hours, which means that we would prefer that item 2 ends 24 hours (minimum value) to 36 hours (preference) before item 1. Therefore, our preference range begins Tuesday at 15:00 and ends Wednesday at 03:00. But item 2 could be scheduled anywhere between Monday 15:00 (maximum value) to Wednesday 03:00 (minimum value).

Example 2

- First day of week: Sunday
- After
- Limit min: 24 hours
- Limit max: 60 hours
- Preference max: 48 hours.



Color legend:

	First tied element
	Cannot schedule
	Preference
	Available

- In this example item 1 must come after item 2. In this case item 1 is already scheduled. With the tie constraints we will try to define where item 2 could be placed in the grid.
- We have set our preference maximum to 48 hours, which means that we would prefer that item 2 start 48 hours (preference) to 60 hours (maximum value) before item 1. Therefore, our preference range begins Monday at 15:00 and ends Tuesday at 03:00. But item 2 could be scheduled anywhere between Monday 15:00 (maximum value) to Wednesday 03:00 (minimum value).

Example 3

- First day of week: Sunday
- Before
- Limit min: 24 hours
- Limit max: 60 hours
- Preference min: 42 hours.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
00:00 - 03:00				Q 100 %			
03:00 - 06:00				Q 100 %			
06:00 - 09:00							
09:00 - 12:00							
12:00 - 15:00			Q 100 %				
15:00 - 18:00			Q 100 %				
18:00 - 21:00			Q 100 %				
21:00 - 00:00			Q 100 %	Q 0 %			

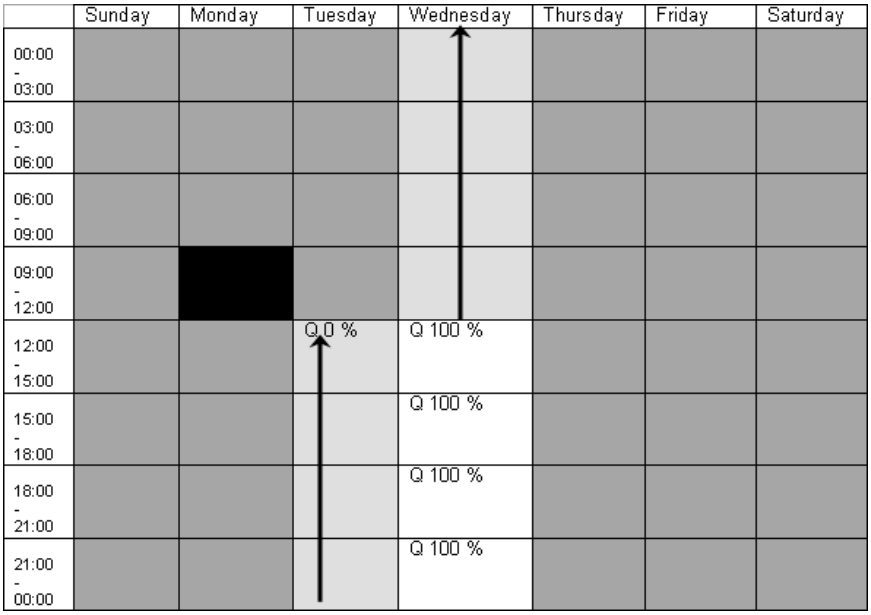
Color legend:

	First tied element
	Cannot schedule
	Preference
	Available

- In this example item 1 must come before item 2. In this case item 1 is already scheduled. With the tie constraints we will try to define where item 2 could be placed in the grid. We have set our preference minimum to 42 hours, which means that we would prefer that item 2 starts 24 hours (minimum value) to 42 hours (preference) after item 1. Therefore, our preference range begins Tuesday at 12:00 and ends Wednesday at 06:00. But item 2 could be scheduled anywhere between Tuesday 12:00 (minimum value) to Thursday 00:00 (maximum value).

Example 4

- First day of week: Sunday
- Before
- Limit min: 24 hours
- Limit max: 60 hours
- Preference max: 48 hours.



Color legend:

	First tied element
	Cannot schedule
	Preference
	Available

- In this example item 1 must come before item 2. In this case item 1 is already scheduled. With the tie constraints we will try to define where item 2 could be placed in the grid.
- We have set our preference maximum to 48 hours, which means that we would prefer that item 2 starts 48 hours (preference) to 60 hours (maximum value) after item 1. Therefore, our preference range begins Wednesday at 12:00 and ends Thursday at 00:00. But item 2 could be scheduled anywhere between Tuesday 12:00 (minimum value) to Thursday 00:00 (maximum value).

Example 5

- First day of week: Sunday
- Before and After selected and same value for both
- Limit min: 0 hours
- Limit max: 0 hours
- Preference: 0 hours

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
00:00 - 03:00							
03:00 - 06:00							
06:00 - 09:00				Q 100 %			
09:00 - 12:00							
12:00 - 15:00				Q 100 %			
15:00 - 18:00							
18:00 - 21:00							
21:00 - 00:00							

Color legend:

	First tied element
	Cannot schedule
	Preference
	Available

- In this example item 1 can be before or after item 2. There is no preference, so the system can assign item 2 in both places without breaking any rules. This is what we called a back to back course.

Example 6

- First day of week: Sunday
- Before and After selected and same value for both
- Limit min: 0 day
- Limit max: 0 day
- Preference: 0 day

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
00:00 - 03:00				Q 100 %			
03:00 - 06:00				Q 100 %			
06:00 - 09:00				Q 100 %			
09:00 - 12:00							
12:00 - 15:00				Q 100 %			
15:00 - 18:00				Q 100 %			
18:00 - 21:00				Q 100 %			
21:00 - 00:00				Q 100 %			

Color legend:

	First tied element
	Cannot schedule
	Preference
	Available

- In this example item 1 can be before or after item 2. There is no preference, so the system can assign item 2 in both places without breaking any rules. This example is the same as example 9 but with days as time unit.

PATTERN CONSTRAINTS OVERVIEW

- Pattern combinations let the end user to specify various pattern requests to schedule in accordance to the indicated applied pattern.

Example: *Pattern Request #1 associated to Delivery ABC is a 1X1 pattern (1 by 1 hour)*
Pattern Request #2 associated to Delivery DEF is a 2X1 pattern (2 by 1 hour)
The user associates Pattern Request #1 and Pattern Request #2 within a pattern combination that is associated to the Pattern 3X1 (3 by 1 hour). Therefore, Delivery ABC and Delivery DEF will schedule in accordance with the 3X1 pattern.

USER INTERFACE (NAVIGATOR)

- When logging into the application, a new button «Pattern Constraints» within the Data Element Button List will appear. Select this button to define the pattern constraints to which the associated pattern combinations will adhere.

PATTERN CONSTRAINT SCREEN

- When adding a Pattern Constraint, the following edit window opens.

GENERAL INFORMATION TAB

ID & Description:

- Users can input the ID and description of the pattern constraint

Applied Pattern _____

Master Grid

- Users must select an already defined Master Grid (defined within the Secondary Files) to which the associated pattern combinations will adhere.

Pattern

- Users must select an already defined Pattern (defined within the Secondary Files) to which the associated pattern combinations will adhere.

Room Assignment Constraints _____

- Users specify the room constraints to which the associated pattern combinations will adhere.

Example: *If «Same Room» is selected, the pattern requests within the pattern combination will all be assigned the same room.*

PATTERN COMBINATION TAB

- It is here that users can add the pattern combinations to be associated to the selected pattern constraint.
- To add a pattern constraint, right-click and select ADD NEW from the context menu

PATTERN COMBINATION

- Users will be able to right- click and select «Add» within the «Pattern Combination» tab where the «Pattern Combination» edit window will appear:

Pattern Constraint:

- Disabled field displaying the associated Pattern Constraint

ID & Description

- User can input the ID and description of the pattern combination

Pattern Requests:

- Grid where users can attach and indicate the order of pattern requests within the pattern combination that will adhere to the pattern constraint.
- Order will determine the scheduling sequence of the pattern requests.

CHAPTER 9 - SECONDARY FILES

ACADEMIC BLOCK TYPES

- An academic block type defines scheduling constraints that can apply to a group of academic blocks.

«GENERAL INFORMATION» TAB

ID

- Academic block type's identification field
- This field is required.

Description

- Academic block type's description field

Marker

- This check box can be used as an indicator to show that this academic block type is new, to be deleted, etc.

«CONSTRAINTS» TAB > «SCHEDULING CONSTRAINTS» TAB

Respect Transfer Times

- This option allows the user to specify whether or not the components and deliveries within an academic block (that have an academic block type attached) will respect the transfer times defined for campus(es) and/or building(s) when the deliveries are scheduled.

General Constraints_____

Allow conflicts and constraint violations

- Components belonging to the same academic block will, by definition, schedule conflict free. Check the «Conflicts Allowed» check box to allow the application (if necessary) to create conflicts that do not involve more students than the «Maximum cumulative size of academic blocks with conflicts or constraint violation per delivery » value defined in the « Course Scheduling Rules» window under the «Settings» menu.

Desired Blockoffs Conflicts Allowed

- Public Blockoffs can be defined as desired. Check the «Desired Blockoffs Conflicts Allowed? » check box to allow the application (if necessary) to create a conflict with the specified public blockoff.

Daily Constraints _____

Preference and Limit

- This is where you specify the preference for each constraint. An example of the max time/day constraint is that you would prefer students to have 6 hours of class per day (preference), but they can have no more than 8 hours (limit) per day.

Weight

- Each constraint has a weight associated to it. The weight indicates how important the preference value is for one constraint in relation to another constraint. For example, if achieving the max time/day preference is more important than achieving the max consecutive time preference, you would give a heavier weight to the max time/day constraint.

Min. Time After Max Cons.

- Controls the minimum free time to be scheduled after having reached the maximum number of consecutive hours

If after late pm, min. time until next

- This constraint controls the number of hours between a scheduled delivery after the specified «late» time and the next morning delivery. This constraint is influenced by the specified late pm time value.

Max. time/day

- Controls the maximum number of class-time hours that can be scheduled on any given day.

Max. consecutive time

- Controls the maximum number of hours of class that can be scheduled consecutively

Max. elapsed time/day

- Controls the maximum number of hours that can elapse from the beginning of the first hour scheduled to the end of the last hour scheduled on any given day.

Max. commutes per day

- Define the maximum number of commutes this academic block type can have within one day (per day).
- The value must range between 0 and 999.

Weekly Constraints _____

Min. Free Days Per Week

- Number of non-lecture days.

Max. AM: early start/week

- Controls the number of times an academic block can be scheduled to teach early in the week. This constraint is influenced by the specified early am time value.

Max. PM: late end/week

- Controls the number of times an academic block can be scheduled to teach late in the week. This constraint is influenced by the specified late pm time value.

Max. commutes per week

- Define the maximum number of commutes this academic block type can have within one week (per week).
- The value must range between 0 and 999.

«CONSTRAINTS» TAB > «ACADEMIC BLOCK BUILDER CONSTRAINTS» TAB

Daily Constraints _____

Apply to Academic Block Builder

- By checking this box, the constraint definition that you have entered will be taken in consideration by the Academic Block Builder.

Min. time after max cons.

- Controls the minimum free time to be scheduled after having reached the maximum number of consecutive hours

If after late pm, min. time until next

- This constraint controls the number of hours between a scheduled delivery after the specified «late» time and the next morning delivery. This constraint is influenced by the specified late pm time value

Max. time/day

- Controls the maximum number of class-time hours that can be scheduled on any given day.

Max. consecutive time

- Controls the maximum number of hours of class that can be scheduled consecutively

Max. elapsed time/day

- Controls the maximum number of hours that can elapse from the beginning of the first hour scheduled to the end of the last hour scheduled on any given day.

Weekly Constraints _____

Min. free days per week

- Number of non-lecture days.

Max. AM: early start/week

- Controls the number of times an academic block can be scheduled to teach early in the week. This constraint is influenced by the specified early am time value.

Max. PM: late end/week

- Controls the number of times an academic block can be scheduled to teach late in the week. This constraint is influenced by the specified late pm time value.

Maximum Weekly Credits

- Enter a value inside the «Maximum Weekly Credits » field. This value will be the weekly-credit limit — i.e.: the total amount of credits this academic block type can have within a week.
- Any total adding to, without surpassing, the value entered in the «Maximum Weekly Credits» field, will be considered acceptable. If the total surpasses the value entered in the «Maximum Weekly Credits» a warning will appear advising the user that the maximum weekly credit has been exceeded. At this point, the user will have the choice to accept as is or to make the necessary modifications.

NOTE: Adding all the Course Credits values of all the components in the term results in a value to which the «Maximum Weekly Credits» field is compared. The «Maximum Weekly Credits» must be equal to or greater than the value of all the course credits of the term.

Maximum Credit Difference

- Enter in this field the maximum difference there can be between the week with the highest amount of credits and the week with the lowest amount of credit.
- To calculate the maximum credit difference, the system will determine the week with the highest amount of credits by looking at the delivery frequency for each assigned component. The system will also do the same to determine the week with the lowest amount of credits.
- The difference between the week with the highest amount of credits and the week with the lowest amount of credits make up the value to which the Maximum Credit Difference is compared.

Monday	Tuesday	Wednesday	Thursday	Friday
1 COURSE ABC (3 credits)	2	3 COURSE ABC (3 credits)	4	5 COURSE ABC (3 credits)
8 COURSE ABC (3 credits)	9 COURSE *XYZ* ***(3 credits)***	10 COURSE ABC (3 credits)	11 COURSE *XYZ* ***(3 credits)***	12 COURSE ABC (3 credits)
15 COURSE ABC (3 credits)	16	17 COURSE ABC (3 credits)	18	19 COURSE ABC (3 credits)
22 COURSE ABC (3 credits)	23 COURSE *XYZ* ***(3 credits)***	24 COURSE ABC (3 credits)	25 COURSE *XYZ* ***(3 credits)***	26 COURSE ABC (3 credits)
29 COURSE ABC (3 credits)	30	31 COURSE ABC (3 credits)		

Example:

Course ABC (3 Credits)
Frequency: Mondays-Wednesdays-Fridays
Course XYZ (3 Credits)
Frequency: Tuesdays-Thursdays every 2nd week

Week 1	Total amount of credits for that week:	3
Week 2	Total amount of credits for that week:	6
Week 3	Total amount of credits for that week:	3
Week 4	Total amount of credits for that week:	6
Week 5	Total amount of credits for that week:	3

- The highest amount of credits value in a week for the current term is 6 (weeks 2 and 4)
- The lowest amount of credits value in a week for the current term is 3 (weeks 1, 3 and 5)
- The difference between the two values is 3 (Course ABC and Course XYZ) and therefore any value inside the «Maximum Credit Difference» field must be equal to or less than 3 in order for the spread (the difference) to be acceptable.
- If the weekly-credit total is greater than the acceptable limit, a message will be displayed advising that the limit has been exceeded.
- If the weekly-credit difference is greater than the acceptable limit, a message will be displayed advising that the credit difference limit has been exceeded.

«CONSTRAINTS» TAB > «BREAK CONSTRAINTS» TAB

Weight:

- The weight associated to this constraint («Break Type Constraints») indicates the importance of this constraint over all other constraints that are to be taken into consideration by Timetabler during the scheduling process.
- To enter a value inside this field, either click inside the field and enter a numeric value using the keyboard or click on the slide bar and move it to the desired location (approximate value).

Break Types

- Select the desired break type from the lookup window (F9) or enter the name of the desired break type as it was created in the «Secondary Files» – «Break Types».

Minimum Break Duration

- Enter (in hours and minutes) the minimum duration of the break. The length of time entered must be equal to or less than the maximum duration of the selected break type. The minimum time will be respected by Timetabler when scheduling. If Timetabler is unable to respect the limit set by the user during scheduling, a reject could occur.

Preferred Break Duration

- Enter (in hours and minutes) the preferred duration of the break. If possible, Timetabler will try to respect the preferred amount of time when scheduling. If it cannot, the break constraint will create a reject and this academic block will need to be handled manually.

Apply to Timetabler

- Select «Apply to Timetabler» if the listed constraints apply to Timetabler

Apply to Academic Block Builder

- Select «Academic Block Builder» if the listed constraints apply to the Academic Block Builder.

Apply to All

- Select «Apply to all» if the listed constraints apply to, Timetabler, Assigner and Sectioner

«ACADEMIC BLOCKS» TAB

- This tab lists the academic blocks that are associated to this academic block type.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

BLOCKOFF TYPES

- A blockoff type defines a category of blockoffs. It applies to components, professors, rooms, students or academic blocks.

«GENERAL INFORMATION» TAB

ID

- Blockoff type's identification's field
- This field is required.

Description

- Blockoff type's description field

Apply To

- The type of data elements that the blockoffs apply to, such as:
- All, components, professors, rooms, students or academic blocks

Marker

- This check box can be used as an indicator to show that this blockoff type is new, to be deleted, etc.

Disabled

- This check box can be used to disable the blockoff type and all its blockoffs.
- This is a user-specified field

«BLOCKOFFS» TAB

- This tab represents the blockoffs that are associated to this blockoff type.
- See the «How to Add an item»» section to learn how to add a blockoff in this window

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

BLOCKOFFS

- A blockoff is used to prevent the assigning of a class within a specific period of time. A blockoff will be visible wherever its blockoff type is applied. For example, blockoffs created under a blockoff type that applies to components will be visible to all components.

«GENERAL INFORMATION» TAB

Blockoff type

- This defines the blockoff type to which this blockoff is attached.

ID

- Blockoff's identification field
- This is a required field.

Description

- Blockoff's description field

Blockoff Weight

- A blockoff can be defined as required or desired. If a blockoff is defined as required, all resources attached to this block will inherit the unavailability. If a blockoff is defined as desired, the application will attempt to respect the blockoff for all attached resources. Placing a weight on the desired blockoff will indicate the extent to which the blockoff should be respected.

Marker

- This check box can be used as an indicator to show that this blockoff is new, to be deleted, etc.

Disabled

- This check box can be used to disable the blockoff.
- This is a user-specified field.

«TIME» TAB

NOTE: The start and end dates of the blockoff can be populated automatically with the default term dates if a default term has been established.

«FREQUENCIES» TABS

- A blockoff can have unlimited frequencies. To have more than one frequency, right click on an existing frequency tab header and select add. If you want to delete a tab, follow the same steps except select delete.

Start Date and End Date

- This is where information about the blockoff start and end dates is entered.

Every X Weeks

- This field indicates how often the blockoff is in effect.

Forced Times

- This is where you specify the time to be blocked off.

Duration

- The duration is how long the blockoff should last. The format of this field is HH:MM.

Day

- This is where you specify a day of the week when the frequency will occur.

NOTE: If you enter a value in this field, the duration and start time is required.

Start time

- This is where the start time of the frequency is entered. The format of this field is HH:MM.

NOTE: If a value is entered in this field, the duration and day are required.

End time

- This field is set to read only. The system automatically populates it. It is calculated by adding the duration to the start time.

«BLOCKOFF LOCATION» TAB

- This tab defines the location of the blockoff.

Pavilion

- This is where the pavilion in which the blockoff should be assigned is entered.
- You can use the lookup on this field.

Campus

- This is where the campus in which the blockoff should be assigned is entered.
- You can use the lookup on this field.

Building

- This is where the building in which the blockoff should be assigned is entered.
- You can use the lookup on this field.

Room #

- This is where the room number that you wish to assign the blockoff is entered.
- You can use the lookup on this field.

«COMPONENT» TAB

- Depending on the blockoff type defined in the general information tab, this list represents what is attached to this blockoff. See the «How to attach or detach» section to attach one or several blockoffs in this list.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

COMPONENT TYPES

- A component type is used to define the type for the components. An example of a component type could be «laboratory» or «lecture».

«GENERAL INFORMATION» TAB

ID

- Component type's identification field
- This field is required.

Description

- Component type's description field

Marker

- This check box can be used as an indicator to show that this component type is new, to be deleted, etc.

«COMPONENT(S) » TAB

- This tab lists the components that are attached to this component type.

«COMPONENT TYPE TIES» TAB

- This list indicates if this component has been tied to another component.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

COURSE CHARACTERISTICS

- A course characteristic is an attribute assigned to a section or component to prioritize one section or component over another when all else is equal.

«GENERAL INFORMATION» TAB

Name

- Course characteristic's identification field.
- This field is required.

Description

- Course characteristic's description field.

Course Characteristic Type

- Using the Lookup function (F9), select a Course Characteristic Type to associate to this Course Characteristic.

Weight

- Weight is used to indicate the importance of the characteristic. The higher the weight, the higher priority this course characteristic will have in comparison to other characteristics.

Maximum Number of Courses

- Enter the maximum number of courses (associated with this course characteristic) that can be assigned to a student course request.

Course Characteristic Set

- This field allows users to associate a course characteristic to a course characteristic set.

Section(s) and/or Component(s) are Available Only to Students Requesting this Characteristic

- By checking this box, the user is restricting the Section (or the Component) in question strictly to students who have requested this course characteristic (or these course characteristics).

> **NOTE:** To be eligible for the course, the students need to only have selected one of the course characteristics if the course contains more than one characteristic.

Marker

- This check box can be used to show that this course characteristic is new, to be deleted, etc.

Disabled

- This check box can be used as an indicator to disable the course characteristic.
- This is a user-specified field.

«SECTIONS» TAB

- This tab lists the sections that have this characteristic attached to them. See the «*How to attach or detach*» section to attach one or several sections in this list.

«COMPONENTS» TAB

- This tab lists the components that have this characteristic attached to them. See the «*How to attach or detach*» section to attach one or several components in this list.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

COURSE CHARACTERISTIC TYPES

- Course Characteristic Types help categorize the Course Characteristics.

«GENERAL INFORMATION» TAB

ID

- Enter the ID to give to the current Course Characteristic Type.

Description

- Enter a description for the current Course Characteristic Type.

«COURSE CHARACTERISTICS» TAB

- Within this tab users can view a list of Course Characteristics that are associated with the current Course Characteristic Type.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool

COURSE CHARACTERISTIC SETS

- The course characteristic set screen lets user create sets that will be associated to course characteristics. The course characteristic sets created are then associated to course characteristics in the course characteristics screen.

«GENERAL INFORMATION» TAB

ID

- Enter an ID for the set being created.

Description

- Enter a description for the set being created.

Marker

- This check box can be used to show that this course characteristic set is new, to be deleted, etc.

«COURSE CHARACTERISTICS» TAB

- This is where the course characteristics, making up the selected course characteristic set, are listed.

«STUDENTS» TAB

- This is where the students, associated to the selected course characteristic set, are displayed.
- As well, users can see at a glance the assignment status of each student
  - Green
    Student request was fulfilled
  - Yellow
    Student request was partially fulfilled
  - White
    Student request was not fulfilled

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

MASTER GRIDS

- Master grids are a collection of patterns and are used to group patterns for example by Time Range (Day or Evening) and/or Day Range (Week or Weekend), etc.

«GENERAL INFORMATION» TAB

- The General Information tab contains information on the current Master Grid, such as its ID and description, as well as a list of patterns that are associated to the current Master Grid.

ID

- Master Grid's identification field
- This field is required

Description

- Master Grid's description field

Patterns
Within the Patterns list, all patterns associated with the current Master Grid are listed.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

PATTERN SCREEN

- Within the Pattern screen, users create patterns that are associated with the Master Grid as well as create pattern subsets that are associated with the current pattern. Patterns represent time and day slots when a course takes place, for example: Monday, Wednesday and Friday from 8:00AM to 9:00AM.

«GENERAL INFORMATION» TAB

Master Grid

- This field displays the name of the Master Grid to which the current Pattern and Pattern subsets are associated.
- This is a read-only field.

ID

- Enter an ID for the current pattern.

Description

- Enter a description for the current pattern.

«Pattern Subsets Generator» Button

- Select this button to open the Pattern Subset Generator screen. The Pattern Subset Generator tool helps to easily generate sets of pattern subsets.

Pattern Subsets _____

- Within the Pattern Subsets list, all Pattern Subsets that are associated with the current Pattern are listed. Double-clicking on a pattern, within the list, will open the Pattern Subset edit screen.

«DELIVERIES» TAB

- Within the Deliveries tab, all deliveries associated with the current pattern are listed.

«PATTERN CONSTRAINTS» TAB

- Within the Pattern Constraints tab, all pattern constraints associated with the current pattern are listed.

«NOTE» TAB

- Within the Notes tab, all notes associated with the current pattern are listed.

PATTERN SUBSETS GENERATOR SCREEN

(This screen opens after the user clicks on the «Pattern Subset Generator» button located in the Patten screen.)

- The Pattern Subsets Generator tool will generate pattern subsets within the defined parameters entered.

Master Grid

- This is the name of the Master Grid to which the current Pattern Subsets will be associated (read-only field).

ID

- The ID of the current Pattern (read-only field).

From

- Within the «From» field, users must enter the Start time of the first Pattern Subset for this Pattern.

To

- Within the «To» field, users must enter the Start time of the last Pattern Subset for this Pattern. The system considers the Institution's definition of a day (Early AM Time and Late PM Time as defined in the Time Configuration Screen) as well as the duration of the Pattern Subsets being generated.
- The last valid start time for a Pattern Subset is calculated as such: Late PM Time – Pattern Subset Duration.

Duration

- Enter the time duration for each pattern subset being generated.

Every

- Enter the time gap between the two pattern subsets. This value defines the gap between the start of the two pattern subsets.

Weight

- Enter the weight for each Pattern Subset being generated.
- This field is used to define the order in which the Timetabler will use the pattern subsets. The Timetabler will start with the largest weight. For example:

Pattern Subset ID	Weight	
1	0	In this case the Timetabler will start with the pattern subset 6 because it has the largest weight. If Timetabler cannot assign this pattern subset to the pattern request, it will look at the next pattern subset that has the next highest weight. Now there are two pattern subsets with a weight 1, this means that between these two pattern subsets there is no preference and Timetabler is to try to assign one of them. If the Timetabler cannot do anything with those patterns subsets, it will try with pattern subset 1, 2 and 3 until it finds a suitable one or until no pattern subsets are left. In this case nothing will be assigned to the pattern request.
2	0	
3	0	
4	1	
5	1	
6	2	

Days of the Week _____

- Select the days on which the pattern subsets will be generated.

Single Time Slot

- By selecting this option, each pattern subset being generated will only have one pattern time.

Multiple Time Slots

- By selecting this option, each pattern subset being generated will have multiple pattern times, for example, the pattern subsets being generated when this option is selected could resemble M-W-F 10:00-11:00.

Generate

- Select this button to have the system generate the pattern subsets as per the defined parameters.

Clear All

- Select this button to clear all pattern subsets that are listed in the Pattern Subsets Generated list.

Pattern Subsets Generated

- Within this frame, all pattern subsets generated for the current pattern are listed here.

Apply

- Select this button to apply (and accept) all the pattern subsets that have been generated.

Cancel

- Select this button to cancel (and not save) the pattern subsets parameters entered as well as any pattern subset that was generated using those parameters.

PATTERN SUBSET SCREEN

«GENERAL INFORMATION» TAB

Master Grid

- This field displays the name of the Master Grid to which the current Pattern subset is associated (read-only field).

Pattern

- This field displays the name of the Pattern to which the current Pattern subset is associated (read-only field).

ID

- Enter an ID for the current pattern Subset.

Description

- Enter a description for the current pattern subset.

Weight

- Enter a weight to associate with the current pattern subset.

TIMES

- The times frame will display all the times that have been generated for the current pattern subset. Users can manually modify the days or start times of each pattern time but need to make sure that they respect the total time that is defined within the Pattern Subsets Generator.

«ASSOCIATED DELIVERIES» TAB

- This tab will show all the deliveries that are associated with the pattern subset.

«CAMPUS RESTRICTIONS» TAB

Restrict Campus

- By selecting this option, use of this pattern subset will be restricted to campuses specified in this tab. To attach campuses to this pattern subset, right-click in the campus list and select « Attach » to open the Select the Campus window. From this window, select the campus(es) to which this pattern subset will be restricted.
- When restricting a pattern subset to certain campuses, any delivery to which the pattern subset is assigned must be assigned to a room in one of these campuses. As well, any delivery which contains a campus assignment will only be able to choose from pattern subsets with no restriction, or pattern subsets that are restricted to a set of campuses including this campus. In addition to the Delivery screen's lookups, this functionality is also considered by the Move Screen, Room Search, and automated processes.

PROFESSOR TYPES

- A professor type defines groups of professors with similar professional characteristics.
- Professors attached to a professor type will inherit the constraints defined within that professor type.

«GENERAL INFORMATION» TAB

ID

- Professor Type's identification field
- This field is the unique identifier for the professor type.
- This field is required.

Description

- Professor Type's description field

Marker

- Use the marker check box as an indicator (Ex. Professor is new, to be deleted, etc.)
- This is a user-specified field.

«CONSTRAINTS» TAB

- Within the «Constraints» tab, users can define the constraints for the current professor.

«SCHEDULING CONSTRAINTS» TAB

Department Meeting(s)

- Check the «Department Meeting(s)» check box to have the selected professor inherit the defined departmental private blockoff of their associated department.

Respect Transfer Times

- This option allows the user to specify whether or not professors attached to the professor type will respect the transfer times defined for buildings and/ or campus(es).

General Constraints_____

Desired Blockoffs Conflicts Allowed

- Public Blockoffs can be defined as desired. Select this option to allow the application (if necessary) to create a conflict with the specified public blockoff.

Daily Constraints _____

Weight

- Each constraint has a weight associated to it that indicates how important the preference value is for one constraint in relation to another. For example, if achieving the max time/day preference is more important than achieving the max consecutive time preference, a larger weight should be given to the max time/day constraint.

Preference

- The specified «Preference» value indicates the preferred value for the defined constraint.

Limit

- The specified «Limit» value indicates the minimum value for the defined constraint.
- Preference and Limit Example
- 5 hours is specified as the «Preference» value and 7 hours is specified as the «Limit» value for the «Max. time/day» constraint. This implies that it is preferred that the maximum daily scheduled class-time does not surpass 5 hours but 7 hours is acceptable.

Min. time after max cons.

- Controls the minimum free time to be scheduled after having reached the maximum number of consecutive hours

If after late pm, min. time until next

- This constraint controls the number of hours between a scheduled delivery after the specified «late» time and the next morning delivery. This constraint is influenced by the specified late pm time value.

Max. time/day

- Controls the maximum number of class-time hours that can be scheduled on any given day.

Max. consecutive time

- Controls the maximum number of hours that can be scheduled consecutively

Max. elapsed time/day

- Controls the maximum number of hours that can elapse from the beginning of the first hour scheduled to the end of the last hour scheduled on any given day.

Max. commutes per day

- Define the maximum number of commutes this professor type can have within one day (per day).
- The value must range between 0 and 999.

Allow back to back

- If checked, this will allow the application to schedule one delivery immediately after another.

Weekly Constraints _____

Min. free days/week

- Number of non-teaching days

Max. AM: early start/week

- Controls the number of times a professor can be scheduled to teach early in the week. This constraint is influenced by the specified early am time value.

Max. PM: late end/week

- Controls the number of times a professor can be scheduled to teach late in the week. This constraint is influenced by the specified late pm time value.

Max. commutes per week

- Define the maximum number of commutes this professor type can have within one week (per week).
- The value must range between 0 and 999.

AM/PM Preference

- AM or PM teaching preference
- This feature is currently not implemented.

Marker

- Use the marker check box as an indicator (Ex. Professor type is new, to be deleted, etc.) This is a user-specified field.

«BREAK CONSTRAINTS» TABS:

Weight:

- The weight associated to this constraint («Break Constraints») indicates the importance of this constraint over all other constraints that are to be taken into consideration by Timetabler during the scheduling process.
- To enter a value inside this field, either click inside the field and enter a numeric value using the keyboard or click on the slide bar and move it to the desired location (approximate value).

Break Types

- Select the desired break type from the lookup window (F9) or enter the name of the desired break type as it was created in the «Secondary Files» – «Break Types».

Minimum Break Duration

- Enter (in hours and minutes) the minimum duration of the break. The amount of time entered must be equal to or less than the maximum duration of the selected break type. The minimum time will be respected by the Timetabler when scheduling. If Timetabler is unable to respect the limit set by the user during scheduling, a reject could occur.

Preferred Break Duration

- Enter (in hours and minutes) the preferred duration of the break. If possible, the Timetabler will try to respect the preferred amount of time when scheduling.

Marker

- Use the marker check box as an indicator (Ex. Professor type is new, to be deleted, etc.)
- This is a user-specified field.

«PROFESSORS» TAB

- This tab lists all the professors that are attached to this professor type.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

PROFESSOR ASSIGNMENT CUSTOM FIELDS

«GENERAL INFORMATION» TAB

Field Name

- Enter the name you want to give to the custom field being created.

Description

- Enter a description for this custom field

Seq. #

- Enter a sequence number for this custom field; the sequence number will determine the order in which the custom fields will be listed in the grid in the Professor and the Delivery screens.

> **NOTE:** The sequence number is not validated and therefore, users can enter the same sequence number more than once.

PROFESSOR ASSIGNMENT CUSTOM FIELD VALUES

Value

- Enter the desired value for this custom field.

Description

- Enter a description for the value.

PROGRAM COURSE CATEGORIES

- A program category describes the importance of a course to the program.

«GENERAL INFORMATION» TAB

ID

- Program course category's identification field
- This field is required.

Description

- Program course category's description field

Weight

- This field indicates the importance of this category. The higher the weight, the higher priority this category receives.

Marker

- This check box can be used as an indicator to show that this category is new, to be deleted, etc.

Disabled

- This check box can be used to disable the program course category. If disabled, the number of students that have been pre-assigned to a course with this category will be deducted from the available seats when running the Student Assigner.
- This is a user-specified field.

«PROGRAM CONTENTS» TAB

- This tab lists the courses that are attached to this category.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

ROOM CHARACTERISTICS

- A room characteristic is defined as a room attribute. For example, a room characteristic could be blackboard, Internet or projector, etc.

«GENERAL INFORMATION» TAB

ID

- Room Characteristic's identification field.
- This field is the unique identifier for the room characteristic.
- This field is required.

Description

- Room Characteristic's description field.

Marker

- Use the marker check box as an indicator (Ex. Room characteristic is new, to be deleted, etc.)
- This is a user-specified field.

«ROOMS» TAB

- The «Rooms» tab displays a list of rooms that contain the selected room characteristic.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

ROOM TYPES

- Room types are common characteristics of a room that could be used to categorize rooms.

«GENERAL INFORMATION» TAB

ID

- Room Type's identification field.
- This field is the unique identifier for the room type.
- This field is required.

Description

- Room Type's description field.

Marker

- Use the marker check box as an indicator (Ex. Room Type is new, to be deleted, etc.)
- This is a user-specified field.

«ROOMS» TAB

- The «Rooms» Tab lists the rooms with the selected room type.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

ROOM QUALITY RULE

«General Information» Tab

ID

- Enter an identification for the current Room Quality Rule.

Description

- Enter a description for the current Room Quality Rule.

Weight (%) / Required

- This section lets the user define how the room request criteria impact the room quality. Users enter a percentage value indicating the importance for each criterion.

Capacity

- Enter a weight percentage for the room's Capacity. This weight percentage indicates the importance of this criterion in the evaluation of the quality of the room. If selecting "Required" for the current element, the element is disabled (ignored) because it is not taken into consideration in the calculation of the room quality since the requirement must be respected, therefore the room quality calculation will be based on all of the remaining criteria that are not required.

Room Characteristics

- Enter a weight percentage for the Room Characteristics. This weight percentage indicates the importance of this criterion in the evaluation of the quality of the room. If selecting "Required" for the current element, the element is disabled (ignored) because it is not taken into consideration in the calculation of the room quality since the requirement must be respected, therefore the room quality calculation will be based on all of the remaining criteria that are not required.

Pavilion

- Enter a weight percentage for the Pavilion. This weight percentage indicates the importance of this criterion in the evaluation of the quality of the room. If selecting "Required" for the current element, the element is disabled (ignored) because it is not taken into consideration in the calculation of the room quality since the requirement must be respected, therefore the room quality calculation will be based on all of the remaining criteria that are not required.

Room Type

- Enter a weight percentage for the Room Type. This weight percentage indicates the importance of this criterion in the evaluation of the quality of the room. If selecting "Required" for the current element, the element is disabled (ignored) because it is not taken into consideration in the calculation of the room quality since the requirement must be respected, therefore the room quality calculation will be based on all of the remaining criteria that are not required.

«Capacity Limits» Tab

- Within this tab, the user defines the Wasted Seats as well as the Quality Drop for the percentage for those wasted seats. The Relative Room Quality percentage is, on the other hand, calculated automatically by the system.

Wasted Seats (%)

- Within this column, the user defines the ranges of the wasted seats. Enter the values that will define the Wasted Seats range.

Quality Drop(%)

- As the user defines the Wasted Seats range, the user must also enter a value representing the drop in quality for that Wasted Seats range.

Relative Room Quality (%)

- Once the Wasted Seats range and the Quality Drops are created, the system will calculate the Relative Room Quality for each of the Wasted Seats ranges.

«Alternate Pavilions» Tab

- Within the columns, the user defines the percentage of the quality drop regarding the requested pavilion and alternate pavilion combination. The Relative Room Quality will be automatically calculated by the system.

«Alternate Room Types» Tab

- Within the columns, the user defines the percentage of the quality drop regarding the requested room type and alternate room type combination. The Relative Room Quality will be automatically calculated by the system.

«Departments» Tab

- This tab displays departments that are attached to the current Room Quality Rule and therefore those are departments that do not follow the default Room Quality Rule.

ROOM ASSIGNMENT QUALITY CALCULATION

- The Room Quality calculation can be broken down in the following manner:
- The system calculates the value of the four criteria that impact the room assignment quality: Capacity, Room Characteristics, Room Type, Pavilion and weighs them by the weight given in the room quality rule.

Overall Room Quality Formula	
Overall Room Quality =	(Quality of capacity **X** Weight of the capacity) **+** (Quality of the Room Characteristics **X** Weight of the Room Characteristics) **+** (Quality of the Room Type **X** Weight of the Room Type) **+** (Quality of the Pavilion **X** Weight of the Pavilion)

- Weights are always converted to add up to 100%

A Room will not be suitable if any of the following conditions is met:

- When the room's pavilion is not one of the alternate pavilions and the Required option is not selected.
- When the room's room type is not one of the alternate room types and the Required option is not selected.
- When the room characteristics are Required and at least one requested characteristic is missing from the room.
- When the capacity is Required, and the requested capacity does not exactly match the room capacity.
- When there are more wasted seats in the room than any user-defined point in the Capacity Limits where the quality becomes 0%.

STUDENT TYPES

- A student type is defined as a group of students with the same scheduling constraints.

«GENERAL INFORMATION» TAB

ID

- Student type's identification field
- This field is required.

Description

- Student type's description field

«CONSTRAINTS» TAB

Respect Transfer Times

- This option allows the user to specify whether or not students attached to the student type will respect the transfer times defined for building and/or campus.

«SCHEDULING CONSTRAINTS» TAB

General Constraints_____

Allow conflicts and constraint violations

- Components belonging to the same student type will, by definition, schedule conflict free. Check this option to allow the application (if necessary) to create conflicts that do not involve more students than the «Maximum number of students with conflicts or constraint violation per delivery» value defined in the «Course Scheduling Rules» window under the «Settings» menu.

Weight

- Each constraint has a weight associated to it. The weight indicates how important the preference value is for one constraint in relation to another constraint. For example, if achieving the max time/day preference is more important than achieving the max consecutive time preference, you should give a heavier weight to the max time/day constraint.

Daily Constraints _____

Preference and Limit

- This is where you specify the preference for each constraint. An example for the max time/day constraint is that you would prefer students to have 6 hours of class per day (preference), but they can have no more than 8 hours (limit) per day.

Min. Time After Max Cons.

- Controls the minimum free time to be scheduled after having reached the maximum number of consecutive hours

If after late pm, min. time until next

- This constraint controls the number of hours between a scheduled delivery after the specified «late» time and the next morning delivery. This constraint is influenced by the specified late pm time value.

Max. Time/Day

- Controls the maximum number of class-time hours that can be scheduled on any given day.

Max. Consecutive Time

- Controls the maximum number of hours of class that can be scheduled consecutively

Max. Elapsed Time/Day

- Controls the maximum number of hours that can elapse from the beginning of the first hour scheduled to the end of the last hour scheduled on any given day.

Max. commutes per day

- Define the maximum number of commutes this student type can have within one day (per day).
- The value must range between 0 and 999.

Allow Back-To-Backs

- If checked, this will allow the application to schedule one delivery immediately after another

Weekly Constraints _____

Min. Free Days Per Week

- Number of non-lecture days.

Max. AM: early start/week

- Controls the number of times an academic block can be scheduled to teach early in the week. This constraint is influenced by the specified early am time value.

Max. PM: late end/week

- Controls the number of times an academic block can be scheduled to teach late in the week. This constraint is influenced by the specified late pm time value.

Max. commutes per week

- Define the maximum number of commutes this student type can have within one week (per week).
- The value must range between 0 and 999.

Marker

- This check box can be used as an indicator to show that this item is new, to be deleted, etc.

«ASSIGNER/SECTIONER CONSTRAINTS» TAB

Daily Constraints

Limit

- This is where you specify the limit for each constraint. For example,
- Two hours is specified as the «Preference» value and 1 hour is specified as the «Limit» value for the «Min time, after max cons» constraint. This implies that it is preferred that the selected student has 2 hours free but 1 hour is required.

Apply to Assigner

- By checking this checkbox, the limit you have entered will apply to Assigner — meaning that this value is to be taken into consideration by Assigner.

Apply to Sectioner

- By checking this checkbox, the limit you have entered will apply to Sectioner — meaning that this value is to be taken into consideration by Sectioner.

Min. time after max cons.

- This constraint controls the minimum free time to be scheduled after having reached the maximum number of consecutive hours.

If after late pm, min. time until next

- This constraint controls the number of hours between a scheduled delivery after the specified «late» time and the next morning delivery. This constraint is influenced by the specified late pm time value.

Max. time/day

- Controls the maximum number of class-time hours that can be scheduled on any given day.

Max. consecutive time

- Controls the maximum number of hours of class that can be scheduled consecutively

Max. elapsed time/day

- Controls the maximum number of hours that can elapse from the beginning of the first hour scheduled to the end of the last hour scheduled on any given day.

Max. commutes per day

- Define the maximum number of commutes this student type can have within one day (per day).
- The value must range between 0 and 999.

Allow back to back

- If checked, this will allow the application to schedule one delivery immediately after another.

Weekly Constraints _____

Min. free days/week

- Number of non-lecture days.

Max. AM: early start/week

- Controls the number of times an academic block can be scheduled to teach early in the week. This constraint is influenced by the specified *early am time* value.

Max. PM: late end/week

- Controls the number of times an academic block can be scheduled to teach late in the week. This constraint is influenced by the specified *late pm time* value.

Maximum Weekly Credits

- Enter a value inside the «Maximum Weekly Credits » field. This value will be the weekly-credit limit — i.e.: the total amount of credits this student type can have within a week.
- Any total adding to, without surpassing, the value entered in the «Maximum Weekly Credits» field, will be considered acceptable. If the total surpasses the value entered in the «Maximum Weekly Credits» a warning will appear advising the user that the maximum weekly credit has been exceeded. At this point, the user will have the choice to accept as is or to apply the necessary modifications.

> **NOTE:** Adding all the Course Credits values of all the components in the term results in a value to which the «Maximum Weekly Credits» field is compared. The «Maximum Weekly Credits» must be equal to or greater than the value of all the course credits of the term.

Maximum Credit Difference

- Enter in this field the maximum difference there can be between the week with the highest amount of credits and the week with the lowest amount of credit.
- To calculate the maximum credit difference, the system will determine the week with the highest amount of credits by looking at the delivery frequency for each assigned component. The system will also do the same to determine the week with the lowest amount of credits.
- The difference between the week with the highest amount of credits and the week with the lowest amount of credits make up the value to which the Maximum Credit Difference is compared.

Max. commutes per week

- Define the maximum number of commutes this student type can have within one week (per week).
- The value must range between 0 and 999.

Monday	Tuesday	Wednesday	Thursday	Friday
1 COURSE ABC (3 credits)	2	3 COURSE ABC (3 credits)	4	5 COURSE ABC (3 credits)
8 COURSE ABC (3 credits)	9 COURSE *XYZ* ***(3 credits)***	10 COURSE ABC (3 credits)	11 COURSE *XYZ* ***(3 credits)***	12 COURSE ABC (3 credits)
15 COURSE ABC (3 credits)	16	17 COURSE ABC (3 credits)	18	19 COURSE ABC (3 credits)
22 COURSE ABC (3 credits)	23 COURSE *XYZ* ***(3 credits)***	24 COURSE ABC (3 credits)	25 COURSE *XYZ* ***(3 credits)***	26 COURSE ABC (3 credits)
29 COURSE ABC (3 credits)	30	31 COURSE ABC (3 credits)		

Example:
Course ABC (3 Credits)
Frequency:
Mondays-Wednesdays-Fridays
Course XYZ (3 Credits)
Frequency:
Tuesdays-Thursdays every 2nd week
Week 1
Total amount of credits for that week: 3
Week 2
Total amount of credits for that week: 6
Week 3
Total amount of credits for that week: 3
Week 4
Total amount of credits for that week: 6
Week 5
Total amount of credits for that week: 3

- The highest amount of credits value in a week for the current term is 6 (weeks 2 and 4)
- The lowest amount of credits value in a week for the current term is 3 (weeks 1, 3 and 5)
- The difference between the two values is 3 (Course ABC and Course XYZ) and therefore any value inside the «Maximum Credit Difference» field must be equal to or less than 3 in order for the spread (the difference) to be acceptable. If the weekly-credit total is greater than the acceptable limit, a message will be displayed advising that the limit has been exceeded. If the weekly-credit difference is greater than the acceptable limit, a message will be displayed advising that the credit difference limit has been exceeded.

Marker

- This check box can be used as an indicator to show that this item is new, to be deleted, etc.

«BREAK CONSTRAINTS» TAB

Weight:

- The weight associated to this constraint («Break Constraints») indicates the importance of this constraint over all other constraints that are to be taken into consideration by Timetabler during the scheduling process.
- To enter a value inside this field, either click inside the field and enter a numeric value using the keyboard or click on the slide bar and move it to the desired location (approximate value).

Break

- Select the desired break type from the lookup window (F9) or enter the name of the desired break type as it was created in the «Secondary Files» – «Break Types».

Minimum Break Duration

- Enter (in hours and minutes) the minimum amount of time of the duration of the break. The amount of time entered must be equal to or less than the maximum duration of the selected break type. The minimum time will be respected by the Scheduler when scheduling. If Scheduler is unable to respect the limit set by the user during scheduling, a reject could occur

Preferred Break Duration

- Enter (in hours and minutes) the preferred amount of time of the duration of the break. If possible, the Timetabler will try to respect the preferred amount of time when scheduling.

Apply to Timetabler

- Select «Apply to Timetabler» if the listed constraints apply to Timetabler

Apply to Assigner

- Select «Apply to Assigner» if the listed constraints apply to Assigner

Apply to Sectioner

- Select «Apply to Sectioner» if the listed constraints apply to Sectioner

Apply to All

- Select «Apply to all» if the listed constraints apply to both, Timetabler and Assigner

«STUDENT» TAB

- This tab lists the students who have this student type attached to them.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

SUBJECTS

- A subject is used to reflect a subject area of a course.

«GENERAL INFORMATION» TAB

ID

- Subject's identification field
- This field is required.

Description

- Subject's description field

Marker

- This check box can be used as an indicator to show that this subject is new, to be deleted, etc.

«COURSES» TAB

- The «Courses» tab displays the courses associated to the selected subject.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

TERMS

- A term is a date range of when courses take place.

«GENERAL INFORMATION» TAB

ID

- Term's identification field
- This field is required.

Description

- Term's description field

Start Date

- Start day of the term.
- This field is required.

Start Time

- Typical start time of the term
- This field is required.

End Date

- End date of the term.
- This field is required.

End Time

- Typical end time of the term
- This field is required.

Marker

- This check box can be used as an indicator to show that this term is new, to be deleted, etc.

«NOTE» TAB

- Within the Note tab, users insert notes regarding the current data element. These notes can later be cleared using the Rollover tool.

ATTRIBUTE TYPE

- Through the Attribute Type screen, you can associate one or several attributes to a course, section, component or delivery (or all four at once).

«GENERAL INFORMATION» TAB

ID

- Enter the ID to give to the current attribute type.

Description

- Enter a description for the current attribute type

Value Type

- Select from the drop-down menu the type of value the current attribute type will contain (List, text or numeric).

Min Value
(If Number is selected in the Value Type field.)

- Enter the minimum value the value type can hold.

Max Value
(If Number is selected in the Value Type field.)

- Enter the maximum value the value type can hold.

Decimal Places (0 to 5)
(If Number is selected in the Value Type field.)

- Enter the number of digits the decimal place can hold (maximum of 5 digits).

Maximum Length
(*If Free-form text in the Value Type field*)

- Enter the maximum number of characters that can be entered for a free-form text attribute type (cannot surpass 255 characters).

Attributes _____
(Appears when the Value Type field contains «List of possible values»)

- You must give the attribute type a significant name (in the ID field) that will let you find easily the items associated to this type of attribute.
- In the Attribute column, enter the required attributes — windows, projector, two floors, etc.
- To associate the attributes to courses, sections, components and/or deliveries, select the «Courses», «Sections», «Components» and/or «Deliveries» checkboxes located in the «Apply To» section of the screen.

Apply To _____

Courses

- Select this option to associate the Attribute Type to courses.

Components

- Select this option to associate the Attribute Type to components.

Sections

- Select this option to associate the Attribute Type to sections.

Deliveries

- Select this option to associate the Attribute Type to deliveries.

HOMOGENEOUS SETS

- Homogenous sets are designed to guide the assigner algorithm in keeping students with identical course requests together in each section to which they are assigned.

Example:
(when «Override program» is NOT selected)

A student is assigned to course «A» section 1 and course «B» section 2 and those courses, in turn, belong in a set.

To create a homogeneous set, all other students of all the programs that are linked to this set must also be assigned course «A» section 1 and course «B» section 2.

(when «Override program» is selected)

A student is assigned to course «A» section 1 and course «B» section 2 and those courses, in turn, belong in a homogeneous set.

*To respect the homogeneous set, all other students requesting courses associated to this homogeneous set, **must also** be assigned to course «A» section 1 and to course «B» section 2 — regardless of their respective programs.*

This functionality will affect all students within the database that are part of the defined homogeneous set.

- This kind of behaviour is desirable if the students with identical course request need to be together across subjects to facilitate group work, or because of special needs.

«GENERAL INFORMATION» TAB

ID

- This is the ID of the homogeneous set being created.

Description

- Enter a description for this homogeneous set.

Override Programs

- By selecting this option, the program content – course link is no longer required when adding courses to a homogenous set. Therefore, the homogenous set will apply throughout the database for every student requesting the set of courses listed in the homogeneous set.

Exclusive

- By checking this option, the sections of the courses will be exclusive to students who are attached to the program of this homogeneous set. This in turns signify that the each and every section will be made available only to students in this program regardless of the number of available seats.

Respect Minimum Homogeneous Relationships

- This option is best used for institutions that have an unbalanced number of sections within a created homogeneous set. The homogeneous sets creator will ensure to create the minimum number of section combination while using all the sections available within the selected courses.

«PROGRAMS» TAB

- The Programs tab will display the programs that are attached to this homogeneous set. Programs can be attached to this homogeneous set within the Programs tab. To attach programs to the selected homogeneous set, simply right-click inside the Programs tab and select «Attach».

«COURSES» TAB

- The Courses tab will display the courses that are attached to this homogeneous set.
- The user can attach courses to this homogeneous set within the Courses tab.
- The list of courses that appear within the lookup screen is dependant of the «Override Programs» checkbox.

WORKING WITH HOMOGENOUS SETS

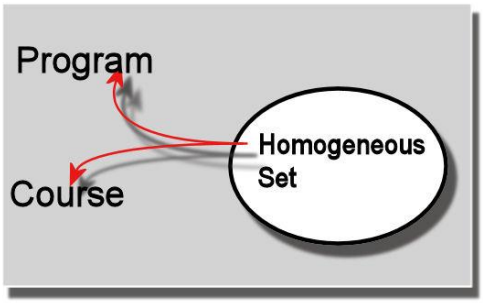
OBJECTIVE

- Homogenous sets are designed to guide the assigner algorithm in keeping students with identical course requests all together in each section they are assigned.
- This kind of behaviour is desirable if the same students need to be together across subjects in order to facilitate group work, or because of special needs.
- Homogenous sets work right now given a particular course structure, and we do not recommend using the homogenous sets options if your data is not set up to work properly with them.

HOW TO ACCESS HOMOGENOUS SETS

- In the Secondary Files, users will see an item called Homogenous Sets. This is where the users add the new sets (or access ones that already exist, since they are importable).
- A set is associated to a program or programs and the «exclusive» flag indicates whether sections used by this set can contain students from other programs, or not (exclusive). Using the exclusive flag increases the likelihood of seats being wasted in a section, since unassigned seats are not free for other students to use.
- Based on the choices of programs that you have attached to the homogenous set, you will be limited to courses belonging to the associated program content when selecting the courses to attach.
- In addition, we have added three Data Consistency Checks related to Homogenous Sets.
- One will highlight sets that contain courses that are not or are no longer associated with the program content of the program(s) attached.
- The second will highlight assigned course requests that do not respect the homogeneous set rules associated to the group.
- The third will list all the assigned course requests that are breaking the exclusivity rules of the homogeneous sets.
- These three validation type list will help the user troubleshoot data inconsistencies related with their homogeneous sets.

THE HOMOGENOUS SETS BEHAVIOUR



(Representative Capacities are in ( ))
Assigned seats are green.

Course 1	Course 2	Course 3
Section A (20)	Section A (20)	Section A (20)
Section B (20)	Section B (20)	Section B (20)
Section C (20)	Section C (20)	Section C (20)

- If 20 students have the same requests, they will be assigned to the same sections of a course. It will not necessarily always be the first or second section of the course; however, they will always be together.

- In the next example, let's imagine there are 30 students.

Course 1	Course 2	Course 3
Section A (20) 20	Section A (20) 10	Section A (20) 10
Section B (20) 10	Section B (20) 20	Section B (20)
Section C (20)	Section C (20)	Section C (20) 20

- The same 10 students and same 20 students are together in each section of each course.
- If the sections are large enough to fit all the students in one section of a course, they could all be assigned to that section; however, there is no guarantee that this will happen since the assignment is driven by many other factors. The same students will, however, be together and the end result could resemble a situation such as the one described hereafter:

Course 1	Course 2	Course 3
Section A (50) 20	Section A (50) 5	Section A (50) 5
Section B (50) 5	Section B (50) 20	Section B (50) 5
Section C (50) 5	Section C (50) 5	Section C (50) 20

Use of the «Exclusive» Flag

- If the «exclusive» flag is turned on for a homogenous set, then any section that has students assigned to it through the set will not be available for students from any other programs or sets. This could result in wasted seats, and more assignment failures.

IMPORTANT LIMITATIONS REGARDING HOMOGENEOUS SETS

- In order for homogenous sets to work properly and to ease the timetable creation process, it is extremely important that the curriculum structure within the courses used by homogenous sets be the same. That is, ideally, the same number of sections and components within sections (labs, tutorials etc.) as well as similar, if not identical, capacities.
- If one course had a single section of 50, and the second course had two sections of 25, and we wanted the 50 students to always stay together, then it simply would not work.
- The homogenous sets functionality is designed currently to work under specific conditions such as the one described above. As with any new functionality, the limitations and its effects will become more apparent with use.

BREAK TYPES

- The Break Types data element is used to define the various break types that a resource (academic blocks, student types and professor types) can have. The break-times feature allows users to define multiple break types and can associate break types to multiple resource types. User must input the time intervals during which a resource associated to a resource type must get a break type of a certain amount of time (defined in the Resource Type window).

«GENERAL INFORMATION »TAB

ID

- The ID of the current break type

Description

- A descriptive text for the selected break type

Break Time Ranges

- The «Break Time Ranges» lets the user define several break time ranges in order to facilitate the allocation of a break time to the appropriate resource.

Duration

- Enter the duration of the break

Day

- Enter the day on which the break is to take place

Start Time

- Enter a start time for the current break

End Time

- Upon saving, the system will populate the «End Time» field with the time which the break type is to end (start time + duration).

Marker

- Use the marker check box as an indicator (Ex. Break type is new, to be deleted, etc.)
- This is a user-specified field.

Disabled

- This check box can be used to disable break type.
- This is a user-specified field.

«STUDENT TYPES» TAB

- The student types tab lists all the student types associated with the current break type. By double clicking on a listed student type, the student type screen will open.

Marker

- Use the marker check box as an indicator (Ex. Break type is new, to be deleted, etc.)
- This is a user-specified field.
- This is a user-specified field.

Disabled

- This check box can be used to disable break type.
- This is a user-specified field.

«ACADEMIC BLOCK TYPES» TAB

- The academic block types tab lists all the academic block types associated with the current break type. By double clicking on a listed academic block type, the academic block type screen will open.

Marker

- Use the marker check box as an indicator (Ex. Break type is new, to be deleted, etc.)
- This is a user-specified field.

Disabled

- This check box can be used to disable break type.
- This is a user-specified field.

«PROFESSOR TYPES» TAB

- The professor types tab lists all the professor types associated with the current break type. By double clicking on a listed professor type, the professor type screen will open.

Marker

- Use the marker check box as an indicator (Ex. Break type is new, to be deleted, etc.)
- This is a user-specified field.

Disabled

- This check box can be used to disable break type.
- This is a user-specified field.

CHAPTER 10 - TIMETABLES

TIMETABLE GENERAL OPTIONS

- The «Timetable Option» tab of the Options screen contains default timetable display settings. These options are applicable to the move screen, the stacked timetables and the staggered timetables as well as the printed reports.
- To open the timetable options, click on the tools menu then click on the option sub-menu. The timetable options screen will open.

> **NOTE:** The set options will be the defaults for each timetable. You will be able to individually modify each timetable to meet your specific needs after they are open.

Types of blocks to show

- Select the type of blocks you want the system to display on the timetable.

Disabled objects to show

- Select the objects that you want the system to display even if they are disabled.

Variable Hours

- Enter the desired start times for each block to display in stacked and staggered timetables, the Move screen as well as in or reports.

General Options_____

Show Professor Identification

- Select this option to display the professor application ID within generated timetables.

Show Student Identification

- Select this option to display the student application ID within generated timetables.

Default Options _____

Max Blocks to Show

- In this field you must specify the number of blocks you want to show in your timetable. For example; if your max blocks to show is 20 and in a timetable, there are 30 blocks to show, the timetable will only show the first 20 blocks. This option is to limit the number of blocks to show and therefore limit the amount of time to generate the timetable. This value can be modified, if needed, within the actual timetable.

First day of week

- Select the day that is to be the default first day of the week in the timetable reports.

Last day of week

- Select the day that is to be the default last day of the week in the timetable reports.

Start Time

- Select the start time that is to be the default start time in the timetable reports.

End Time

- Select the end time that is to be the default end time in the timetable reports.

Time Unit

- Select from the drop-down menu the unit increments to use for the timetable reports. This value can be modified, if needed, within the actual timetable.

GENERAL GUIDELINES OF SOME TIMETABLE FEATURES

Resizing the timetable

- Double click on the week or time header to resize the timetable horizontally or vertically to fit the screen. Right click on the week header and choose all week, to fit the entire week on the screen. Choosing auto adjust will resize the timetable to show only the range of days or time occupied by blocks.

Max blocks to show

- This field is located on the lower part of the timetable (within the status bar). It indicates the maximum number of blocks to show defined in the Timetable Options screen.

Start Date and End Date

- The start date and end date define a date range used by timetables when displaying deliveries. If the dates are changed in one of the staggered timetables, the new value will only affect the selected staggered timetable.
- You can change the start and end date manually by clicking in the field and entering the new date or by clicking on the down arrow to the right of the date field and picking a date on the calendar.
- When the new dates are entered click on the refresh button on the toolbar to update the timetable.

Start Time and End Time

- Select a start and end time and then click on the refresh button on the toolbar, the timetable will change to reflect the selected times. Moving the scroll bar on the right of the timetable allows you to see times before and after the selected time. If the times are changed on one staggered timetable, the new value will only affect the selected staggered timetable.

Time Unit

- This value displays the time interval of the timetable. For example, if the time unit is set to 30 minutes, the hours in the time scale to the left of the timetable will be represented with 30-minute intervals, 00:00, 00:30, 01:00.
- To change this value, enter the new time unit and click on the refresh button on the toolbar, the timetable will be updated according to the new time unit.

Blocks

- Each block has a description on it. If you cannot see the complete description, move your cursor over the block and a tooltip will display with the entire description.

> **NOTE:** To open a block and view its contents, double click on it — the blocks appear in different colors on the timetable.

Red blocks display conflicts:

- To view more information of the conflict, click on the ellipsis button on the lower right corner of the block. An information window will appear containing every conflict in this block.

White blocks represent deliveries

- That are conflict free.

Magenta blocks represent grouped deliveries:

- To view more information on the grouped item, click on the ellipsis button on the lower right corner of the block. An information window will appear and display the detailed information on the grouped item.

«SETTINGS» BUTTON

- The Settings button will open options the user can choose to display.

Disabled objects to show

- Select the elements that you want the system to display even if they are disabled.

Max Blocks to Show

- Specify the number of blocks to show within the timetable. For example; if your max blocks to show is 20 and on the timetable, there are 30 blocks to show, the timetable will only show the first 20 blocks.

STACKED TIMETABLE

- The stacked timetable is only available for Subjects, Courses, Sections, Components, Professors, Academic Blocks, Rooms and Students. This timetable stacks all the weeks in one timetable. For example, if a professor is scheduled on a 6 weeks basis and has courses scheduled at different times every week, all the courses will be displayed on one timetable.

To open a stacked timetable, follow these steps:

(1) Open an item for which the stacked timetable is available — the stacked timetable button is now enabled.

(2) Click on the stacked timetable button and the timetable will be opened.

(3) Double clicking on a block will open its record.

STAGGERED TIMETABLE

- The staggered timetable is available only for Subjects, Courses, Sections, Components, Professors, Academic Blocks, Rooms and Students. This timetable shows a new schedule for every date range when the schedule changes. For example: In a three-week time period, if two consecutive weeks are the same, the system will generate two schedules one for the two identical weeks and one for the other.

To open a staggered timetable, follow these steps:

(1) Open an item for which the staggered timetable is available — the staggered button is now enabled

(2) Click on the staggered button and the timetables will be opened.

(3) Double clicking on a block will open its record.

CHAPTER 11 - REPORTS

LIST REPORTS

- A report can be generated for all elements that appear in a list pane. A list report can include all records appearing within a list or include only specific listed records. Ensure to highlight the records that you wish to include in the report.
- List reports can also be generated for tabs that display attached items.
- In this case, the list represents the attached courses to a selected department.
- All columns appearing in the list can be resized. Please refer to the «Using the Navigator» section to resize a column.

NOTE: By resizing a column in the list you are also resizing the column in the report. A printed report list will appear as it is displayed on the screen.

To generate the report:

(1) Select the records to be included in the report

(2) Click on the report button in the toolbar — your Internet browser will open, and the list report will appear in XML format.

TIMETABLE REPORTS

- After the Stacked or Staggered timetables are generated (See «Chapter 9» for how to generate timetables), you can generate timetable reports in the linear or matrix format.
- Select the type of report you want, linear or matrix and click on the report button on the toolbar.

LINEAR REPORTS

- Linear reports can be generated on stacked and staggered timetables. They can be based on professors, academic blocks, students, subjects or rooms. When the stacked timetable is created, the linear report button is available. But for the staggered timetables, since there are multiple timetables, you need to select a specific timetable to generate the liner report.

MATRIX REPORTS

- Matrix reports can be generated on every stacked and staggered timetable. When the stacked timetable is created the matrix report button is available. Since the staggered timetable generates multiple timetables, you need to select one timetable to generate the matrix report.
- When this report is generated, two new buttons will become active in the toolbar of the report.

«Timetable Setup» button

- Provides you with different options to adjust the matrix report. Clicking on this button will open the «Timetable Option» screen. See the section «Timetable Option Screen» for further explanations.

«Export to HTML» button

- Lets user choose the path where the matrix report will be exported to HTML format. See the section «Timetable Reports in HTML format» for further explanations.

TIMETABLE OPTIONS SCREEN

«TIME» TAB

Auto Adjust Time

- This option allows the timetable to display the start time of the earliest course and the end time of the latest course.

Fixed Time

- This option allows you to set the start and end time of the matrix timetable.

Use as minimum start time

- This option allows the timetable to display courses even if they are scheduled earlier than the specified start time.

Use as minimum end time

- This option allows the timetable to display courses even if they are scheduled later than the specified end time.

Hide hours header

- Checking this option will hide the hour header on the left of the timetable.

Periods definition

- If your institution has particular names for time slots (such as Period 1, Period 2 ,…), this is where you can define them before printing. The period will be marked by a dotted line on the printed timetable.

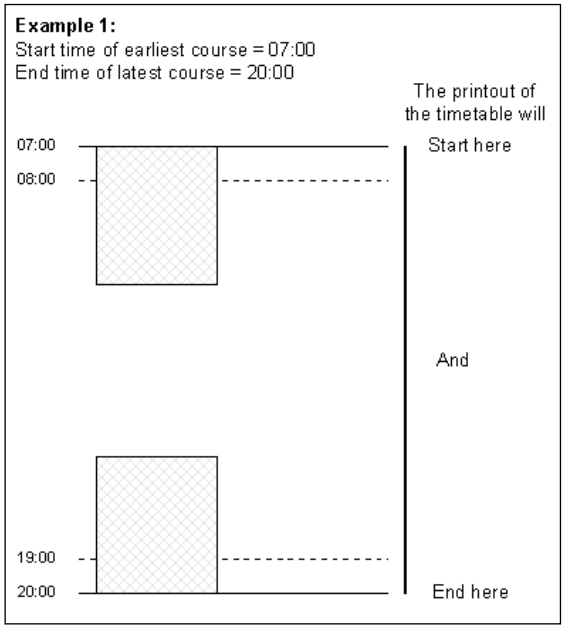
Rotate period name

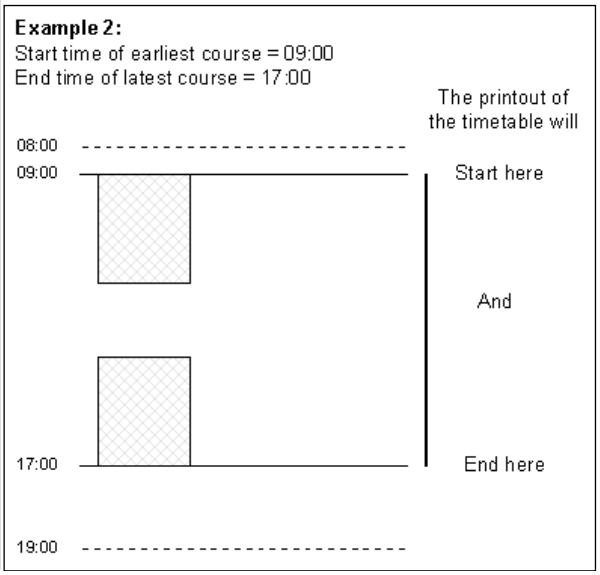
- If this option is checked, the period name on the left will be rotated vertically to take up less space on the timetable. If this option is not checked the period name will be displayed horizontally.

Examples:

Auto Adjust Time

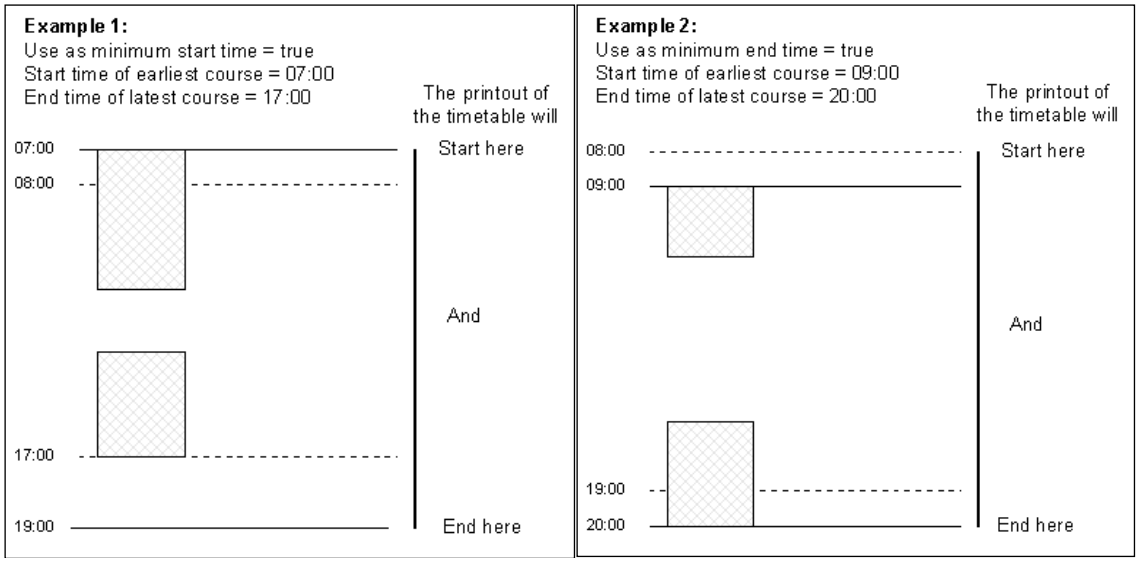
- To better understand how «Auto Adjust Time» works, please refer to the following examples:
  - Default Start Time = 08:00
  - Default End Time = 19:00

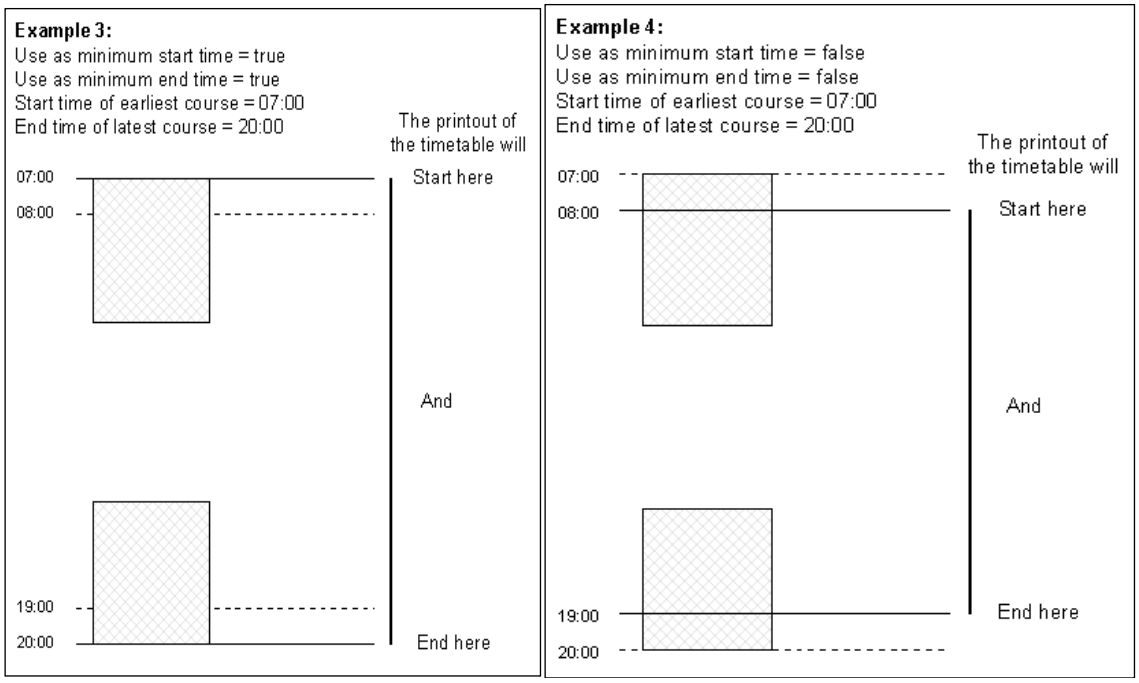




Auto Adjust Time

- To better understand how «Fixed Time» works, please refer to the following examples:
  - Default Start Time = 08:00
  - Default End Time = 19:00





«Fonts» Tab

- This screen allows you to change the font on different sections of the timetable.

To modify the font, simply follow these steps:

(1) In the 'Time Grid Parts' panel, select the part of the timetable where you wish to make a font change.

(2) Click on Change Font(s), and a «change font» selection window will appear.

(3) When a preferred font and size are selected, click on «OK» on the «Timetable Options» screen — the font information for the selected part of the timetable will be updated.

«Others» Tab

Row Header Interval

- This time field allows you to specify the frequency of the row header to be displayed.

Row Interval

- This time field allows you to select the time interval of each row.

The default directory Path

- The path represents the directory where the system saves the report export in HTML.
- Click on the «More» button that is located at the end of the path textbox. The «Browse for Folder» dialogue box will open.
- Select the directory where you would like to save the reports that will be created.

NOTE: Once you have selected a directory, that directory becomes the default directory for all subsequent report exports.

Extension

- Let's you select the file extension (format) of the file that will be saved in the selected directory.
- Footnotes Options

Don't print footnotes

- By selecting this option, footnotes will not be created.

Print footnotes on separate page(s)

- By selecting this option, the footnotes will be printed on a separate page.

Percentage allowed on first page to print footnotes

- This option lets you print the footnotes on the same page as the report. You can modify the default value (30%) allocated to the footnotes (in percent) up to a maximum of 50%.

The Command Buttons:

NOTE:	When information is entered in the timetable options screen, the values are kept in the registry and will automatically apply to the next matrix timetable.

OK:

- Clicking on this button will apply the new options and will close the options screen.

Cancel:

- Clicking on this button will cancel the latest change to the options screen and will close the screen.

Apply:

- Clicking on this button will apply the new changes and will leave the options screen open.

Apply to:

- Clicking on this button will open another screen where you can apply the options to the selected items in the list shown below.

TIMETABLE REPORTS IN HTML FORMAT

- Use the browse window to set the export path for your HTML timetables.

NOTE:	Any path and folder can be used, however, it is suggested that you use a different folder for each type of timetable (i.e. Room timetables, Academic Block timetables, Professor Timetables, Student Timetables, etc.):

- Along with the HTML timetables, an index file is also created in the specified folder. This index file lists all of the files that are generated and allows you to navigate to each timetable. A separate index file is created for each type of timetables (i.e. Room_index.html, Academic Block_index, Course_index, etc.).
- The naming convention for the different types of HTML files is as follows:

Course Timetables:

- Faculty + Department + Course

Section Timetables:

- Course + Section

Component Timetables:

- Course + Section + Component

Professor Timetables:

- Faculty + Department + Professor ID

Student Timetables:

- Student ID

Academic Block Timetables:

- Faculty + Department + Academic Block ID

Room Timetables:

- Campus + Building + Room

REPORT OPTIONS SCREEN

- You can choose the language of your reports. By clicking on «Tools» → «Options» and selecting the «Report Options» tab, you can select the language for each type of report listed or you can select to be prompted at printing time for the reports of your choice.

VALIDATIONS

LISTS OF CONFLICTS

- This report will help you identify the conflicts by resource type.
- To generate the lists of conflicts reports, click on Reports in the Main menu, select the «Validations» sub-menu and click on List of Conflicts. The following filter screen will appear;

«Courses» Tab

- This tab lets you see the reason why an item is in conflict. Depending on the selected tab (courses, professors, rooms, students or academic blocks) you will be able to see every resource that is causing the conflict.
- The check boxes on the top part of the screen allow you to include these types of conflicts in your report.
- The «Include same components conflicts» box, will display conflicts generated by conflicting deliveries within the same component.
- The first list shows you the conflict at the component level.
- The second list, depending of what you have chosen in the first list, shows you the conflict at the delivery level.
- The third list, depending of what you have chosen in the second list, shows you (by resource type) the resource involved in the conflict.

Professors, Rooms, Students and Academic Blocks Tabs

- This tab displays the conflicts for each resource. For example, if you select a room, you will then see every conflict for this room.
- The check box on the top part of the screen let you choose if you wish to include blockoff conflicts in your report.
- The first list shows you resources that have conflicts.
- The second list, depending of what you have chosen in the first list, shows you the conflict at the component level.
- The third list, depending of what you have chosen in the second list, shows you the conflict at the delivery level.

VERIFY ACADEMIC BLOCK CONSTRAINTS

- The Verify Academic Block Constraint Report displays the Academic Block constraints that have been broken after running the Scheduler.

«Filter» Tab

- From the list of available filters, select the elements on which to filter (Faculties, Departments, Academic Block Types, and Academic Blocks).

«Select Constraints» Tab

- It is within this section that users select on what to base the report.

Options

Academic Block type constraints and individual academic block constraints

- Select this option if the report should be based on Academic Block type constraints and the constraints of individual Academic Block.

Constraints defined below

- Select this option if the report should be based on the selected constraints in the section below.

Load values from academic block type

- This option is only available if «*Constraints defined below*» option has been selected.
- From the drop-down menu, select the Academic Block type for which the report should be based and select the «Apply» button. When selecting this option, the values defined in the selected Academic Block type will automatically be filled.

Course Scheduling Rules _____

Early AM

- By default, this field will be populated with the values defined in the Time Configuration screen (from the Toolbar, select *Settings — Time Configuration*). Users can modify the value in this field to customize the report to their needs.

Late PM

- By default, this field will be populated with the values defined in the Time Configuration screen (from the Toolbar, select *Settings — Time Configuration*). Users can modify the value in this field to customize the report to their needs.

Max Free Time to be considered consecutive

- Define the maximum free time that will be considered as consecutive.

Toggle All

- Select this option to toggle on or off all the constraint options defined below.
- After selecting all options on which to report, select the «Results» tab.

«Results» Tab

- The Results tab is divided into three (3) sections:
  - Summary
  - Academic Block Details
  - Deliveries

Summary

- All the selected constraints will be displayed in this section. Beside each of the constraint the number of Academic Blocks breaking the constraint will be displayed.

Academic Blocks Details

- This section displays the detail for the Academic Block that are affected by broken constraint(s) selected in the previous summary section

Deliveries

- This section displays the deliveries that break the constraints of the selected Academic Blocks in the previous Academic Blocks Details section.

VERIFY PROFESSOR CONSTRAINTS

- The Verify Professor Constraint Report displays the Professor constraints that have been broken after running the Scheduler.

«Filters» Tab

- Select the elements within the Filters tab on which to run the report.

«Select Constraints» Tab

- It is within this section that users select on what to base the report.

Options

Professor type constraints and individual professor constraints

- Select this option if the report should be based on professor type constraints and the constraints of individual professor.

Constraints defined below

- Select this option if the report should be based on the selected constraints in the section below.

Load values from professor type

- This option is only available if «*Constraints defined below*» option has been selected.
- From the drop-down menu, select the professor type for which the report should be based and select the «Apply» button. When selecting this option, the values defined in the selected professor type will automatically be filled.

Course Scheduling Rules

Early AM

- By default, this field will be populated with the values defined in the Time Configuration screen (from the Toolbar, select *Settings — Time Configuration*). Users can modify the value in this field to customize the report to their needs.

Late PM

- By default, this field will be populated with the values defined in the Time Configuration screen (from the Toolbar, select *Settings — Time Configuration*). Users can modify the value in this field to customize the report to their needs.

Max Free Time to be considered consecutive

- Define the maximum free time that will be considered as consecutive.

Toggle All

- Select this option to toggle on or off all the constraint options defined below.
- After selecting all options on which to report, select the «*Results*» tab.

«Results» Tab

- The Results tab is divided into three (3) sections:
  - Summary
  - Professor Details
  - Deliveries

Summary

- All the selected constraints will be displayed in this section. Beside each of the constraint the number of professors breaking the constraint will be displayed.

Professor Details

- This section displays the detail for the professor(s) that are affected by broken constraint(s) selected in the previous summary section

Deliveries

- This section displays the deliveries that break the constraints of the selected professor(s) in the previous Professor Details section.

VERIFY STUDENT CONSTRAINTS

- The Verify Student Constraint Report displays the student constraints that have been broken after running the Scheduler.

«Filters» Tab

- Select the elements within the Filters tab on which to run the report.

«Select Constraints» Tab

- It is within this section that users select on what to base the report.

Options

Student type constraints and individual student constraints

- Select this option if the report should be based on student type constraints and the constraints of individual student.

Constraints defined below

- Select this option if the report should be based on the selected constraints in the section below.

Load values from student type

- This option is only available if «*Constraints defined below*» option has been selected.
- From the drop-down menu, select the student type for which the report should be based and select the e «Apply» button. When selecting this option, the values defined in the selected student type will automatically be filled.

Course Scheduling Rules

Early AM

- By default, this field will be populated with the values defined in the Time Configuration screen (from the Toolbar, select *Settings — Time Configuration*). Users can modify the value in this field in order to customize the report to their needs.

Late PM

- By default, this field will be populated with the values defined in the Time Configuration screen (from the Toolbar, select *Settings — Time Configuration*). Users can modify the value in this field in order to customize the report to their needs.

Max Free Time to be considered consecutive

- Define the maximum free time that will be considered as consecutive.

Toggle All

- Select this option to toggle on or off all the constraint options defined below.
- After selecting all options on which to report, select the «Results» tab.

«Results» Tab

- The Results tab is divided into three (3) sections:
  - Summary
  - Student Details
  - Deliveries

Summary

- All the selected constraints will be displayed in this section. Beside each of the constraint the number of students breaking the constraint will be displayed.

Student Details

- This section displays the detail for the student(s) that are affected by broken constraint(s) selected in the previous summary section

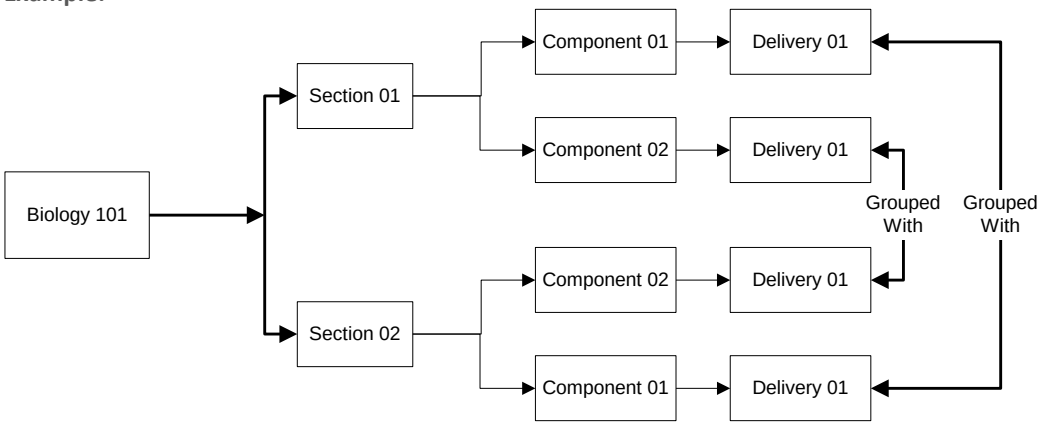
Deliveries

- This section displays the deliveries that break the constraints of the selected student (s) in the previous Student Details section.

SCHEDULING GROUPS

- This screen allows you to see all the groups that are in the database and their statistics.
- In order to view the Group Statistics, either click on the Group Statistics button from the toolbar, or click on the «Tools» menu and choose «Show Groups Statistics».
- This screen is separated into two lists. The top list is the group list and it contains all the delivery groups that are in the database, except for those that have less than 2 members. The lower list of the screen is the delivery list and it displays the deliveries of the selected group in the group list.

Example:



- In this example, the parent group level is the Section Group. The parent group name is Biology 101. In the group list, you will see the two system generated delivery groups of group «Biology 101» and in the delivery list you would see the details of the two deliveries of each group.

The Group List

- In the group list it is possible to see two groups that have exactly the same name as if they are duplicates. However, the groups at higher level of this group do not have the same name.
- If a group is formed entirely of non-considered deliveries, this group won't be shown. Please refer to the delivery list section below to learn what the non-considered deliveries are.

Marker

- This field shows if the group has been marked.

Assignment Status

- This field uses a color scheme to show if the scheduling groups are assigned. For example, if a group is formed of two deliveries, one of them is fully assigned and the other has nothing assigned, the color which will represent them in the group list will be yellow, partially assigned.

Colors	Definition
Blank	Nothing assigned. The deliveries that formed the group have nothing assigned to them.
Yellow	Partially assigned. The deliveries that form the group are partially assigned.
Green	Fully assigned. The deliveries that form the group are fully assigned.

Parent Group

- If a delivery group is created at the delivery level, this delivery group does not have a parent and therefore, the Parent Group field is left blank. However, if the delivery group is generated by the system from a group that was created by a user at a higher level, this field lists the group source ID of the replication. For example, if a group is created by a user at the course group level, this field displays the ID of the parent group.

Parent Group Level

- This field displays the level of the parent group. It could be course group, section group, or component group.

Delivery Group

- The delivery group's identification field

Group Constraint

- The identification field of the group constraint, to which the delivery group is attached

Same Room, Same Building, Same Campus, Same Room Type, Same Pavilion, Same Professor

- These are the constraints that the system validates for a scheduling group.

 # Member

- This field displays the number of deliveries that are attached to this group.

 # Full Sched.

- This field displays the number of deliveries that are completely assigned. Please refer to the delivery part of the screen to view the status of the delivery.

 # Part Sched.

- This field displays the number of deliveries that are partially assigned. Please refer to the delivery part of the screen to view the status of the delivery.

 # Not Sched.

- This field displays the number of deliveries that are not assigned. Please refer to the delivery part of the screen to view the status of the delivery.

The Delivery List

- This list is the same as the selection list in the application.

Assignment status

- The top part of the colored circle represents the room information of the delivery and the bottom part represents the time information of the delivery.

Color	Definition
Red	No request.
Yellow	More than one request, at least one assigned but not all.
Green	All requests assigned.
Blank	Nothing assigned.

- This list does not display non-considered deliveries.
- Non-considered deliveries consist of these combinations:
  - red/red,
  - blank/red,
  - green/red,
  - yellow/red
- red/green (only red/green that has no location specification and no time request but only a forced time. Other red/green will be shown.)

NOTE: The first color represents the top part of the icon and the second color represents the bottom part of the icon.

Solution #

Solution #	Description
001	Create a sub-group
002	Delete a sub-group
003	Add an element to a sub-group
004	Remove an element from a sub-group
102	Create a child element
103	Delete a child element
200	Create a frequency
202	Create a forced time
203	Delete a forced time
204	Create a pattern request
205	Delete a pattern request
206	Update a pattern request (Disabled state, pattern, order or assigned time)
220	Create a location specification
221	Delete a location specification
222	Update a location specification (campus, building, room, room type or pavilion)

SCHEDULING TIES

- This screen allows you to see all the ties that are in the database and their statistics.
- In order to view the Scheduling Ties Statistics, either click on the Scheduling Ties Statistics button from the toolbar or click on the «Reports» menu and choose «Scheduling Ties Statistics».
- This screen is separated into two lists. The top list is the scheduling ties list and it contains all the scheduling ties that are in the database. The lower list of the screen is the delivery list and it displays the deliveries of the selected scheduling ties from the top screen.

PATTERN COMBINATION STATISTICS:

- Like the Group report and the Tie Statistics report, the Pattern Combination report will display all created or imported pattern combinations. Moreover, users will be able to identify any invalid pattern combinations.

LIVE VALIDATIONS:

- Several live validations will be presented to the user when various modifications to selected data elements are made, such as:
  - When a component, section, course, department and/ or faculty is activated
  - When a pattern combination is saved
  - When a location specification is modified to a member of a pattern combination
  - When a time or pattern request is modified to a member of a pattern combination

INCLUDED VALIDATIONS:

Impossible Pattern Combinations

- The sum of hours for pattern requests within a pattern combination must equate to the total number of hours within the applied pattern.

Example:	*The applied pattern is a 3X 1 hour. 3 pattern requests of 1 hour are acceptable where 4 pattern requests of 1 hour are impossible.* *If pattern combinations have been imported, the Pattern Combination Statistics report will indicate that the pattern combination is invalid due to members hours not equating to the applied pattern hours.*

Group Validation

- Grouped deliveries cannot be associated to the same pattern combination.
- If pattern combinations have been imported, the Pattern Combination Statistics report will indicate that the pattern combinations are invalid due to members associated to the same scheduling group.

Time Validation:

- When forcing a time on a pattern request that is a member of a pattern combination, a validation message will be presented to the user if:
  - The order is not respected
  - The forced time is not defined within the applied pattern
  - If pattern combinations have been imported, the *Pattern Combination Statistics* report will indicate that the pattern combination is invalid due to a time issue.

Room Assignment Validation:

- Members of a pattern combination where room assignment constraints have been defined must contain the same location specifications that adhere to the selected room assignment constraint, and therefore, when a modification is made to a delivery's location specification where a defined pattern requests is a member of a pattern combination where room assignment constraints have been defined, the modification will be replicated to all members.
- If pattern combinations have been imported, the Pattern Combination Statistics report will indicate that the pattern combination is invalid due to member's not having matching location specifications.

VALIDATE ROOM CAPACITY

- To generate the room capacity validations report, click on Reports in the Main menu. Select the «Validations» sub-menu and click on Validate Room Capacity.
- This report informs the user of the deliveries (with enrollments) that have exceeded the capacities of their forced rooms.
- When clicking on Validate Room Capacity, the selection filter screen will appear. You must now use the filters for rooms, time and blockoffs, depending on the results you wish to display in the report.

ANALYSIS

ROOM SUPPLY VS. DEMAND

- This report generates Room Supply vs. Demand statistics for the selected rooms according to the hours available and the hours used within a specified date range. The options you choose will depend on what stage of the scheduling process you are in (how much is already assigned to rooms) and what you wish to report on.
- To generate the Room Supply vs. Demand report, click on Reports in the main menu, select the Analysis sub-menu and click on Room Supply vs. Demand
- When clicking on Room Supply vs. Demand, the report options screen will appear. Reports can be generated using various report options.
- An option set must first be defined to run the Room Supply vs. Demand report. To begin creating an option set select the "New" icon on the report toolbar.

ROOM SUPPLY VS DEMAND OPTIONS

- Multiple report options can be created to provide the information pertinent to the data you wish to report on.

Report Title

- The report title

Page Footer

- The information to appear in the report footer

Report Note (Header)

- The information to appear in the report header

Options_____

Consider Blockoffs (reduce room available hours)

- Selecting this option will remove the blocked off hours from the total supply. Leaving this unchecked will include blocked off times in the calculation of Total Hours (Supply).

Use delivery room request ratio

- Selecting this option will result in the delivery room request ratio value being used for determining which capacity range delivery hours should appear in. Otherwise the capacity is based upon the either the actual or scheduling enrollment value displayed in the delivery room request.

For deliveries with assigned rooms _____

Report delivery hours for request room type & capacity (ignore assigned rooms)

- Selecting this option will ignore all room assignments and report solely based upon the delivery room request.

Report delivery hours for assigned room type & capacity

- Selecting this option will use the room assigned to the delivery. If there is no assigned room, the delivery's room request will be used.

Enrollment Settings

- The enrollment settings will determine into which capacity range room demand will be allocated.

Use Actual

- When selected, the capacity range will be based upon the actual enrollment value found in the component

Use Scheduling

- When selected, the capacity range will be based upon the scheduling enrollment value found in the component

Use Actual or Scheduling

- When selected the capacity range selected will be based upon the actual enrollment if one exists, otherwise the scheduling enrollment will be used.

Capacity Range Definition

- Use the grid to enter the capacity ranges that best suit your room inventory and reporting needs.
- Once complete, save the report options and close the Room Supply vs Demand options window. This process can be repeated until all of the desired report options have been created. All saved options can be selected from the drop-down list.

«Filters» Tabs

- Now use the room filters, course filters, and time filters to select the data the report should be run on.

Report Columns

- The selected report options will appear as the page header of the report. The information is broken down by the Location Filters, Course Filters, Time Filters and Other Options.

Capacity

- The capacity ranges define in the report options

Room Inventory - # of Rooms

- The number of rooms per room type and capacity range

Room Inventory – Total Hours (Supply)

- The total number of hours available for all rooms within the defined date and time range; calculated per room type and capacity range**.** When a data range ranger larger than one week is selected, this total is based upon the average weekly supply of hours. (This total will be reduced by blocked off time if the option "Consider Blockoffs (reduce room available hours)" is selected.)

Delivery Hours – Rooms without Assigned Rooms

- This column is populated only when the option to "Report delivery hours for assigned room type & capacity" is selected. It will contain the total delivery hours requested per room type and capacity range that have not yet been assigned a room.

Delivery Hours – With Assigned Rooms

- This column is populated only when the option to "Report delivery hours for assigned room type & capacity" is selected. It will contain the total delivery hours assigned per room type and capacity range.

Delivery Hours – Total Hours (Demand)

- When assigned rooms are not considered, this column will represent the total requested delivery hours for each room type and capacity range.
- When assigned rooms are considered it will be the sum of the "Delivery Hours – Rooms without Assigned Rooms + Delivery Hours – With Assigned Rooms"

Room Hours Left – Difference (Supply - Demand)

- This column represents the difference between the total hours and total demand per room type and capacity.

Expected Room Utilization – Percentage (Demand/Supply)

- This column calculates the expected room utilization for each room type and capacity range.

NOTE:	For same time – same room scheduling groups, the group capacity will be used when reporting on delivery hours. Delivery hours are only counted once in the report results. Ungrouped delivery hours in conflict will be summed unless a room has been assigned and assigned rooms are being considered in the report results.

COURSE SUPPLY VS. DEMAND

- To generate the Course Supply vs. Demand report, click on Reports in the Main menu, select the «Analysis» sub-menu and click on Course Supply vs. Demand.
- When clicking on Course Supply vs. Demand, the Settings options are displayed.

THE «SETTINGS» BUTTON

- Within the Settings tab, users select the settings that are to be included when generating the report.

Course Supply Frame

- This is where you define which enrollment you want the report to use. The enrollment values can be found in the component file. If you choose "use actual" or "use scheduling", the report will only consider the actual enrollment or scheduling enrollment found in component. If you choose "use actual or scheduling", the report will use the one that is not zero or if both are filled in it will use the Actual field.

Actual Enrollment

- Select this option to use the Actual Enrollment values in the report.

Scheduling Enrollment

- Select this option to use the Scheduling Enrollment values in the report.

Actual or Scheduling Enrollment

- Select this option to use the Actual or Scheduling Enrollment values in the report.
- If both Actual and Scheduling Enrollment are specified in the component, Actual Enrollment will be used.
- If one of these Enrollments is specified and not the other in the component, then the one that is specified will be used.

Exclude components:

None (default)

- Select this option to include all components in the report (including all disabled components).

Disabled for Assigning

- Select this option to exclude all components that are disabled for the Student Assigner.

Disabled for Academic Block Builder

- Select this option to exclude all components that are disabled for the Academic Block Builder.
- The report will consider those components as components with no supply (Enrolment Capacity = 0) and will ignore any request that has been assigned to those components. The components will still appear in the report but with no supply and no demand.
- The report will only exclude the demand that is already assigned to the disabled component. Any demand (Student Request) that is not assigned to that component will still be considered by the report.

Disabled for Sectioning

- Select this option to exclude all components that are disabled for the Student Sectioner.

Demand Frame _____

Course Combinations

- Select this option to include the Course Combinations in the report. The system will calculate the total of "Block Size" values of the system-generated Academic Blocks that are associated to the component.

Academic Blocks (non-system generated)

- Select this option to include Academic Blocks in the report. The system will calculate the total of "Block Size" values of non-system generated Academic Blocks that are associated to the component.

Students

- Select this option to include Students in the report – i.e.: the number of students assigned to the component (assigned course requests).

If course request is assigned
(only active if Students option is selected).

Use Assigned Course

- Select this option to include the Assigned Courses in the calculation.

Use Primary Request

- Select this option to include the Primary Requests in the calculation.

Report Validations Frame _____

Courses to show in the report:

All

- Select this option to include all the courses in the report.

Discrepancies only

- Select this option to include only the discrepancies in the report.

Only show courses with demand from _____

Course Combination

- If selected, only courses with course combinations will be displayed in the report.

Academic Blocks (non system-generated)

- If selected, only courses with Academic Blocks will be displayed in the report.

Students

- If selected, only courses with students will be displayed in the report.

NOTE: These options are dependant upon the selections made in the Demand frame.

Course Field Display Options Frame _____

Faculty

- Select this option to display the faculty.

Department

- Select this option to display the department.

Course

- This option is selected by default.
- Once all the parameters are selected, select the Report icon in the toolbar to generate the report.

Discrepancies to validate in the report Frame _____

Insufficient Supply

- Select this option to include courses with Insufficient Supplies in the report.
- Selecting this option will highlight the component supply value and the assignment value (if it is higher than the component supply value) and/or the demand value (if it is higher than the component supply value).

Courses with Demand but without Sections or Components

- Select this option to include in the report, Courses that have a demand but that do not have Sections or Components attached to them.
- Within the report, information regarding any course that meets this condition will be displayed under its own row.
- The report will display "N/A" in the Section name and Component name columns and all the other columns in that row will be empty.

Courses with Sections but without Demand

- Select this option to include in the report, Courses that have Sections attached to them but that do not have demand.
- Within the report, information regarding any course that meets this condition will be displayed under its own row.

There are three (3) different display possibilities:

Course with no components and with no demand

- The Component name and the Component type will display "N/A", the Component columns will be empty and the demand will be set to "0".

Course with one section but without components with demand

- The Component name will display "N/A", the Component columns will be empty and the Constraint column for the demand will contain the value.

Course with more than one Section but without Component with a demand

- The Section column will display "N/A". The other columns will be empty. The Constraints column for the demand will contain the value.

Demand that cannot be assigned

- Select this option to include in the report, any demand that cannot be assigned.
- Within the report, information regarding any course that meets this condition will be displayed under its own row.

There are two (2) different display possibilities:

When the demand specifies a Section

- The Component will display "N/A" and the other columns will be empty. The Constraint column will display the value.

When the demand does not specify a section

- The Section name and the Component name will display "N/A". The other columns will be empty, and the Constraint column will display the value.

Course with more Supply than Demand

- Select this option to include courses with insufficient demand.

Course

- Select this option to determine the maximum allowed free space threshold for courses.

Section

- Select this option to determine the maximum allowed free space threshold for sections.

Courses not having enough demand to create a proper conflict matrix for its own components

- Select this option to include courses that do not have enough demand to create a proper conflict matrix for its components. Therefore, any component with a constrained demand equal to "0" will be highlighted when this option is selected.

Insufficient component assignments

- Select this option to highlight in the report the component supply and the assignment value for components (and/or component types) if the assignment value is lower than the supply value less the threshold value.

Max allowed free space threshold

- The percentage value entered here will be taken into account to determine the threshold of insufficient component assignments to highlight in the report. The system will use the number of component assignments minus the percentage entered in this field.

Component Type Discrepancy

- Select this option to highlight in the report the component types that do not have the same capacity.

Discrepancy between component demand calculations: Basic vs Constrained ("Cnstr.")

- Select this option to highlight discrepancies between basic demands and demands with constraints. The default value of the threshold is set at 10%.

Maximum allowed discrepancy

- Indicate the percentage of the discrepancy between the basic component demands and component demands with constraints that represent the threshold. Any component discrepancy surpassing the entered percentage will be highlighted in the report.

THE «COURSES» BUTTON

- Users can filter by Faculties, Departments, Courses, Sections and Components the records to show on the report.

THE «COURSE COMBINATIONS» BUTTON

- This button becomes available if the «Course Combinations» option is selected (inside the «Demand frame» of the Settings button).
- This button allows the user to filter the course combination requests that should be included in the report.

THE «STUDENTS» BUTTON

- This button becomes available if the «Student» option is selected (inside the «Demand frame» of the Settings button).
- This button allows the user to filter the student requests that should be included in the report.

THE «ACADEMIC BLOCK» BUTTON

- This button becomes available if the «Academic Blocks» option is selected (inside the «Demand frame» of the Settings button).
- This button allows the user to filter the Academic Blocks that should be included in the report. (System generated Academic Blocks and Academic Blocks excluded from the Academic Block Builder are not included in this list).

THE «RESULTS» BUTTON

- This button becomes available if at least one of the options is selected (inside the «Demand frame» of the Settings button)
- The top section of the Results screen displays the components that match the established filter.
- The bottom section of the Results screen displays the requests and/or Academic Blocks of the selected component(s) (in the top half of the Results screen). The results are separated among three (3) tabs: «Course Combination Requests» Tab, «Student Course Requests» Tab and «Academic Blocks» Tab.

THE «COURSE COMBINATION REQUESTS» TAB

- This tab becomes available if the Course Combinations option is selected (inside the «Demand frame» of the Settings button)
- This tab lists all Course Combination Requests that form the constrained demand for the selected components in the upper portion of the Results screen.
- For explanation of the color-coded status, please refer to the Course Combination Request Status section in this guide.

THE «STUDENT COURSE REQUESTS» TAB

- This tab becomes available if the Students option is selected (inside the «Demand frame» of the Settings button)
- This tab lists all the Student Course Requests that form the constrained demand for the selected components in the upper portion of the Results screen.
- For explanation of the color-coded status, please refer to the Student Status code

THE «ACADEMIC BLOCKS» TAB

- This tab becomes available if the Academic Block (non-system generated) option is selected (inside the «Demand frame» of the Settings button)
- This tab lists all the Academic Blocks that form the constrained demand for the selected components in the upper portion of the Results screen.
- The list will display Academic Blocks assigned to the selected Component(s)

THE «REPORT» BUTTON

- This button becomes available if at least on of the options is selected (inside the «Demand frame» of the Settings button)
- Select this button to produce the Course Supply vs Demand report.

THE «REFRESH» BUTTON

- Select this button to refresh the current display.

THE «COPY TO CLIPBOARD» BUTTON

- Selecting this button will copy all selected elements within the screen.

PRIME TIME SPACE USAGE

- Institutions may have a need to ensure having enough space to satisfy the course offering. Certain time patterns can become more requested than others and in turn put pressure on space availability.
- Central schedulers can generate this report to identify departments that exceed the quotas set by the institutional policies in terms of time patterns usage and can analyse the room distribution based on the number of room requests by time patterns to determine if there are enough rooms for the space requested.
- Prior to the room assignment process, the report can be used to identify Departments/Faculties that may exceed the institutional policies in terms of time patterns and space usage, especially within the prime time window. The report provides statistics that help analyse the room distribution based on the number of room requests by time patterns to determine if there will be enough rooms to satisfy the request for space.
- Time patterns must be defined under Secondary files and must be selected to generate the report.

COURSE FILTERS SCREEN

- From the Course Filters screen, select the filters to apply to the Prime Time Space Usage report. If no selection is made, then the report will use all the filter elements.
- Once the filter selection is done, click on the Room Request filters to proceed to the next screen.

ROOM REQUEST FILTERS

- From the Room Request Filters screen, select the filters to apply to the Prime Time Space Usage report. If no selection is made, then the report will use all the filter elements.

  Min. Requested Capacity
  The value entered in this field represents the minimum capacity a room must have.

  Max. Requested Capacity

  - The value entered in this field represents the maximum capacity a room must have.
- Once the filter selection is done, click on the Date Filters to proceed to the next screen.

DATE FILTERS

Representative Week

- Select this option to select a representative week with a single click on the calendar. By selecting a day within a week, the entire week is selected.

Specific Dates

- Select this option to select specific dates either by entering them manually inside the Start/End Date fields or by selecting them directly in the calendar. Unlike Representative Week, though, selecting a single date on the calendar does not select the rest of the week.

Term

- Select the term on which to filter. By entering a term, the Start and End dates will reflect the start and end dates of the selected term. You can use the lookup tool to select a term.

Start Date
(Only available if Specific Dates option is selected)

- Users can select, using the drop-down arrow, the desired Start Date within the calendar.

End Date
(Only available if Specific Dates option is selected)

- Users can select, using the drop-down arrow, the desired End Date within the calendar.

SETTINGS

- Within the Settings screen, the users identify which patterns to analyze and how the results should be displayed.

Group results by

- Select, from the available options, how to group the results. Once a grouping has been selected, the "And then by" section is activated.

And then by

- Within this section of the screen, users can further group the results once a grouping has been selected in the "Group results by" section. Users can reorder this grouping by selecting an element and the using the "Move up" or "Move Down" buttons.

When a room is assigned

- This option specifies if the report uses the criteria of the room request or the assigned room.
- If a room request is not assigned to a room, the report will be based on the requested campus, building, room type, pavilion, requested capacity.
- If a room request Is assigned to a room and the "Use room request" option is selected, then the report will be based on the room request's campus, building, room type, pavilion and requested capacity even if the assigned room differs from the requested criteria.
- If a room request is assigned to a room, and the "Use assigned room" option is selected, then the report will be based on the campus, building, room type, pavilion and capacity of the room assigned.

Capacity

- This section identifies the options used when the grouping is done by capacity and/or filtered by Min. Requested Capacity and Max. Requested Capacity at Room Request Filters screen.
- When using the capacity as a grouping, the capacity will be grouped by ranges. These ranges need to be defined in the "Capacity ranges used for grouping" list.

Capacity ranges used for grouping

- Within this section, enter the capacity ranges to be used for grouping. Overlapping is not permitted.
- A minimum of one range is needed to run the results.

Patterns

- Time patterns must be defined under Secondary files and must be selected to generate the report
- This list shows the patterns that are used in the analysis. Right-click in the list and select "Select" to add patterns to the list – a lookup screen will open with all the available patterns. Select the patterns to add to the patterns list.
- To remove patterns from the list, simply select the desired patterns and right click and select "Deselect" option from the context menu.

Time Ranges

- The Time Ranges option offers the possibility to define time ranges (manually or using the Time Range Generator tool). This option is selected by default and contains a time range labelled "All Day" which spans from 08:00 to 17:00. When this option is selected, the Results list will use the time range(s) as well as the selected days during the analysis.

NOTE: Heat map is only available if selecting Time Ranges (it is not available if selecting Patterns)

Generate Time Ranges

- The Time Ranges Generator can create several time ranges spanning from the start time in the «From» field up until the end time entered in the «To» field and by increments defined in the «Every» field.

From

- Enter a time indicating the starting time for the first time range being created.

To

- Enter a time indicating the end time of the last time range being created.

Every

- Enter a time interval indicating the duration of each time range.

Generate

- Select this button to generate time ranges that will use the values entered in the «From» and «To» fields. The report will analyze the room requested that are scheduled during the time defined by the Time Ranges.

NOTE: When using the Time Ranges option, the list of Time Ranges needs to be valid; otherwise, the Results, Heat Map and Report buttons are disabled.
To be valid:

1. All Time Ranges need to have a name, a Start time and an End time
2. The End time must be later than the Start time
3. The Time Ranges cannot overlap.

Days of the Week

- Select the days of the week on which to run the report.

Heat Map

Value Type

- Select from the drop-down menu the value type to use when running the Heat Map report:

  % Room Requests

  - When this value type is selected, the values displayed in the blocks will be a representation in percentage of the number of room requests value in the «#Room Request» column of the Results List for the given time slot.

  # Room Requests

  - When this value type is selected, the values displayed in the blocks will be those found in the «#Room Request» column of the Results List for the given time slot.

  Max Simultaneous Room Requests

  - When this value type is selected, the values displayed in the blocks will be the those found in the «Max Simultaneous Room Requests» column of the Results List for the given time slot.

Language

- Select the language in which to run the report.

RESULTS

- The report provides several statistics such as Pattern ID, Pattern Subset ID and description, Pattern Times (Pattern times of the related pattern subset), # Room Request (number of room requests scheduled during the pattern times), Max Simultaneous Room Request (maximum number of room requests scheduled simultaneously during the pattern times) and some totals based on grouping options.
- For more details regarding the output formats of the report, please refer to the Producing A Report section further in this guide.

HEAT MAP

- The Heat Map offers an interactive format of the printed Report (Heat Map). The heat map also shows the number or percentage of courses, rooms and room requests by time range or pattern time. The results are displayed in color gradient format ranging from green (low values) to red (high values). This allows the user to get a glimpse of the distribution/concentration of the results, and as well, helps the user to interpret the results.
- Double-clicking a time block displays the list of related deliveries requesting a room or having a room assigned within that time slot.

NOTE: The days of the week to appear in the report depend on the intersection between the Timetable Options under the Settings menu and the days selected in the Report - Date filters. Time definition is an intersection between Timetable options and Time ranges/Pattern times selected in the Report - Settings.

TIMETABLES

THE TIMETABLE REPORTS

- This feature allows a user to generate a batch of matrix timetables. These timetables can be viewed on screen, printed, or exported to HTML files.
- Each page of the report contains one timetable. Clicking on the next button will allow you to go to the next page.
- These reports will be generated according to the Timetable Options settings that are defined in the Options screen in the Tools menu.

Professors Timetable

- To generate the professor timetable report, click on Reports in the Main menu, select the Timetables sub-menu and click on Professors.
- The selection filter screen will appear. You will need to select filters for professors and times.

Rooms Timetable

- To generate the room timetable report, click on Reports in the Main menu, select the Timetables sub-menu and click on Rooms.
- The selection filter screen will appear. You will need to select filters for rooms, times and blockoffs.

Academic Blocks Timetable

- To generate the academic block timetables report, click on Reports in the Main menu, select the Timetables sub-menu and click on Academic Blocks.
- The selection filter screen will appear. You will need to select filters for academic blocks and times.

Subjects Timetable

- To generate the subject timetable report, click on Reports in the Main menu, select the Timetables sub-menu and click on Subjects.
- The selection filter screen will appear. You will need to select filters for subjects and times.

Course Sections Timetable

- To generate the course section timetable report, click on Reports in the Main menu, select the Timetables sub-menu and click on Course Sections.
- The selection filter screen will appear. You will need to select filters for course sections and times.

Components Timetable

- To generate the components timetable report, click on «Reports» in the Main menu, select the «Timetables» sub-menu and click on «Components».
- The selection filter screen will appear. Select the desired components, date and time ranges for the timetables in the filter screen.

Deliveries Timetable

- To generate the deliveries timetable report, click on «Reports» in the Main menu, select the «Timetables» sub-menu and click on «Deliveries».
- The selection filter screen will appear. Select the desired deliveries, date and time ranges for the timetables in the filter screen.

Courses Timetable

- To generate the courses timetable report, click on «Reports» in the Main menu. Select the «Timetables» sub-menu. Click on «Courses», this will open another sub-menu with two choices, «Faculties/Departments» and «Subjects». These are the filters that you can use to generate the course timetable reports.
- Click on either the «Faculties/Departments» or «Subjects» and the selection filter screen will appear. You will be able to select courses by either «faculties/departments» or «subjects», depending on the sub-menu you have selected.

Students Timetable

- To generate the student timetable report, click on «Reports» in the Main menu, select the «Timetables» sub-menu and click on «Students».
- The selection filter screen will appear. Select the desired students, date and times ranges.

THE LOADING SHEETS REPORTS

- The loading sheet reports display scheduling information for distribution or verification.
- There are four different reports that can be created from the loading sheet sub menu: academic blocks, courses, professors and rooms. Each of these reports shows a different view of scheduling related data.
- In each loading sheet report there are two check boxes: «Generate Room Type Description» or «Generate Pattern Definitions». If «Generate Room Type Description» is checked, a list of all the room types in the database with their descriptions will be displayed on the last page of the loading sheet report. If «Generate Pattern Definitions» is checked, a list of all the patterns in the database with their descriptions will be displayed on the last page of the loading sheet report.
- Reports can be generated using various report options.

CUSTOMIZED LOADING SHEETS

NOTE:	The customized loading sheets are Work-station specific —i.e.: they are saved locally on the computer where they are created. They are therefore, available only to the machine where they have been created.

MANAGING THE LOADING SHEETS OPTIONS

- To customize your loading sheet reports, click on «Reports» → «Loading Sheets» → «Customized»→ «Manage», this will open the «Customized Loading Sheet Options» screen.

THE «CUSTOMIZED LOADING SHEET OPTIONS» SCREEN

- This is where you configure the loading sheet report's general layout and that of the elements —i.e.: «Academic Blocks», «Courses», «Professors» and «Rooms». The personalized layouts that you create in the «Customized Loading Sheets Options» screen can be saved as to avoid having to recreate them each time.

«General» Tab

The «Page header» Frame

- The page header frame lets you decide if you do want to print or do not want to print a header. The header content can be personalized to fit your needs.

«Display the following text in report header»

- Check the box to activate this field. Once the field is activated, enter the text that you want to appear in your header.

«Display the printed date»

- Check this box if you want the date that the report was printed to appear on the report.

«Display the Infosilem Academic Suite database name»

- Check this box if you want the name of the database to appear on the report.

The «Deliveries» Frame

- The deliveries frame offers you three sorting options, you must select one — by default, the option is set to «Order by delivery names».

«Order by delivery names»

- Select this option if you want the report to sort alphabetically by names of the deliveries.

«Order by times»

- Select this option if you want the report to sort chronologically by times of the deliveries.

«Order by rooms»

- Select this option if you want the report to sort by rooms.

The «Page footer» Frame

- The page header frame lets you decide if you do want to print or do not want to print a footer. The footer content can be personalized to fit your needs.

«Display the following message in the page footer»

- Check the box to activate this field. Once the field is activated, enter the text that you want to appear in your footer.

Professors

Include Non-Teaching

- Select this option to include in the report all professors that have the "Non-Teaching" status.

«Courses» Tab

The «General» Frame

- The general frame lets you decide if your loading sheet report will contain «Room Type» and/or «Pattern» descriptions.

«Generate Room Type Description» and «Generate Pattern Description»

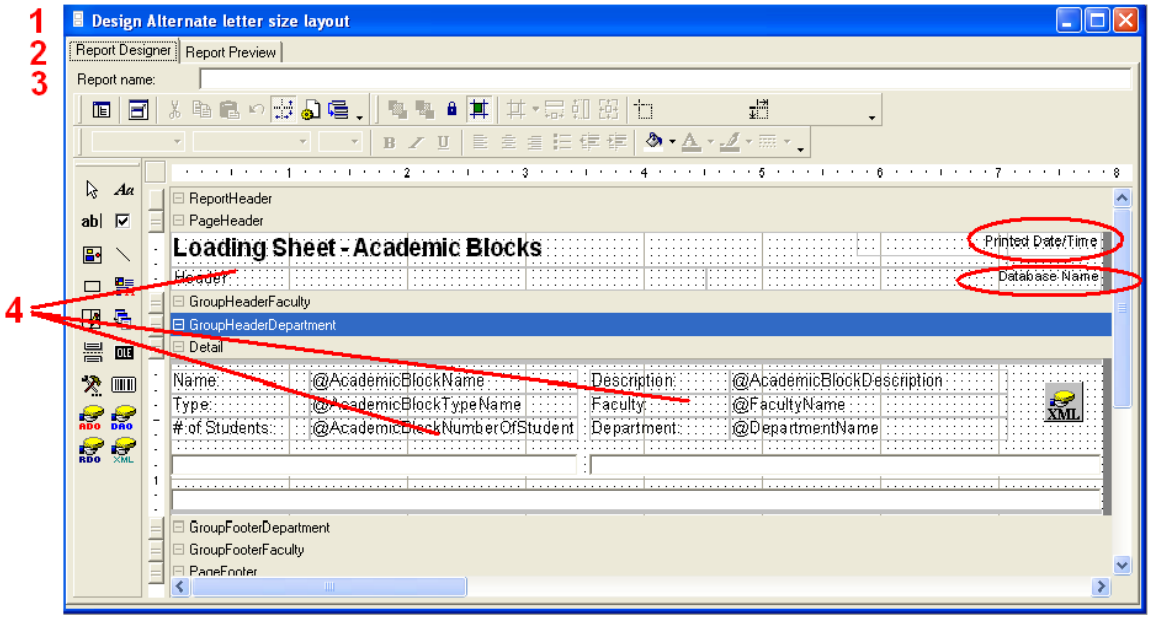
- Check the box if you want to see a listing containing the room types and/or pattern description. This listing is displayed at the end of the report.

The «Layout» Frame

- The layout frame offers three different possible layouts:
  - Classic legal size
  - Classic letter size
  - Alternate letter size
- Each layout is customizable to answer your needs: you can change the font type, the font size, or even re-arrange the fashion in which the report lays out the information.

EDITING THE LOADING SHEET REPORT'S LAYOUT

- Each of the three layouts has a Create new report from this template button, click on the button that is beside the layout that you want to customize — the report designer screen will open.



Please refer to the above illustration.

(1) The Title Bar:

- Displays the name of the layout style that is being customized;

(2) The Tabs

- Select the «Report Designer» tab to customize the report's layout or select the «Report Preview» tab to preview the new layout;

(3) Report Name:

- Enter the name you want to give to this customized layout;

(4) Editable Fields:

- These are the fields that are customizable. You can modify the font, the background color, and more.
- Once you have completed the customization of your report layout, click on the Save icon, to save your modifications.

GENERATING A LOADING SHEET REPORT FROM A CUSTOMIZED LAYOUT

- To generate a customized report, you must have already created a customized template. Click on *Reports* → *Loading Sheets* → *Customized* and select the element for which you want to produce a report — the loading sheet screen will appear.

«Filter» Tab

- From the «Filter» tab, select all the elements required from the loading sheet screen as illustrated here.

«Date Filter» Tab

- Click on the «Date Filter» tab and select either the term, or, enter the start and end dates by using the date drop-down lists.

«Options» Tab

General

Generate Room Type Description

- Select this option to generate a description for the room types.

Generate Pattern Description

- Select this option to generate a description of the patterns.

Page Breaks

- From the «Page Breaks» frame of the «Report Options» tab, select the desired options.

Break on each new faculty

- Select this option if you want the printout to start on a new page at each new faculty.

Break on each new department

- Select this option if you want the printout to start on a new page at each new department.

Break on each new professor

- Select this option if you want the printout to start on a new page at each new professor.

Break on each new delivery

- Select this option if you want the printout to start on a new page at each new delivery.

Max Students

Scheduling Enrollment

- Select this option if you want to use the scheduling enrollment value.

Actual Enrollment

- Select this option if you want to use the actual enrollment value.

Sort

Select/Deselect All

- Check this box to select, or deselect, all the fields located in the sorting list box

The Sorting List box

- In the sorting list box, you will find all the fields you can select to appear in the report. Furthermore, the sorting list box lets you decide how the fields' content will be ordered (ascending or descending) as well as which field has precedence over other fields by simply moving the fields up or down in the list box.
- To move the fields up or down, select the field and click on the  or  arrow. You can also click on the  arrow to move the field to the top of the list box, or on the  arrow to move the field to the bottom of the list box.
- Once all the options are set, click on the REPORT button to create the report.
- To print the report, simply click on the PRINT button located in the toolbar at the top of the report.

SCHEDULING METRICS

- These reports will help users determine, before scheduling, if the demand exceeds the supply for the selected resources (professors, rooms and academic blocks) and thus allowing the user to balance the distribution of those resources.
- These reports display the total weekly hours assigned to selected resources such as academic blocks or professors.

ACADEMIC BLOCK ASSINED HOURS

- When launching the Academic Block Assigned Hours report, the screen opens with the «Filters» button already selected.

«Filters» Button

- From this screen, users can filter through the faculties, departments, academic block types and academic block for which to run the report.
- Once the selection is complete, click on the Date Filters button to open the Date Filters screen of the report.

«Date Filters» Button

- Within the Date Filters screen, users will be able to select the Start/End dates for which to produce the report as well as the days of the week for which they want to produce the report.

Representative Week

- Select this option to select a representative week with a single click on the calendar. By selecting a day within a week, the entire week is selected.

Specific Dates

- Select this option to select specific dates either by entering them manually inside the Start/End Date fields or by selecting them directly in the calendar. Unlike Representative Week, though, selecting a single date on the calendar does not select the rest of the week.

Term

- Select the term on which to filter. By entering a term, the Start and End dates will reflect the start and end dates of the selected term. You can use the lookup tool to select a term.

Start Date
(Only available if Specific Dates option is selected)

- Users can select, using the drop-down arrow, the desired Start Date within the calendar.

End Date
(Only available if Specific Dates option is selected)

- Users can select, using the drop-down arrow, the desired End Date within the calendar.
- Once all the parameters are entered, select the «Results» button to view all the academic blocks that match the filter.

«Results» Button

- Within this screen, any academic block matching the selected parameters of the other two buttons (Filters and Date Filers) is displayed.

Peak Weekly Hours

- The value displayed in this column represents the highest number of hours assigned in a week within the specified period (Start Date and End Date)
- The hours correspond to Forced Times and to Pattern Requests.
  - If the pattern request is not assigned to a pattern subset, the duration of the pattern will be used; otherwise the duration of the pattern subset will be used.
- The calculated hours include any conflicting hours.
- **Example**
  - There is a 14-week period in which an academic block contains a component with two deliveries where one delivery, LEC, is scheduled for all the 14 weeks, 1 hour per week and the second delivery, LAB, is scheduled the last 7 weeks, 1 hour per week, the Highest Weekly Hours for this academic block will be 2.

Total Hours

- The value displayed in this column represents the total number of hours assigned during the specified period.
- The value is the sum of the total hours for each week within the specified period.
- **Example:**
  - There is a 14-week period in which an academic block contains a component with two deliveries where one delivery, LEC, is scheduled for all the 14 weeks, 1 hour per week and the second delivery, LAB, is scheduled the last 7 weeks, 1 hour per week, the Total Hours for this academic block will be 21.

«Refresh» Button

- Select this button to refresh the current display.

«Copy to Clipboard» Button

- Selecting this button will copy all selected elements within the screen.

PROFESSOR ASSIGNED HOURS

«Filters» Button

- From this screen, users can filter through the faculties, departments, professor types and professors for which to run the report.
- Once the selection is complete, click on the Date Filters button to open the Date Filters screen of the report.

«Date Filters» Button

- Within the Date Filters screen, users will be able to select the Start/End dates for which to produce the report as well as the days of the week for which they want to produce the report.

Representative Week

- Select this option to select a representative week with a single click on the calendar. By selecting a day within a week, the entire week is selected.

Specific Dates

- Select this option to select specific dates either by entering them manually inside the Start/End Date fields or by selecting them directly in the calendar. Unlike Representative Week, though, selecting a single date on the calendar does not select the rest of the week.

Term

- Select the term on which to filter. By entering a term, the Start and End dates will reflect the start and end dates of the selected term. You can use the lookup tool to select a term.

Start Date
(Only available if Specific Dates option is selected)

- Users can select, using the drop-down arrow, the desired Start Date within the calendar.

End Date
(Only available if Specific Dates option is selected)

- Users can select, using the drop-down arrow, the desired End Date within the calendar.
- Once all the parameters are entered, select the «Results» button to view all the academic blocks that match the filter.

«Results» Button

- Within this screen, any professor matching the selected parameters of the other two buttons (Filters and Date Filers) is displayed.

Peak Weekly Hours

- The value displayed in this column represents the highest number of hours assigned in a week within the specified period (Start Date and End Date)
- The hours correspond to Forced Times and to Pattern Requests.
  - If the pattern request is not assigned to a pattern subset, the duration of the pattern will be used; otherwise the duration of the pattern subset will be used.
- The calculated hours include any conflicting hours.

Total Hours

- The value displayed in this column represents the total number of hours assigned during the specified period.
- The value is the sum of the total hours for each week within the specified period.

«Refresh» Button

- Select this button to refresh the current display.

«Copy to Clipboard» Button

- Selecting this button will copy all selected elements within the screen.

ROOM ASSIGNED HOURS

«Filters» Button

- From this screen, users can filter through the campuses, buildings, pavilions, room types, characteristics, rooms for which to run the report.
- Once the selection is complete, click on the Date Filters button to open the Date Filters screen of the report.

«Date Filters» Button

- Within the Date Filters screen, users will be able to select the Start/End dates for which to produce the report as well as the days of the week for which they want to produce the report.

Representative Week

- Select this option to select a representative week with a single click on the calendar. By selecting a day within a week, the entire week is selected.

Specific Dates

- Select this option to select specific dates either by entering them manually inside the Start/End Date fields or by selecting them directly in the calendar. Unlike Representative Week, though, selecting a single date on the calendar does not select the rest of the week.

Term

- Select the term on which to filter. By entering a term, the Start and End dates will reflect the start and end dates of the selected term. You can use the lookup tool to select a term.

Start Date
(Only available if Specific Dates option is selected)

- Users can select, using the drop-down arrow, the desired Start Date within the calendar.

End Date
(Only available if Specific Dates option is selected)

- Users can select, using the drop-down arrow, the desired End Date within the calendar.
- Once all the parameters are entered, select the «Results» button to view all the academic blocks that match the filter.

«Results» Button

- Within this screen, any room matching the selected parameters of the other two buttons (Filters and Date Filers) is displayed.

Peak Weekly Hours

- The value displayed in this column represents the highest number of hours assigned in a week within the specified period (Start Date and End Date)
- The hours correspond to Forced Times and to Pattern Requests.
  - If the pattern request is not assigned to a pattern subset, the duration of the pattern will be used; otherwise the duration of the pattern subset will be used.
- The calculated hours include any conflicting hours.

Total Hours

- The value displayed in this column represents the total number of hours assigned during the specified period.

- The value is the sum of the total hours for each week within the specified period.

«Refresh» Button

- Select this button to refresh the current display.

«Copy to Clipboard» Button

- Selecting this button will copy all selected elements within the screen.

DELIVERY FREQUENCIES

- This report will identify any deliveries that have frequencies outside of the associated component term dates.

«FILTERS» BUTTON

- From the Filters screen, select the Course data on which to filter.

«RESULTS» TAB

- The Results screen will list all delivery frequencies for the selected data by component term. Selecting a row in the top frame of the window will display all of the related deliveries in the Deliveries pane of the Results screen.

STATISTICS

- The Statistics report provides a quick access to various statistics at a glance, pre-or post-scheduling. It helps to follow the status of the current exercise of scheduling without having to run multiple reports and cross-check data.
- The Statistics report provides consolidated counts of data at a given time and a sense of volume (ex.: volume of forced activities, counts of active rooms, counts of deliveries, etc.)
- The report can be exported to html by using the «Generate Report» button. The html export can be used for comparison purposes such as comparing results between different databases (ex.: Fall 2016 vs Fall 2017). This report is also accessible from the toolbar.

BUSINESS INTELLIGENCE

COURSE DISTRIBUTION REPORT

- The Course Distribution report shows the number of Delivery occurrences scheduled in a defined date range and time frame. It allows to evaluate if the distribution of the course schedule is fair for each department.
- This report can be run prior to the room assignment process, to validate the distribution of the forced schedule. It can also be used post-scheduling to validate how evenly an institution's courses are scheduled over a defined period after running the Scheduler process.
- The report can also help to identify uneven distributions caused by the "prime time" effect to improve institutional operations. Coupled with other BI reports or analysis reports, it provides a meaningful tool to analyze the scheduling results.
- This report can be run in a chart or list results format and is printable to be distributed.

«Course Filters» Button

- From the Course Filters screen, select the courses on which to filter.

«Date Filters» Button

- Within the Date Filters screen, users will be able to select the Start/End dates for which to produce the report as well as the days of the weeks for which they want to produce the report.

Representative Week

- Select this option to select a representative week with a single click on the calendar. By selecting a day within a week, the entire week is selected.

Specific Dates

- Select this option to select specific dates either by entering them manually inside the Start/End Date fields or by selecting them directly in the calendar. Unlike Representative Week, though, selecting a single date on the calendar does not select the rest of the week.

Start Date
(Only available if Specific Dates option is selected)

- Users can select, using the drop-down arrow, the desired Start Date within the calendar.

End Date
(Only available if Specific Dates option is selected)

- Users can select, using the drop-down arrow, the desired End Date within the calendar.

Days of the Week

- Select the days of the week that are to be included in the calculation.

«Settings» Button

Group Results By _____

Faculty

- Select this option to group the results by Faculty. By selecting this option, the following columns will be displayed in the Results screen.
- Faculty / Time Range / Start Time / End Time / Duration / Total number of deliveries / # Deliveries / % Deliveries / # Delivery Occurrences / Total # Delivery Occurrences / % Delivery Occurrences

Department

- Select this option to group the results by Department. By selecting this option, the following columns will be displayed in the Results screen.
- Faculty / Department / Time Range / Start Time / End Time / Duration / Total number of deliveries / # Deliveries / % Deliveries / # Delivery Occurrences / Total # Delivery Occurrences / % Delivery Occurrences

Course

- Select this option to group the results by Course. By selecting this option, the following columns will be displayed in the Results screen.
- Faculty / Department / Course / Time Range / Start Time / End Time / Duration / Total number of deliveries / # Deliveries / % Deliveries / # Delivery Occurrences / Total # Delivery Occurrences / % Delivery Occurrences

Component Type

- Select this option to group the results by Component Type. By selecting this option, the following columns will be displayed in the Results screen.
- Component Type / Time Range / Start Time / End Time / Duration / Total number of deliveries / # Deliveries / % Deliveries / # Delivery Occurrences / Total # Delivery Occurrences / % Delivery Occurrences

Time Unit Section _____

- Enter the time unit that will be used to represent the Duration within the report and in the Results screen (the Time Unit option needs to be selected in the «Display Results By» section lower). A Time Unit is a unit of measure that defines the minimum duration during which the room is booked or not booked.

Display Results By _____

Time Ranges

- Select this option to calculate the output (results) by time ranges.

Time Unit

- Select this option to calculate the output (results) by time units.

Breakdown by day of week

- Select this option to include the days of the week in the results («Day of Week» column).

Report_____

Value Type:

- Select the value type of the chart that will be produced — i.e.: «% Deliveries», «# Deliveries», «% Delivery Occurrences», «# Delivery Occurrences»

Language _____

- Select the language in which the report is to be produced.

Columns _____

- Select the columns to include when producing list reports (such as using the Report (List) button or using the Report (Both) button)

Generate Time Ranges _____

- The Time Ranges Generator can create several time ranges spanning from the start time in the «From» field up until the end time entered in the «To» field and by increments defined in the «Every» field.

From

- Enter a time indicating the starting time for the first time range being created.

To

- Enter a time indicating the end time of the last time range being created.

Every

- Enter a time interval indicating the duration of each time range.

Generate

- Select this button to generate time ranges that will use the values entered in the «From» and «To» fields. The report will analyze the room requested that are scheduled during the time defined by the Time Ranges.

NOTE: When using the Time Ranges option, the list of Time Ranges needs to be valid; otherwise, the Results, Heat Map and Report buttons are disabled.
To be valid:

1. All Time Ranges need to have a name, a Start time and an End time
2. The End time must be later than the Start time
3. The Time Ranges cannot overlap.

«Results» Button

Faculty

- This column displays the Faculty to which the Course is associated. This column will not be part of the «Results» tab if the *Group Results By — Component Type* is selected in the «Settings» tab.

Time Range

- This column displays the name of the Time Range defined in the «Settings» Tab

Day of Week

- This column breaks down the report by Days of the Week. This column is part of the Results tab ONLY if «Breakdown by day of week» option is selected in the «Settings» tab.

Start Time

- This column displays the Start Time of the Time Range based on the Time Unit.

End Time

- This column displays the End Time of the Time Range based on the Time Unit.

Duration

- This column displays the Duration of the Time Unit.

Total number of deliveries

- This column displays the total number of delivery scheduled within the selected filters (course filter, date filter) only within the selected days of the week and defined Time Ranges.

 # Deliveries

- This column displays the number of distinct deliveries scheduled within that Start Time and End Time. The number of deliveries represents the total number of distinct scheduled deliveries at any given date within the given Time Unit, or Time Rage.

Example:

If the same delivery is scheduled two consecutive dates, that delivery will only be counted as one, but if two distinct deliveries are scheduled two consecutive dates, they will be counted as two.

% Deliveries

- This column displays the number of deliveries divided by the total number of deliveries

Avg Delivery Occurrences

- This column displays the number of delivery occurrences that are scheduled within the selected Start Time and End Time.

NOTE:	The number of delivery occurrences represents the average number of delivery occurrences within the given Time Range, or Time Unit, divided by all the days that are being considered.

Total number of delivery occurrences

- This column displays the total number of delivery occurrences scheduled within the selected filters (course filter, date filter, and only within the selected days of the week and defined time ranges).

% Delivery Occurrences

- This column displays the percentage of delivery occurrences scheduled within that Start Time and End Time
- For more details regarding the output formats of the report, please refer to the Producing A Report section further in this guide.

HEAT MAP

- The Heat Map offers an interactive format of the printed Report (Heat Map). The heat map also shows the number or percentage of courses, rooms and room requests by time range or pattern time. The results are displayed in color gradient format ranging from green (low values) to red (high values). This allows the user to get a glimpse of the distribution/concentration of the results, and as well, helps the user to interpret the results.
- Double-clicking a time block displays the list of related deliveries scheduled or that are requesting that time slot.

NOTE:	The days of the week to appear in the report depend on the intersection between the Timetable Options under the Settings menu and the days selected in the Report - Date filters. Time definition is an intersection between Timetable options and Time ranges/Pattern times selected in the Report - Settings.

ROOM ASSIGNMENT QUALITY REPORT

«Course Filters» Button

- The Course Filters button lets users filter on the deliveries on which the report will be based.

«Room Request Filters» Button

- The Room Request Filters button lets users filter on the room request criteria on which the report will be based.

Include Deliveries that have activated the 'Prevent Automated Modification of Room(s)' setting

- Select this option to include, in the report, rooms that have this setting activated. This option is in the Deliveries screen under the Room tab.

Min. Requested Capacity

- The value entered in this field represents the minimum capacity a room must have.

Max. Requested Capacity

- The value entered in this field represents the maximum capacity a room must have.

«Date Filters» Button

- The Date Filters button lets users filter the date (as well as days of the week) and times on which to report.

Dates of selected deliveries

- Select this option to set the dates to the earliest and latest dates of the selected deliveries.
- When this option is used, the fields Start Date and End Date and the calendar are disabled but they are updated with the earliest and latest dates of the selected deliveries. When the user selects new dates in the calendar, the option is automatically switched to the second option (Specific dates to refine selected deliveries).

Specific dates to refine selected deliveries

- Select this option to manually select the Start and End dates.

Start Date
(Only available if the «Specific dates to refine selected deliveries» option is selected)

- Enter a start date from which to run the report.

End Date
(Only available if the «Specific dates to refine selected deliveries» option is selected)

- Enter an end date from which to run the report.

Days of the Week

- Select the days of the week to include in the report

Start Time

- Select the start time on which to run the report.

End Time

- Select the end time on which to run the report.

NOTE: If a delivery has a pattern request but no assigned pattern subset and one of the possible pattern subsets is part of the date and time range, the delivery will be part of the report.

«Settings» Button

- The Settings button lets users define the settings to use when running the report.

Enrollment Values

- Select between the different type of Enrollments, the Enrollment type to report on.

Consider Ratios

- Select this option to consider ratios. By selecting this option, the location specification ratio will be used in the calculation.

Override Room Quality Rule Weights

- Select this option to enter new Room Quality Rule weights and to use those new weights instead of those defined in the department Room Quality Rule.

Report

Group Results By

- Select the type of grouping to use when producing the report.

Data to display in charts

- From the drop-down menu, select the type of data the chart will be displaying.

Language

English

- Select this option to produce the report in English.

French

- Select this option to produce the report in French.

Capacity Ranges used for grouping
(Only available if «Requested Capacity» is selected in the «Group Results By» or in the «Data to display in charts»)

- Enter the capacity ranges to use in the report. Capacity range values must be between 1and 9999.

«Results» Button

- The Results button displays in a list format the results of the selected parameters.

«Quality Report» Button

- Select this button to display the Quality Report.

«Distribution Report» Button

- Select this button to display the Distribution Report.

«Refresh» Button

- Select this button to refresh the current display.

«Copy to Clipboard» Button

- Selecting this button will copy all selected elements within the screen.

ROOM DISTRIBUTION REPORT

- The Room Distribution report shows the average number of rooms used, blocked or free and allows to compare this number with the total number of rooms available for a specific date and time range (ex.: prime time, weekdays and weekends). This report can be used to illustrate how evenly an institution's rooms are being used over a defined period and to evaluate if there is an even distribution of rooms across all departments.
- It could also be used to analyze what type of rooms are unused.
- Coupled with other BI reports or analysis reports, it offers a meaningful tool to analyze the scheduling results.
- This report can be run in a chart or list results format and is printable to be distributed.

«Room Filters» Button

- From the Room Filters screen, select the Rooms on which to filter.

Min. Capacity

- You can specify to search for rooms that contain a minimum capacity of seats.

Max. Capacity

- You can specify to search for rooms that contain a maximum capacity of seats.

«Course Filters» Button

- From the Course Filters screen, select the courses on which to filter.

«Date Filters» Button

- Within the Date Filters screen, users will be able to select the Start/End dates for which to produce the report as well as the days of the weeks for which they want to produce the report.

Representative Week

- Select this option to select a representative week with a single click on the calendar. By selecting a day within a week, the entire week is selected.

Specific Dates

- Select this option to select specific dates either by entering them manually inside the Start/End Date fields or by selecting them directly in the calendar. Unlike Representative Week, though, selecting a single date on the calendar does not select the rest of the week.

Start Date
(Only available if Specific Dates option is selected)

- Users can select, using the drop-down arrow, the desired Start Date within the calendar.

End Date
(Only available if Specific Dates option is selected)

- Users can select, using the drop-down arrow, the desired End Date within the calendar.

Days of the Week

- Select the days of the week that are to be included in the calculation.

«Settings» Button

Group Results By _____

Campus

- Select this option to group the results by Campus. By selecting this option, the following columns will be displayed in the Results screen. Campus / Building / # Rooms / Start Time / End Time / Duration / Time Range / Day of Week* / Used Time Units / Free Time Units / Total Time Units / % Utilization / % Free / % Average Utilization /
- *Breakdown by day of week option must be selected (within the «Settings» screen)

Building

- Select this option to group the results by Building. By selecting this option, the following columns will be displayed in the Results screen. Campus / Building / # Rooms / Day of Week* / Start Time / End Time / Duration / Time Range / Used Time Units / Free Time Units / Total Time Units / % Utilization / %Free / %Average Utilization
- *Breakdown by day of week option must be selected (within the «Settings» screen)

Room Type

- Select this option to group the results by Room Type. By selecting this option, the following columns will be displayed in the Results screen. Room Type / Time Range / Day of Week* / Start Time / End Time / Duration / # Rooms / Used Time Units / Free Time Units / Total Time Units / % Utilization / % Free / %Average Utilization
- *Breakdown by day of week option must be selected (within the «Settings» screen)

Pavilion

- Select this option to group the results by Pavilion. By selecting this option, the following columns will be displayed in the Results screen. Pavilion / Time Range / Day of Week* / Start Time / End Time / Duration / # Rooms / Used Time Units / Total Time Units / % Utilization / %Free / %Average Utilization
- *Breakdown by day of week option must be selected (within the «Settings» screen)

Time Unit Section _____

- Enter the time unit that will be used to represent the Duration within the report and in the Results screen (the Time Unit option needs to be selected in the «Display Results By» section lower). A Time Unit is a unit of measure that defines the minimum duration during which the room is booked or not booked.

Display Results By _____

Time Ranges

- Select this option to calculate the output (results) by time ranges.

Time Unit

- Select this option to calculate the output (results) by time units.

Breakdown by day of week

- Select this option to include the days of the week in the results («Day of Week» column).

Report

Value Type:

- Select the value type of the chart that will be produced — i.e.: «% Room Used», «# Room Used».

Language

- Select the language in which the report is to be produced.

Columns

- Select the columns to include when producing list reports (such as using the Report (List) button or using the Report (Both) button)

Time Ranges

Generate Time Ranges

- Enter the desired Time Ranges by entering values for the Start Time (From), the End Time (To) and the Interval (Every). This will create all Time Ranges that will be reflected in the report.

From

- Enter the Start Time of the Time Range.

To

- Enter the End Time of the Time Range.

Every

- Enter the Interval of the Time Range.

Generate Time Ranges

- The Time Ranges Generator can create several time ranges spanning from the start time in the «From» field up until the end time entered in the «To» field and by increments defined in the «Every» field.

From

- Enter a time indicating the starting time for the first time range being created.

To

- Enter a time indicating the end time of the last time range being created.

Every

- Enter a time interval indicating the duration of each time range.

Generate

- Select this button to generate time ranges that will use the values entered in the «From» and «To» fields. The report will analyze the room requested that are scheduled during the time defined by the Time Ranges.

NOTE: When using the Time Ranges option, the list of Time Ranges needs to be valid; otherwise, the Results, Heat Map and Report buttons are disabled.
To be valid:

1. All Time Ranges need to have a name, a Start time and an End time
2. The End time must be later than the Start time
3. The Time Ranges cannot overlap.

«Results» Button

Building

- This column displays the Building to which the Room is associated. This column will not be part of the «Results» tab if the Group Results By – Pavilion, Group Results By – Room Type or Group Results By – Campus options are selected in the «Settings» tab.

Campus

- This column displays the Campus to which the Room is associated. This column will not be part of the «Results» tab if the Group Results By – Pavilion or Group Results By – Room Type options are selected in the «Settings» tab.

Time Range

- This column displays the name given to the Time Range in the Time Ranges section in the «Settings» tab.

Day of Week

- This column breaks down the report by Days of the Week. This column is part of the Results tab ONLY if «Breakdown by day of week» option is selected in the «Settings» tab.

Start Time

- This column displays the Start Time of the Time Range or that of the Time Unit.

End Time

- This column displays the End Time of the Time Range or that of the Time Unit.

Duration

- This column displays the Duration of the Time Unit.

Total Number of Room

- Number of rooms (selected by the user in the room filter)

 # Room

- This column displays the amount of Rooms that are considered in the report.

Avg of Rooms Used

- The average of rooms assigned within that Start Time and End Time

% Room Used

- This column represents the percentage of assigned room within the selected Start Time and End Time. The percentage calculation is the average of that grouping

Avg Blocked Rooms

- The average of rooms not available within that Start Time and End Time

% Blocked Rooms

- This column represents the percentage of room not available within the selected Start Time and End Time. The percentage calculation is the average of that grouping.

Avg Free Rooms

- The average of rooms free within that Start Time and End Time

% Free Rooms

- This column represents the percentage of available rooms within the selected Start Time and End Time. The percentage calculation is the average of that grouping.
- For more details regarding the output formats of the report, please refer to the Producing A Report section further in this guide.

A Note about Grouping Results of Used Rooms, Free Rooms and Blocked Rooms:

Used Rooms is calculated by using the average number of distinct rooms used within a given Time Range or Time Unit and dividing them by the amount of days considered.

For example: If a room is used in a given Time Range for every day of the selected Time Range, the result would indicate 1 room used. This average will always be 1 regardless which room is used on each date.

Same logic applies to blocked and free rooms.

HEAT MAP

- The Heat Map offers an interactive format of the printed Report (Heat Map). The heat map also shows the number or percentage of courses, rooms and room requests by time range or pattern time. The results are displayed in color gradient format ranging from green (low values) to red (high values). This allows the user to get a glimpse of the distribution/concentration of the results, and as well, helps the user to interpret the results.
- Double-clicking a time block displays the list of rooms assigned within that time slot.

NOTE: The days of the week to appear in the report depend on the intersection between the Timetable Options under the Settings menu and the days selected in the Report - Date filters. Time definition is an intersection between Timetable options and Time ranges/Pattern times selected in the Report - Settings.

ROOM UTILIZATION REPORT

- The Room Utilization Report displays utilization information per room over a given period of time as defined by the user.
- A user would produce a Room Utilization Report for two (2) reasons:
  - **a)** To help schedulers verify room availability
  - **b)** For management purposes: to view the level of use of the selected room(s) over a given period of time; thus, helping the institution determine the quality of room utilization.

Determining How a Room Is Considered Free or In Use

A room is considered free when no course is scheduled within a given time unit, during the total time unit defined by the user, however, a room is considered to be in use if two courses are scheduled at once in a single room or if a single course is scheduled.

«Room Filters» Button

- From the Room Filters screen, select the Rooms on which to filter.

Min. Capacity

- You can specify to search for rooms that contain a minimum capacity of seats.

Max. Capacity

- You can specify to search for rooms that contain a maximum capacity of seats.

«Course Filters» Button

- From the Course Filters screen, select the courses to include in the report.

«Date Filters» Button

- Within the Date Filters screen, users will be able to select the Start/End dates for which to produce the report as well as the days of the weeks for which they want to produce the report.

Representative Week

- Select this option to select a representative week with a single click on the calendar. By selecting a day within a week, the entire week is selected.

Specific Dates

- Select this option to select specific dates either by entering them manually inside the Start/End Date fields or by selecting them directly in the calendar. Unlike Representative Week, though, selecting a single date on the calendar does not select the rest of the week.

Start Date
(Only available if Specific Dates option is selected)

- Users can select, using the drop-down arrow, the desired Start Date within the calendar.

End Date
(Only available if Specific Dates option is selected)

- Users can select, using the drop-down arrow, the desired End Date within the calendar.

Days of the Week _____

- Select the days of the week that are to be included in the calculation.

«Settings» Button

Group Results By _____

Campus

- Select this option to group the results by Campus. By selecting this option, the following columns will be displayed in the Results screen.
- Campus / Time Range / Day of Week* / Start Time / End Time / Duration / # Time Units / # Rooms / Used Time Units / Free Time Units / Total Time Units / % Utilization / % Free / % Average Utilization /
- *Breakdown by day of week option must be selected (within the «Settings» screen)

Building

- Select this option to group the results by Building. By selecting this option, the following columns will be displayed in the Results screen.
- Building / Campus / Time Range / Day of Week / Start Time/ End Time / Duration / # Time Units / # Rooms/ Free Time Units / Total Time Units / % Utilization / % Free / % Average Utilization
- *Breakdown by day of week option must be selected (within the «Settings» screen)

Room

- Select this option to group the results by Room. By selecting this option, the following columns will be displayed in the Results screen.
- Room / Capacity / Description / Marker / Note / Building / Campus / Pavilion / Room Type / Time Range / Day of Week* / Start Time / End Time / Duration / # Time Units / Used Time Units / Free Time Units / Total Time Units / % Utilization / % Free / % Average Utilization
- *Breakdown by day of week option must be selected (within the «Settings» screen)

Room Type

- Select this option to group the results by Room Type. By selecting this option, the following columns will be displayed in the Results screen.
- Room Type / Time Range / Day of Week* / Start Time / End Time / Duration / # Time Units / # Rooms / Used Time Units / Free Time Units / Total Time Units / % Utilization / % Free / %Average Utilization
- *Breakdown by day of week option must be selected (within the «Settings» screen)

Pavilion

- Select this option to group the results by Pavilion. By selecting this option, the following columns will be displayed in the Results screen.
- Pavilion / Time Range / Day of Week* / Start Time / End Time / Duration / # Time Units / # Rooms / Used Time Units / Total Time Units / % Utilization / %Free / %Average Utilization
- *Breakdown by day of week option must be selected (within the «Settings» screen)

Time Unit Section

- Enter the time unit that will be used to represent the Duration within the report and in the Results screen (the Time Unit option needs to be selected in the «Display Results By» section).
- A Time Unit is a unit of measure that defines the minimum duration during which the room is booked or not booked.

Display Results By _____

Time Ranges

- Select this option to calculate the output (results) by time ranges.

Time Unit

- Select this option to calculate the output (results) by time units.

Breakdown by day of week

- Select this option to include the days of the week in the results («Day of Week» column).

Blockoffs_____

Ignore blockoffs

- Select this option to ignore blockoffs in the calculation (not considered).

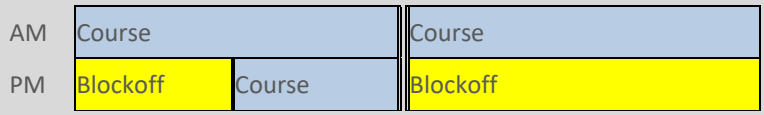
Exclude blocked off time from calculation

- Select this option to exclude blocked off periods from the calculation. In turn, any time unit where a blockoff is scheduled is not considered (used or unused).

Consider blocked off time as utilized time

- Select this option to consider the blocked off periods as utilized periods, the calculation will include all booked periods (including blocked off periods).

Example: How Blockoffs are considered in calculation:



Ignore blockoffs
When *Ignore blockoffs* is selected, the system will not consider Blockoffs in the calculation. In this current example, since three (3) out of the four (4) available time slots contain courses, the room utilization calculation would be 75%.

Exclude blocked off times
When *Exclude blocked off times* is selected, the system will not consider any time slot where Blockoffs are held. In this current example, since the two (2) out of the two (2) AM time slots hold courses, the calculation would be 100% since both PM time slots are ignored because they hold Blockoffs.

Consider blocked off times as utilized
When *Consider blocked off times as utilized* is selected, the system will consider all time slots that hold courses or room blockoffs (which include Campus blockoffs and Building blockoffs as well). In this current example, since four (4) out of the four (4) time slots contain either scheduled courses or blockoffs, the calculation would be 100%.

Report_____

Chart Value Type:

- Select from the drop-down, the type of value the chart is to produce.

% Utilization

- Select this option to produce a chart based on % Utilization.
- The % Utilization represents *Used Time Units* divided by *Total Time Units* (Number of «Time Unit» blocks within that Start Time and End Time) within the Start Time and End Time selected.

Used Time Units

- Select this option to produce a chart based on Used Time Units.
- The Used Time Units is the number of «Time Unit» blocks utilized within that Start Time and End Time:

NOTE: A Time Unit is a specific block of time within a Time Range, whose duration is that specified by the user as «Time Unit».

Language _____

English

- Select this option to print the report in English.

French

- Select this option to print the report in French.

Columns

- Select the columns to include when producing list reports (such as using the Report (List) button or using the Report (Both) button).

Time Range _____

Generate Time Ranges _____

- Enter the desired Time Ranges by entering values for the Start Time (From), the End Time (To) and the Interval (Every). This will create all Time Ranges for the report.

From

- Enter the Start Time of the Time Range.

To

- Enter the End Time of the Time Range.

Every

- Enter the Interval of the Time Range.

Generate Button

- Once all the values have been entered, the Generate button will become enabled.
- Select the Generate button to generate the Time Ranges as per the values entered in the fields.
- Once the Time Ranges are created, the system will automatically name each Time Range by the Start Time and End Time values entered.
- The user has the possibility rename the Time Ranges (example: AM, PM, etc.) by selecting a Time Range in the list of created Time Ranges and entering the new name for the selected Time Range.

«Results» Button

- Within the Results screen, users will be able to view the room utilization results for the filtered selection.

Room

- This column displays the name associate to the room (ex: the room number). This column will not be part of the Results tab if the «Group Results by» option (in the «Settings» tab) is different from «Room».

Capacity

- This column displays the number of seats associated with the room. This column will not be part of the Results tab if the «Group Results by» option (in the «Settings» tab) is different from «Room».

Description

- This column displays the description entered in the Room screen for the room. This column will not be part of the «Results» tab if the «Group Results by» option (in the «Settings» tab) is different from «Room».

Marker

- This column displays if the Marker field is selected or unselected in the Room screen. This column is not displayed if the Group Results By option (in the «Settings» tab) is different from «Room».

Note

- Any note associated to the room will be displayed in this column.

Building

- This column displays the Building to which the Room is associated. This column will not be part of the «Results» tab if the Group Results By – Pavilion, Group Results By – Room Type or Group Results By – Campus options are selected in the «Settings» tab.

Campus

- This column displays the Campus to which the Room is associated. This column will not be part of the «Results» tab if the Group Results By – Pavilion or Group Results By – Room Type options are selected in the «Settings» tab.

Pavilion

- This column displays the Pavilion to which the Room is associated. This column will not be part of the «Results» tab if the Group Results By – Building, Group Results By – Campus or Group Results By – Room Type options are selected in the «Settings» tab.

Room Type

- This column displays the Room's Room Type. This column will not be part of the «Results» tab if the Group Results By – Building, Group Results By – Campus or Group Results By – Pavilion options are selected in the «Settings» tab.

Time Range

- This column displays the name given to the Time Range in the Time Ranges section in the «Settings» tab.

Start Time

- This column displays the Start Time entered in the Time Ranges section in the «Settings» tab

End Time

- This column displays the End Time entered in the Time Ranges section in the «Settings» tab

Duration

- This column displays the Time Range duration or the Duration of the Time Unit, whichever is being used.

 # Time Unit

- This column displays the number of Time Units contained in the Time Range.

 # Room

- This column displays the amount of Rooms that are considered in the report. *This column will not be part of the «Results» tab* if the *Group Results By – Room* is selected in the «Settings» tab.

Used Time Units

- This column displays the Number of «Time Unit» blocks utilized within that Start Time and -End Time:
- A time unit is a specific block of time within a Time Range for which its duration is that specified by the user. A «Time Unit» is either used or unused by each room, but never partially used, regardless if the room is partially or fully assigned.

Free Time Units

- This column represents the number of the Time Unit blocks that are not utilized within the Start Time and End Time.

Total Time Units

- This column displays the number of Time Unit blocks within the selected Start Time and End Time.

A Note about Time Units Used, Free Time Units and Total Time Units When Calculating the Room Utilization Summary

Used Time Units reflect the sum of the number of used Time Units for every room considered in the report.

Example:

If 4 Time Units are being considered by the report, based on the time ranges and date selection; and if there are 10 rooms used for those 4 time units, then the Used Time Units will be 40 out of 40.

% Utilization

- This column displays the ratio of Used Time Units divided by Total Time Units within the selected Start Time and End Time.

% Free

- This column displays the percentage of Free Time Units. It is calculated as follows:
- %Free = 100% - % of Used Time Units.

% Average Utilization

- This column displays the average utilization for the entire room(s) selected in the filters.

A Note about the Percentage Calculations

When grouping results or when looking at a summary, the Percentages (% Utilization and % Free) represent an average of all rooms for the grouping or for the summary.

SEAT UTILIZATION REPORT

- The Seat Utilization Report presents the number of seats reserved (based on student enrollment) in a room, at a precise time, scaled in a user-defined time frame.
- It is generated to verify that rooms are correctly assigned, considering the component enrollment and room capacity.

«Room Filters» Button

- From the Room Filters screen, select the Rooms on which to filter.

Min. Capacity

- You can specify to search for rooms that contain a minimum capacity of seats.

Max. Capacity

- You can specify to search for rooms that contain a maximum capacity of seats.

«Course Filters» Button

- From the Course Filters screen, select the courses on which to filter.

«Date Filters» Button

- Within the Date Filters screen, users will be able to select the Start/End dates for which to produce the report as well as the days of the weeks for which they want to produce the report.

Representative Week

- Select this option to select a representative week with a single click on the calendar. By selecting a day within a week, the entire week is selected.

Specific Dates

- Select this option to select specific dates either by entering them manually inside the Start/End Date fields or by selecting them directly in the calendar. Unlike Representative Week, though, selecting a single date on the calendar does not select the rest of the week.

Start Date
(Only available if Specific Dates option is selected)

- Users can select, using the drop-down arrow, the desired Start Date within the calendar.

End Date
(Only available if Specific Dates option is selected)

- Users can select, using the drop-down arrow, the desired End Date within the calendar.

Days of the Week

- Select the days of the week that are to be included in the calculation.

«Settings» Button

Group Results By _____

Campus

- Select this option to group the results by Campus. By selecting this option, the following columns will be displayed in the Results screen. Campus / Building / # Rooms / Start Time / End Time / Duration / Time Range / Day of Week* / Used Time Units / Free Time Units / Total Time Units / % Utilization / % Free / % Average Utilization /
- *Breakdown by day of week option must be selected (within the «Settings» screen)

Building

- Select this option to group the results by Building. By selecting this option, the following columns will be displayed in the Results screen. Campus / Building / # Rooms / Day of Week* / Start Time / End Time / Duration / Time Range / Used Time Units / Free Time Units / Total Time Units / % Utilization / %Free / %Average Utilization
- *Breakdown by day of week option must be selected (within the «Settings» screen)

Room

- Select this option to group the results by Room. By selecting this option, the following columns will be displayed in the Results screen. Room / Description / Marker / Note / Building / Campus / Pavilion / Room Type / Time Range / Day of Week* / Start Time / End Time / Duration / Used Time Units / Free Time Units / Total Time Units / % Utilization / % Free / % Average utilization
- *Breakdown by day of week option must be selected (within the «Settings» screen)

Room Type

- Select this option to group the results by Room Type. By selecting this option, the following columns will be displayed in the Results screen. Room Type / Time Range / Day of Week* / Start Time / End Time / Duration / # Rooms / Used Time Units / Free Time Units / Total Time Units / % Utilization / % Free / %Average Utilization
- *Breakdown by day of week option must be selected (within the «Settings» screen)

Pavilion

- Select this option to group the results by Pavilion. By selecting this option, the following columns will be displayed in the Results screen. Pavilion / Time Range / Day of Week* / Start Time / End Time / Duration / # Rooms / Used Time Units / Total Time Units / % Utilization / %Free / %Average Utilization
- *Breakdown by day of week option must be selected (within the «Settings» screen)

Time Unit Section

- Enter the time unit that will be used to represent the Duration within the report and in the Results screen (the Time Unit option needs to be selected in the «Display Results By» section lower).
- A Time Unit is a unit of measure that defines the minimum duration during which the room is booked or not booked.

Display Results By _____

Time Ranges

- Select this option to calculate the output (results) by time ranges.

Time Unit

- Select this option to calculate the output (results) by time units.

Breakdown by day of week

- Select this option to include the days of the week in the results («Day of Week» column).

Enrollment Values _____

- Within the Enrollment Values section of the Settings screen, users determine which enrollment to use.

Scheduling enrollment

- Select this option to use the Scheduling enrollment (the forecasted enrollment).

Actual enrollment

- Select this option to use the Actual enrollment.

Consider Ratios

- Select this option to consider ratios. By selecting this option, the location specification ratio will be used in the calculation.

  Ratios Not Considered

  - If ratios are not considered in the calculation, the selected enrollment value will be used instead to calculate the number of seats used.

  Ratios Are Considered

  - If ratios are considered in the calculation, then:
  - For each distinct delivery, the enrollment value is multiplied by the ratio (the result from the multiplication will be rounded up).
    - Example: Considering an enrollment of 10, with a ratio of 1.01, the resulting number is 10.1, rounding up to 11.

Exclude Unused Time Units

- Select this option to exclude unused Time Units from the calculations, the overall seat utilization of a room excludes the Time Units where nothing is scheduled in that room.

Example:

When the «Exclude Unused Time Units» Option is Not Selected
If a Room with a capacity of 100 seats has 10 Time Units, where only 1 Time Unit is used by a Course and that Course has an enrollment of 80, the seat utilization would equal 8% (80 seats used over a total of 100 x 10 seat-time-units).
When the «Exclude Unused Time Units» Option is Selected
If a Room with a capacity of 100 seats has 10 Time Units, where only 1 Time Unit is used by a Course and that Course has an enrollment of 80, the seat utilization would equal 80% (80 out of 100 seats used in 1 out of 1 Time Unit).

Reports _____

Value Type:

- Select the value type of the chart that will be produced — i.e.: «% Seats Used», «# Seats Used».

Language

- Select the language in which the report is to be produced.

Columns

- Select the columns to include when producing list reports (such as using the Report (List) button or using the Report (Both) button)

Time Ranges

Generate Time Ranges

- Enter the desired Time Ranges by entering values for the Start Time (From), the End Time (To) and the Interval (Every). This will create all Time Ranges that will be reflected in the report.

From

- Enter the Start Time of the Time Range.

To

- Enter the End Time of the Time Range.

Every

- Enter the Interval of the Time Range.

Generate Button

- Once all the values have been entered, the Generate button will become enabled.
- Select the Generate button to generate the Time Ranges as per the values entered in the fields.
- Once the Time Ranges are created, the system will automatically name each Time Range by the Start Time and End Time values entered.
- The user has the possibility rename the Time Ranges (example: AM, PM, etc.) by selecting a Time Range in the list of created Time Ranges and entering the new name for the selected Time Range.

«Results» Button

Room

- This column displays the name associate to the room (ex: the room number). This column will not be part of the Results tab if the «Group Results by» option (in the «Settings» tab) is different from «Room».

Description

- This column displays the description entered in the Room screen for the room. This column will not be part of the «Results» tab if the «Group Results by» option (in the «Settings» tab) is different from «Room».

Marker

- This column displays if the Marker field is selected or unselected in the Room screen. This column is not displayed if the Group Results By option (in the «Settings» tab) is different from «Room».

Note

- Any note associated to the room will be displayed in this column.

Building

- This column displays the Building to which the Room is associated. This column will not be part of the «Results» tab if the Group Results By – Pavilion, Group Results By – Room Type or Group Results By – Campus options are selected in the «Settings» tab.

Campus

- This column displays the Campus to which the Room is associated. *This column will not be part of the «Results» tab* if the *Group Results By – Pavilion* or *Group Results By – Room Type* options are selected in the «Settings» tab.

Pavilion

- This column displays the Pavilion to which the Room is associated. This column will not be part of the «Results» tab if the Group Results By – Building, Group Results By – Campus or Group Results By – Room Type options are selected in the «Settings» tab.

Room Type

- This column displays the Room's Room Type. This column will not be part of the «Results» tab if the Group Results By – Building, Group Results By – Campus or Group Results By – Pavilion options are selected in the «Settings» tab.

Time Range

- This column displays the name given to the Time Range in the Time Ranges section in the «Settings» tab.

Start Time

- This column displays the Start Time of the Time Range or that of the Time Unit.

End Time

- This column displays the End Time of the Time Range or that of the Time Unit.

Duration

- This column displays the Duration of the Time Unit.

 # Time Units

- This column displays the number of Time Units within the Time Range. Calculation includes multiple week selections.

Capacity

- This column displays the room capacity.

 # Seats Used

- Number of seats used within that Start Time and End Time

  Breakdown of the Calculation of Seats Used per Time Unit:

  - Within a Time Unit, all Deliveries are considered, regardless of the Start Time and End Time of the distinct delivery records within that Time Unit.
  - The seats used will be equivalent to the sum of the enrollments of those distinct Deliveries.

  Breakdown of the Calculation of Seats Used over Multiple Dates

  - When generating a report for multiple dates, or when reporting by Time Range, or if the results are not broken by Day Of Week, then each Time Unit or Time Range showing in the results represents multiple dates:
- The number of seats used is an average of the # Seats Used for all dates, and/or for all Time Units within each Time Range.
- The # Seats Used is rounded to the second decimal point (ex: 30.66666 rounds up to 30.67 and 30.33333 rounds down to 30.33).

Breakdown of the Calculation of Seats Used when the Results are Grouped

- The total number of used seats for a given Time Unit is summed-up for all rooms within that group. As well, the % Seats Used is calculated based on the summed-up capacity of that group.

 # Seats Free

- Number of free seats in rooms within the defined Start Time and End Time

Total Seats

- This column displays the total seats capacity of selected room(s) within the defined Start Time and End Time.

% Seats Used

- # Seats Used / Capacity (Total Seats)

% Seats Free

- # Seats Free / Capacity (Total Seats)

% Average Seat Utilization

- Percentage of Seat Used Average for the grouped element (Campus, Building, Pavilion, Room Type)
- In cases of multi-room bookings (deliveries with multiple rooms assigned), all rooms are assumed to accommodate the entire enrollment. Therefore, the seats utilized will be the same in all rooms that constitute the multi-room booking (totality of the enrollment).

Example:

A Delivery is scheduled in Room A and Room B with a total enrollment of 60. When running the Seat Utilization Report for Room A and for Room B, the Delivery appears in both rooms and uses 60 seats in each room since there is no way of determining the seat breakdown in each room.

PRODUCING A REPORT

- The data displayed in the Results screen can be printed in Chart, List or Chart and List format. In order to do so, simply select the appropriate button in the toolbar.

Report (Chart) Button

- Select this button to produce a chart format report of all data displayed in the Results screen.

Report (List) Button

- Select this button to produce a list format report of all data displayed in the Results screen.

Report (Both) Button

- Select this button to produce a chart and list format report of all data displayed in the Results screen.

Report (Heat Map) Button

(Available only with the Prime Time Space Usage Report, the Course Distribution Report and the Room Distribution Report.)

- The Heat Map report is a graphical representation of the week using color blocks for each time range. Each block contains a value (based on the selection of the Value Type field).
- The color scheme depends of the value of a given time slot in relation to the highest value of the grid. The highest value will be in red while the smallest value will be in green. The other blocks will have a color gradient from green to red (passing by the yellow). The color gradient depends on the value in relation to the maximum and the minimum values
- The Heat Map report is a printable report that can be exported (using the Copy to Clipboard button).
- It is possible to drill down to pertinent data (on each block) by clicking on the desired block.

Refresh Button

- Select this button to refresh the data within the current screen.

Copy to Clipboard Button

- Select this button to copy the data in the Results screen to the clipboard. This information can then be pasted into other applications such as MS Excel, Notepad, etc.

DATA CONSISTENCY REPORTS

- Data consistency reports are accessible via the navigator by clicking on the «Data Consistency Check» button. The directory tree view lists the different validations that can be viewed. A report can then be generated with the «List Report» functionality in the list pane for any of the data consistency checks.
- Each element in the directory tree corresponds to a different validation. For example, if you select «Faculties without Departments» in the list view you will see all the faculties that do not have any departments.

REPORT FILTERS

- Before generating a report, a filter screen will appear.
- Select the items of your choice by left clicking on those items while holding down the <CTRL> key. If you want to select items that are one after another, click on the first filter and while holding down the <SHIFT> key, click on the last item. This will leave you with a highlighted list from the first selected item to the last.
- To de-select the highlighted items, hold down the <CRTL> key and left click on the items you want to de-select.
- If you want to select all the items in the filter, simply leave the filter selection blank.
- After the desired items have been chosen, click on the report button on the main toolbar and the report will be generated.

REPORT TYPE BOX

- This box is available only for timetable reports. It gives you the option to choose to produce stacked or staggered reports.
- A stacked report will show all schedules within the specified date range on one page, even if there is a change of schedule for part of the specified date range.
- A staggered report will show the schedule on multiple pages if there are changes of the schedule during the specified date range. Every time there is a change in the schedule, a new page will be created.

FILTER

- This screen is an example different report filters available. Every time you select an item in a list, the items available in the other lists will be refreshed to reflect the selection. For example, in this screen if you select a campus in the campus list, the building list will show only the buildings that are attached to the selected campus.

HOW TO EXPORT REPORTS

- When a report is generated (except for timetable and list reports, which could be saved directly as HTML files), you have the choice to print the report or to export it.
- To export a report, click on the «Export» icon located in the report toolbar.
- A screen will pop up for you to choose the format of the file that the report will be exported to:
- You can choose to export to an HTML or text file. The format types available in the drop-down list depend on the software installed on the computer.
- The destination is the kind of platform where you wish to save the file. In this example, Disk file has been chosen.
- Click on OK and a browser will pop up. This is where you must specify where you wish to save the report.
- Specify the path of where you wish the report to be saved and click on OK. And the report will be exported to the specified location.

SECTION 2 – SCHEDULING

CHAPTER 12 - SCHEDULING CONFIGURATION

VALIDATION OPTIONS

- The validation options tab allows users to set validation criteria for live validations. The application will indicate to the user if a time conflict was created or a constraint was broken while adding or modifying a data element.
- The Validation Options form is accessible via the Tools menu in the Main menu.

Include live conflict validations for:

- Select any items that should be included in the live validation process.

NOTE:	Processing time will be increased with the inclusion of data elements to the validation process.

Maximum Number of Schedules to Validate

- In this field, you need to enter a number from 0 to infinity. This number indicates the number of the validations the system will perform without giving a warning. In the example above, if the data to be saved involves more than 1000 validations, the system will display a message to warn the user that the validation can take a long time to finish. The higher the number, the more validations the system will do and the longer it will take for it to complete the validation process.

NOTE:	There are no preference orders for the validation list above.

Validation Process

- If the number of validations to be performed exceeds the predefined «maximum number of scheduled to validate», you will receive a warning. You will have the choice to exit and change your validation option setting or continue the validation process. By doing so, the system will validate all the conflicts, even if they exceed the «maximum number of schedules to validate», which may lengthen the process.

TIME CONFIGURATION

- The Time Configuration form is accessible via the Setting menu in the Main menu.
- Information in this tab will influence the academic block, student and professor constraints.

First day of week

- This field defines which day will be considered as the first day of the week. If you decide to have Wednesday as the first day of the week, your timetables and timetable reports will begin on Wednesday.

Last day of week

- This field defines which day will be considered as the last day of the week.

Early Am Time

- The purpose of this field is to define the early am time of the institution.
- Any time PRIOR to the time indicated will be considered early. In the example above, a course scheduled before 08:00 would be considered early.

Late Pm Time

- The purpose of this field is to define the late pm time of the institution.
- Any time AFTER the time indicated will be considered late. In the example above, a course scheduled after 18:00 would be considered late.

Last and first day of week are consecutive

- This field is used to define if the first day of the week is consecutive to the last day of the week. This is for scheduling purposes.

Default Term _____

Blockoff Default Term

- Enter the term that will be the blockoff default term. By entering a default term, newly created blockoffs will have their start and end dates populated with the same date range as the default term. To populate the Term field, simply enter the name of the term or use the lookup function.

Start /End Dates

- Once the term has been entered (using the lookup function), the start/end dates will be populated with that term's start/end dates. If entering the date manually, the start/end dates will be populated with the selected term's start/end dates once the modifications are saved.

SCHEDULING RULES

- The Scheduling Rules screen is accessible via the *Settings* menu in the menu bar. This screen displays the global settings that define the weights or importance of the timetabling constraints.

Maximum number of students with conflicts or constraint violations per delivery

- This allows you to define the maximum number of student conflicts per delivery.

Maximum cumulative size of academic blocks with conflicts or constraint violations per delivery

- This value is used by the application to validate academic block conflicts. You must define the cumulative academic block sizes that are allowed to be in conflict and those cumulative academic block sizes in conflict must not exceed this value.

Example 1

Component	Academic Block	Size
1	A	5
	B	10
	C	25
2	D	10
	E	10
	A	5
3	F	30
	G	20
	B	10

Example 2

Component	Academic Block	Size
1	A	5
	B	10
	C	25
2	A	5
	D	10
	E	25
3	A	5
	E	25
	F	10

- Cumulative academic block size allowing conflicts = 9

Example 1 explanations:

- A conflict (A) between component 1 and component 2 would be permitted because the block size of academic block A (size 5) is less than 9. The conflict (B) between component 1 and component 3 would not be permitted because the block size of academic block B (size 10) is larger than 9.

Example 2 explanations:

- The conflict (A) between component 1 and component 2 would be permitted because the block size of academic block A = size 5 which is less than 9. The conflict for the academic block size A and E between component 2 and component 3 would not be permitted because their block size (5 + 25 = 30) put together exceeds the permitted value of 9.

Maximum time elapsed between two courses for them to be considered consecutive

- Enter the time limit between two courses that, if not surpassed, makes those two courses consecutive.

Default Room Quality Rule

- This is where the user defines the default scheduling rule that will apply to all the departments. It is a global rule.
- Using the lookup screen, select the Room Quality Rule that is to be the default Room Quality Rule. This rule will be used by all the departments except for those that wish to override the default Room Quality Rule.

NOTE: There is a Room Quality Rule created by default upon installation. This Room Quality Rule is called 000. It is defined as follows: it only has one Enrolment Range in the Capacity Limits with no wasted seat. The weights for the criteria are all set to 100% and not required.

Weights

- When trying to assign a time to a delivery, the system evaluates the quality of suitable potential times. The user can allocate a weight value to a given criterion in order to prioritize a set of constraints belonging to that given criterion and thus impacting the quality of the potential time accordingly.

Course tie weights

- This is the global setting to define which type of course tie takes precedence over the other.
- The weight fields are used to specify the importance of each type of course tie in relation to another.
- These values are then represented in the pie chart as percentages.

CHAPTER 13 - THE MOVE SCREEN

- The move screen is a timetabling tool that is available for deliveries. It displays everything related to the selected delivery within the specified date range. For a particular delivery, the professor's timetable, the academic block(s) timetable and the room timetable will be superimposed and will appear on the move screen. This allows you to move a scheduled delivery or assign an unscheduled delivery to a conflict-free time while considering all of the resources associated to the delivery.

NOTE: For an explanation of the toolbar icons, please refer to the «Command Button» section.

To open a move screen, follow these steps;

(1) Open a delivery — the move screen button is now available

(2) Click on the move screen button and the move screen will open.

- You can double click on a block to open its resource.

FEATURES FOR THE MOVE SCREEN

Resizing the timetable

- Double click on the week or time header to resize the timetable horizontally or vertically to fit the screen. Right click on the week header and choose all week, to fit the entire week on the screen. Choosing auto adjust will resize the timetable to show only the range of days or time occupied by blocks.

Max blocks to show

- This field is located on the lower part of the timetable. It indicates the maximum number of blocks to show defined in the Timetable Options screen.

Actual number of blocks

- This field is located on the lower part of the timetable. It indicates the actual number of blocks shown on the timetable. This field can contain a larger number than the maximum blocks to show.

Term

- You can use the lookup to select a term in the field. When a term is selected the start date and end date field will reflect those of the term.

From /To Dates

- The start date (From) and end date (To) define a date range used by timetables when displaying deliveries. If the dates are changed in one of the staggered timetables, the new value will only affect the selected staggered timetable.
- You can change the start and end date manually by clicking in the field and entering the new date or by clicking on the down arrow to the right of the date field and picking a date on the calendar.
- When the new dates are entered click on the refresh button on the toolbar to update the timetable.

Automatically Resize

- When selected, the screen will display the days and time range defined in the Timetable Options found in Options→Timetable Options. If there is a scheduled delivery with days or time range outside of the default settings, the screen will adjust the display accordingly.

Start Time and End Time

- Select a start and end time and then click on the refresh button on the toolbar, the timetable will change to reflect the selected times. Moving the scroll bar on the right of the timetable allows you to see times before and after the

selected time. If the times are changed on one staggered timetable, the new value will only affect the selected staggered timetable.

Time Unit

- This value displays the time interval of the timetable. For example, if the time unit is set to 30 minutes, the hours in the time scale to the left of the timetable will be represented with 30-minute intervals, 00:00, 00:30, 01:00.
- To change this value, enter the new time unit and click on the refresh button on the toolbar, the timetable will be updated according to the new time unit.

Show blocks side by side

- If selected, the blocks with the same day and same time will be shown side by side instead of on top of one another.

NOTE:	To open a block and view its contents, double click on it — the blocks appear in different colors on the timetable.

- **Red blocks display potential conflicts.** To view additional details for a potential conflict, click on the ellipsis button on the lower right corner of the block. An information window will appear identifying the resources involved with the potential conflict.
- **Red blocks** with hash marks identify a scheduled delivery that is currently in conflict.
- **Yellow blocks display Blockoffs**. To view more information on the blockoff, click on the ellipsis button on the lower right corner of the block. An information window will pop up showing you the blockoff.
- **White blocks represent scheduled deliveries** that are conflict free. These blocks can be moved by selecting the block and dragging them to a new start time.
- **Magenta blocks represent grouped deliveries**. To view more information on the grouped item, click on the ellipsis button on the lower right corner of the block. An information window will appear and display the detailed information pertaining to the grouped item.

Display Conflicts _____

Professors

- Select this option to display Professor Conflicts.

Academic Blocks

- Select this option to display Academic Block Conflicts.

Students

- Select this option to display Student Conflicts.

Rooms

- Select this option to display Room Conflicts.

Blockoffs_____

Private

- Select this option to display Private Blockoffs.

Public

- Select this option to display Public Blockoffs.

«SETTINGS» BUTTON

Disabled objects to show

- Select the disabled elements to show in the Move Screen

Max Blocks to show

- Enter the maximum number of blocks to show within the Move Screen.

«AVAILABLE TIMES» BUTTON

- If the selected delivery is a pattern request, the available pattern times will be displayed as green blocks. Once the block is selected, it will change color and the Assign button becomes available.
- If the selected delivery is a forced time, a green line is placed at each available start time.

«ASSIGN» BUTTON

- This button becomes available only when there is a possible pattern time and a block is selected.

«CONSTRAINTS» BUTTON

- Scheduling constraints pertaining to professors and academic blocks can be viewed on the move screen if the delivery is scheduled. These constraints are represented with yellow blocks.

«REPORT» BUTTON

- Select this button to create a report of the current Move Screen

«REFRESH» BUTTON

- Select this button to refresh the view of the current Move Screen

USING THE MOVE SCREEN

HOW TO MOVE A BLOCK

- A white block identifies a moveable delivery that is scheduled conflict free.
- A crosshatch pattern identifies a moveable delivery that is currently scheduled in conflict.
- When you move your cursor over a moveable delivery the cursor will change to a crossed cursor.
- To move a delivery, click and hold with the left mouse button on the delivery and drag it to the desired date and time.

NOTE:	If you have started to move a delivery and then decide not to move it, without releasing the left mouse button, click on the right mouse button and the delivery will return to its original position.

HOW TO RESIZE A BLOCK

- To resize a moveable delivery, move your cursor over the top or the bottom of the moveable delivery. This will allow you to increase or decrease the delivery's duration. The cursor will change to a resize cursor and by clicking and holding the left mouse button; the delivery can be resized to change the start time and duration.
- If you have started to resize a delivery and then decide not to resize it, without releasing the left mouse button, click on the right mouse button and the delivery will return to its original size.

SENDING BLOCK BACK

- When blocks are superimposed, it is possible for the user to move the current block (the block in front) to the back. In order to do so, right click on the block and select «Send to Back». At this point, the block is now sent to the back and the block that was behind that block is now in front and is now selectable.

VIEWING LIST OF CONFLICTS

- Within red colored blocks, user can right click and select «View List of Conflicts» to open the List of Conflicts screen. From the List of Conflict screen, users can double click on the desired delivery to open its screen.

BATCH EDITING CONFLICTS WITHIN THE MOVE SCREEN

- Blocks containing several conflicting elements can be back edited in order to save time and effort.
- In order to do so,

(1) Select a block that displays a conflict.

(2) Right-click on that block and select «*View List of Conflicts*» — this opens the List of Conflicts screen.

(3) From the list of Conflicts screen, select the conflicts to batch edit and right-click.

(4) From the context menu, select the «Open Conflicting Object» Menu Items Frame — the Batch Edit window will open with the fields that are not identical highlighted as per the selected in the Batch Edit Options of the Options screen located in the Tools menu.

SHOW CONSTRAINTS

- Click on the delivery whose constraints you would like to see. Click on the show constraint button and the constraints will appear on the move screen.

NOTE:	The constraints that appear are Professor constraints and Academic Block constraints.

AVAILABLE TIMES

- When you generate the move screen for a delivery that has one or more unassigned pattern requests, the Available Times button is available in the toolbar.

NOTE:	If a delivery's pattern requests have been assigned, the Available Times button is disabled.

- To use the Available Times feature, open the move screen for a delivery that has one or more pattern requests. Click on the "Available Times" button. Select one of the unassigned pattern requests to view all the pattern subsets that could fit the delivery.
- The available pattern times are represented by different shades of green. The better the quality of the pattern subset, the brighter the green will be. The lower the quality of the pattern subset, the darker the green will be. In addition, when you move your cursor over an available pattern time, the tool tip will display the quality value as a percentage, with 100% being a perfect fit.
- Pattern quality is based on how closely the pattern subset matches the preferred constraint values for rooms, professors and academic blocks. If a room is already assigned, the room will not be taken into account.
- Pattern blocks, when selected, are blue.
- You can assign a selected pattern time to a delivery while in the Move screen. Select the pattern time to be assigned to the delivery and click on the ASSIGN button on the toolbar. The block of the newly assigned pattern time will have the same colors as for deliveries.
- Once assigned, the pattern blocks are moveable to other pattern subsets.

CHAPTER 14 - ROOM ASSIGNMENT

- The room assignment feature is available through the *Scheduler* screen. To access the room assigner, simply open the scheduler screen and select the «Room Assignment Only».

SCREENS

- Different screens will be enabled during the assignment process. Each screen is explained below.

THE SELECTION SCREEN

- The selection screen allows you to choose particular deliveries by using filters. You can then view the results of those deliveries that will be used in the Room Assignment process, in the list under deliveries.

This screen contains the following sections:

- Delivery Selection Filters (top row of the screen)
- Deliveries List Box (upper half of the screen)
- Scheduler Information

Room Assignment Only

- Use the room assignment to assign rooms for deliveries with forced times.

Delivery Selection Filters

- The selection screen has four filters; they each allow you to choose the deliveries for your current run of the batch room assigner. Every filter can have a value entered manually or with the LOOKUP To activate your filter simply click on the refresh button on the toolbar.

Deliveries List Box

- This list box displays the results of your filtering based on the selected criteria. All deliveries that were filtered after refreshing will be listed here.

Marker

- This field represents the marker of the delivery.

Assignment status

- This field represents the current status of the particular delivery. Each color circle is separated into two halves. The top half represents the room(s) and the bottom half represents the time(s). The following four colors can appear in either part of the circle:

COLOR	DESCRIPTION
RED	⌗ Red section of the icon means that the delivery cannot be assigned. For example, no room request has been created or there is no time associated to the delivery. These will appear as «failures» after the ASSIGN process is complete, along with the appropriate reason.
GREEN	⌗ Green section of the icon means that the requirement (time or room) has already been completely assigned (via data entry or via a previous Batch or Timetabler session). These will appear as «successes» after the ASSIGN process is complete.
YELLOW	⌗ Yellow section of the icon means that the requirement (time or room) has been partially assigned (via data entry or via a previous Batch or Timetabler session). The ASSIGN process will assign the remaining room requests.
NONE	⌗ A blank half of the icon indicates that a request exists, but has not yet been assigned.

⌗ If you sort on this field here is how the colors will be sorted.

TOP COLOR (ROOM)	BOTTOM COLOR (TIME)
BLANK	GREEN
YELLOW	GREEN
BLANK	BLANK
YELLOW	BLANK
BLANK	YELLOW
YELLOW	YELLOW
BLANK	RED
YELLOW	RED
GREEN	BLANK
GREEN	YELLOW
GREEN	GREEN
GREEN	RED
RED	BLANK
RED	YELLOW
RED	GREEN
RED	RED

Course

- This field indicates the Course number to which the particular delivery belongs.

Section

- This field indicates the Section to which the particular delivery belongs.

Component

- This field indicates the Component to which the particular delivery belongs.

Delivery

- This field indicates the delivery ID.

Actual

- This field indicates the value of the actual enrollment field in the component file related to the delivery.

Scheduling

- This field indicates the value of the scheduling enrollment field in the component file related to the delivery.

Scheduler Information _____

Delivery

- The name of the delivery being processed

Assignment Time

- Time spent processing the delivery

Session Time

- Total time spent processing selected deliveries

Rejected Requests

- Amount of deliveries rejected by the scheduler

Assigned Requests

- Amount of deliveries assigned by the scheduler

Remaining Requests

- Amount of deliveries left to process

ASSIGNMENT RESULTS SCREEN

- The ASSIGNMENT RESULTS screen displays the results of your assignment(s). The screen contains two tabs:
- Subset Results tab
- Session Results tab

«Subset Results» Tab

- This tab will display both the failures (upper list box) and the successes (lower list box) for the current batch assignment.

«Failures» Tab

- The Failures List Box displays the following data for all deliveries that were ***not*** authorized in the most recent batch of deliveries.

Marker

- This field represents the marker of the delivery.

Course

- This field indicates the Course number to which the particular delivery belongs.

Section

- This field indicates the Section to which the particular delivery belongs.

Component

- This field indicates the Component to which the particular delivery belongs.

Delivery

- This field indicates the delivery number.

Days

- This field indicates the day of the week that was given to the delivery when it was created/last edited.

Start Time

- This field indicates the Start Time that was given to the delivery when it was created/last edited.

End Time

- This field indicates the End Time that was given to the delivery when it was created/last edited.

Pavilion

- This field indicates the requested Pavilion, as entered on the delivery when it was created/last edited or as assigned during a previous assignment.

Room Type

- This field indicates the requested Room Type, as entered on the delivery when it was created/last edited.

Campus

- This field indicates the requested Campus as entered on the delivery when it was created/last edited/updated or as assigned during a previous assignment.

Building

- This field indicates the requested Building of the delivery, as entered when it was created/last edited or as assigned during a previous assignment.

Room #

- This field indicates the requested Room Number of the delivery, as entered when it was created/last edited or as assigned during a previous assignment.

Capacity

- This field indicates the capacity of the requested room of the delivery, as entered when it was created/last edited/updated.

Characteristics

- This field indicates the requested Room Characteristics of the delivery, as entered when it was created/last edited/updated.

Start Date

- This field indicates the Start Date that was given to the delivery when it was created/last edited.

End Date

- This field indicates the End Date that was given to the delivery when it was created/last edited.

Actual

- This field indicates the Actual value of enrollment that was given to the component related to the delivery when it was created/last edited.

Scheduling

- This field indicates the Scheduling value of enrollment that was given to the component related to the delivery when it was created/last edited.

Why not?

- This field indicates the first reason preventing the delivery from being assigned. Other reasons may exist and will be displayed only after the corrections have been made to the first level of errors. Any deliveries that were already assigned from a previous batch, or are forced, will appear as failures with the appropriate reason in the details column.

«Successes» Tab

- The Successes List Box displays the following data for all deliveries that were successfully authorized in the most recent batch of deliveries.

Marker

- This field represents the marker of the delivery.

Course

- This field indicates the Course number to which the particular delivery belongs.

Section

- This field indicates the Section to which the particular delivery belongs.

Component

- This field indicates the Component to which the particular delivery belongs.

Delivery

- This field indicates the delivery number.

Days

- This field indicates the day of the week that was given to the delivery when it was created/last edited.

Start Time

- This field indicates the Start Time that was given to the delivery when it was created/last edited.

End Time

- This field indicates the End Time that was given to the delivery when it was created/last edited.

Pavilion

- This field indicates the Pavilion of the assigned room for the newly confirmed delivery.

Room Type

- This field indicates the requested Room Type, as entered on the delivery when it was created/last edited.

Campus

- This field indicates the Campus of the assigned room for the newly confirmed delivery.

Building

- This field indicates the Building of the assigned room for the newly confirmed delivery.

Room #

- This field indicates the Room Number of the assigned room for the newly confirmed delivery.

Capacity

- This field indicates the Capacity of the assigned room for the newly confirmed delivery.

Characteristics

- This field indicates the Room Characteristics of the assigned room for the newly confirmed delivery.

Start Date

- This field indicates the Start Date that was given to the delivery when it was created/last edited.

End Date

- This field indicates the End Date that was given to the delivery when it was created/last edited.

Actual Enrollment

- This field indicates the actual enrollment in the component tied to the delivery.

Forecast Enrollment

- This field indicates the forecast enrollment in the component tied to the delivery.

Marker

- Represents the delivery's marker

Course

- Indicates the course number to which the component belongs.

Section

- Indicates the section to which this delivery belongs.

Component

- Indicates the component to which this delivery belongs.

Delivery

- Indicated the number or the name of the delivery

Days

- Indicates the day that was given to the delivery when it was created or edited

Start Time

- Indicates the start time that was given to the delivery when it was created or edited

End Time

- Indicates the end time that was given to the delivery when it was created or edited

Pavilion

- Indicates the pavilion requested by the delivery when it was created or edited or as it was assigned during the last assignment.

Room Type

- Indicates the room type requested by the delivery when it was created or edited

Campus

- Indicates the campus requested by the delivery when it was created or edited.

Building

- Indicates the building that was requested by the delivery when it was created or edited

Room Number

- Indicated the room requested by the delivery when it was created or edited.

Capacity

- Indicated the capacity requested by the delivery when it was created or edited.

Characteristics

- Indicates the characteristics requested by the delivery when it was created or edited.

Start Date

- Indicates the start date requested by the delivery when it was created or edited.

End Date

- This field indicates the End Date that was given to the delivery when it was created/last edited.

Actual

- This field indicates the Actual value of the component related to the newly confirmed delivery when it was created/last edited.

Scheduling

- This field indicates the Actual value of the component related to the newly confirmed delivery when it was created/last edited.

CHAPTER 15 - THE SCHEDULER

- The *Scheduler* is used to assign times and or rooms to a batch of deliveries.
- Select the *Scheduler* icon from the Main Toolbar to access the toolbar and the selections screen.
- To assign with the *Scheduler*, you must have pattern requests and/or room requests.
- The system is locked when the *Scheduler* is open to prevent other users from entering the application while times and/or rooms are being assigned.

THE ROOM ASSIGNMENT OPTIONS

- The batch room assigner options allow you to set back to back settings that the batch room assigner uses to assign rooms.
- To open the Options screen, click on Tools in the main menu and from the sub-menu click on Options, choose the Room Assignment tab.

Same Room for Consecutive Deliveries _____

- The consecutive settings allow the batch assigner to assign two deliveries in the same room, according to your options which are set here.

Same Professor (Selected by default)

- If selected, consecutive deliveries associated to the same professor will be assigned to the same room.

Same Academic Block

- If selected, consecutive deliveries associated to the same academic block will be assigned to the same room.

Same Professor and Same Academic Block

- If selected, consecutive deliveries associated to the same professor ***and*** academic block will be assigned to the same room.

Same Professor or Same Academic Block

- If selected, consecutive deliveries associated to the same professor ***or same*** academic block will be assigned to the same room.

Not Same Room

- If selected, consecutive deliveries associated to the same professor ***or*** same academic block will ***not*** be assigned to the same room.

Preferred (Selected by default)

- If selected, the indicated consecutive options are not required.

THE SCHEDULER OPTIONS

- The *Scheduler* options allow you to configure the different settings that the *Scheduler* uses when assigning rooms and/or times. In order to access the options screen, click on tools in the main menu. Click on options in the sub-menu and select the « *Scheduler* » tab.

Backtracking options

- Backtracking allows the system to modify a previously assigned delivery in order to assign another delivery that, without the modification, could not have been assigned. The Backtracking options allow you to activate and configure the Backtracking so that it is best suited for your data.

> **NOTE:** The backtracking process could be quite lengthy depending on the options selected, as the system can take up to the timeout value multiplied by the levels value, per reject.

Disabled

- The backtracking option will be disabled.

Process rejects as they occur *(Selected by default)*

- The backtracking process will be executed during the assignment process. The Backtracking will immediately attempt to resolve a failed delivery as soon as *Scheduler* identifies it as a failure.

Process rejects at the end

- The backtracking process will be executed at the end of the assignment process. The Backtracking will attempt to schedule all of the failures that remain at the end of the assignment process.

Levels

- The Levels frame defines the depth which the backtracking can reach when trying to find a solution for a rejected request. It also determines the number of levels the backtracking analyses before the actual process of moving the rejected request takes place.

Initial Search

- Enter the number of levels that the backtracking analyses before the actual displacement process of an assigned delivery begins.

Example:

If you enter a value of 1, the backtracking will look at all the assigned deliveries that are one level under that rejected request and will consider every aspect of the impact of displacing an assigned delivery.

Limit

- Enter the maximum number of levels that the backtracking can reach during the displacing of assigned requests. If the Timeout is reached before the backtracking has reached the limit value, the request then becomes a reject.

Timeout (ms)

- The value entered in this field defines the maximum amount of time, in milliseconds, per move (*see **Limit***) the system can use to try to place an exam component per rejected exam component. After which the backtracking feature will stop processing the current request and start to process the next failed exam component.
- The timeout value is in milliseconds, therefore
  2 minutes = 120 second (2*60) and 120 seconds = 120000 milliseconds (120 * 1000)

Enrollment Settings _____

- This is where you define which enrollment value you want the *Scheduler* to use. The enrollment field is specified in the component file. If you choose to use actual, the *Scheduler* will only consider the actual enrollment. If you choose to use scheduling *(which is selected by default)*, the *Scheduler* will only consider the scheduling enrollment. If you choose actual or scheduling, the *Scheduler* will use the actual enrollment unless it happens to be zero in which case the *Scheduler* will use the scheduling enrollment.

THE SCHEDULER TOOLBAR

- The toolbar appears as a continuation of the main menu. It contains a set of command buttons associated to the Timetabler:

The re-initialize button allows you to refresh the data in *Scheduler* after the data has been changed while still in *Scheduler*.

Back button, allows the user go back to a previous assigner screen.

Forward button, allows the user go to the statistics screen or to the results screen.

Clear button, clears the filters at the top of *Scheduler's* selection screen.

Assign button, assigns the selected deliveries.

Rollback button. Undoes the last assignment (to the last commit), but can be incremental. For example if three assignments have been done, clicking on the rollback button will rollback only the current assignment. If you click again, the previous assignment will be rolled back. If you click on the rollback once again the first assignment will be rolled back.

Commit button, commits and saves the assignment.

Break on first reject button. If this button is enabled, once the *Scheduler* encounters a reject, the process is stopped and you are directed to the result screen. To continue the assignment click on the assign button.

Pause button. Allows you to pause the assignment while the process is running.

Done button. Closes the Timetabler.

Unlock System button. Clicking on this button after an assignment will unlock the system. This allows the user to stay in the result screen while other users regain access to the database.

SCREENS

- During the assignment process, different screens will become enabled. Although the interfaces are similar, they do have certain differences. This section will explain each of the screens.

THE SELECTION SCREEN

- The selection screen is the first screen that appears once the *Scheduler* is opened. This screen allows you to select deliveries for assignment by using filters. Once you have entered the filter criteria (if there are any), click on the refresh button on the toolbar. The appropriate deliveries will then appear.
- This screen contains the following sections:
  - Deliveries (top row of the screen)
  - Room Assignment Only
  - Resources to ignore
  - Deliveries List Box
  - Scheduler Information

Room Assignment Only

- Use the room assignment to assign rooms for deliveries with forced times.

Delivery Selection Filters

- The selection screen has seven filters that allow you to select the deliveries for your current Timetabling session. Every filter can have a value entered manually or with the help of the LOOKUP. To activate your filter simply click on the refresh button on the toolbar.

Resources to Ignore

- These options are used to validate data and allow you to pinpoint the resource(s) that risk causing failures when timetabling. Checking this option will enable the other three options listed below. The *Scheduler* must be re-initialized if one of these options is checked.

Ignore Professors

- When checked, the *Scheduler* will assign times and rooms to the deliveries but without taking professors into consideration.

Ignore Students

- When checked, the *Scheduler* will assign times and rooms to the deliveries but without taking students into consideration.

Ignore Academic Blocks

- When checked, the *Scheduler* will assign times and rooms to the deliveries but without taking academic blocks into consideration.
- These three options can be selected in any combination.

NOTE:	Room constraints are always taken into consideration.

Deliveries List Box _____

- This list box displays the results of your filtering based on the selected criteria. All deliveries that match the filter criteria will appear in this screen after the screen has been refreshed.

Marker

- This field represents the marker of the delivery.

Assignment status

- This field represents the current status of a particular delivery. Each icon is separated into two halves; the top half represents the room requirements and the bottom half represents the time requirements. The following four colors can appear in each part:

COLOR	*DESCRIPTION*
RED	▫ Indicates that there is no request. In other words, there is no location specification on the delivery's room tab (if top half is red) or there is no forced time / pattern request on the deliveries time tab (if the bottom half is red).
GREEN	▫ Indicates a complete assignment. In other words, the delivery already has its room requirements (if top half is green) or the delivery already has its time requirements (if bottom half is green). **NOTE:** Both forced items and assigned items appear in green. At this point in the scheduling process, all deliveries with green portions indicate forced information and the *Scheduler* will not reschedule green portions.
YELLOW	▫ Indicates a partial assignment. In other words, the delivery is requesting more than one room but at least one room has been assigned/forced (if top half is yellow) or a delivery is requesting more than one pattern but at least one pattern time has already been assigned/forced.
NONE	▫ Indicates that a request has not yet been satisfied. In other words, the delivery is requesting one or more rooms on the location specification tab (if top half is white) or the delivery is requesting one or more pattern requests that have not yet been assigned.

- If you sort on this field here is how the colors will be sorted.

TOP COLOR (ROOM)	*BOTTOM COLOR (TIME)*
BLANK	BLANK
YELLOW	BLANK
BLANK	YELLOW
YELLOW	YELLOW
GREEN	BLANK
GREEN	YELLOW
RED	BLANK
RED	YELLOW
BLANK	GREEN
YELLOW	GREEN
BLANK	RED
YELLOW	RED
GREEN	GREEN
RED	GREEN
GREEN	RED
RED	RED

 # Freq. With Forced Time

- This field indicates the number of frequencies that have forced times for the delivery.

 # Freq. With Schd. Pat.

- This field indicates the number of frequencies that have scheduled pattern requests for the delivery.

 # Freq. With Part. Schd. Pat.

- This field indicates the number of frequencies that have one or more unassigned pattern requests for a delivery.

 # Freq. With Unschd Pat.

- This field indicates the number of frequencies that have no assigned pattern requests for a delivery.

 # Schd. Rooms

- This field indicates the number of rooms assigned to a delivery.

 # Unschd. Rooms

- This field indicates the number of unassigned room requests for a delivery.

Course

- This field indicates the Course to which the particular delivery belongs.

Section

- This field indicates the Section to which the particular delivery belongs.

Component

- This field indicates the Component to which the particular delivery belongs.

Delivery

- This field indicates the delivery ID.

RN

- This field indicates the RN field in the component file related to the delivery.

Scheduling

- This field indicates the value of the scheduling field in the component file related to a delivery.

Actual

- This field indicates the value of the actual field in the component file related to a delivery.

Faculty

- This field indicates the faculty of the delivery.

Department

- This field indicates the department of the delivery.

Subject

- This field indicates the subject field in the course file related to a delivery.

Term to Meet

- This field indicates the term to meet field in the component file related to a delivery.

Term Offered

- This field indicates the term offered field in the section file related to a delivery.

Start Date

- The delivery's start date

End Date

- The delivery's end date

 # Frequencies

- The number of frequencies associated to the delivery

 # Weeks

- The number of weeks the delivery takes place.

Availability Index
(Assigner license is required)

- This field displays the Availability Index for the current Delivery.

Prevent Availability Index Automated Modification
(Assigner license is required)

- Will display a checkmark if the Prevent Availability Index Automated Modification option is selected within that Delivery

Note

- Will display the note that is associated with the current Delivery

Scheduler Information _____

Delivery

- The name of the delivery being processed

Assignment Time

- Time spent processing the delivery

Session Time

- Total time spent processing selected deliveries

Rejected Requests

- Amount of deliveries rejected by the scheduler

Assigned Requests

- Amount of deliveries assigned by the scheduler

Remaining Requests

- Amount of deliveries left to process

SCHEDULING RESULTS SCREEN

- The assignment results screen of the *Scheduler* displays the results of your timetabling assignment(s). The screen contains two main tabs:
  - Subset Results tab
  - Session Results tab

«SUBSET RESULTS» TAB

- This tab has two sub tabs, the failures and the successes for the current timetabling assignment.

«FAILURES TAB»

- The results displayed under this tab are Delivery Frequencies that failed to be assigned. They are sorted by different tabs.
- The failures tab contains several other tabs. These tabs represent the items associated to a delivery that prevent it from being assigned. In each of these tabs you will find three lists, the top list, the middle list and the bottom list.
- In each list the report button is enabled to generate a report based on the information in the list.
- Double clicking on an item in a list will open the item.

«PROFESSORS TAB»

Marker

- This field indicates the marker of a delivery.

Surname

- This field indicates the Professor's surname.

Name

- This field indicates the Professor's name.

ID

- This field indicates the Professor's ID.

Faculty

- This field indicates the faculty of a delivery.

Department

- This field indicates the department of a delivery.

 # Deliveries

- This field displays the number of deliveries that are attached to this professor.

 # Sel. Deliveries

- This field displays the number of deliveries selected for assignment in the selection list that are attached to this professor.

 # Succ. Deliveries

- This field displays the number of deliveries associated to this professor that have been successfully assigned.

 # Fail. Deliveries

- This field displays the number of deliveries associated to this professor that were unable to be assigned.

 # Pat. Requests

- This field displays the number of pattern requests within the deliveries that are associated to the professor.

 # Sel. Pat. Req.

- This field displays the number of pattern requests within the selected deliveries that are associated to this professor.

 # Succ. Pat. Req.

- This field displays the number of selected pattern requests that have been successfully assigned.

 # Fail. Pat. Req.

- This field displays the number of pattern requests that were unable to be assigned.

Note

- This field displays any note associate to the current professor.

The Middle List _____

- This list represents the failed deliveries associated to the selected item in the first list.

 # Rooms

- This field displays the number of location specifications there are in the selected delivery.

 # Rejected Rooms

- This field displays the number of rejected location specifications for the selected delivery.

 # Times

- This field displays the number of pattern requests in the selected delivery.

 # Rejected Times

- This field displays the number of pattern requests that have been rejected.

 # Professors

- This field displays the number of professors that are attached to the selected delivery.

 # Academic Blocks

- This field displays the number of student groups that are attached to the selected delivery.

The Bottom List _____

- This list displays the details of the failed deliveries selected in the middle list as well as the try number for each try that has been made for each pattern request.

Start Date and End Date

- These fields display the start date and end date of the failed delivery's frequency.

Pattern Request

- This field displays the pattern request of a frequency of the failed delivery.

Order

- This field displays the value of the field named order of the pattern request.

Pattern Subset

- This field displays the pattern subset that the system tried to assign to the pattern request.

Day, Start Time and Duration

- This field displays the failed part of the pattern subset.

Why Not?

- This field displays the main reason for the failure of the pattern request.

Broken Constraint

- This field further explains the why not field when the why not is related to a constraint.

Source

- This field displays the source of the broken constraint field.

Details

- This field displays the details of the source field.

Try Number

- This field displays the sequence of what has been tried during the process of assigning a pattern subset.

«STUDENTS TAB»

Marker

- This field indicates the marker of the student.

Surname

- This fields displays the current student's surname

Name

- This field displays the current student's name

ID

- This field displays the current student's ID

Weight

- This field displays the student weight given to the current student.

Program Course Categ.

- The Program Course Category associated with the current student.

 # Deliveries

- This field displays the number of deliveries that are attached to this student.

 # Sel. Deliveries

- This field displays the number of deliveries selected for assignment in the selection list that are attached to the current student.

 # Succ. Deliveries

- This field displays the number of deliveries associated with the current student that have been successfully assigned.

 # Fail. Deliveries

- This field displays the number of deliveries associated with the current student that were unable to be assigned.

 # Pat. Requests

- This field displays the number of pattern requests within the deliveries that are associated with the current student.

 # Sel. Pat. Req.

- This field displays the number of pattern requests within the selected deliveries that are associated with the current student.

 # Succ. Pat. Req.

- This field displays the number of selected pattern requests that have been successfully assigned.

 # Fail. Pat. Req.

- This field displays the number of pattern requests that were unable to be assigned.

Note

- This field displays any note associate to the current student.

The Middle List _____

- This list represents the failed deliveries associated to the selected item in the first list.

 # Rooms

- This field displays the number of location specifications there are in the selected delivery.

 # Rejected Rooms

- This field displays the number of rejected location specifications for the selected delivery.

 # Times

- This field displays the number of pattern requests in the selected delivery.

 # Rejected Times

- This field displays the number of pattern requests that have been rejected.

 # Professors

- This field displays the number of professors that are attached to the selected delivery.

 # Academic Blocks

- This field displays the number of student groups that are attached to the selected delivery.

The Bottom List _____

- This list displays the details of the failed deliveries selected in the middle list as well as the try number for each try that has been made for each pattern request.

Start Date and End Date

- These fields display the start date and end date of the failed delivery's frequency.

Pattern Request

- This field displays the pattern request of a frequency of the failed delivery.

Order

- This field displays the value of the field named order of the pattern request.

Pattern Subset

- This field displays the pattern subset that the system tried to assign to the pattern request.

Day, Start Time and Duration

- This field displays the failed part of the pattern subset.

Why Not?

- This field displays the main reason for the failure of the pattern request.

Broken Constraint

- This field further explains the why not field when the why not is related to a constraint.

Source

- This field displays the source of the broken constraint field.

Details

- This field displays the details of the source field.

Try Number

- This field displays the sequence of what has been tried during the process of assigning a pattern subset.

«ACADEMIC BLOCKS TAB»

Marker

- This field displays if the current Academic Block has the Marker field selected.

ID

- This field displays the Academic Block's ID.

Description

- This field displays the Academic Block's description

Faculty

- This field displays the faculty associated with the current Academic Block.

Department

- This field displays the department associated with the current Academic Block.

 # Components

- This field displays the number of components that are attached to the current Academic Block.

#Sel. Components

- This field displays the number of components selected for assignment in the selection list that are attached to the current Academic Block.

#Succ. Components

- This field displays the number of components associated to the current Academic Block that have been successfully assigned.

#Fail. Components

- This field displays the number of components associated to the current Academic Block that were unable to be assigned.

 # Deliveries

- This field displays the number of deliveries that are attached to the current Academic Block.

 # Sel. Deliveries

- This field displays the number of deliveries selected for assignment in the selection list that are attached to the current Academic Block.

 # Succ. Deliveries

- This field displays the number of deliveries associated to the current Academic Block that have been successfully assigned.

 # Fail. Deliveries

- This field displays the number of components associated to the current Academic Block that were unable to be assigned.

 # Pat. Requests

- This field displays the number of pattern requests within the deliveries that are associated to the current Academic Block.

 # Sel. Pat. Req.

- This field displays the number of pattern requests within the selected deliveries that are associated to the current Academic Block.

 # Succ. Pat. Req.

- This field displays the number of selected pattern requests that have been successfully assigned.

 # Fail. Pat. Req.

- This field displays the number of pattern requests that were unable to be assigned.

Note

- This field displays any note associate to the current Academic Block.

The Middle List _____

- This list represents the failed deliveries associated to the selected item in the first list.

 # Rooms

- This field displays the number of location specifications there are in the selected delivery.

 # Rejected Rooms

- This field displays the number of rejected location specifications for the selected delivery.

 # Times

- This field displays the number of pattern requests in the selected delivery.

 # Rejected Times

- This field displays the number of pattern requests that have been rejected.

 # Professors

- This field displays the number of professors that are attached to the selected delivery.

 # Academic Blocks

- This field displays the number of student groups that are attached to the selected delivery.

The Bottom List _____

- This list displays the details of the failed deliveries selected in the middle list as well as the try number for each try that has been made for each pattern request.

Start Date and End Date

- These fields display the start date and end date of the failed delivery's frequency.

Pattern Request

- This field displays the pattern request of a frequency of the failed delivery.

Order

- This field displays the value of the field named order of the pattern request.

Pattern Subset

- This field displays the pattern subset that the system tried to assign to the pattern request.

Day, Start Time and Duration

- This field displays the failed part of the pattern subset.

Why Not?

- This field displays the main reason for the failure of the pattern request.

Broken Constraint

- This field further explains the why not field when the why not is related to a constraint.

Source

- This field displays the source of the broken constraint field.

Details

- This field displays the details of the source field.

Try Number

- This field displays the sequence of what has been tried during the process of assigning a pattern subset.

«ROOMS» TAB

Marker

- This field displays if the current Room has the Marker field selected.

Campus

- This field displays the campus to which the current room is associated.

Building

- This field displays the building to which the current room is associated.

Pavilion

- This field displays the pavilion to which the current room is associated.

Room #

- This field displays the current room's number.

Room Type

- This field displays the current room's type.

Capacity

- This field displays the current room's capacity.

 # Deliveries

- This field displays the number of deliveries that are attached to the current room.

 # Sel. Deliveries

- This field displays the number of deliveries selected for assignment in the selection list that are attached to the current room.

 # Succ. Deliveries

- This field displays the number of deliveries associated to the current room that have been successfully assigned.

 # Fail. Deliveries

- This field displays the number of components associated to the current room that were unable to be assigned.

 # Pat. Requests

- This field displays the number of pattern requests within the deliveries that are associated to the current room.

 # Sel. Pat. Req.

- This field displays the number of pattern requests within the selected deliveries that are associated to the current room.

 # Succ. Pat. Req.

- This field displays the number of selected pattern requests that have been successfully assigned.

 # Fail. Pat. Req.

- This field displays the number of pattern requests that were unable to be assigned.

Note

- This field displays any note associate to the current room.

The Middle List _____

- This list represents the failed deliveries associated to the selected item in the first list.

 # Rooms

- This field displays the number of location specifications there are in the selected delivery.

 # Rejected Rooms

- This field displays the number of rejected location specifications for the selected delivery.

 # Times

- This field displays the number of pattern requests in the selected delivery.

 # Rejected Times

- This field displays the number of pattern requests that have been rejected.

 # Professors

- This field displays the number of professors that are attached to the selected delivery.

 # Academic Blocks

- This field displays the number of student groups that are attached to the selected delivery.

The Bottom List _____

- This list displays the details of the failed deliveries selected in the middle list as well as the try number for each try that has been made for each pattern request.

Start Date and End Date

- These fields display the start date and end date of the failed delivery's frequency.

Pattern Request

- This field displays the pattern request of a frequency of the failed delivery.

Order

- This field displays the value of the field named order of the pattern request.

Pattern Subset

- This field displays the pattern subset that the system tried to assign to the pattern request.

Day, Start Time and Duration

- This field displays the failed part of the pattern subset.

Why Not?

- This field displays the main reason for the failure of the pattern request.

Broken Constraint

- This field further explains the why not field when the why not is related to a constraint.

Source

- This field displays the source of the broken constraint field.

Details

- This field displays the details of the source field.

Try Number

- This field displays the sequence of what has been tried during the process of assigning a pattern subset.

«ROOM TYPES» TAB

Marker

- This field displays if the current room type has the Marker field selected.

ID

- This field displays the room type's ID.

 # Deliveries

- This field displays the number of deliveries that are attached to the current room type.

 # Sel. Deliveries

- This field displays the number of deliveries selected for assignment in the selection list that are attached to the current room type.

 # Succ. Deliveries

- This field displays the number of deliveries associated to the current room type that have been successfully assigned.

 # Fail. Deliveries

- This field displays the number of components associated to the current room type that were unable to be assigned.

 # Pat. Requests

- This field displays the number of pattern requests within the deliveries that are associated to the current room type.

 # Sel. Pat. Req.

- This field displays the number of pattern requests within the selected deliveries that are associated to the current room type.

 # Succ. Pat. Req.

- This field displays the number of selected pattern requests that have been successfully assigned.

 # Fail. Pat. Req.

- This field displays the number of pattern requests that were unable to be assigned.

Note

- This field displays any note associate to the current room type.

The Middle List _____

- This list represents the failed deliveries associated to the selected item in the first list.

 # Rooms

- This field displays the number of location specifications there are in the selected delivery.

 # Rejected Rooms

- This field displays the number of rejected location specifications for the selected delivery.

 # Times

- This field displays the number of pattern requests in the selected delivery.

 # Rejected Times

- This field displays the number of pattern requests that have been rejected.

 # Professors

- This field displays the number of professors that are attached to the selected delivery.

 # Academic Blocks

- This field displays the number of student groups that are attached to the selected delivery.

The Bottom List _____

- This list displays the details of the failed deliveries selected in the middle list as well as the try number for each try that has been made for each pattern request.

Start Date and End Date

- These fields display the start date and end date of the failed delivery's frequency.

Pattern Request

- This field displays the pattern request of a frequency of the failed delivery.

Order

- This field displays the value of the field named order of the pattern request.

Pattern Subset

- This field displays the pattern subset that the system tried to assign to the pattern request.

Day, Start Time and Duration

- This field displays the failed part of the pattern subset.

Why Not?

- This field displays the main reason for the failure of the pattern request.

Broken Constraint

- This field further explains the why not field when the why not is related to a constraint.

Source

- This field displays the source of the broken constraint field.

Details

- This field displays the details of the source field.

Try Number

- This field displays the sequence of what has been tried during the process of assigning a pattern subset.

«COMPONENTS» TAB

Marker

- Displays if the current Component has the Marker field selected

Faculty

- Displays the faculty associated with the current component

Department

- Displays the department associated with the current component

Course

- Displays the course associated with the current component

Section

- Displays the section associated with the current component

ID

- Displays the component's ID

 # Academic Blocks

- Displays the number of Academic Blocks that are attached to the current component

 # Deliveries

- Displays the number of deliveries that are attached to the current component

 # Sel. Deliveries

- Displays the number of deliveries selected for assignment in the selection list attached to the current component

 # Succ. Deliveries

- Displays the number of deliveries associated to the current component that have been successfully assigned

 # Fail. Deliveries

- Displays the number of deliveries associated to the current component that were unable to be assigned

 # Pat. Requests

- Displays the number of pattern requests within the deliveries associated to the current component

 # Sel. Pat. Req.

- Displays the number of pattern requests within the selected deliveries associated to the current component

 # Succ. Pat. Req.

- Displays the number of selected pattern requests that have been successfully assigned

 # Fail. Pat. Req.

- Displays the number of pattern requests that were unable to be assigned

Note

- Displays any note associate to the current component

The Middle List _____

- Represents the failed deliveries associated to the selected item in the first list

 # Rooms

- This field displays the number of location specifications there are in the selected delivery.

 # Rejected Rooms

- This field displays the number of rejected location specifications for the selected delivery.

 # Times

- This field displays the number of pattern requests in the selected delivery.

 # Rejected Times

- This field displays the number of pattern requests that have been rejected.

 # Professors

- This field displays the number of professors that are attached to the selected delivery.

 # Academic Blocks

- This field displays the number of student groups that are attached to the selected delivery.

The Bottom List _____

- This list displays the details of the failed deliveries selected in the middle list as well as the try number for each try that has been made for each pattern request.

Start Date and End Date

- These fields display the start date and end date of the failed delivery's frequency.

Pattern Request

- This field displays the pattern request of a frequency of the failed delivery.

Order

- This field displays the value of the field named order of the pattern request.

Pattern Subset

- This field displays the pattern subset that the system tried to assign to the pattern request.

Day, Start Time and Duration

- This field displays the failed part of the pattern subset.

Why Not?

- This field displays the main reason for the failure of the pattern request.

Broken Constraint

- This field further explains the why not field when the why not is related to a constraint.

Source

- This field displays the source of the broken constraint field.

Details

- This field displays the details of the source field.

Try Number

- This field displays the sequence of what has been tried during the process of assigning a pattern subset.

«DELIVERIES» TAB

Status

- This field displays the status of the delivery. For more information regarding delivery statuses, please refer to the «Delivery List» section in this guide.

Marker

- This field displays if the current delivery has the Marker field selected.

Faculty

- This field displays the faculty associated with the current delivery.

Department

- This field displays the department associated with the current delivery

Course

- This field displays the course associated with the current delivery.

Section

- This field displays the section associated with the current delivery.

Component

- This field displays the component associated with the current delivery.

ID

- This field displays the ID of the current delivery.

 # Academic Blocks

- This field displays the number of Academic Blocks that are attached to the current delivery.

 # Professors

- This field displays the number of professors that are attached to the current delivery.

 # Pat. Requests

- This field displays the number of pattern requests associated within the current delivery.

 # Sel. Pat. Req.

- This field displays the number of pattern requests associated with the current delivery.

 # Succ. Pat. Req.

- This field displays the number of selected pattern requests that have been successfully assigned.

 # Fail. Pat. Req.

- This field displays the number of pattern requests that were unable to be assigned.

Note

- This field displays any note associate to the current delivery.

The Middle List _____

- This list represents the failed deliveries associated to the selected item in the first list.

 # Rooms

- This field displays the number of location specifications there are in the selected delivery.

 # Rejected Rooms

- This field displays the number of rejected location specifications for the selected delivery.

 # Times

- This field displays the number of pattern requests in the selected delivery.

 # Rejected Times

- This field displays the number of pattern requests that have been rejected.

 # Professors

- This field displays the number of professors that are attached to the selected delivery.

 # Academic Blocks

- This field displays the number of student groups that are attached to the selected delivery.

The Bottom List _____

- This list displays the details of the failed deliveries selected in the middle list as well as the try number for each try that has been made for each pattern request.

Start Date and End Date

- These fields display the start date and end date of the failed delivery's frequency.

Pattern Request

- This field displays the pattern request of a frequency of the failed delivery.

Order

- This field displays the value of the field named order of the pattern request.

Pattern Subset

- This field displays the pattern subset that the system tried to assign to the pattern request.

Day, Start Time and Duration

- This field displays the failed part of the pattern subset.

Why Not?

- This field displays the main reason for the failure of the pattern request.

Broken Constraint

- This field further explains the why not field when the why not is related to a constraint.

Source

- This field displays the source of the broken constraint field.

Details

- This field displays the details of the source field.

Try Number

- This field displays the sequence of what has been tried during the process of assigning a pattern subset.

«PATTERNS» TAB

Marker

- This field displays if the current pattern has the Marker field selected.

ID

- This field displays the ID of the current pattern.

Description

- This field displays the description of the current pattern

 # Pat. Requests

- This field displays the number of pattern requests associated with the current pattern

 # Sel. Pat. Requests

- This filed displays the number of selected pattern requests that are associated with the current pattern.

 # Succ. Pat. Req.

- This field displays the number of selected pattern requests that have been successfully assigned.

 # Fail. Pat. Req.

- This field displays the number of pattern requests that were unable to be assigned.

The Middle List _____

- This list represents the failed deliveries associated to the selected item in the first list.

 # Rooms

- This field displays the number of location specifications there are in the selected delivery.

 # Rejected Rooms

- This field displays the number of rejected location specifications for the selected delivery.

 # Times

- This field displays the number of pattern requests in the selected delivery.

 # Rejected Times

- This field displays the number of pattern requests that have been rejected.

 # Professors

- This field displays the number of professors that are attached to the selected delivery.

 # Academic Blocks

- This field displays the number of student groups that are attached to the selected delivery.

The Bottom List

- This list displays the details of the failed deliveries selected in the middle list as well as the try number for each try that has been made for each pattern request.

Start Date and End Date

- These fields display the start date and end date of the failed delivery's frequency.

Pattern Request

- This field displays the pattern request of a frequency of the failed delivery.

Order

- This field displays the value of the field named order of the pattern request.

Pattern Subset

- This field displays the pattern subset that the system tried to assign to the pattern request.

Day, Start Time and Duration

- This field displays the failed part of the pattern subset.

Why Not?

- This field displays the main reason for the failure of the pattern request.

Broken Constraint

- This field further explains the why not field when the why not is related to a constraint.

Source

- This field displays the source of the broken constraint field.

Details

- This field displays the details of the source field.

Try Number

- This field displays the sequence of what has been tried during the process of assigning a pattern subset.

«SCHEDULING GROUPS» TAB

Marker

- This field displays if the current Scheduling Group has the Marker field selected.

Invalid

- This field displays if the current Scheduling Group is invalid.

Parent Group

- This field displays the current Scheduling Group's parent group

Parent Goup Level

- This field displays the current scheduling group's parent group level.

Delivery Group

- This field displays the current scheduling group's delivery group.

Group Constraint

- This field displays the current scheduling group's group constraint

Same Rooms

- This field will display the group constraint with this room assignment constraint that is associated with the current scheduling group.

Same Buildings

- This field will display the group constraint with this room assignment constraint that is associated with the current scheduling group.

Same Campuses

- This field will display the group constraint with this room assignment constraint that is associated with the current scheduling group.

Same Room Types

- This field will display the group constraint with this room assignment constraint that is associated with the current scheduling group.

Same Pavilions

- This field will display the group constraint with this room assignment constraint that is associated with the current scheduling group.

Same Professors

- This field will display the resource that has this resource sharing selected.

Same Students

- This field will display the resource that has this resource sharing selected.

Same Academic Block

- This field will display the resource that has this resource sharing selected.

 # Members

- This field displays the number of members within the current scheduling group

 # Full Sched.

- This field displays the number of deliveries that are completely assigned.

 # Part Sched.

- This field displays the number of deliveries that are partially assigned.

 # Not Sched.

- This field displays the number of deliveries that are not assigned.

Note

- This field displays any note associate to the current scheduling group.

The Middle List

- This list represents the failed deliveries associated to the selected item in the first list.

 # Rooms

- This field displays the number of location specifications there are in the selected delivery.

 # Rejected Rooms

- This field displays the number of rejected location specifications for the selected delivery.

 # Times

- This field displays the number of pattern requests in the selected delivery.

 # Rejected Times

- This field displays the number of pattern requests that have been rejected.

 # Professors

- This field displays the number of professors that are attached to the selected delivery.

 # Academic Blocks

- This field displays the number of student groups that are attached to the selected delivery.

The Bottom List

- This list displays the details of the failed deliveries selected in the middle list as well as the try number for each try that has been made for each pattern request.

Start Date and End Date

- These fields display the start date and end date of the failed delivery's frequency.

Pattern Request

- This field displays the pattern request of a frequency of the failed delivery.

Order

- This field displays the value of the field named order of the pattern request.

Pattern Subset

- This field displays the pattern subset that the system tried to assign to the pattern request.

Day, Start Time and Duration

- This field displays the failed part of the pattern subset.

Why Not?

- This field displays the main reason for the failure of the pattern request.

Broken Constraint

- This field further explains the why not field when the why not is related to a constraint.

Source

- This field displays the source of the broken constraint field.

Details

- This field displays the details of the source field.

Try Number

- This field displays the sequence of what has been tried during the process of assigning a pattern subset.

«SUCCESSES» TAB

Marker

- This field displays the marker of the delivery.

Faculty

- This field indicates the faculty of the delivery.

Department

- This field indicates the department of the delivery.

Subject

- This field indicates the subject field in the course file related to the delivery.

Course

- This field indicates the Course number to which the particular delivery belongs.

Section

- This field indicates the Section to which the particular delivery belongs.

Component

- This field indicates the Component to which the particular delivery belongs.

Delivery

- This field indicates the delivery number.

RN

- This field indicates the RN field in the component file related to a delivery.

Start Date

- This field indicates the Start Date of a frequency.

End Date

- This field indicates the End Date of a frequency.

Pattern

- This field indicates the requested pattern for the frequency.

Order

- This field indicates the order of the pattern request.

Forced Times

- This field indicates if the time was forced.

Forced Room

- This field indicates if the room was forced.

Actual

- This field indicates the value of the actual field in the component file related to the delivery.

Scheduling

- This field indicates the value of the scheduling field in the component file related to the delivery.

Day

- This field indicates the assigned day within the frequency.

Start Time

- This field indicates the assigned start time for the frequency.

Duration

- This field indicates the duration of the assigned time.

Pavilion

- This field indicates the pavilion in which the delivery will occur.

Pavilion – Requested

- This field indicates the pavilion requested for the delivery

Pavilion – Quality

- This field indicates the quality of the pavilion as defined by the Room Quality Rule.

Room Type

- This field indicates the room type of the room in which the delivery will occur.

Room Type – Requested

- This field indicates the room type that was requested for the delivery.

Room Type – Quality

- This field indicates the quality of the room type as defined by the Room Quality Rule.

Campus

- This field indicates the campus in which the delivery will occur.

Building

- This field indicates the building in which the delivery will occur.

Room

- This field indicates the room in which the delivery will occur.

Room Quality

- This field indicates the quality of the room as defined by the Room Quality Rule.

Capacity

- This field indicates the capacity of the assigned room.

Capacity – Requested

- This field indicates the capacity requested for the delivery.

Capacity – Quality

- This field indicates the quality of the capacity as defined by the Room Quality Rule.

Characteristics

- This field identifies the characteristics of the assigned room.

Characteristics - Requested

- This field indicates the characteristics requested in the room request.

Characteristics – Available

- This field indicates the assigned room's characteristics that match the requested characteristics within the room request.

Characteristics – Unavailable

- This field indicates the characteristics that have been requested in a room request that the assigned room does not have.

Characteristics – Quality

- This field indicates the quality of the characteristics as defined by the Room Quality Rule.

Note

- This field displays the note that is associated with this delivery

«SESSION RESULTS» TAB

- This tab contains all of the assignment results done during a particular *Scheduler* session. For example, when you first open *Scheduler* and click on assign, the results will go in the subset results tab. If you go back to the selection screen and choose other deliveries to be assigned, the first subset that was assigned will be transferred into the session results tab. The fields and tabs on the session screen are identical to those found on the subset results screen.

REPORTS

Statistics Report

- This report is a replica of the statistic screen but arranges the data in a more efficient manner.

Subset and Session results reports

- The subset or session assignment results report can only be viewed when in their respective tabs. The session report will contain all the data that has been processed during the current session whereas the subset report will contain the current assignment report. Both the reports have the same layout.

The failures

- The failure tab is separated into three lists. For each list, it is possible to generate a report by clicking in the appropriate list and then clicking the report button on the main toolbar. Each report will contain the same information as the list.

The successes

- The success tab has only one list and therefore only one report. Click on the list and then click on the report button on the main toolbar to generate the success report.

THE SCHEDULER SIMULATION TOOL

- The Scheduler Simulation Tool allows multiple users to work simultaneously in Timetabler while users run a scheduling simulation. When running the Scheduler Simulation Tool, there is no need to ask other users to log out from the application. The Scheduler simulation tool is in all aspects identical to the Scheduler tool with the exception that you cannot commit (save) the schedule.

- The toolbar appears as a continuation of the main menu. It contains a set of command buttons associated to the Timetabler:

- The re-initialize button allows you to refresh the data in *Scheduler Simulation* Tool after the data has been changed while still in *Scheduler Simulation* Tool.

- Back button, allows the user go back to a previous assigner screen.

- Forward button, allows the user go to the statistics screen or to the results screen.

- Clear button, clears the filters at the top of *Scheduler 's* selection screen.

- Assign button, assigns the selected deliveries.

- Rollback button. Undoes the last assignment, but can be incremental. For example, if three assignments have been done, clicking on the rollback button will rollback only the current assignment. If you click again, the previous assignment will be rolled back. If you click on the rollback once again the first assignment will be rolled back.

- Break on first reject button. If this button is enabled, once the *Scheduler* encounters a reject, the process is stopped and you are directed to the result screen. To continue the assignment, click on the assign button.

- Pause button. Allows you to pause the assignment while the process is running.

- Done button. Closes the Timetabler.

NOTE: For a detailed explanation of all features of the *Scheduler Simulation Tool* screens, please refer to the *Scheduler* section of this guide.

CHAPTER 16 – THE STUDENT ASSIGNER

- Select the Student Assigner icon from the Main Toolbar to view the Student Assigner Toolbar and the Selections screen.
- If there are users in the system, the Student Assigner cannot be launched.
- Once the Student Assigner is opened, other users cannot log in — the system is locked.

THE STUDENT ASSIGNER OPTIONS

- To open the options screen, click on tools in the main menu. From the sub-menu, click on Options and select the «Student Assigner» tab.

Balancing Type_____

- These options define how the space within components and sections is to be filled.

Pack

- If this option is selected, the Student Assigner will fill one section to its maximum capacity before filling the next section.

Proportional (selected by default)

- If this option is selected, the Student Assigner will try to fill all the sections to the same proportion.

Straight Used

- If this option is selected, the Student Assigner will try to assign the same number of students to each section.

Straight Free

- If this option is selected, the Student Assigner will try to leave the same amount of free space in each section.

Balancing tolerance

- When using the balancing type Proportional, Straight Used or Straight Free, the Student Assigner will proportionally balance the assignment of students.
- The Balancing tolerance defines the percentage by which the section and component capacity can surpass or come short of the perfectly balanced assignment.
- The Balancing tolerance is a hard constraint that helps the Student Assigner determine its leeway (higher or lower) from the ideal balanced capacity. This value will then be multiplied by the component capacity.

> **Example**:
> *A component has an enrollment of 32 (assuming the ideal enrollment is 20).*
> *The Balancing tolerance is established at 25%.*
> *By multiplying the Balancing tolerance by the enrollment value we get the number of acceptable seats by which the Student Assigner can fluctuate (0.25 X 32 = 8 seats), which is then used to determine the low and high values for the Student Assigner:*
> *Lowest acceptable value = ideal enrollment – Balancing tolerance (20 – 8 = 12)*
> *Highest acceptable value = ideal enrollment + Balancing tolerance (20+ 8 = 28);*
> *therefore, the Student Assigner can assign anywhere between 12 and 28 seats to that component.*

Override balance pool

- When students are grouped in a logical grouping, the Student Assigner will try to keep those students together. The Override balance pool feature indicates the number of seats by which the Student Assigner can surpass the ideal capacity when assigning an entire logical grouping of students to a component to try to keep students together. This number of seats cannot surpass the balancing tolerance but will impact assignment results since the Student Assigner will give preference to keeping students together even if a component is no longer balanced.

> **Example**:
> A component has an enrollment of 32 (assuming the ideal enrollment is 20).
> The Override balance pool is set to 4
> The Student Assigner can now reach a total of 24 students for that component in order to keep the logical grouping of similar students together instead of breaking up those students (even if another component has room for those 4 students and would in turn respect the perfect balance).

Back Tracking Options

- This option lets the Student Assigner modify a previously assigned student in order to assign another student who, without any modification, would not be assigned.

Back Tracking Level

- The back tracking level defines how deep (nested levels) the Student Assigner will unassign the already assigned requests in order to allow otherwise unassignable student requests to be assigned. Setting this option to more than 1 may slow down the assigning process but will reduce the number of rejected student requests.

Request Priority

- To define the request priority, you will need to define the importance of each influential factor affecting the assignment results. The following four fields define the importance for each influential factor.

Require Characteristic Request

- This is where you define the relative importance of Required Characteristics for the course requests. Required Characteristics are characteristics that have been set to «Required» in the course request form.

Characteristic Request

- This is where you define the importance of characteristics for the course requests. Characteristics are set in the course request form. Any characteristic, required or not, will be taken into consideration in this field.

Student Weight

- This is where you define the importance of student weight for the course request. Student weight is set in the student form and defines the importance of a student's requests.

Course Category

- This is where you define the importance of course category weight for the course request. Course category weight is set in the program course category form and defines how important the course is to the student.

Weight and Rank

- Rank is used to provide a preference for a request factor. This field must contain a value ranging from 0 to 3, where Rank 0 is the highest priority and Rank 3 is the lowest priority. Rank indicates a stronger preference than weight.
- Weight is used to assign a preference to any request factor within the same rank, and is therefore only enabled when multiple factors have the same rank. For a request, the total of the 4 weights will determine the real weight of the request. This value is in percent from 0 to 100 where 0 is the lowest priority and 100 is the highest priority.
- It is useful to define a rank and a weight for each element since the calculation only compares weights of the elements of equal rank. Elements with a rank of "0" are automatically considered more important than elements with a rank of "1", regardless of their weight.

Potential Combination Quality

- This section of the screen is where you define the relative importance of the following quality parameters.
- The combination of the following three request properties will direct the assignment quality and behavior of each request.
- For example, if the characteristic rank is set to "1", combinations of components having the desired characteristics will have a higher combination quality than combinations of components from preferred sections and vice versa if the preferred section rank is set to "1".

Characteristic Rank

- This field defines the importance of the course characteristic specified in the course request during the assigning process.

Preferred section rank

- This field defines the importance of preferred section specified in the program content during the assigning process.

Rank

- This field is used to provide a rank to the associated weight. This field must contain a value from 0 to 1 where 0 is the highest priority and 1 is the lowest priority.

Prefer Preassigned

- The results of the last assignment will be respected, but if there is a need, the Student Assigner could unassign.

Lock Preassigned

- The success of the last assignment will remain untouched, but the Student Assigner will work on the failures.

Ignore Preassigned (selected by default)

- The Student Assigner will ignore the last assignment and will run as if it was the initial run.

Allow broken constraints for preassigned

- When this option is selected, the Student Assigner will leave the student in a preassigned section even if this causes to be broken scheduling constraints for that student.

Other options_____

Number of passes

- The number of pass represents the number of times the Student Assigner goes through the database.
- If this number is set to 1, it will mark a course section combination as a failure when it cannot assign it and will no longer attempt to assign this combination.
- If this number is set to 2, the rejects from the first pass will be unmarked and reconsidered in the second pass.
- The higher the number of pass the more times the Student Assigner will run to fix the failures of the previous pass.

Group Similar Student

- This means that the Student Assigner will try to assign students with similar requests in the same sections and components.

Group Students of Same Program Only

- If this is selected, only students with similar requests (group similar student) AND from the same program will be grouped.

Grouping Similar Students

Student 1 is requesting:	***Student 2 is requesting:***
Course A	*Course A*
Course B	*Course B*
Course C	*Course C*
	Course D

*These two students **will be grouped** because student 1 is a subset of student 2.*

Minimum course category weight for grouping consideration

- This value defines if a course request is considered when we compare the similarity of the student requests. If the program course category weight of the course being requested is equal or higher than the value specified in this field, the course requested will be considered during the comparison of the student requests, otherwise it will not be considered.

Example:

Minimum course category weight for grouping consideration

Value of this field = 50
PCCW = Program Course Category Weight

Student 1 request	***PCCW***	***Student 2 request***	***PCCW***
Course A	*100*	*Course A*	*60*
Course B	*100*	*Course B*	*50*
Course C	*49*	*Course D*	*49*

In this example, course A and course B (for both student 1 and 2) are all higher than the minimum value (50) this means that they will be considered during the grouping process. Since they are the same courses for both students, these courses meet the grouping criteria.
Now, course C and D are not similar and since their PCCW are below the minimum value (50) they will not be considered during the grouping process.

In conclusion these two students will be grouped together.

Sequence at the student's highest requested priority

- If this option is selected, the Student Assigner will apply the highest priority of a student request to all of that student's requests.

Use program(s) allocation(s) ***(selected by default)***

- If this option is selected, the Student Assigner will assign using the program allocation data.

Use sectioning combinations ***(selected by default)***

- If this option is selected, the Student Assigner will assign using the section combination data.

Ignore validation of potential time rejects

- By selecting this option, the Student Assigner will no longer verify conflicts when assigning students or Academic Blocks to a component, and it will no longer determine if that assignment will remove all potential times for that component or another already assigned.

Use Alternate Choices

- If this option is selected, the Student Assigner will assign alternate choices. By default, this option is not selected.

Enrollment Settings

- This is where you define which enrollment to use with the Student Assigner. The enrollment field is specified in the component file. If you select *«Use Actual» (selected by default)*, the Student Assigner will only consider the actual enrollment found in the component, the same thing applies for *«Use Scheduling»*. If you select *«Use Actual or Scheduling»*, the Student Assigner will use the actual enrollment when it's not zero. If it's zero, the Student Assigner will use the scheduling enrollment.

Course Characteristics

All

- When using ALL, a student must be requesting ALL the course characteristics associated to a section or a component in order to be assigned to the section or component.

Any (selected by default)

- When using ANY, a student only needs one of the course characteristics associated to a section or Component in order to be assigned to the section or component

THE STUDENT ASSIGNER TOOLBAR

- The toolbar appears as a continuation of the main menu and contains the set of commands that you will use when conducting a Student Assignment. The following is a list of the commands and their functions:

- Back button, lets the user go back to a previous assigner screen.

- Forward button, lets the user go to the next screen or to the results screen.

- Assign button, assigns the previously selected students.

- Rollback button, rolls back the last assignment to the last commit.

- Commit button, commits and saves the assignment.

- Abort button, not implemented.

- Done button, closes the *Scheduler*.

- Unlock System button, clicking on this button after an assignation will unlock the system. This will allow the user to stay in the results screen while the other users are able to enter and work in the application.

SELECTION SCREENS

- During the assignment process, different screens are enabled. They are very similar but do have differences. This section will explain each of the screens.

Options

- The Student Assigner has two functionalities.

Assigning

- If this option is selected the Student Assigner will assign the selected students while taking in consideration the selected academic blocks.

Academic Block Building

- If this option is selected the Student Assigner will build academic blocks with the selected course combinations as well as assigning students if they are selected.

Selections

- If Assigning is selected, in the selection part of the screen you will see two tabs;

«Students» Tab

(Available with the Assigning and the Academic Block Building options)

- This tab allows you to select student filtered by programs. Select one or several programs in the program list and the students list will display the students attached to the selected programs.
- Furthermore, users can view at a glance the assignment status of each of the students:

Green

- Student request was fulfilled

Yellow

- Student request was partially fulfilled

White

- Student request was not fulfilled

«Academic Block» Tab

(Available with the Assigning and the Academic Block Building options)

- This tab allows you to select academic blocks that will be taken into consideration during the assignment.
- If Academic Block Building is selected, in the selection part of the screen you will see three tabs;

«Course Combinations» Tab

*(Available with the Academic Block Building option **ONLY**)*

- This tab allows you to select course combinations that will be used to create academic blocks.

NOTE:	Right-clicking on an item in the Course Combination Requests list and selecting the option «Goto» and then «Course Detail» or «Program Detail» will bring the user the «Course» tab or the «Program» tab of the selected item.

ASSIGNMENT RESULTS SCREEN (OPTION «ASSIGNING» SELECTED)

- The Assignment Results screen contains three principal tabs:
  - Programs
  - Courses
  - Students

NOTE: There are five types of filters that can be enabled (button is down) or disabled (button is up) on the Student Assigner. Selecting one or more of these filters will affect what will be displayed in the result screen. Here are their common descriptions.

Color	Description
White (Clear)	The item has been entirely rejected
Yellow	The item has been partially assigned.
Green	The item has been fully assigned
Red	The item has nothing to be assigned.
Purple	The alternate choice has been assigned to the item. This filter will only affect the course request list in the student tab.

- Therefore, if you want to see the rejected item in the result screen you will enable the white filter and the yellow filter. But if you want to see the fully assigned items, enable the green filter.

«Programs» Tab

Top Part _____

- This part of the screen represents all the programs of the database depending on the status filters selected on the top right corner of the assignment result screen.

Marker

- This field is checked if the program was marked by the user.

Status

- Status is represented by a colored circle and they are based on the selected students in the selection screen.

The definition of each colored circle is as follows:

Color	Interpretation
White (Clear)	A program that has requests, but all course requests have been rejected.
Yellow	A program that has requests, but some course requests have been rejected.
Green	All requests from this program have been assigned.
Red	A program that has no requests.

Program

- This field displays the name of the program.

Program Level

- This field displays the level of the program.

Description

- This field displays the description of the program.

Course Count

- This field displays the number of courses within the program that have at least one student request from a student selected in the selection screen.

Bottom Part _____

- The bottom part of the program tab is divided into two tabs:
  - Program Contents
  - Students

«Program Contents» Tab

Programs > Program Contents

- This tab displays the statistics of the courses of the selected programs in the top part.

NOTE: Right-clicking on an item in this list and selecting «Open Attachment» and one of the following options: «Course», «Program» or «Program Course Category» will open the item's edit window and display the information dependent on the option that's been selected.

Marker

- This field is checked if the program content has been marked by the user.

Status

- Status is represented by a colored circle.

The definition of each colored circle is as follows:

Color	Interpretation
White (Clear)	All requests for this course have been rejected.
Yellow	Some requests for this course have been rejected
Green	All requests for this course have been assigned.
Red	There are no student requests for this course within this program.

Program

- This field displays the program of the program content.

Program Level

- This field displays the program level of the program content.

Program Course Category

- This field displays the category of the course for the current program

Faculty

- This field displays the faculty of the course.

Department

- This field displays the department of the course.

Course

- This field displays the name of the course.

Description

- This field displays the description of the course.

Request Count

- This field displays the number of requests for this course within the selected program.

Assigned Count

- This field displays the number of requests for this course that have been assigned. (See request count field)

Rejected Count

- This field displays the number of requests rejected for the course. (See request count field)

Restrict to Preference

- This field indicates if requests for a course must be assigned to one of the preferred sections of the program.

Program Count

- This field indicates the number of programs that a course belongs to.

«Students» Tab

Programs > Students

- This tab displays the statistics for students that have at least one request in the selected programs on the top part of this screen.
- Furthermore, users can view the assignment status of each of the students:

Green

- Student request was fulfilled

Yellow

- Student request was partially fulfilled

White

- Student request was not fulfilled

NOTE: Right-clicking in this list and selecting the sub-menu «Goto» will bring the user to the Student tab of the selected student.

Marker

- This field is checked if the student has been marked by the user.

Status

- Status is represented by a colored circle.

The definition for each colored circle is as follows:

Color	Interpretation
White (Clear)	All of the student's requests within the program have been rejected.
Yellow	Some of the student's requests have been rejected.
Green	All of the student's requests within the program have been assigned.
Red	There are no requests.

Program

- This field displays the student's program.

Program Level

- This field displays the student's program level.

Student ID

- This field displays the student ID.

Request Count

- This field displays the number of requests made by the student within the selected program.

Assigned Count

- This field displays the number of requests that have been assigned to a student within the selected program.

Rejected Count

- This field displays the number of requests that have been rejected within the selected program.

Program Count

- This field indicates the number of programs that the student belongs to.

«Courses» Tab

Top Part _____

- This part of the screen displays the assignment statistics for courses, sections and components in the database. This list will vary depending on which status filters you select at the top right corner of the assignment result screen.

This part of the screen is divided into three tabs:

- Courses
- Sections
- Components

«Courses» Tab

Courses > Courses

- This tab displays the assignment statistics for the courses in the database.

NOTE: Right-clicking on a course in this list and selecting the sub-menu «Open Schedule» will bring up the timetable of the selected course.

Marker

- This field is checked if the course has been marked by the user.

Status

- Status is represented by a colored circle and they are based on the selected students in the selection screen.

The definition for each colored circle is as follows:

Color	Interpretation
White (Clear)	All requests for this course have been rejected.
Yellow	Some requests for this course have been rejected.
Green	All requests for this course have been assigned.
Red	There are no student requests for this course.

Faculty

- This field displays the faculty of the course.

Department

- This field displays the department of the faculty.

Course

- This field displays the course name.

Description

- This field displays the description of the course.

Supply

- This field displays the capacity (Actual enrollment and Scheduling enrollment) of the course.

Free Seats Remaining

- This field displays the number of free seats remaining in the current course.

FC-REQ Request as First Choice

- This field represents the number of students that request this course as their first choice.

FC-REJ Reject as First Choice

- This field represents the number of students that have not been assigned to this course even though it has been requested as their first choice.

FC-REJ-ALT Reject Alternate Assigned

- This field represents the number of students that have been assigned to an alternate choice.

FC-ASGN Assigned as First Choice

- This field represents the number of students that have been assigned to their first choice.

ALT-ASGN Assigned as Alternate

- This field represents the number of alternate choices that have been assigned to this course.

Rejected %

- This field represents the number of rejects in percent over the total number of requests for the selected course.

«Student Course Requests» Tab

Courses > Courses > Student Course Requests

- Within this tab, the system will display results based on records that have been selected in the parent tab.

If users are filtering on Courses:

- All requests that are requesting the selected course as well as all requests assigned to that selected course are displayed.

If users are filtering on Sections:

- All requests requesting that specific section and all requests assigned to that section as well as all requests for that course that are not assigned to another section and that are not requesting specifically another section are displayed.

If users are filtering on Components:

- All requests that are assigned to that component and all requests for that course that are not assigned to another section or to another component and that are not requesting specifically another section are displayed.

NOTE: Right-clicking on a course in this list and selecting the option «Goto» and then «Student Detail» will bring the user to the Students tab of the selected student.

Status

- Status is represented by a colored circle and they are based on the selected students in the selection screen.

The definition of each colored circle is as follows:

Color	Interpretation
White (Clear)	The student requested a course or section and the student has not been assigned to any course section.
Yellow	The student has been partially assigned.
Green	The student requested a course or section and has been assigned all the requested course sections.

Student ID

- This field displays the student ID.

Program

- This field displays the program name for the first or the alternate choice.

Program Level

- This field displays the program level for the first or the alternate choice.

Faculty

- This field displays the faculty name for the first or the alternate choice.

Department

- This field displays the department name for the first or the alternate choice.

Course

- This field displays the course name for the first or the alternate choice.

Program Course Category

- This field displays the Program Course Category to which the course belongs.

Preferred Section

- This field displays the name of the forced section for the first or the alternate choice.

Assigned Section

- This field displays the name of the assigned section.

Assigned Component

- When viewing course or section information, this field will be left blank. When viewing component information, this field will display the name(s) of the assigned component(s) for the first or alternate choice.

ALT-ASGN Assigned as alternate

- This value will be true if what has been assigned is an alternate choice.

«Component Rejects» Tab

Courses > Courses > Component Rejects

- The «Component Rejects» tab displays the components that could not be assigned to the selected course request because of any of the following reasons (there can be more than one reason per component):
  - Time Conflict
  - Balanced Capacity
  - Maximum Capacity
  - Transfer times
  - Blockoffs
  - Assignment would cause future time rejects
  - Homogeneous Set
  - Exclusive Homogeneous Set
  - Maximum Weekly Credits
  - Maximum Credit Difference
  - Weekly constraints
  - If after late PM, min time until next
  - Min break time
  - Max time/day
  - Max elapsed time/day
  - Max consecutive time
  - Course Characteristics
  - Invalid Component
  - Request with the "Prevent Automated Modification" flag but without any assigned components.

- Moreover, if the component could not be assigned because of a component time conflict, the conflicting component will also be displayed.

Marker1

- The component's marker check box that can be used by the user to flag an item

NOTE: The marker can only be used within the component's edit window.

Program1

- Program name of the component that could not be assigned

Level1

- The level that corresponds to the program name in Program1 column

Faculty1

- The faculty that corresponds to the component that could not be assigned

Department1

- The department that corresponds to the component that could not be assigned

Course1

- The course that corresponds to the component that could not be assigned

Section1

- The section that corresponds to the component that could not be assigned

Component1

- The component that could not be assigned to the selected course request

Marker2

- The second component marker check box that can be used by the user to flag an item

NOTE: The marker can only be used within the component's edit window.

Program2

- Program name of the component that is in conflict with the component in Component1 column

Level2

- The level that corresponds to the program name in Program2 column

Faculty2

- The faculty that corresponds to the conflicting component

Department2

- The department that corresponds to the conflicting component

Course2

- The course that corresponds to the conflicting component

Section2

- The section that corresponds to the conflicting component

Component2

- The component that is has a time conflict with the component in Component1 column

RejectCount

- The number of student requests rejected as a result of not being able to assign the component found in the Component1 column

«Reject Details» Tab

Courses > Courses > Reject Details

- The «Reject Details» tab will display the student making the course request and the reason the requested component could not be assigned
- The possible reasons are:
  - Time Conflict
  - Balanced Capacity
  - Maximum Capacity
  - Transfer times
  - Blockoffs
  - No Potential Assignment
  - Homogeneous Set
  - Exclusive Homogeneous Set
  - Maximum Weekly Credits
  - Maximum Credit Difference
  - Weekly constraints
  - If after late PM, min time until next
  - Min break time
  - Max time/day
  - Max elapsed time/day
  - Max consecutive time
  - Course Characteristics
  - Invalid Component
  - Request with the "Prevent Automated Modification" flag but without any assigned components.

StudentId

- The ID of the student that is making the course request

Name

- The last name of the student making the course request

Surname

- The first name of the student making the course request

Reason

- The reason the requested component could not be assigned

«Sections» Tab

Courses > Sections

- This tab displays the assignment statistics for the sections that belong to the selected courses in the courses tab.

NOTE: Right-clicking on a section in this list and selecting «Open Schedule» will bring up the timetable of the selected section.

Marker

- This field is checked if the section has been marked by the user.

Status

- Status is represented by a colored circle and they are based on the selected students in the selection screen.

The definition of each colored circle is as follows:

Color	Interpretation
White (Clear)	All requests for this section have been rejected.
Yellow	Some requests for this section have been rejected.
Green	All requests for this section have been assigned.
Red	There are no student requests for this section.

Section

- This field displays the section name.

Description

- This field displays the section description.

Supply

- This field displays the capacity (Actual enrollment) of the section.

Free Seat Remaining

- This field displays the number of free seats remaining in the current section.

FC-REQ Request as First Choice

- This field displays the number of students that have requested this section as their first choice.

FC-REJ Reject as First Choice

- This field displays the number of students that have not been assigned to this section even though it has been requested as their first choice.

FC-REJ-ALT Reject Alternate Assigned

- This field displays the number of students that have been assigned to an alternate choice.

FC-SEC-ASGN First Choice Section Assigned

- This field displays the number of first choice requests for this section that have been assigned to it.

FC-SCRS-ASGN First Choice Course Assigned

- This field displays the number of first choice requests for the course of the selected section that have been assigned without forcing the section.

ALT-ASGN Assigned as Alternate

- This field displays the number of alternate choices that have been assigned to the selected section.

Total Assigned Count

- This field displays the total number of student assigned to this section.

The Bottom Part _____

- This part of the screen represents the students that have been assigned to and/or are requesting the course, section or components selected in the top part. It also provides information on the components that could not be assigned to the course requests and the reasons why; as well as the number and names of the student requests that have been rejected due to the component rejects.

This part of the screen is divided into three tabs:

- Student Course Requests
- Component Rejects
- Reject Details

«Component» Tab

Courses > Components

- This tab displays the assignment statistics for the components that belong to the selected sections in the section(s) tab. If no section has been selected, the tab will display all the components of the selected course.

NOTE: Right-clicking on a component in this list and selecting «Open Schedule» will open the timetable of the selected component.

Marker

- This field is checked if the component has been marked by the user.

Section

- This field displays the name of the component's section.

Component

- This field displays the name of the component.

Component Type

- This field displays the component type name.

Description

- This field displays the component description.

Supply

- This field displays the capacity (Actual enrollment) of the component.

Free Seats Remaining

- This field displays the number of free seats remaining in the current component.

FC-ASGN Assigned as First Choice

- This field displays the number of first choice requests that have been assigned to this component.

ALT-ASGN Assigned as Alternate

- This field displays the number of alternate choice request that have been assigned to this component.

The Bottom Part _____

- This part of the screen represents the students that have been assigned to and/or are requesting the course, section or components selected in the top part. It also provides information on the components that could not be assigned to the course requests and the reasons why; as well as the number and names of the student requests that have been rejected due to the component rejects.

This part of the screen is divided into three tabs:

- Student Course Requests
- Component Rejects
- Reject Details

«Students» Tab

Top Part _____

- This part of the screen displays information related to the selected students in the selection screen. This list will vary depending on which status filters you select at the top right corner of the assignment result screen.

NOTE: Right-clicking on this list and selecting the sub-menu «Open Schedule» will open the student timetable for the selected student.

Marker

- This field is checked if the student has been marked by the user.

Status

- Status is represented by a colored circle and they are based on the selected students in the selection screen.

The definition of each colored circle is as follows:

Color	Interpretation
White (Clear)	The student has requested courses or sections but the requests have not yet been assigned.
Yellow	The student requests have been partially assigned.
Green	The student has requested courses or sections and the requests have all been assigned.
Red	The student has no request.

Student ID

- This field displays the student ID.

Name

- This field displays the student name.

Surname

- This field displays the student surname.

Request Count

- This field displays the number of requests by this student.

FC-REJ Reject as First Choice

- This field displays the number of first choice requests that have been rejected.

FC-REJ-ALT Reject Alternate Assigned

- This field displays the number of first choice requests that have been rejected but assigned to an alternate choice.

Total Reject Count

- This field displays the number of rejects (FC-REJ - FC-REJ-ALT)

The Bottom Part _____

- This part of the screen represents the student request information for the selected students.

NOTE: Right clicking on this list and selecting «Go to» will give you two sub menus. One will open the student attachment and the other will bring you to the course tab or the program tab of the selected student.

Status

- Status is represented by a colored circle and they are based on the selected students in the selection screen.

Color	Interpretation
White (Clear)	None of the student's request has not been assigned
Yellow	The student requests have been partially assigned.
Green	The student requests have been fully assigned.
Purple	The student's alternate requests have been assigned.

Student ID

- This field displays the student ID.

Program

- This field displays the student's program.

Program Level

- This field displays the program level.

FC Faculty

- This field displays the faculty of the student's first choice request.

FC Department

- This field displays the department of the student's first choice request.

FC Course

- This field displays the course of the student's first choice request.

FC Section

- This field displays the section of the student's first choice request.

FC Category

- This field displays the category of the student's first choice request.

ALT Faculty

- This field displays the faculty of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

ALT Department

- This field displays the department of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

ALT Course

- This field displays the course of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

ALT Section

- This field displays the section of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

ALT Category

- This field displays the category of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

Alternate Assigned

- This field displays if the student has been assigned to an alternate choice.

ALT Rank

- This field displays the rank of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

ASSIGNMENT RESULTS SCREEN (OPTION «ACADEMIC BLOCK BUILDING» SELECTED)

- The "Assignment Results" screen contains four principal tabs:
  - Programs
  - Courses
  - Students
  - Course Combinations

- It is possible to choose whether you want to see only the Student Course Request Status, the Course Combination Status, or the Global Status by selecting one of these options in the drop-down list.

NOTE: There are five types of filters that can be enabled or disabled on the Student Assigner. Selecting one or more of these filters will affect what will be displayed in the result screen. Here are their common descriptions.

Color	Description
White (Clear)	The item has been entirely rejected
Yellow	The item has been partially assigned.
Green	The item has been fully assigned
Red	The item has nothing to be assigned.
Purple	The alternate choice has been assigned to the item. This filter will only affect the course request list in the student tab.

- Therefore, if you want to see the rejected item in the result screen you will enable the white filter and the yellow filter. But if you want to see the fully assigned items, enable the green filter.

«Programs» Tab

Top Part _____

- This part of the screen represents all the programs of the database depending on the status filters selected on the top right corner of the assignment result screen.

Marker

- This field displays if the program was marked.

Status

- Status is represented by a colored circle. These statuses are bases on the selected students in the selection screen. Here is what the colors stand for:

Color	Meaning
White (Clear)	A program has requests, but all its course requests have been rejected.
Yellow	A program has requests, but some course requests have been rejected.
Green	All requests for this program have been assigned.
Red	A program has no requests.

Program

- This field displays the name of the program.

Program Level

- This field displays the level of the program.

Description

- This field displays the description of the program.

Course Count

- This field displays the number of courses within the program that have at least one student request from a student selected in the selection screen.

Course Combination Count

- If «course request status» is selected in the drop-down list filter, this field represents the number of courses associated to the program that have been selected.
- If «course combination status» is selected in the drop-down list filter, this field represents the number of course associated to the course combination selected.

Bottom Part _____

- The bottom part of the program tab is divided into three tabs:
  - Program Contents
  - Students
  - Course Combinations

«Program Contents» Tab

Programs > Program Contents

- This tab displays the statistics of the courses of the selected programs in the top part.

NOTE:	Right clicking on this list will give you a sub menu to open an attachment of the program contents. This sub menu also allows you to go to the course tab of the selected program content.

Marker

- This field displays if the program content has been marked.

Status

- Status is represented by a colored circle. Here is what the colors stand for:

Color	Meaning
White (Clear)	All requests for this course have been rejected.
Yellow	Some requests for this course have been rejected
Green	All requests for this course have been assigned.
Red	There are no students requesting for this course within this program.

Program

- This field displays the program of the program content.

Program Level

- This field displays the program level of the program content.

Program Course Category

- This field displays the category of the course for the current program

Faculty

- This field displays the faculty of the course.

Department

- This field displays the department of the course.

Course

- This field displays the name of the course.

Description

- This field displays the description of the course.

Request Count

- This field displays the number of requests for this course within the selected program.

Assigned Count

- This field displays the number of requests for this course that have been assigned. (See *request count* field)

Rejected Count

- This field displays the number of requests rejected for the course. (See *request count* field)
- Restrict to Preference
- This field indicates if requests for a course must be assigned to one of the preferred sections of the program.

CC-REQ-COUNT Course Combination Request Count

- If «course request status» is selected in the drop-down list filter, this field represents the number of student requests for the selected program.
- If «course combination status» is selected in the drop-down list filter, this field represents the number of student requests based on the student count of the course combination.

CC-ASGN-COUNT Course Combination Assigned Count

- If «course request status» is selected in the drop-down list filter, this field represents the number of assigned student requests for the selected program.
- If «course combination status» is selected in the drop-down list filter, this field represents the number of assigned student requests based on the student count of the course combination.

CC-REJ-COUNT Course Combination Rejected Count

- If «course request status» is selected in the drop-down list filter, this field represents the number of rejected student requests for the selected program.
- If «course combination status» is selected in the drop-down list filter, this field represents the number of rejected student requests based on the student count of the course combination.

Program Count

- This field indicates the number of programs that a course belongs to.

«Students »Tab

Programs > Students

- This tab displays the statistics for students that have at least one request in the selected programs on the top part of this screen.

NOTE: Right clicking in this list will give you a sub menu to go to the student tab of the selected student.

Marker

- This field displays if the student has been marked.

Status

- Status is represented by a colored circle. Here is what the colors stand for:

Color	Meaning
White (Clear)	All of the student's requests within the program have been rejected.
Yellow	Some of the student's requests have been rejected.
Green	All of the student's requests within the program have been assigned.
Red	There are no requests.

Program

- This field displays the student's program.

Program Level

- This field displays the student's program level.

Student ID

- This field displays the student ID.

Request Count

- This field displays the number of requests made by the student within the selected program.

Assigned Count

- This field displays the number of requests that have been assigned to a student within the selected program.

Rejected Count

- This field displays the number of requests that have been rejected within the selected program.

Program Count

- This field indicates the number of programs that the student belongs to.

«Course Combinations» Tab

Programs > Course Combinations

- This tab displays the statistics for the course combinations of the programs that have been selected in the top part.

Marker

- This field displays if the course combination has been marked.

Status

- Status is represented by a colored circle. Here is what the colors stand for:

Color	Meaning
White (Clear)	All of the course combinations within the program have been rejected.
Yellow	Some of the course combinations have been rejected.
Green	All of the course combinations within the program have been assigned.
Red	There are no requests.

Program

- This field displays the course combination request program.

Program Level

- This field displays the course combination request program level.

Course Combination

- This field displays the course combination ID.

Program Count

- This field indicates the number of programs that the course combination belongs to.

Student Count

- This field displays the number of student count of the course combination.

Fully Assigned

- This field displays the number of fully assigned students in that course combination.

Fully Rejected

- This field displays the number of fully rejected students in that course combination.

Partially Assigned

- This field displays the number of partially assigned students in that course combination.

«Courses» Tab

Top Part _____

- This part of the screen displays the assignment statistics for courses, sections and components in the database. This list will vary depending on which status filters you select at the top right corner of the assignment result screen.
- This part of the screen is divided into three tabs:
  - Courses
  - Sections
  - Components

«Courses» Tab

Courses > Courses

- This tab displays the assignment statistics for the courses in the database.

NOTE: Right clicking on this list allows you to open the schedule of the selected course.

Marker

- This field displays if the course has been marked.

Status

- Status is represented by a colored circle. These statuses are based on the selected students in the selection screen. Here is what the colors stand for:

Color	Meaning
White (Clear)	All requests for this course have been rejected.
Yellow	Students or Academic Blocks were not able to get all the component types that the course is offering, either because not all the components are assigned, or because the section does not offer that type of component.
Green	All requests for this course have been assigned.
Red	There are no student requests for this course.

Faculty

- This field displays the faculty of the course.

Department

- This field displays the department of the faculty.

Course

- This field displays the course name.

Description

- This field displays the description of the course.

Supply

- This field displays the capacity (Actual enrollment) of the course.

Free Seats Remaining

- This field displays the number of free seats remaining in the current course.

FC-REQ Request as First Choice

- This field represents the number of students that request this course as their first choice.

FC-REJ Reject as First Choice

- This field represents the number of students that have not been assigned to this course even though it has been requested as their first choice.

FC-REJ-ALT Reject Alternate Assigned

- This field represents the number of students that have been assigned to an alternate choice.

FC-ASGN Assigned as First Choice

- This field represents the number of students that have been assigned to their first choice.

ALT-ASGN Assigned as Alternate

- This field represents the number of alternate choices that have been assigned to this course.

Rejected %

- This field represents the number of rejects in percent over the total number of requests for the selected course.

CC-REQ-COUNT Course Combination Request Count

- If «course request status» is selected in the drop-down list filter, this field represents the number of student requests for the selected course.
- If «course combination status» is selected in the drop-down list filter, this field represents the number of student requests based on the student count of the course combination.

CC-ASGN-COUNT Course Combination Assigned Count

- If «course request status» is selected in the drop-down list filter, this field represents the number of assigned student requests for the selected course.
- If «course combination status» is selected in the drop-down list filter, this field represents the number of assigned student requests based on the student count of the course combination.

CC-REJ-COUNT Course Combination Rejected Count

- If «course request status» is selected in the drop-down list filter, this field represents the number of rejected student requests for the selected course.
- If «course combination status» is selected in the drop-down list filter, this field represents the number of rejected student requests based on the student count of the course combination.

CC-REJ% Course Combination Rejected Percent

- This field displays in percent the number of reject for this course according to the selected course combinations.

«Course Combination Requests» Tab

Courses > Courses > Course Combination Requests

- Within this tab, the system will display all course combinations requests based on records that have been selected in the parent tab.

If users are filtering on Courses:

- All requests that are requesting the selected course as well as all requested assigned to that selected course are displayed.

If users are filtering on Sections:

- All requests requesting that specific section and all requests assigned to that section as well as all requests for that course that are not assigned to another section and that are not requesting specifically another section are displayed.

If users are filtering on Components:

- All requests that are assigned to that component and all requests for that course that are not assigned to another section or to another component and that are not requesting specifically another section are displayed.

NOTE: Right-clicking on a course in this list and selecting the option «Go to» and then «Course Combination Detail» will bring the user to the course combination request tab.

Status

- Status is represented by a colored circle. These statuses are based on the selected students in the selection screen. Here is what the colors stand for:

Color	Meaning
White (Clear)	None of the student's requests have been assigned.
Yellow	Some of the student's requests have been assigned.
Green	All of the student's requests have been assigned.

Student ID

- This field displays the student ID.

Program

- This field displays the program name for the first or the alternate choice.

Program Level

- This field displays the program level for the first or the alternate choice.

Faculty

- This field displays the faculty name for the first or the alternate choice.

Department

- This field displays the department name for the first or the alternate choice.

Course

- This field displays the course name for the first or the alternate choice.

Program Course Category

- This field displays the Program Course Category to which the course belongs.

Requested Term to Meet

- These fields represent the Term to Meet associated with the current course request.

Requested Section

- This field displays the name of the forced section for the first or the alternate choice.

Assigned Section

- This field displays the name of the assigned section.

Assigned Component

- When viewing course or section information, this field will be left blank. When viewing component information, this field will display the name of the assigned component for the first or alternate choice.

ALT-ASGN Assigned as alternate

- This value will be true if the student request that has been assigned with an alternate choice.

«Student Course Requests» Tab

Courses > Courses > Student Course Requests

- Within this tab, the system will display results based on records that have been selected in the parent tab.

If users are filtering on Courses:

- All requests that are requesting the selected course as well as all requested assigned to that selected course are displayed.

If users are filtering on Sections:

- All requests requesting that specific section and all requests assigned to that section as well as all requests for that course that are not assigned to another section and that are not requesting specifically another section are displayed.

If users are filtering on Components:

- All requests that are assigned to that component and all requests for that course that are not assigned to another section or to another component and that are not requesting specifically another section are displayed.

NOTE: Right-clicking on a course in this list and selecting the option «Go to» and then «Student Detail» will bring the user to the Students tab of the selected student.

Status

- Status is represented by a colored circle and they are based on the selected students in the selection screen.

The definition of each colored circle is as follows:

Color	Interpretation
White (Clear)	The student requested a course or section and the student has not been assigned to any course section.
Yellow	The student has been partially assigned.
Green	The student requested a course or section and has been assigned all the requested course sections.

Student ID

- This field displays the student ID.

Program

- This field displays the program name for the first or the alternate choice.

Program Level

- This field displays the program level for the first or the alternate choice.

Faculty

- This field displays the faculty name for the first or the alternate choice.

Department

- This field displays the department name for the first or the alternate choice.

Course

- This field displays the course name for the first or the alternate choice.

Program Course Category

- This field displays the Program Course Category to which the course belongs.

Preferred Section

- This field displays the name of the forced section for the first or the alternate choice.

Assigned Section

- This field displays the name of the assigned section.

Assigned Component

- When viewing course or section information, this field will be left blank. When viewing component information, this field will display the name(s) of the assigned component(s) for the first or alternate choice.

ALT-ASGN Assigned as alternate

- This value will be true if what has been assigned is an alternate choice.

«Reject Details» Tab

Courses > Courses > Reject Details

- The Reject Details tab lists all the Components rejected during the process.
- The rejects may be a result from a student request or from a course combination requests.
- Within this tab, users can see the reason(s) of the reject (there can be more than one reason per component). The possible reasons are:
  - Time Conflict
  - Balanced Capacity
  - Maximum Capacity
  - Transfer times
  - Blockoffs
  - No Potential Assignment
  - Homogeneous Set
  - Exclusive Homogeneous Set
  - Maximum Weekly Credits
  - Maximum Credit Difference

- Weekly constraints
- If after late PM, min time until next
- Min break time
- Max time/day
- Max elapsed time/day
- Max consecutive time
- Course Characteristics
- Invalid Component
- Student Requests with the "Prevent Automated Modification" flag but without any assigned components.

«Sections» Tab

Courses > Sections

- This tab displays the assignment statistics for the sections that belong to the selected courses in the courses tab.

NOTE: Right clicking on this list allows you to open the schedule of the selected section.

Marker

- This field displays if the section has been marked.

Status

- Status is represented by a colored circle. These statuses are based on the selected students in the selection screen. Here is what the colors stand for:

Color	Meaning
White (Clear)	All requests for this section have been rejected.
Yellow	Some requests for this section have been rejected.
Green	All requests for this section have been assigned.
Red	There are no student requests for this section.

Section

- This field displays the section name.

Description

- This field displays the section description.

Supply

- This field displays the capacity (Actual enrollment) of the section.

Free Seat Remaining

- This field displays the number of free seats remaining in the current section.

FC-REQ Request as First Choice

- This field displays the number of students that have requested this section as their first choice.

FC-REJ Reject as First Choice

- This field displays the number of students that have not been assigned to this section even though it has been requested as their first choice.

FC-REJ-ALT Reject Alternate Assigned

- This field displays the number of students that have been assigned to an alternate choice.

FC-SEC-ASGN Forced Section Assigned

- This field displays the number of first choice requests for this section that have been assigned to it.

FC-CRS-ASGN First Choice Assigned

- This field displays the number of first choice requests for the course of the selected section that have been assigned without forcing the section.

ALT-ASGN Assigned as Alternate

- This field displays the number of alternate choices that have been assigned to the selected section.

Total Assigned Count

- This field displays the total number of student assigned to this section.

CC-REQ-COUNT Course Combination Request Count

- If «course request status» is selected in the drop-down list filter, this field represents the number of student requests for the selected section.
- If «course combination status» is selected in the drop-down list filter, this field represents the number of student requests based on the student count of the course combination.

CC-REJ-COUNT Course Combination Reject Count

- If «course request status» is selected in the drop-down list filter, this field represents the number of rejected student requests for the selected section.
- If «course combination status» is selected in the drop-down list filter, this field represents the number of rejected student requests based on the student count of the course combination.

CC-SEC-ASGN Forced Section Assigned

- This field displays the number of students of the course combination request that have this specific section forced.

CC-CRS-ASGN First Choice Assigned

- This field displays the number of students of the course combination request that have this specific section assigned.

CC Total Assigned Count

- This field displays the number of students of the course combination request that have been assigned to this section.

This part of the screen is divided into three tabs:

- Course Combination Request
- Student Course Requests
- Reject Details

«Components» Tab

Courses > Components

- This tab displays the assignment statistics for the components that belong to the selected sections in the section(s) tab. If no section has been selected, the tab will display all the components of the selected course.

NOTE: Right clicking on this list allows you to open the schedule of the selected component.

Marker

- This field displays if the component has been marked.

Section

- This field displays the name of the component's section.

Component

- This field displays the name of the component.

Component Type

- This field displays the component type name.

Description

- This field displays the component description.

Supply

- This field displays the capacity (Actual enrollment) of the component.

Free Seats Remaining

- This field displays the number of free seats remaining in the current component.

FC-ASGN Assigned as First Choice

- This field displays the number of first choice requests that have been assigned to this component.

ALT-ASGN Assigned as Alternate

- This field displays the number of alternate choice request that have been assigned to this component.

The Bottom Part _____

- This part of the screen represents the students that have been assigned and/or are requesting the course(s), section(s) or component(s) selected in the top part.

NOTE: Right clicking on this list will give you a sub menu to go to the student tab of the selected student.

Status

- Status is represented by a colored circle. These statuses are based on the selected students in the selection screen. Here is what the colors stand for:

Color	Meaning
White (Clear)	None of the student's requests have been assigned.
Yellow	Some of the student's requests have been assigned.
Green	All of the student's requests have been assigned.

Student ID

- This field displays the student ID.

Program

- This field displays the program name for the first or the alternate choice.

Program Level

- This field displays the program level for the first or the alternate choice.

Faculty

- This field displays the faculty name for the first or the alternate choice.

Department

- This field displays the department name for the first or the alternate choice.

Course

- This field displays the course name for the first or the alternate choice.

Program Course Category

- This field displays the category of the program content for the first or the alternate choice.

Preferred Section

- This field displays the name of the forced section for the first or the alternate choice.

Assigned Section

- This field displays the name of the assigned section.

Assigned Component

- When viewing course or section information, this field will be left blank. When viewing component information, this field will display the name of the assigned component for the first or alternate choice.

ALT-ASGN Assigned as alternate

- This value will be true if the student request that has been assigned with an alternate choice.

This part of the screen is divided into three tabs:

- Course Combination Request
- Student Course Requests
- Reject Details

«Students» Tab

Top Part _____

- This part of the screen displays information related to the selected students in the selection screen. This list will vary depending on which status filters you select at the top right corner of the assignment result screen.

NOTE: Right clicking on this list will give you the sub menu to open the student schedule.

Marker

- This field displays if the student has been marked.

Status

- Status is represented by a colored dot. These statuses are based on the selected students in the selection screen. Here are their different meanings:

Color	Meaning
White (Clear)	The student has requests but none of the requests have been assigned.
Yellow	The student requests have been partially assigned.
Green	The student has requests and all the requests have been assigned.
Red	The student has no request.

Student ID

- This field displays the student ID.

Name

- This field displays the student name.

Surname

- This field displays the student surname.

Request Count

- This field displays the number of requests by this student.

FC-REJ Reject as first choice

- This field displays the number of first choice requests that have been rejected.

FC-REJ-ALT Reject alternate assigned

- This field displays the number of first choice requests that have been rejected but assigned to an alternate choice.

Total Reject Count

- This field displays the number of rejects (FC-REJ - FC-REJ-ALT)

The Bottom Part _____

- This part of the screen represents the student request information for the selected students.

NOTE:	Right clicking on this list will give you two sub menus. One will open the student attachment and the other will bring you to the course tab or the program tab of the selected student.

Status

- Status is represented by a colored circle. These statuses are based on the selected students in the selection screen.
- Here is what the colors stand for:

Color	Meaning
White (Clear)	None of the student's requests have been assigned
Yellow	The student requests have been partially assigned.
Green	The student requests have been fully assigned.
Purple	The student's alternate requests have been assigned.

Student ID

- This field displays the student ID.

Program

- This field displays the student's program.

Program Level

- This field displays the program level.

FC Faculty

- This field displays the faculty of the student's first choice request.

FC Department

- This field displays the department of the student's first choice request.

FC Course

- This field displays the course of the student's first choice request.

FC Section

- This field displays the section of the student's first choice request.

FC Category

- This field displays the category of the student's first choice request.

ALT Faculty

- This field displays the faculty of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

ALT Department

- This field displays the department of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

ALT Course

- This field displays the course of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

ALT Section

- This field displays the section of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

ALT Category

- This field displays the category of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

Alternate Assigned

- This field displays if the student has been assigned to an alternate choice.

ALT Rank

- This field displays the rank of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

«Course Combinations» Tab

Top Part _____

- This part of the screen displays information on the course combination that have been previously selected.

Marker

- This field displays if the course combination has been marked.

Status

- Status is represented by a colored circle. These statuses are based on the course combinations in the selection screen. Here is what the colors stand for:

Color	Meaning
White (Clear)	The course combination has not been assigned
Yellow	The course combination has been partially assigned.
Green	The course combination has been fully assigned.

Course Combination

- This field displays the name of the course combination.

Student Count

- This field displays the student count of the course combination.

CC-REQ-COUNT Course Combination Request Count

- This field displays the number of course combination request for the selected course combination.

Total Request Count

- This field displays the total requests for this course combination.
- This is how this field is calculated: Student Count * CC-REQ-COUNT

Total Assigned Count

- This field displays the number of course combination requests for the selected course combination that have been assigned.

Total Rejected Count

- This field displays the number of course combination requests for the selected course combination that have been rejected.

TOT-AB-COUNT Total Academic Block Count

- This field displays the number of academic blocks that will be created from the selected course combination.

PART-REJ-CCR-COUNT Partially Rejected Course Combination Request Count

- This field displays the number of course combination requests for the selected course combination that have been partially rejected.

The Middle Part _____

- This part of the screen displays course combinations, for which the academic blocks will be generated.

Status

- Status is represented by a colored circle. These statuses are based on the course combinations in the selection screen.
- Here is what the colors stand for:

Color	Meaning
Green	This color displays course combination requests that have been satisfied.
Red	This color displays course combination requests that have failed.

Course Combination

- This field displays the name of the course combination.

Student Count

- This field displays the student count of the course combination.

CC-REQ-COUNT Course Combination Request Count

- This field displays the number of request that will be part of the academic block that will be created.

Total Request Count

- This field displays the number of course combination request for the selected course combination.

Is Rejected

- When the status is red for an item, this field will be checked, meaning that the academic block will not be created.

Component Combination Number

- This field displays an internal identification field.

The Bottom Part _____

- This part of the screen displays information about the course of the course combination request that need to be part of the academic block created or not.

Program

- This field displays the course combination request's program.

Program Course Category

- This field displays the category of the program content of the course combination request.

Faculty

- This field displays the course combination request's faculty.

Department

- This field displays the course combination request's department.

Course

- This field displays the course combination request's course.

Requested Section

- This field displays the course combination request's requested section.

Assigned Section

- This field displays the course combination request's assigned section.

Student Count

- This field displays the student count of the course combination.

Component Types Columns

- This field displays the assigned component for each component type in a section.

CALCULATE AVAILABILITY INDEX

(Assigner license is required)

- The Calculate Availability Index tool will assign an index to all deliveries. This index represents the average number of components available to student based on their course requests. The Availability Index is visible in the delivery, in scheduler, the move screen and on-line timetables.

CHAPTER 17 - THE STUDENT SECTIONER

- Select the *Student Sectioner* icon from the Main Toolbar to view the STUDENT SECTIONER TOOLBAR and the SELECTIONS screen.
- Once the Student Sectioner is open, other users cannot enter the application. The system is locked. If there are users logged in, the Student Sectioner cannot be launched.

THE STUDENT SECTIONER OPTIONS

- To open the options screen, click on tools in the main menu. From the sub-menu click on options and then select the Student Sectioner tab. Hereafter, you will find a description of each options.

Balancing Type: _____

- These options define how the space within components and sections will be filled.

Pack

- If this option is selected, the Student Sectioner will fill one section to its maximum capacity before filling the next section.

Proportional (Selected by default)

- If this option is selected, the Student Sectioner will try to fill all the sections to the same proportion.

Straight Used

- If this option is selected, the Student Sectioner will try to assign the same number of students to each section.

Straight Free

- If this option is selected, the Student Sectioner will try to leave the same amount of free space in each section.

Balancing Tolerance

- When using the balancing type Proportional, Straight Used or Straight Free the Student Sectioner will proportionally balance the assignment of students.
- The Balancing Tolerance defines the percentage of the section capacity that can be over or under the perfectly balanced assignment.

Back Tracking Options: _____

- This option allows the Student Sectioner to modify a previously assigned student in order to assign another student who without modification would not be assigned.

Back Tracking Level

- The back tracking level defines how deep the Student Sectioner will unassign the already assigned requests to allow the otherwise unassignable student requests to be assigned. Setting this option to more than 1 may slow down the assigning process.

Request Priority:

- In order to define the request priority, you will need to define the importance of each influential factor affecting the assignment result. The following four fields define the importance for each influential factor.

Require Characteristic Request

- This is where you define relatively how important required characteristics are for the course requests. Required characteristics are characteristics that have been set to «required» in the course request form.

Characteristic Request

- This is where you define how important characteristics are for the course requests. Characteristics are set in the course request form. Any characteristic required or not, will be taken into consideration in this field.

Student Weight

- This is where you define how important student weight is for the course request. Student weight is set in the student form and defines the importance of a student's requests.

Course Category

- This is where you define how important course category weight is for the course request. Course category weight is set in the program course category form and defines how important the course is to the student.

Weight and Rank

- Rank is used to provide a preference for a request factor. This field must contain a value ranging from 0 to 3, where Rank 0 is the highest priority and Rank 3 is the lowest priority. Rank indicates a stronger preference than weight.
- Weight is used to assign a preference to any request factor within the same rank, and is therefore only enabled when multiple factors have the same rank. For a request, the total of the 4 weights will determine the real weight of the request. This value is in percent from 0 to 100 where 0 is the lowest priority and 100 is the highest priority.
- It is useful to define a rank and a weight for each element since the calculation only compares weights of the elements of equal rank. Elements with a rank of "0" are automatically considered more important than elements with a rank of "1", regardless of their weight.

Potential Combination Quality

- This is where you define a weight and a rank for each combination of components for each request.
- The combination of the following three request properties will define the combination quality for each request.

Characteristics Rank

- This field defines the importance of the course characteristic specified in the course request during the assigning process.

Preferred Section Rank

- This field defines the importance of preferred section specified in the program content during the assigning process.

Rank

- This field is used to provide a rank to the associated weight. This field must contain a value from 0 to 1 where 0 is the highest priority and 1 is the lowest priority.

Preassigned options

- This option defines the importance of keeping the results of the last assignment.

Prefer Preassigned

- The results of the last assignment will be respected but if there is a need the Student Sectioner could unassign.

Lock Preassigned

- The success of the last assignment will remain untouched but the Student Sectioner will work on the failures.

Ignore Preassigned (Selected by default)

- The Student Sectioner will ignore the last assignment and will work as if it is the first time.

Allow broken constraints for preassigned

- When this option is selected, the Student Sectioner will leave the student in a preassigned section even if this causes to be broken scheduling constraints for that student.

Other Options:_____

Number of passes

- The number of pass is how many times the Student Sectioner goes through the database. If this number is set to one, when the Student Sectioner runs, it will mark a course section combination as a failure when it cannot assign it and will no longer attempt to assign this combination. If this number is set to two, the rejects from the first pass will be unmarked and reconsidered in the second pass. The higher the number of pass the more times the Student Sectioner will run to fix the failures of the previous pass.

Sequence at the student's highest requested priority

- During the assignment, the Student Sectioner calculates how difficult it is to assign a course.
- If this option is unchecked, the Student Sectioner will assign the most difficult request from a student first and will assign the less difficult requests of the same student later on. If this option is checked, the Student Sectioner will assign the most difficult request and the other requests at the same time.

Use program(s) allocation(s) (*selected by default*)

- If this option is checked the Student Sectioner will assign using the program allocation data.

Use sectioning combinations *(Selected by default)*

- If this option is checked the Student Sectioner™ will assign using the section combination data.

Enrollment Settings

- This is where you define which enrollment you want the Student Sectioner to use. The enrollment field is specified in the component file. If you choose to use actual (which is selected by default), the Student Sectioner will only consider the actual enrollment found in the component, the same thing applies for scheduling. If you choose actual or scheduling, the Student Sectioner will use the actual enrollment when it's not zero. If it is zero, the Sectioner will use the scheduling enrollment.

Course Characteristics_____

All

- When using ALL, a student must be requesting ALL the course characteristics associated to a Section or Component in order to be assigned to the section or component.

Any (Selected by default)

- When using ANY, a student only needs one of the course characteristics associated to a section or Component in order to be assigned to the section or component

THE STUDENT SECTIONER TOOLBAR

- The toolbar appears as a continuation of the main menu and contains the set of commands that you will use when conducting a Student Sectioning. The following is a list of the commands and their functions:

- Back button, lets the user go back to a previous Sectioner screen.

- Forward button, lets the user go to the next screen or to the results screen.

- Assign button, assigns the previously selected students.

- Rollback button, rolls back the last assignment to the last commit.

- Commit button, commits and saves the assignment.

- Abort button, not implemented.

- Done button, closes the *Scheduler*.

- Unlock System button, clicking on this button after an assignation will unlock the system. This will allow the user to stay in the results screen while the other users are able to enter and work in the application.

SCREENS

- During the sectioning process, different screens are enabled. They are very similar but do have differences. This section will explain each of the screens.

THE SELECTION SCREEN

- The selection screen allows you to select student filtered by programs. Select one or several programs in the program list and the students list will display the students attached to the selected programs.

This screen contains the following sections:

- Program list
- Student list

The Program List _____

Disabled

- This field displays if the program is disabled or not.

Marker

- This field displays the marker of the program.

Program

- This field displays the program ID.

Program Level

- This field displays the program level.

Description

- This field displays the description of the program.

The Student List _____

Disabled

- This field displays if the student has been disabled or not.

Marker

- This field displays the marker of the student.

ID

- This field displays the student ID.

Name

- This field displays the student name.

Surname

- This field displays the student surname.

Assigner Information

Course Request

- The name of the course request being processed

Assignment Time

- Time spent processing the delivery

Session Time

- Total time spent processing selected course requests

Rejected Requests

- Amount of course requests rejected by the Sectioner

Assigned Requests

- Amount of course requests assigned by the Sectioner

Remaining Requests

- Amount of course requests left to process

ASSIGNMENT RESULTS SCREEN

- The ASSIGNMENT RESULTS screen of the STUDENT SECTIONER displays the results of your sectioning. This screen contains three principal tabs:
  - Programs
  - Courses
  - Students

NOTE: There are five types of filters that can be enabled or disabled on the Student Sectioner. Selecting one or more of these filters will affect the information that will be displayed in the result screen. Here are their common descriptions.

Color	Description
White (Clear)	The item has been entirely rejected
Yellow	The item has been partially assigned.
Green	The item has been fully assigned
Red	The item has nothing to be assigned.
Purple	The alternate choice has been assigned to the item. This filter will only affect the course request list in the student tab.

- Therefore, if the user wishes to see the rejected item in the result screen he/she will enable the white filter and the yellow filter. If the user wishes to see the fully assigned items, he/she will enable the green filter.

«Programs» Tab

Top Part _____

- This part of the screen represents all the programs of the database depending on the status filters selected on the top right corner of the assignment result screen.

Marker

- This field is checked if the program has been marked by the user.

Status

- Status is represented by a colored circle and they are based on the selected students in the selection screen.

The definition of each colored circle is as follows:

Color	Interpretation
White (Clear)	A program that has requests, but all course requests have been rejected.
Yellow	A program that has requests, but some course requests have been rejected.
Green	All requests from this program have been assigned.
Red	A program that has no requests.

Program

- This field displays the name of the program.

Program Level

- This field displays the level of the program.

Description

- This field displays the description of the program.

Course Count

- This field displays the number of courses within the program that have at least one student request from a student selected in the selection screen.

Bottom Part _____

- The bottom part of the program tab is divided into two tabs:
  - Program Contents
  - Students

Assigner Information

Course Request

- The name of the course request being processed

Assignment Time

- Time spent processing the delivery

Session Time

- Total time spent processing selected course requests

Rejected Requests

- Amount of course requests rejected by the Sectioner

Assigned Requests

- Amount of course requests assigned by the Sectioner

Remaining Requests

- Amount of course requests left to process

«Program Contents» Tab

- This tab displays the statistics of the courses of the selected programs in the top part.

NOTE: Right-clicking on an item in this list and selecting «Open Attachment» and one of the following options: «Course», «Program» or «Program Course Category» will open the item's edit window and display the information dependent on the option that's been selected.

Right-clicking on an item in this list and selecting the option «Goto» and then «Course Detail» will bring the user the Course tab of the selected item (program content).

Marker

- This field is checked if the program content has been marked by the user.

Status

- Status is represented by a colored circle.

The definition of each colored circle is as follows:

Color	Interpretation
White (Clear)	All requests for this course have been rejected.
Yellow	Some requests for this course have been rejected
Green	All requests for this course have been assigned.
Red	There are no student requests for this course within this program.

Program

- This field displays the program of the program content.

Program Level

- This field displays the program level of the program content.

Program Course Category

- This field displays the category of the course for the current program

Faculty

- This field displays the faculty of the course.

Department

- This field displays the department of the course.

Course

- This field displays the name of the course.

Description

- This field displays the description of the course.

Request Count

- This field displays the number of requests for a course within the selected program.

Assigned Count

- This field displays the number of requests for a course that have been assigned. (See *request count* field)

Rejected Count

- This field displays the number of requests rejected for the program. (See *request count* field)

Restrict to preference

- This field indicates if the requests for a course must be assigned to one of the preferred sections of the program.

Program Count

- This field indicates the number of programs that a course belongs to.

«Students» Tab

- This tab displays the statistics for students that have at least one request in the selected programs on the top part of this screen. Furthermore, users can view the assignment status of each of the students:

Green

- Student request was fulfilled

Yellow

- Student request was partially fulfilled

White

- Student request was not fulfilled

NOTE: Right-clicking on a student in this list and selecting the sub-menu «Goto» will bring the user to the Student tab of the selected student.

Marker

- This field is checked if the student has been marked by the user.

Status

- Status is represented by a colored circle.

The definition for each colored circle is as follows:

Color	Interpretation
White (Clear)	All the student's requests within the program have been rejected.
Yellow	Some of the student's requests have been rejected.
Green	All the student's requests within the program have been assigned.
Red	There are no requests.

Program

- This field displays the student's program.

Program Level

- This field displays the student's program level.

Student ID

- This field displays the student ID.

Request Count

- This field displays the number of requests made by the student within the selected program.

Assigned Count

- This field displays the number of requests that have been assigned to a student within the selected program.

Rejected Count

- This field displays the number of requests that have been rejected within the selected program.

Program Count

- This field indicates the number of programs that the student belongs to.

«Courses» Tab

Top Part _____

- This part of the screen displays the assignment statistics for courses, sections and components in the database. This list will vary depending on which status filters you select at the top right corner of the assignment result screen.

This part of the screen is divided into three tabs:

- Courses
- Sections
- Components

«Courses» Tab

- This tab displays the assignment statistics for courses in the database.

NOTE: Right-clicking on a course in this list and selecting the sub-menu «Open Schedule» will bring up the timetable of the selected course.

Marker

- This field is checked if the course has been marked by the user.

Status

- Status is represented by a colored circle and they are based on the selected students in the selection screen.

The definition for each colored circle is as follows:

Color	Interpretation
White (Clear)	All requests for this course have been rejected.
Yellow	Some requests for this course have been rejected.
Green	All requests for this course have been assigned.
Red	There are no student requests for this course.

Faculty

- This field displays the faculty of the course.

Department

- This field displays the department of the faculty.

Course

- This field displays the course name.

Description

- This field displays the description of the course.

Supply

- This field displays the capacity (Actual enrollment and Scheduling enrollment) of the course.

Free Seats Remaining

- This field displays the number of free seats remaining in the current course.

FC-REQ Request as first choice

- This field indicates the number of students that have requested this course as their first choice.

FC-REJ Reject as first choice

- This field indicates the number of students that have not been assigned to this course even though it has been requested as their first choices.

FC-REJ-ALT Reject alternate assigned

- This field indicates the number of students that have been assigned to an alternate choice.

FC-ASGN Assigned as first choice

- This field indicates the number of students that have been assigned to their first choice.

ALT-ASGN Assigned as alternate

- This field indicates the number of alternate choices that have been assigned to this course.

Rejected %

- This field indicates the number of rejects in percentage over the total number of requests for the selected course.

Assigner Information

Course Request

- The name of the course request being processed

Assignment Time

- Time spent processing the delivery

Session Time

- Total time spent processing selected course requests

Rejected Requests

- Amount of course requests rejected by the Sectioner

Assigned Requests

- Amount of course requests assigned by the Sectioner

Remaining Requests

- Amount of course requests left to process

«Section» Tab

- This tab represents the assignment statistics for the sections that belong to the selected courses in the courses tab.

NOTE: Right-clicking on a section in this list and selecting the sub-menu «Open Schedule» will bring up the timetable of the selected section.

Marker

- This field is checked if the section has been marked by the user.

Status

- Status is represented by a colored circle and they are based on the selected students in the selection screen.

The definition of each colored circle is as follows:

Color	Interpretation
White (Clear)	All requests for this section have been rejected.
Yellow	Some requests for this section have been rejected.
Green	All requests for this section have been assigned.
Red	There are no student requests for this section.

Section

- This field displays the section name.

Description

- This field displays the section description.

Supply

- This field displays the capacity (Actual enrollment) of the section.

Free Seat Remaining

- This field displays the number of free seats remaining in the current section.

FC-REQ Request as first choice

- This field indicates the number of students that requested this section as their first choice.

FC-REJ Reject as first choice

- This field indicates the number of students that have not been assigned to this section even though it has been requested as their first choice.

FC-REJ-ALT Reject alternate assigned

- This field indicates the number of students that have been assigned to an alternate choice.

FC-SEC-ASGN Forced Section Assigned

- This field indicates the number of first choice requests for this section that have been assigned to it.

FC-CRS-ASGN First Choice Assigned

- This field indicates the number of first choice requests for the course of the selected section without forcing the section but was assigned to it.

ALT-ASGN Assigned as alternate

- This field indicates the number of alternate choices that have been assigned to the selected section.

Total Assigned Count

- This field indicates the total number of student assigned to this section.

«Components» Tab

- This tab displays the assignment statistics for the components that belong to the selected sections in the section(s) tab. If no section has been selected, the tab will display all the components of the selected course.

NOTE: Right-clicking on a component in this list and selecting «Open Schedule» will open the timetable of the selected component.

Marker

- This field is checked if the component has been marked by the user.

Section

- This field displays the name of the component's section.

Component

- This field displays the name of the component.

Component Type

- This field displays the component type name.

Description

- This field displays the component description.

Supply

- This field displays the capacity (Actual enrollment) of the component.

Free Seats Remaining

- This field indicates the number of free seats remaining in the current component.

FC-ASGN Assigned as first choice

- This field indicates the number of first choice requests assigned to this component.

ALT-ASGN Assigned as alternate

- This field indicates the number of alternate choice request assigned to this component.

The Bottom Part _____

- This part of the screen represents the students that have been assigned to and/or are requesting the course, section or components selected in the top part. It also provides information on the components that could not be assigned to the course requests and the reasons why; as well as the number and names of the student requests that have been rejected due to the component rejects.

This part of the screen is divided into three tabs:

- Student Courses Requests
- Component Rejects
- Reject Details

«Student Course Requests» Tab

- Within this tab, the system will display results based on records that have been selected in the parent tab.

If users are filtering on Courses:

- All requests that are requesting the selected course as well as all requests assigned to that selected course are displayed.

If users are filtering on Sections:

- All requests requesting that specific section and all requests assigned to that section as well as all requests for that course that are not assigned to another section and that are not requesting specifically another section are displayed.

If users are filtering on Components:

- All requests that are assigned to that component and all requests for that course that are not assigned to another section or to another component and that are not requesting specifically another section are displayed.

NOTE: Right-clicking on a course in this list and selecting the option «Go to» and then «Student Detail» will bring the user to the Students tab of the selected student.

Status

- Status is represented by a colored circle and they are based on the selected students in the selection screen.

The definition of each colored circle is as follows:

Color	Interpretation
White (Clear)	The student requested course or section and the student has not been assigned to any course section.
Yellow	The student has been partially assigned.
Green	The student requested a course or section and has been assigned all the requested course sections.

Student ID

- This field displays the student ID.

Program

- This field displays the program name for the first or the alternate choice.

Program Level

- This field displays the program level for the first or the alternate choice.

Faculty

- This field displays the faculty name for the first or the alternate choice.

Department

- This field displays the department name for the first or the alternate choice.

Course

- This field displays the course name for the first or the alternate choice.

Program Course Category

- This field displays the Program Course Category to which the course belongs.

Requested Term to Meet

- These fields represent the Term to Meet associated with the current course request.

Preferred Section

- This field displays the name of the forced section for the first or the alternate choice.

Assigned Section

- This field displays the name of the assigned section.

Assigned Component

- When viewing course or section information, this field will be left blank. When viewing component information, this field will display the name(s) of the assigned component(s) for the first or alternate choice.

ALT-ASGN Assigned as alternate

- This value will be true if what has been assigned is an alternate choice.

«Component Rejects» Tab

NOTE: The information displayed in this tab is equivalent to the «Conflicting Course» report in TPH Sectioner.

- The «Component Rejects» tab displays the components that could not be assigned to the selected course request ***only*** because of the following reasons:
  - A component time conflict
  - Insufficient component capacity
  - Transfer times are not respected
  - A block-off time conflict
- Moreover, if the component could not be assigned because of a component time conflict, the conflicting component will also be displayed.

Marker1

- The component's marker check box that can be used by the user to flag an item

NOTE: The marker can only be used within the component's edit window.

Program1

- Program name of the component that could not be assigned

Level1

- The level that corresponds to the program name in Program1 column

Faculty1

- The faculty that corresponds to the component that could not be assigned

Department1

- The department that corresponds to the component that could not be assigned

Course1

- The course that corresponds to the component that could not be assigned

Section1

- The section that corresponds to the component that could not be assigned

Component1

- The component that could not be assigned to the selected course request

Marker2

- The second component marker check box that can be used by the user to flag an item

NOTE: The marker can only be used within the component's edit window.

Program2

- Program name of the component that is in conflict with the component in Component1 column

Level2

- The level that corresponds to the program name in Program2 column

Faculty2

- The faculty that corresponds to the conflicting component

Department2

- The department that corresponds to the conflicting component

Course2

- The course that corresponds to the conflicting component

Section2

- The section that corresponds to the conflicting component

Component2

- The component that is has a time conflict with the component in Component1 column

RejectCount

- The number of student requests rejected as a result of not being able to assign the component found in the Component1 column

«Reject Details» Tab

- The **«** Reject Details » tab will display the student making the course request and the reason the requested component could not be assigned

NOTE: The «Component Rejects» and «Reject Details» tabs will not display components that could not be assigned to the selected course request because of the following reasons:

- The course request has the **«**Prevent Automated Modification» check box checked. There exists a **«**Restrict to Preference» on the section preference of the program allocation. The column names in the **«**Reject Details» tab are the same as the ones found in the **«**Component Rejects» tab with the exception that the **«**RejectCount» column is replaced by the following ones:

StudentId

- The ID of the student that is making the course request

Name

- The last name of the student making the course request

Surname

- The first name of the student making the course request

Reason

- The reason the requested component could not be assigned

«Students» Tab

Top Part _____

- This part of the screen displays information related to the selected students in the selection screen. This list will vary depending on which status filters you selected at the top right corner of the assignment result screen.

NOTE: Right clicking on this list will give you the sub menu to open the student schedule.

Marker

- This field is checked if the student has been marked by the user.

Status

- Status is represented by a colored circle and they are based on the selected students in the selection screen.

The definition of each colored circle is as follows:

Color	Interpretation
White (Clear)	The student has requested courses or sections but the requests have not yet been assigned.
Yellow	The student requests have been partially assigned.
Green	The student has requested courses or sections and the requests have all been assigned.
Red	The student has no request.

Student ID

- This field displays the student ID.

Name

- This field displays the student name.

Surname

- This field displays the student surname.

Request Count

- This field indicates the number of requests by this student.

FC-REJ Reject as first choice

- This field indicates the number of first choice requests that have been rejected.

FC-REJ-ALT Reject alternate assigned

- This field indicates the number of first choice requests that have been rejected but assigned to an alternate choice.

Total Reject Count

- This field indicates the number of rejects (FC-REJ - FC-REJ-ALT)

The Bottom Part _____

- This part of the screen displays the student request information for the selected students.

NOTE:	Right clicking on this list will give you two sub menus one will open the student attachment and the other will bring you to the course tab or the program tab of the selected student.

Status

- Status is represented by a colored circle and they are based on the selected students in the selection screen.

The definition of each colored circle is as follows:

Color	Interpretation
White (Clear)	The student has requested courses or sections but the requests have not yet been assigned.
Yellow	The student requests have been partially assigned.
Green	The student has requested courses or sections and the requests have all been assigned.
Red	The student has no request.

Student ID

- This field displays the student ID.

Program

- This field displays the student's program.

Program Level

- This field displays the program level.

FC Faculty

- This field displays the faculty of the student's first choice request.

FC Department

- This field displays the department of the student's first choice request.

FC Course

- This field displays the course of the student's first choice request.

Requested Term to Meet

- These fields represent the Term to Meet associated with the current student request.

FC Section

- This field displays the section of the student's first choice request.

FC Category

- This field displays the category of the student's first choice request.

ALT Faculty

- This field displays the faculty of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

ALT Department

- This field displays the department of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

ALT Course

- This field displays the course of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

ALT Requested Term to Meet

- These fields represent the alternate Term to Meet associated with the current student request.

ALT Section

- This field displays the section of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

ALT Category

- This field displays the category of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

Alternate Assigned

- This field displays if the student has been assigned to an alternate choice.

ALT Rank

- This field displays the rank of the assigned alternate choice request. This field will be empty if the first choice has been assigned or if there is no alternate request.

SECTION 3 – UTILITIES

CHAPTER 18 - THE ROLLOVER

- The Rollover is a utility that allows you to clean and prepare an existing database for an upcoming term. It can also be used as a batch update tool to unassign or delete certain elements in your database without having to go through each of them individually. The rollover is divided into four parts; «UnAssign», «Frequency Cleanup», «Delete» and «Clear Notes». These four items can be accessed via the 'Tools' menu and by selecting the Rollover submenu.

UNASSIGN TOOL

- This screen allows you to select the resources that are to be unscheduled or unassigned. If the «Advance Options» button is not selected, all the selected options will apply to the selected deliveries.

NOTE:	It is strongly recommended to backup your database before unassigning any data.

- If the «Advanced Options» button is selected, some of the options will affect the selected deliveries and other options will affect their appropriate resources.

UnSchedule Forced Times

- Selecting this option will remove all the forced times for the selected deliveries. If the selected delivery is grouped, the grouped deliveries will also have their forced times removed. If the «Advanced Options» button is disabled, the selected deliveries will appear in the «Deliveries» tab under «filter results». If the «Advanced Options» button is enabled, the selected deliveries will appear in the «UnSchedule Times» tab under «filter results».

UnSchedule Pattern Times

- Selecting this option will remove all the assigned pattern times for the selected deliveries.

NOTE:	The pattern request will not be deleted. If the selected delivery is grouped, the grouped deliveries will also have their pattern times deleted.

- If the «Advanced Options» are not being used, the selected deliveries will appear in the «Deliveries» tab under «filter results». If the «Advanced Options» are being used, the selected deliveries will appear in the «UnSchedule Times» tab under «filter results».

UnAssign Rooms

- Selecting this option will remove all the assigned rooms for the selected deliveries.

NOTE:	The room request will not be deleted. If the selected delivery is grouped (same room), the grouped deliveries will also have their assigned rooms removed. The selected deliveries will appear in the «Deliveries» tab under filter results.

- When the «Advanced Options» are in use, this option is greyed out. This means that in order to unassign rooms for a delivery you will have to go to the «Rooms» tab and select the rooms that you want to unassign. By selecting rooms, in the «Rooms» tab under filter results, all deliveries that will be affected are visible. If the affected deliveries are grouped (same room), the grouped deliveries will also have their assigned rooms removed.

UnAssign Students

- Selecting this option when the «Advanced Options» are not in use will delete the link between the components of the selected deliveries and their assigned students. The selected deliveries will appear in the «Deliveries» tab under «filter results».
- When the «Advanced Options» are in use, this option is greyed out. This means that in order to delete the link between students and components you have to go to the «Student» tab and select the students that you want to unassign. After the students are selected, the components that will be affected appear in the «Unassign Students» tab under filter results

Ignore Prevent Automated Modification flag

- By default, the rollover will not unschedule forced times, pattern times and/or unassign rooms for a delivery that has the «Prevent Automated Modification» flag checked. If the «Ignore prevent automated modification flag» is checked, the rollover utility will not take this constraint into consideration when unscheduling forced times, pattern times and/or unassigned rooms for selected deliveries.

Clear Prevent Automated Modification flag

- The «Clear prevent automated modification flag» will remove the «Prevent Automated Modification» flag for all selected deliveries.

NOTE:	This check box will only become enabled once the «Ignore prevent automated modification flag» is checked.

UnAssign Professors

- Selecting this option when the «Advanced Options» are not in use will detach all of the professors from the selected deliveries. The selected deliveries will appear in the «Deliveries» tab in the filter results part. When the «Advanced Options» are in use, this option is greyed out. This means that in order to unassign professors from a delivery you will have to go in the «Professors» tab and select the professors you want to unassign. After the professors are selected, the deliveries that will be affected appear in the «Unassign Professors» tab under filter results.

UnAssign Academic Blocks

- Selecting this option when the «Advanced Options» are not in use will delete the link between the components of the selected deliveries and their academic blocks. The selected deliveries will appear in the «Deliveries» tab under «filter results». When the «Advanced Options» are in use, this option is greyed out. This means that in order to detach academic blocks for a component you have to go to the «Academic blocks» tab and select the academic blocks that you want to unassign. After the academic blocks are selected, the components that will be affected appear in the «Unassign Academic blocks» tab under filter results. When you are ready to unschedule the selected data, click on the 'Save' icon located on the toolbar.

ROLLOVER – UPDATE DELIVERY FREQUENCIES

- The Rollover – Update Delivery Frequencies tool lets users update the frequency dates of the selected deliveries.

NOTE:	It is strongly recommended to backup your database before executing a frequency cleanup.

FILTERS SCREEN

- From the Selection screen, users are to select the data to delete through the Update Delivery Frequencies Tool.

Include Deliveries having the "Prevent Automated Modification of Times" flag checked

- By default, the Update Delivery Frequency Filters Screen will not include a delivery that has the «Prevent Automated Modification» flag checked. If the "Include Deliveries having the "Prevent Automated Modification of Times" flag is checked, the filters screen will display all deliveries including those that have this flag checked on the Time Request of a delivery. Use the available filters to select, the deliveries that should have their frequency dates updated.

SETUP NEW DATES

- The Setup New Dates will display all of the distinct delivery frequency date ranges that correspond to the deliveries selected in the Filters Screen. Deliveries that have the same dates, number of frequencies and intervals will be grouped together on the Setup New Dates screen. Note that by default the new start and end dates will be those of the component term. Deliveries with unique frequencies will be grouped individually. For deliveries that have multiple frequencies only the dates of the first frequency will be updated with the component term dates. The default frequency dates can be modified by the end user. To select a different date, simply click in the appropriate cell — this will open a popup calendar allowing the user to select the desired date.

NOTE:	Any frequency that does not have a new start and end date will be deleted when the update of delivery frequencies is executed.

CONFIRM AND UPDATE

- From this screen, users are shown the delivery frequencies that will be updated. Select Update Now to proceed or Previous to go back the previous screen to apply needed modifications.

Clear Prevent Automated Modification flag

- The« Clear prevent automated modification flag» will remove the «Prevent Automated Modification» flag for all selected deliveries.

NOTE:	This check box will only become available once the "Include Deliveries that have activated the "Prevent Automated Modification of Times"" setting is checked in the filters screen.

NOTE:	A confirmation message will appear to make sure the user wants to proceed, select Yes to proceed or No to return to the screen. Please note that once the dates are modified, the modifications cannot be undone. It is recommended to take a backup before proceeding with the entire process.

- Once the process has ended, select the Done button to exit from the Update Delivery Frequencies tool.

ROLLOVER – UPDATE BLOCKOFF FREQUENCIES

- The Rollover – Update Blockoff Frequencies tool lets users update the frequency dates of the selected blockoffs.

SETUP NEW DATES SCREEN

- From this screen, users must select the dates (start dates and/or end dates) by which to replace the current start dates and/or end dates for each desired blockoff type. To select a new date, simply click in the appropriate cell — this will open a popup calendar allowing the user to select the desired date.

NOTE:	It is only after a new date has been selected that the Next button becomes enabled.

CONFIRM AND UPDATE SCREEN

- From this screen, users are shown the blockoff types that will be updated. Select Update Now to proceed or Previous to go back the previous screen to apply modifications.

NOTE:	A confirmation message will appear to make sure the user wants to proceed, select Yes to proceed or No to return to the screen. Please note that once the dates are modified, the modifications cannot be undone. It is recommended to take a backup before proceeding with the entire process.

- Once the process has ended, select the Done button to exit from the Update Blockoff Frequencies tool.

ROLLOVER – DELETE

- The Rollover – Delete tool lets user delete unwanted data in order to ease the use of the same database for a new term.

NOTE:	When deleting Deliveries or Professors, all links to the custom fields will be deleted as well, however, the custom fields secondary files will not be deleted. Users can delete those custom fields manually.

- Select, from the Toolbar, Tools-Rollover-Delete to open the Rollover – Delete Records screen

SELECTION SCREEN

- From the Selection screen, users are to select the data to delete through the Rollover tool. Select, from the Description column the records that are to be deleted. Users can sort alphabetically the description field or numerically the Record Count field to ease the selection of records to delete.

Advanced option

- Select the «Advanced» button to open the Advanced Filter screen and to filter in more details what data elements need to be deleted.

Select a data element

- From this drop-down field, select the type data element to delete (example, Course Combinations, Deliveries, Professors, etc.). Using the available options, select the proper filters to determine the data element to delete.
- Once done, select the NEXT button to proceed to the next screen.

CONFIRM AND DELETE RECORDS SCREEN

- From this screen, users need to confirm that the data elements listed are the ones that need to be deleted. Select PREVIOUS to return to the previous screen to modify the selection or select DELETE to proceed and delete the listed data elements or select. At which point, a message will be displayed asking the user to confirm once more that the listed data elements are the right elements to delete. Please note that once the records are deleted, they can no longer be recuperated (unless a backup has been taken before the entire Rollover process has been launched). Once the records are deleted, select the DONE button to exit the Rollover tool.

ROLLOVER — CLEAR NOTES

- This option will clear notes for the selected data elements (i.e.—Academic Blocks, Academic Block Types, Components, etc.)

(1) Within the Selection screen, select the checkbox of each data element for which to clear the notes. The amount of notes associated to each data element is displayed within the «Notes to Clear» column. Users can sort on the «Notes to Clear» column. Once done, select Next to proceed to the Confirm and Clear Notes screen.

(2) Within the Confirm and Clear Notes screen is displayed a summary of the data elements selected for which notes will be cleared. At this point, users can decide to return to the previous screen to modify their selection of data elements. If the summary of the data elements is satisfactory, select Clear to clear the notes associated to the displayed data elements.

(3) A confirmation message will be displayed. From this message, select Yes to clear the notes or No to cancel and return to the Confirm and Clear Notes screen. At which point users can return to the previous screen or cancel the process.

(4) Once the notes have been cleared, the status of the data elements will display «Done». Select the button «Done» to exit the Rollover-Clear Note screen.

CHAPTER 19 - THE BALANCE ENROLLMENT BASED ON DEMAND TOOL

- The Balance Enrollment Based on Demand tool is used to balance the enrollment (Actual or Scheduling) of components based on:
  - Requested characteristics
  - Section preferences
  - Program allocations
  - Characteristics reserved
  - Section combination
  - Conflicting component combinations

BALANCE OPTIONS

- This screen allows you to select which assignment process you wish to run and to specify the buffer percentage of the process.

Run Balancing for

- This field defines the assignment process that requires the demand balance. There are three possible assignment processes to choose from and they are:
  - Assigning,
  - Academic Block Building
  - Sectioning.

Buffer Percentage

- This field defines the percentage by which the component enrollment (scheduling or actual) can exceed a perfectly balanced assignment.
- If «Assigning» or «Academic Block Building» is selected, clicking on the Next button will bring you to the Student Request Option screen. If «Sectioning» is selected, clicking on the Next button will bring you to the Source and Destination screen.

Demand Calculation Method _____

- Within this section, users must select which demand to use when balancing the demand (Basic or Constrained). Constrained demand will take into account the following data: Requested characteristics, Section preferences, Program allocations, Reserved characteristics, Section Combinations and Conflicting Component Combinations within the same course. By default, the Constrained option is selected.

Basic

- By selecting this option, the demand will not take into account the constraints or the characteristics.

Constrained

- By selecting this option, the demand will take into account the constraints as well as the characteristics.

COURSE DEMAND OPTION SCREEN

- This screen gives you the option to select which demand will be used for balancing enrollment. Depending on which assignment process you have selected to run the Balance and Demand Tool, you will have the option to select student demand, course combinations, academic blocks or all three sources of demand.
- Clicking on the Next button will bring you to the Source and Destination screen.

SOURCE AND DESTINATION SCREEN

- This screen allows you to select the source and the destination fields to be used by this process. The source enrollment field is used as a proportional guide to populate the destination enrollment field. For example, if the scheduling enrollment is used to proportionally update the actual enrollment, the student demand (either from course demand or from course combination demand) will be divided into the actual enrollment fields while maintaining the same proportions that the scheduling enrollments have. The table below depicts two scenarios where the Balance Enrollment Based on Demand Tool is used to update actual enrollments.

Student Demand	Buffer Percentage	Course	Section	Component	Scheduling Enrollment	Calculated Actual Enrollment (Ideal Balance + Buffer)
80	10%	BIO100	01	LEC01	25	20 + 2 = **22**
				LEC02	25	20 + 2 = **22**
				LEC03	25	20 + 2 = **22**
				LEC04	25	20 + 2 = **22**

Student Demand	Buffer Percentage	Course	Section	Component	Scheduling Enrollment	Calculated Actual Enrollment (Ideal Balance + Buffer)
100	10%	BIO100	01	LEC01	50	40 + 4 = **44**
				LEC02	25	20 + 2 = **22**
				LEC03	25	20 + 2 = **22**
				LEC04	25	20 + 2 = **22**

Source enrollment field

- This field is used to specify the enrollment source to be used by the process.

Destination enrollment field

- This field is used to specify the enrollment field in which the results will be inserted.
- Clicking on the Next button will bring you to the filter screen.

COURSE FILTERS SCREEN

- This screen allows you to specify which courses you wish to include in the balancing process. If nothing is selected, it implies that all the courses will be processed.
- Clicking on the Next button will bring you to the demand filter(s) screen.

STUDENT FILTERS SCREEN

- This screen allows you to specify which student(s) demand you wish to consider in the balancing process. If nothing is selected, it implies that all the student demand will be processed. Note that this screen is available only in the event that the option to consider student requests was selected in the Student Request Option Screen. Click on the Next button to continue

ACADEMIC BLOCK FILTERS SCREEN

- This screen allows you to specify which academic block(s) demand you wish to consider in the balancing process. If nothing is selected, it implies that all the academic block demand will be processed. Note that this screen is available only in the event that the option to consider non-system generated academic blocks was selected in the Student Request Option Screen. Click on the Next button to continue

COURSE COMBINATION FILTERS SCREEN

- This screen allows you to specify which course combination demand you wish to consider in the balancing process. If nothing is selected, it implies that all the student demand will be processed. Note that this screen is available only in the event that the option to consider course combinations was selected in the Student Request Option Screen. Click on the Next button to continue

REJECTS SCREEN

- The system displays all the elements that will be rejected when the Balance enrollment tool will proceed. Within this report, the system displays the reason as to why each element cannot be assigned. At this point, users can open the elements and modify the information that is causing the issue. In order to do so, simply right-click the desired element and select the appropriate menu item (Edit Component 1/ Edit Component 2/ Edit Course Combination).
- Once the data is modified, click on “Previous” to refresh the data then click on “Next” to proceed once again.

PROCESSING SCREEN

- Press the start button when you are ready for the system to proceed with the necessary calculations.

CHAPTER 20 - MY VIEWS

- The «My View» function allows a user to easily setup custom views and reports. My Views is accessible via the data element button list in the navigator. To properly use My Views, one must be familiar with the data relationships & data hierarchy within the application. Knowledge of SQL is not required but can be useful to create and/or modify advanced queries. The My Views created can be private or public. A private My View is represented with an icon of a key.

CREATING A VIEW

- In order to create a view, right click in the navigator tree list and select add view — the wizard will appear.
- Click on the «Next» button to begin creating a view.

THE SOURCE SCREEN

- The «Source Screen» is used to select the source object (parent) of the view.
- For example, if campus is selected as the source object the all child elements of a campus can be then selected. Click on the «Next» button to proceed to the next screen.

THE SELECTING FIELDS SCREEN

- This screen allows a user to select the fields to be displayed in the created view.
- Parent and children fields can be located by using the «+» found to the left of the resource name.

NOTE:	Fields are displayed following the application's data hierarchy

- In this example, campus has been selected as the source object of the view. All the fields related to campus can then be selected along with the children elements of a campus (buildings, rooms, etc.).
- Once all fields have been selected, click on the «Next» button to proceed to the next screen

ADDING FILTERS SCREEN

- The Adding Filters screen allows a user to apply a filter on any of the selected fields. If you do not want to add filters, you can skip this step and click on Next.

Available Fields

- Displays fields selected in the «Selecting Fields» screen.
- Allows a user to select fields to apply a filter to.

Edit Filter For…

- Allows a user to define a filter for selected field.

How Do I Create A Filter?

(1) Select the «NOT» checkbox to create a filter beginning with the NOT condition.

(2) Use the drop-down arrow to select the main filter clause.

(3) Input the filter criteria.

(4) Select the «Add» or «Or» clause in the second criteria.

(5) Click on the «Save» button — the inputted filter will appear listed in the «Filters» frame.

NOTE:	For users who are more familiar with the query process, it is possible to manually create queries using SQL commands by clicking on the «Advanced**»** button and then clicking on the «Next» button.

(6) Once all filters have been defined, click on the «Next» button to proceed to the next screen.

SQL EDITING SCREEN

NOTE:	The «SQL Editing» screen will appear if the «Advanced» button was selected in the «Adding Filters» screen.

- Queries can be manually created or edited using SQL commands in the «SQL Editing» screen. Click on the «Validate» button to validate the inputted commands. The validation results will appear in the «Status» pane.
- Once query is complete and valid, click on the «Next» button to proceed to the next screen

SETTING FIELD FORMAT SCREEN

- The «Setting Field Format» screen allows a user to modify field names and column headers.

NOTE:	If the «Advanced» button was selected in the «Adding Filters» screen, the format of each field can be modified.

- Once modifications have been completed, click on the «Next» button to proceed to the next screen.

SAVING THE VIEW

- This allows a user to define the view's name. This name will be used to identify the view in the navigator.

View Name

- Enter the name for this My View. This name cannot be duplicated. If the user is trying to save a My View with a name that is already in use, a message will indicate to the user that the name is already taken, and that the user needs to select a new name before the My View can be saved.

Category

- By default, the system associates the current view to the Source selected in the Source screen.
- Users can enter a category name for this current view. The folder for the current view is created with the name entered in this field or by the default name used by the system.

NOTE: **Renaming a Category**

It is possible to rename a category. To do so, simply:

1. Right-click on the Category folder and select Rename Category from the context menu
2. Enter a new name for that category and press Enter.
3. All the My Views under that category will be moved to the new category except for shared views that are not owned by the current user and for views currently locked by another user.

When exporting a view, please note that the view will be exported with the renamed category.

Share this view with all users

- Select this option to make this My View a "public" My View, meaning it will be made available to all users.

NOTE: When selecting this option, the system will verify all the My View names that are saved on the Application Server and validate that this My View name is not already used by another My View. If it is, a message will be displayed advising that this My View cannot be saved until a new name is entered.

Owner

- Once the My View is created, this field will display the name of the user who created (saved) this My View. The name that will be entered in this field will be the login name of the person who created the My View.

NOTE: Only the owner of a My View can edit or delete it. And only the owner of the My View can change its property (i.e.: making a private My View into a public My View or vice versa).

If a user (not the owner) wants to modify a public My View, that user needs to copy the My View first. At this point that user becomes the owner of the copied My View and may then proceed to modifying it.

- After all information of the My View is entered, click on Finish to exit the wizard.

WORKING WITH VIEWS

- Various options will be available by right clicking on a listed view or within the results themselves.

Add View

- Select this option to add another view.

Edit View

- Select this option to edit your current view. This will open a properties screen for the existing view and it will contain tabs with same screens as described in the section «*Creating a View*».

Delete View

- This option will delete the selected view.

Convert to Advance Mode

- This option will convert the selected view to advanced mode.

NOTE: A view that has been converted to Advanced Mode cannot be reverted back to normal mode.

Export View

- This option allows you to save your view to a file in Myview format (*.myview). This file can then be imported in another workstation.

Import View

- Select this option to import a Myview file.

NOTE: The myview file (*.myview) must reside on a local drive or a shared network drive to import the view.

Save as HTML
(right-click in results)

- This option allows you to save the current results in a HTML file format.

Save as CSV
(right-click in results)

- This option allows you to save the current results in a CSV (such as MS Excel) file format.

TO COPY A LIST FROM MY VIEWS

- You can copy and paste any list from My Views and paste it in a text editor or a spreadsheet such as MS Word, or MS Excel.

To copy elements from a list pane:

- Select the elements from the list that you want to copy by clicking on it. Once the item is highlighted, right click to have the context menu appear. Select «Copy».

To paste the copied elements:

- If it is not already done, open the text editor or the spreadsheet application.
- You can now paste the data inside the application by clicking on the right mouse button (on the location where the content is to be pasted) and selecting «paste» from the context menu.

CHAPTER 21 - THE DATABASE TOOLS

- Navigate to «File—Database Tools» to open the Database Tools screen. Within the Database Tools screen, users can create an empty database or can copy an existing database.

THE DATABASE TOOLS SCREEN

New Database Name

- Enter a name to give to the database being created.

Destination Server

- From the server list, select the server on which the database will be created.

Options

Create Empty Database

- Select this option to create an empty database (only the tables and fields will be created but no data will be present. It will be up to the user to populate the database being created or it will be up to the user to import data into the database being created using the transfer tools).

Copy Database

- Select this option if copying an existing database.

Source Server

- Select the server on which the database to be copied resides.

Source Database

- Select the database to be copied.

Create

- Select the «Create» button to start creating the empty database or to start copying an existing database.

Close

- Select the «Close» button to close the «Database Tools» screen.

SYSTEM ADMINISTRATION TOOLS

- Navigate to the «System Administration» button in the data element button list to access the system administration tools.
- The Directory Tree pane will display the following two items:
  - Backup
  - Users

BACKUPS

- A backup is similar to taking an image or snapshot of your database at a specific point in time.
- Backups can be created, restored and deleted using the backup command buttons on the toolbar.

Create Backup

- The **«**Backup» command button allows you to create a backup of your database.

Restore Backup

- The **«**Restore» command button allows you to restore a backup of your database.

NOTE:	Once a backup is restored, any changes made from the time of the backup will not be saved within the database. Restoring a backup will revert the database back to the point in time when the backup was taken.

Delete Backup

- The **«**Delete backup» command button allows you to delete a backup.

HOW TO CREATE A BACKUP

(1) Select «System Administration» from the Data Element Button List

(2) In the Directory Tree Pane, select the «Backup» heading

(3) In the List pane perform one of the following actions:

- Right click and select «Add New»
- Press the <INSERT> key.
- Click on the «New» command button in the toolbar.
- Click on «Edit» in the main menu and from the sub-menu select «Add».
- Press the <CTRL>+<N> keys simultaneously — The «Backup» edit window will appear.

(4) Input the appropriate values in the «ID» and «Description» fields.

(5) Click on the backup command button to begin the backup process.— a message box will appear to confirm that the backup has been created.

HOW TO EDIT A BACKUP

- Editing a backup implies editing the ID or the description of the backup — NOT the contents of the backup.

(1) Select «System Administration» from the Data Element Button List

(2) In the Directory Tree Pane, select the «Backup» heading

(3) All created backups will appear listed in the List pane

(4) Select the desired backup and perform one of the following actions:

- Double click on the desired item in the list pane.
- Right click on the desired item and select «Edit».
- Right click on the desired item in the list pane and select «open viewer».
- Click on the «Edit» command button in the toolbar
- Click on «Edit» in the main menu and from the sub-menu select «Edit».
- Press the <F2> function key.

- The selected backup's edit window will appear

(5) In the edit window, make all necessary changes to the ID and Description field

(6) Save modification by performing one of the following actions:

- Click on the «Save» command button in the toolbar.
- Press the <CTRL>+<S> keys simultaneously.
- Click on «File» in the main menu and from the sub-menu select «Save».

HOW TO DELETE A BACKUP

(1) Select «System Administration» from the Data Element Button List

(2) In the Directory Tree Pane, select the «Backup» heading

(3) All created backups will appear listed in the List pane

(4) Select the desired backup

(5) Click on the delete backup command button on the toolbar — a pop-up message will appear to confirm the delete command.

(6) Click on Yes to delete the backup or click on No to cancel the deletion.

HOW TO RESTORE A BACKUP

(1) Select «System Administration» from the Data Element Button List

(2) In the Directory Tree Pane, select the «Backup» heading — all created backups will appear listed in the List pane

(3) Select the desired backup and perform one of the following actions:

- Double click on the desired item in the list pane.
- Right click on the desired item and select «Edit».
- Right click on the desired item in the list pane and select «open viewer».
- Click on the «Edit» command button in the toolbar
- Click on «Edit» in the main menu and from the sub-menu select «Edit».
- Press the <F2> function key.

- The selected backup's edit window will appear

(4) Click on the «Restore» backup command button — the backup will be restored.

USERS

- Users are created within licensed modules.
- There are two default users that exist within each module:
  - super
  - admin
- The super user has been granted all permissions. This user may be deleted or modified.

NOTE: The password for the super user is: super (it may have been previously modified).

«General Information» Tab

Login Name

- Input the login name to be used by the user when accessing any modules.
- This is a required field.

Password

- Input the password to be used by the user when accessing the modules.
- This is a required field.

Password Confirmation

- Re-enter the password to be used by the user when accessing the modules. This field is required.

Role

View and Edit

- Select this option to give the current user access to view and edit records within the application.

View Only

- Select this option to give the current user a restricted access (read only) within the application. This option is useful for users who want to view information but do not need to schedule.

Permissions

(The following permissions are unavailable (greyed out) if the selected user role is View Only.)

User Management

- Select this option to give to this user access to the User menu in the System Administration menu item

Import

Select this option to give to this user access to the Import menu (*File > Import*).

Restore Backups

Select this option to give to this user access to restoring backups. The user can still create backups if this option is not selected.

Database Tools

Select this option to give to this user access to the Database Tools (*File > Database Tools*)

Create/Update CRNs

(requires an active Timetabler SIS Transfer licence)

Select this option to give to this user access to creating or updating CRNs (*Tools > Banner® > Create CRNs in Banner® AND Tools > Banner® > Update matching CRNs in Banner®*)

Comments _____

- Enter any relevant comments for the selected user.

SWITCH DATABASE

(Located under File > Switch Database)

- Upon selecting this feature, the system will close all opened windows and will then proceed to close the current session. Once the current session closed, the system will display the login screen. At this point, you can select a new database from the login screen and log into the selected database. For more information regarding the login screen, please refer to the Login Screen section in this guide.

CHAPTER 22 – SUITE MANAGER

INFOSILEM ACADEMIC SUITE MANAGER TOOLS

- The *Infosilem Academic Suite Manager* allows the system administrator to manage module licenses, the application servers, as well as the databases that reside on these servers and their user sessions.

ACCESSING THE INFOSILEM ACADEMIC SUITE MANAGER

(1) Navigate to the "Start" Menu

(2) Select Manager

First time login:

(1) The "Infosilem Academic Suite Manager" window will open prompting to create a password

(2) Click on "Yes" to create a password

- Navigate to the "Security" tab in the "Options" window
- Enter a "New Password"
- Confirm the password by re-typing it in the "Confirm Password" field

(3) Click on "OK" to apply the changes and close the "Options" window, or;

(4) Click on "Apply" to apply the changes and leave the "Options" window opened, or;

(5) Click on "Cancel" to disregard modifications

SERVERS

The "Servers" button

- The "Servers" button grants access to the '*Infosilem Academic Suite* Servers & Databases' screen. The screen displays the defined database servers and the databases that reside on them

INFOSILEM ACADEMIC SUITE SERVERS & DATABASES SCREEN STRUCTURE

The screen is divided into two sections:

(1) Toolbar

- Provides access to application specific functions through command buttons
- Directory Tree Pane
- The directory tree pane is located on the left-hand side and graphically displays the hierarchical relationship between servers, databases and user sessions.
- Click on the "+" to view all information associated to the selected server or database element.
- Each listed server can be expanded to view the databases that reside on it.
- A database can be deleted by selecting the database and then clicking on the delete command button.
- Each database can be expanded to view its active sessions.
- Either of the following scenarios constitute an active session:
  - A user that is currently accessing the selected database via one of the modules.
  - An unused session (this may occur if a user's computer is unexpectedly shutdown while accessing a database).
- An active session can be deleted by selecting the session and then clicking on the delete command button.

(2) List Pane

- The list pane is located on the right-hand side and lists all information associated to the selected server or database within the directory tree pane.

VIEWING ACTIVE DATABASES

- To view active databases, simply:

(1) Navigate to 'Tools' in the Manager's menu bar.

(2) Select 'Show Active Databases' - the "Active Databases" window will appear. All databases that have at least one session open will be listed.

DELETING A SERVER

(1) Select the "Servers" button — the "Infosilem Academic Suite Servers & Databases" screen will appear

(2) Navigate to the directory tree pane.

(3) Please make sure that the "Server" title header is highlighted - the list of servers will appear in the list pane.

(4) Select the appropriate server

(5) Click on the "Delete" command button in the tool bar — a message box confirming the deletion will appear

(6) Click on "OK" to delete the server OR click on "No" or "Cancel" to cancel the deletion.

EDITING A SERVER

(1) Select the "Servers" button

(2) In the "Infosilem Academic Suite Servers & Databases" Screen, navigate to the directory tree pane.

- Make sure that the "Server" title header is highlighted — the list of servers will appear in the list pane.

(3) Select the appropriate server

(4) Click on the "Properties" command button in the tool bar — the "Server Properties" window will appear

(5) Modify the appropriate information

(6) Click on "OK" to apply the changes and close the "Server Properties" window

(7) Or click on "Apply" to apply the changes and leave the "Server Properties" window opened

(8) Or click on "Cancel" to disregard any modifications

MODULES

- The “Modules” button will display the “License Information” window, which lists all modules licensed to your institution.

THE LICENSE INFORMATION WINDOW

- The “License Information” window lists all modules licensed to your institution.

Licensed to

- The Licensee

License

- The license number provided by Infosilem

Licensed Modules

- Lists all modules licensed to your institution

OPTIONS

- This screen lets authorized users customize certain aspects of the Manager such as the default window that is displayed when launching the Manager and even modifying the Manager password.

The General Tab

- Allows you to specify the window to be displayed upon log into the Manager.

The Security Tab

- Allows you to change the Manager password.

(1) Click on “OK” to apply the changes and close the “Options” window or,

(2) Click on “Apply” to apply the changes and leave the “Options” window opened or,

(3) Click on “Cancel” to disregard any modifications

SIS INTEGRATION (BANNER® BY ELLUCIAN™)

(This feature is available to registered licensed users only.)

NOTE:	By default, the schema is already set to GENERAL. If the GENERAL schema has been renamed by your institution, you must enter that new Schema name.
	Banner Student Connection Settings

Schema

- This is the Schema name — it must be entered the same as it is entered on the Oracle® server.

Service

- This is the service name that normally comes from tnsnames.ora.

User (for connection to server)

- Specify the "Infosilem" user ID for the Oracle® server — please refer to the "*Oracle® Server Configuration*" section in the *Suite - Application Server Installation Guide*.

Password (for connection to server)

- Specify the password for the Infosilem user on the Oracle® server — please refer to the "*Oracle® Server Configuration*" section in the *Suite - Application Server Installation Guide*.

Banner General Connection Settings

Schema

- This is the Schema name — it must be entered exactly the same as it is entered on the Oracle® server.

Service

- This is the service name that normally comes from tnsnames.ora.

User Name (for connection to server)

- Specify the "Infosilem" user ID for the Oracle® server — please refer to the "Oracle® Server Configuration" section in the *Suite - Application Server Installation* Guide.

Password (for connection to server)

- Specify the password for the Infosilem user on the Oracle® server — please refer to the "Oracle® Server Configuration" section in the *Suite - Application Server Installation* Guide.

Default Settings _____

Default Connection

- From the “Default Connection”, users can select the default connection to set for the selected connection.

Model Type _____

- Within the Model Type, users can select the model type to apply for the selected connection

Off

- No Banner fields will be displayed within the application.

CRN Creation

- Select this option if your institution is creating CRNs through the SIS Transfer.
- Upon running the SIS Transfer, information entered at the component level within the application will be used to create the appropriate CRNs within Banner.
- Information entered at the delivery level will be used to create and populate meets within Banner.

CRN Matching

- Select this option if your institution is matching CRNs imported into the application through the SIS Transfer.
- Upon running the SIS Transfer, information entered at the delivery level within the application will be used to create and populate meets within Banner.

ADMINISTRATION ACCOUNT

- It may become necessary to modify the Administrator Account's password. In order to do so, authorized users need to access the Administration Account module.

CHANGING PASSWORD

- When changing the administrator password for the first time, authorized users simply need to enter a new password.

New Password

- Enter the new password for the administrator account

Confirm Password

- Confirm the new password.
- If the two fields (New Password and Confirm Password) do not match, a message will advise the user — at that point the new password has not been created.
- The new password is only created when both fields contain the exact same password and when the user clicks the «Save» button.

Disable the administrator account

- Select this option to disable the administrator account. Once disabled, the administrator account is no longer available at the login screen.

NOTE:	While the administrator account is disabled, the password cannot be modified. To enable the administrator account, make sure to leave this option unchecked and click on «Save».

CHAPTER 23 – LAST EXTERNAL CHANGES

- This feature is designed for Timetabler schedulers who need to track, with the help of a log, API operations of records that have been added, disabled or modified in the SIS. The log displays the **last** change (action) that occurred to a particular record, for the following types of data:
  - Courses
  - Professors
  - Sections
  - Components
  - Component groups
  - Delivery groups
- The «Last External Changes» feature is divided in two panes, the left pane displays Courses, Professors, Sections, Components, Component Groups and Delivery Groups. To the right of each element, a number in parenthesis displays the number of records that have not been reviewed.
- By selecting an element in that pane, all records associated with that element and that have been modified by the API, are listed. To view a record, simply double click on that record to open its edit window.
- The right pane displays records modified by the API and that are associated with the selected element in the left pane.
- Users can mark one or multiple entries as “Reviewed” or “Not reviewed” by right-clicking the desired entries and selecting «Last External Changes» > «Mark as reviewed» / «Mark as not reviewed» from the contextual menu.
- Users can remove one or multiple entries from the list by right-clicking and selecting the «Last External Changes» > «Remove from list» option in the contextual menu to clean up the log.
- The log contains the following information:
  - The operation performed (if the record was: added, modified, or disabled).
  - The date when the API performed the last operation.

SECTION 4 – INFOSILEM ENTERPRISE INTEGRATION

CHAPTER 24 – INFOSILEM ENTERPRISE INTEGRATION SCREEN

(Located in the Manager)

- The Infosilem Enterprise Integration configuration is meant to be carried out by an administrator with the proper technical knowledge. This configuration is meant to be done at the time the product is installed, or when an installation is modified, such as modifications to the Application server, etc.

CONNECTIONS

New Button

- Select this button to activate the fields below and to create a new connection.

Edit Button

- Select this button to edit an already existing connection. Once selected, all pertinent fields and buttons will activate and will be editable.

Delete Button

- Select this button to delete the connection that is displayed. Once the button is selected, a message box will ask to confirm the action. Select "Yes" to delete the connection or "No" to cancel this action.

Connection Name

- Enter the name of the connection being created.

Enterprise API URL
(Only available when creating or editing a connection)

- Enter the API's URL.

User/Password

- Enter the Enterprise username and password. It is recommended to make sure that the user has all the permissions.

Test Connection

- Select this button to test the connection between Infosilem Enterprise and Infosilem Academic Suite.

Apply

- Select this button to apply the entries (or modifications)

Cancel

- Select this option to cancel the entire process and to empty and disable the fields.

Default Settings _____

Default Connection

- This field displays the default connection to Infosilem Enterprise. If there is more than one connection defined, the user can select from the drop-down list, the connection to establish as the default connection.

Enable Enterprise Integration

- Select this option to enable the Enterprise Integration feature within the application.

Prevent users from using Enterprise Integration

- Select this option to prevent users from using the Enterprise Integration feature.

Close

- Select this option to close the Enterprise Integration window.

ENTERPRISE INTEGRATION SETTINGS SCREEN

(Settings → Enterprise Integration Settings)

Use default settings

- Select this option to use the default settings as established in the Enterprise Integration screen.

Use specific settings

- Select this option to use a specific connection setting, regardless of the default connection that is defined in the Manager.

Enterprise Default Connection
(«Use specific settings» option must be selected)

- If there is more than one connection defined, select from this drop-down, the connection to establish as the default connection.

Enable Enterprise Integration

- Select this option to Enable or Disable Enterprise Integration (checkbox) - this option overrides the Manager default setting for this checkbox.

SAVING MODIFICATIONS

- To save any modification to the Enterprise Integration Settings screen, simply close the screen to display the save option screen. Within this screen, select

Yes

- To save the modifications

No

- To close the Enterprise Integration Settings screen without saving any of the modifications

Cancel

- To close the save option screen and to return to the Enterprise Integration Settings screen without having saved

INFOSILEM ENTERPRISE INTEGRATION – IMPORT ROOMS SCREEN

(Tools → Infosilem Enterprise Integration → Import Rooms…)

Settings

Enterprise Connection

- This field displays the connection used for the import. Authorized users can modify the connection by selecting the *Settings —Enterprise Integration Settings* menu item.

Type of Import

- This section offers two sets of preferred settings, allowing two reusable settings configurations for an Initial import from Enterprise vs subsequent update imports later.

  Presets (Preset 1 / Preset 2)

  - Users can define the import options for each of the presets. By selecting the NEXT button, the selected settings will be saved for the current preset.

Create safety backup

- Select this option to create a backup of your database before importing rooms from Infosilem Enterprise. The import process cannot be undone and therefore creating a safety backup is good practice, if for some reason users want to return the database to the state it was prior to the import process. The backup is automatically named "Enterprise Integration" along with the current date and time at which the backup was created. The description field will contain a description representing the synchronization process that was launched: for example, "Automatically generated when synchronizing Rooms" / "Automatically generated when synchronizing Blockoffs".

Import rooms between __ and __

- Using the drop-down calendar, select the date range in which the rooms to import are to be effective in Infosilem Enterprise. Rooms in Infosilem Enterprise with effective dates that partially cover the entered date range will be imported in Infosilem Academic Suite with blockoffs attached to them for the dates the rooms are not effective but are within the entered date range. Rooms with effective dates that are not within the entered date range will not be imported.
- If Room profiles have been defined in Infosilem Enterprise, the system will associate to the imported rooms the profile that is in effect at the beginning of the selected date range.
- If a room has no room profile taking place at the beginning of the selected date range, the system will use the next available room profile for that given room.

THE FIELDS:

- Within the central part of the screen, users can determine the import process' settings for each field listed in that screen by using the drop-down field next to each element. These selections will be saved within the selected preset. These settings will be saved upon moving to the next screen.

Room	- **Create and Modify** ***(default selection)*** - Modify only
	Description - Do not change - **Update from Enterprise** ***(default selection)***

	Campus
	- **Create if no match found** ***(default selection)***
	  - Creates ***the Campus for the room*** if no matching Campus is found
	- Reject if no match found
	  - Rejects the room if no matching Campus is found.

	Building - **Create if no match found** ***(default selection)*** - Reject if no match found
	Room Type - **Create if no match found (*default selection)*** - Reject if no match found
	Capacity - Do not change - **Update from Enterprise (*default selection)***
	Room Characteristic - **Create** (the Characteristic) **if no match found (*default selection)*** - Reject (the room) if no match found - Ignore if no match found *(please see note)*
	Pavilion - **Create** (the pavilion) **if no match found (*default selection)*** - Reject (the room) if no match found - Ignore if no match found *(please see note)*
	Note - Do not change - **Update from Enterprise (*default selection)***
Room Characteristic	**Description** - Do not **change** - **Update from Enterprise**
Room Type	**Description** - Do not change - **Update from Enterprise**

Campus	**Description** - Do not change - **Update from Enterprise (*default selection)***
	Address - Do not change - **Update** from **Enterprise (*default selection)***
	Note - Do not change - **Update from Enterprise (*default selection)***
Building	**Description** - Do not change - **Update from Enterprise (*default selection)***
	Address - Do not change - **Update from Enterprise (*default selection)***
	Note - Do not change - **Update from Enterprise (*default selection)***
Pavilion	**Description** - Do not change - **Update from Enterprise (*default selection)***

- If a room does not exist in Enterprise _____ in Infosilem Academic Suite database
- This option lets users select how the import process should behave if a room that exists in Infosilem Academic Suite does not exist in Infosilem Enterprise.

Disable the room

- Select this option to disable the room in Infosilem Academic Suite.

Ignore the room (default selection)

- Select this option to ignore the room — it remains as is.

Delete the room

- Select this option to delete the room in Infosilem Enterprise.

NOTE: When selecting the "Ignore Pavilion if Pavilion not found" or "Ignore Characteristic if no Characteristic found" option, the system will still import the room information without associating a pavilion or a characteristic to that room since the characteristic or pavilion does not exist in Infosilem Academic Suite.

Room Filters Screen

- The Room Filters screen will display the Rooms that can be imported from Infosilem Enterprise as well as the Campuses, Buildings, Room Types to which those rooms are associated.

NOTE: At this point, the Room information in Infosilem Enterprise is compared with the information already contained in Infosilem Academic Suite to determine the Status of each Room.

- Select the rooms to import.

THE DIFFERENT ROOM STATUSES

New in Enterprise:

- The room exists only in the Infosilem Enterprise database.

No Match in Enterprise:

- The room exists only in the Infosilem Academic Suite database.

Modified:

- The room is found in both Infosilem Enterprise and Infosilem Academic Suite, but one or more of the room's fields are different in Infosilem Enterprise.

Identical:

- Room exists both in Infosilem Enterprise and Infosilem Academic Suite, and all fields are identical.

Room Characteristics Filters Screen

- If the selected rooms have room characteristics associated to them, the Room Characteristic Filters screen is displayed. Within this screen, select the Characteristics to import.
- Select the Validate button to proceed to the next screen.

Validation Screen

- The validation screen displays all the records that will be imported.
- The results are split into three (3) types:

The Validation Tabs

Successes

- The Successes tab will list all rooms that will be imported successfully as per the selected options in the previous screen.

Warnings

- The Warnings tab will list all rooms that will be imported but have warning associated to them. The warning reasons will be listed within the Warnings column. At this point, the user can select the Previous button to return to the previous screen to modify the selection(s) and try to rectify the situation (if possible).

Rejects

- The Rejects tab will list all rooms that will not be imported because those records are rejected. The rejection reasons will be listed within the Errors column. If the rejection message is undesirable, the user can select the Previous button to return to the previous screen(s) to modify the selection(s) to rectify the situation (if possible).

NOTE: Before proceeding with the Room Import process, make sure that any individual room that should not be modified or deleted from the Import process is marked for protection by checking "Prevent Modification from Enterprise" option that is in the Room screen.

- To proceed with the import process, select the Import button. The system will create a backup (if the option "backup" is activated in the Settings screen) and proceed with the import process. Once the import process is completed, select Done to exit the Room Import utility.

INFOSILEM ENTERPRISE INTEGRATION –IMPORT RESERVATIONS SCREEN

- The purpose of this feature is to import reservation occurrences from Infosilem Enterprise and to create Blockoffs in Infosilem Academic Suite to represent them.

NOTE:	The Import Reservations feature will import booked rooms from Infosilem Enterprise **only** if those rooms already exist in the Infosilem Academic Suite database.

THE SETTINGS SCREEN

Enterprise Connection

- This field displays the connection used for the import. Authorized users can modify the connection by selecting the *Settings — Infosilem Enterprise Integration Settings* menu item.

Reservations to import _____

- This feature lets users indicate which type of reservation to import

Event Reservations *(Default settings)*

- Select this option to import Events.

Course Reservations

- Select this option to import Courses.

Exam Reservations

- Select this option to import Exams.

Create safety backup

- Select this option to create a backup of your database before importing rooms. The import process cannot be undone and therefore creating a safety backup is good practice, if for some reason users want to return the database to the state it was prior to the import process.
- The backup is automatically named “Enterprise Integration” along with the current date and time at which the backup was created. The description field will contain a description representing the synchronization process that was launched: for example, “Automatically generated when synchronizing Rooms” / “Automatically generated when synchronizing Blockoffs”.

Field Import Settings _____

Blockoff ID

Select the Enterprise field(s) that will make up the Blockoff ID.

Functional Unit (*default*)

- By selecting this field, the Functional Unit (alone or concatenated with other selected field(s)) will create the as the Blockoff ID

Scheduling Data Set

- By selecting this field, the Scheduling Data Set (alone or concatenated with other selected field(s)) will create the as the Blockoff ID

Event ID

- By selecting this field, the Event ID (alone or concatenated with other selected field(s)) will create the as the Blockoff ID

Event Description

- By selecting this field, the Event description (alone or concatenated with other selected field(s)) will create the as the Blockoff ID

Activity ID

- By selecting this field, the Activity ID (alone or concatenated with other selected field(s)) will create the as the Blockoff ID

Activity Description

- By selecting this field, the Activity description (alone or concatenated with other selected field(s)) will create the as the Blockoff ID

Reservation ID

- By selecting this field, the Reservation ID (alone or concatenated with other selected field(s)) will create the as the Blockoff ID

Reservation Description

- By selecting this field, the Reservation description (alone or concatenated with other selected field(s)) will create the as the Blockoff ID

Blockoff Description

- Select the filed(s) that will create the Blockoff description. This tab can be left blank, it is not required.

Blockoff Note

- Select the filed(s) that will create the Blockoff note. This tab can be left blank, it is not required.

Delimiter character used to combine fields

- Select from the drop-down list the character to use as a delimiter.

DATE AND TIME FILTERS SCREEN

Defining date and time ranges _____

From this date:

- Select from the drop-down calendar, the date that will define the starting point of the date range.

To this date

- Select from the drop-down calendar, the date that will define the end point of the date range.

NOTE:	You can also select the dates by clicking and dragging the cursor on the desired dates in the calendar.

Between this time

- Enter the time that will represent the starting point of the time range.

And this time

- Enter the time that will represent the end point of the time range.

Days of the Week _____

- Select the days of the week that are to be taken into consideration during the import process.
- For an element to be imported, it must take place within the defined date range, within the defined times and on one of the defined days of the week.

ADDITIONAL FILTERS SCREEN

- The Additional Filters Screen will display 1, 2 or 3 tabs (depending on the reservations to import selected in the first screen). Each tab contains a series of filters. Select the filters to apply (within each tab) to the Enterprise Integration – Import Reservations process. **Please note** that not selecting any element within a filter is treated by the system the same way as having selected all elements within a filter.

THE VALIDATION SCREEN

- The validation screen displays the results of the Reservation Import

Successes

- The Success tab will display the reservations that will be imported successfully, i.e. that will create blockoffs. For each active occurrence, the system will also create a frequency.

Rejects

- The Rejects tab will display the reservations that will not be imported, i.e. occurrences that have been rejected.