

Student Lifecycle Management: Attendance Tracking Cookbook



Applies to:

All described functionality is based upon Student Lifecycle Management (SLCM) with ERP6 Enhancement Package 4 (EHP4).

Summary

This cookbook describes how Attendance Tracking is configured in Student Lifecycle Management and how it is used to track absences for students, to maintain class attendance, and also to calculate appraisal for students.

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Introduction

In Student Lifecycle Management (SLcM) students can book modules which are being appraised after the student has completed them. In addition to module booking, integration into Training and Event Management (TEM) is provided. This enables SLcM to make use of the event booking function in the context of a module booking. For certain events it may be necessary to record the attendance of students at each occurrence of the event if attendance is a pre-requisite for passing a certain module. Students can be appraised (passed or failed) based on attendance; such appraisal can be achieved by maintaining data in the following three different areas:

1. Pre-Excused Absence
2. Maintain Attendance
3. Calculate Appraisal

1. Pre-Excused Absence

1.1. General Functionality

A maintenance screen for pre-excused absences is available in the student file, where absences can be maintained each time they occur. The creation of pre-excused absences updates the attendance for the relevant events, which is reflected in the Web user interface (UI).

The pre-excused maintenance screen is mainly for use by registrars or administrators.

For example, if the student says that he or she is missing class for a particular reason, you can maintain this information using the pre-excused absence screen. During this period if there are any attendance-relevant events that the student is supposed to attend, the event occurrences that fall in this particular period are marked with the reason specified.

You can go to the pre-excused absence tab in the student file and create a record for a student based on the time period and the reason for absence.

Before creating the pre-excused absence, the different absence reasons must be maintained in Customizing as described in section 4.1.

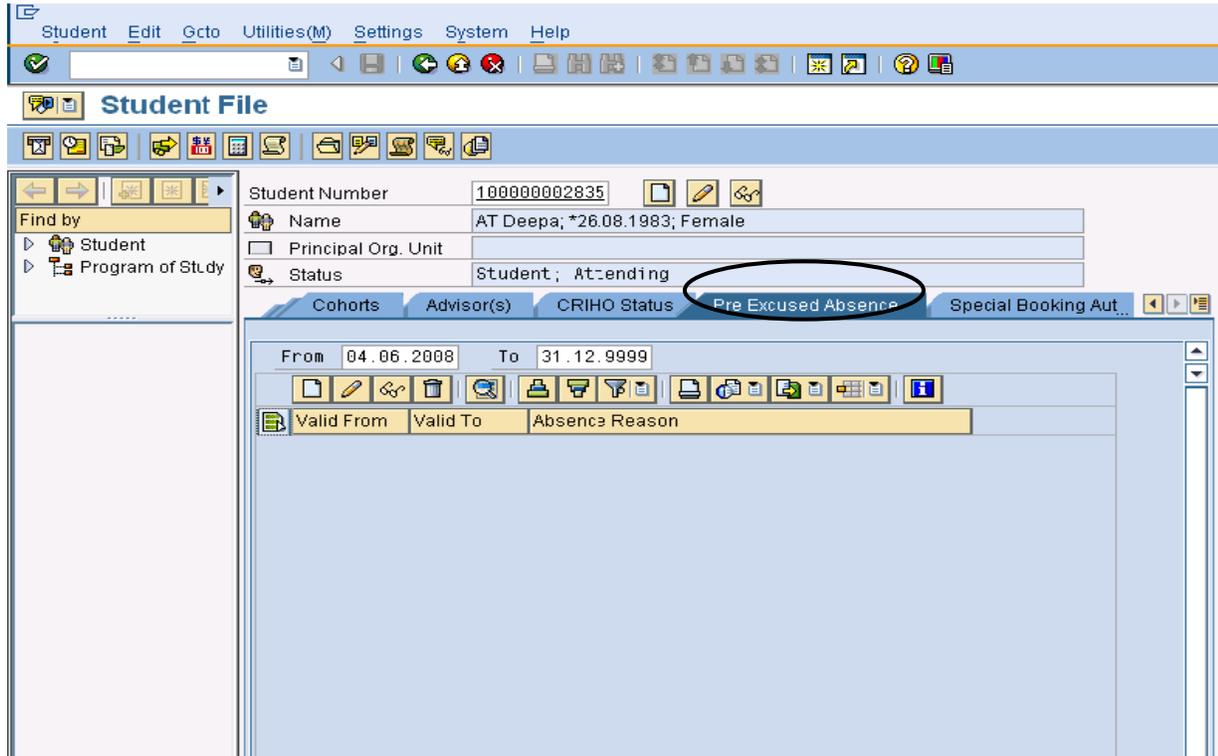
The types of absence reasons that are used for attendance tracking are as follows:

E	Excused Absence	(Student is excused for not attending the class)
T	Tardy Reason	(Reason why a student appeared late in the class)
U	Unexcused Absence	(Student is not excused for not attending the class)

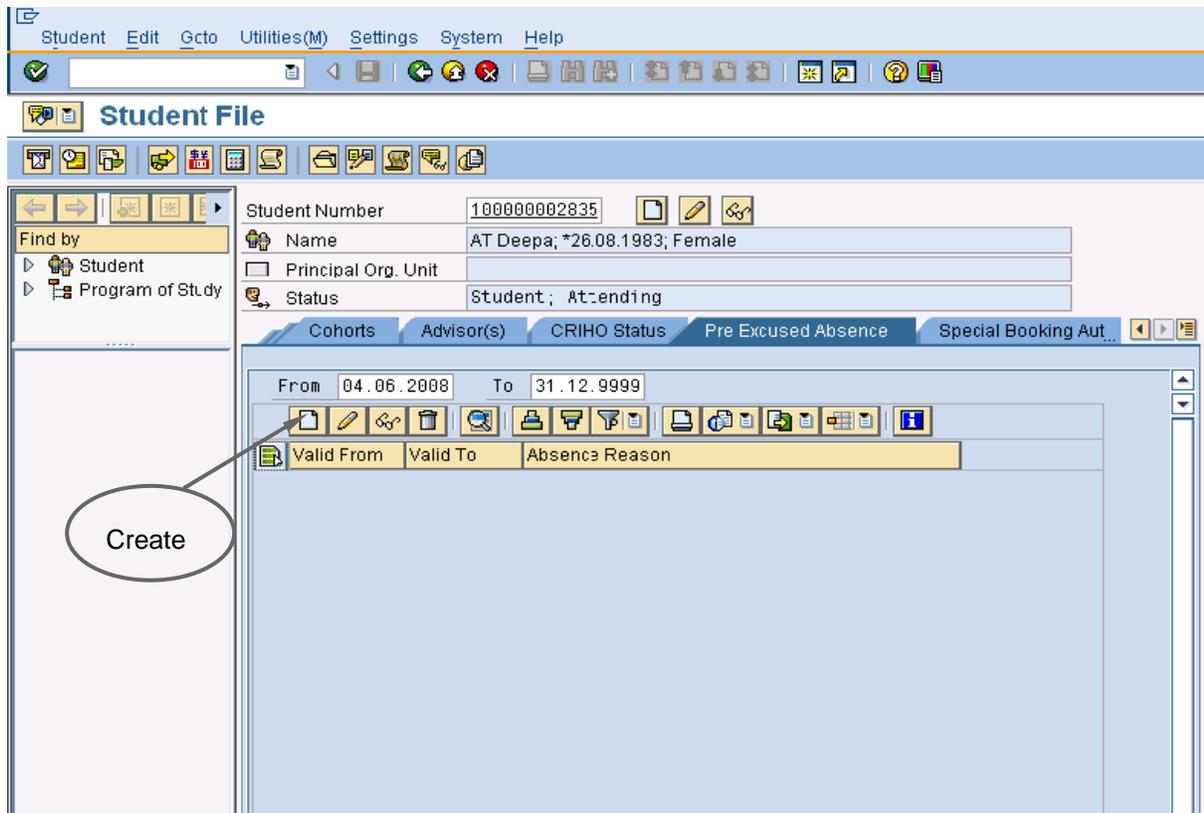
Pre-excused absences can only be of the type excused absence ('E') and you need to mark it in Customizing. Only then will these reasons appear in the list box while you are creating the pre-excused absence. The excused absence reasons marked as *Withdrawal* or *Class Cancelled* do not appear as a pre-excused absence.

1.2. Steps for creating a pre-excused absence

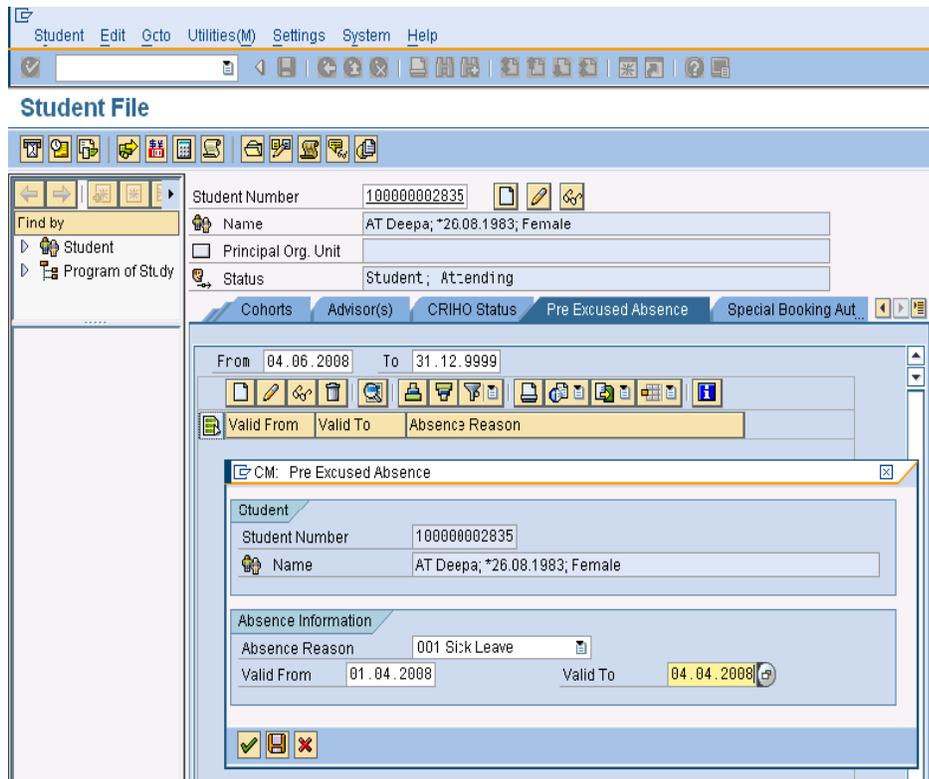
1. Go to the relevant student file and select the tab for Pre-Excused Absence.



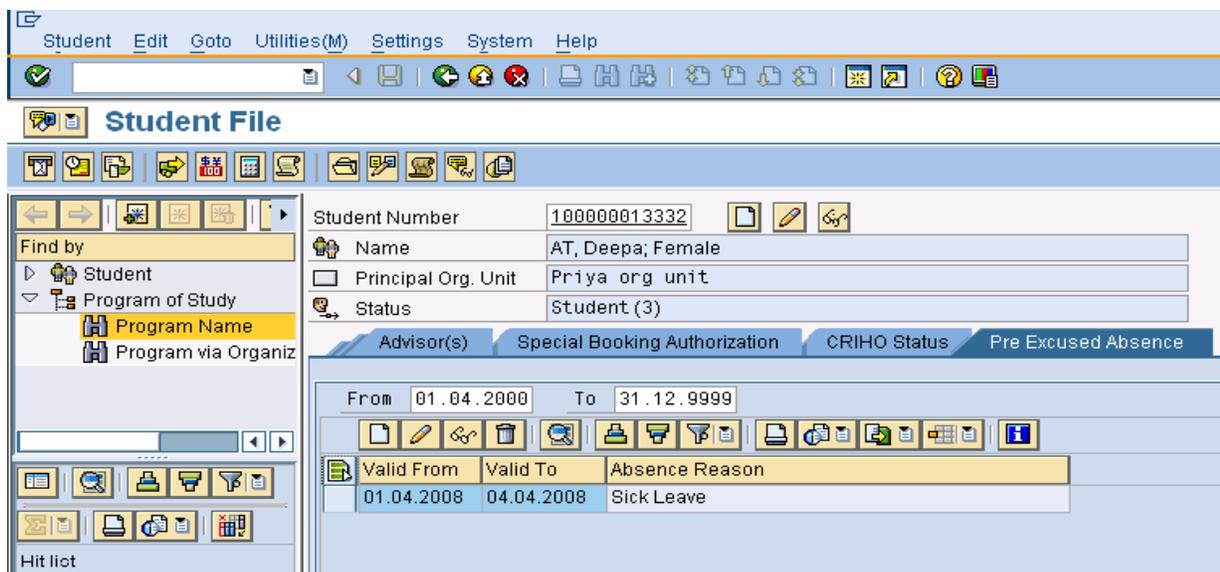
2. Now click the Create button.



3. Create a record by selecting the absence reason. Enter the time period for which the student will be absent. Save the record.

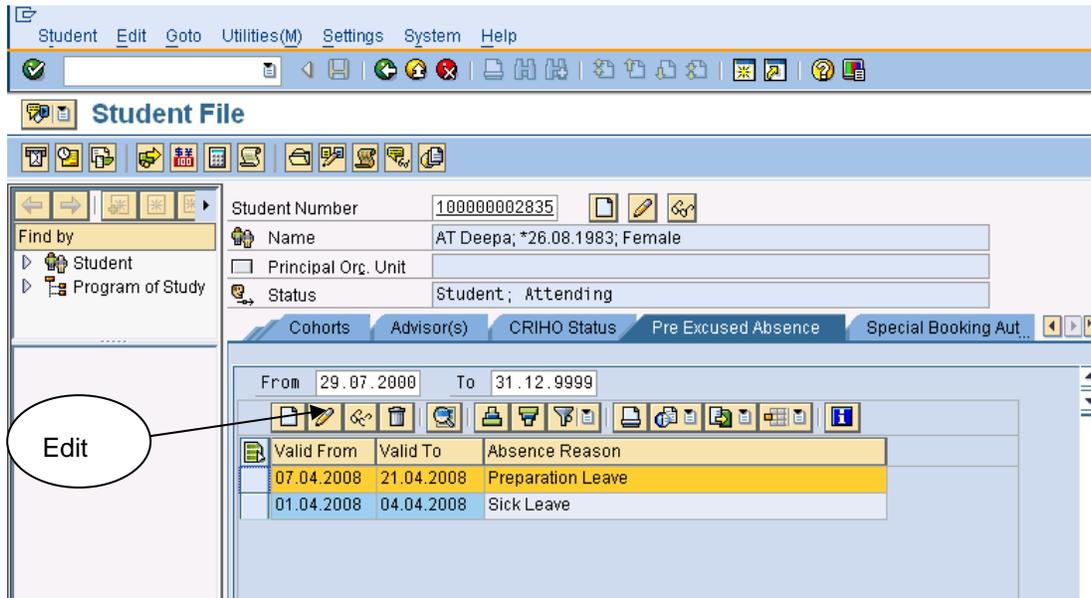


4. You can see the created record under the *Pre-Excused Absence* tab as shown below.

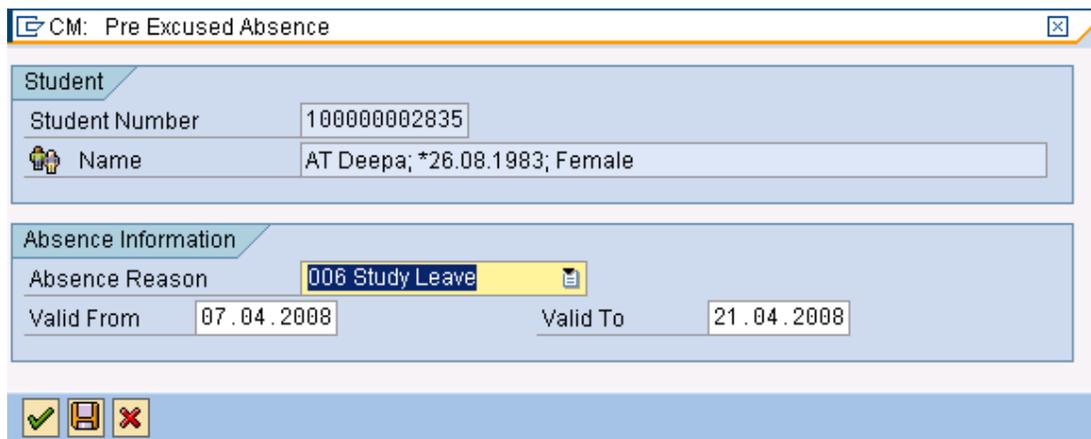


5. You can also edit or delete existing records if needed. For example, if there is already a record for a time period and you cannot create another record for the same time period, you can update the existing record.

To update a record, select the record to be edited as shown below



Choose the *Edit* button and change the pre-excused reason or the date. *Save* the record.



If attendance is already maintained for some of the event occurrences for the date range specified in the pre-excused absence, a maintenance screen box showing this appears while you are updating the relevant record. The maintenance screen box contains an SAP List Viewer (ALV) showing the following information:

- Module Name
- Event Package
- Event Name
- Event Date
- Event Time
- Absence Reason Old
- Absence Reason New
- Attendance Completed Flag

CM: Already Maintained Student attendance

Update Attendance Records

Module (Abbre..	Event Package	Event abbr.	Event Date	Eve S time	Abs. Rsn	Abs. Rsn	Eve occ Att compl
dk_mod1		dk_event2	07.04.2008	09:00:00	Preparation Leave	Study Leave	X
dk_mod1		dk_event2	14.04.2008	09:00:00	Preparation Leave	Study Leave	X
dk_mod1		dk_event2	21.04.2008	09:00:00	Preparation Leave	Study Leave	X

Old absence reason

New absence reason

✓ ✗

The system only updates those event occurrences selected by you in the maintenance screen box and it creates activity documents.

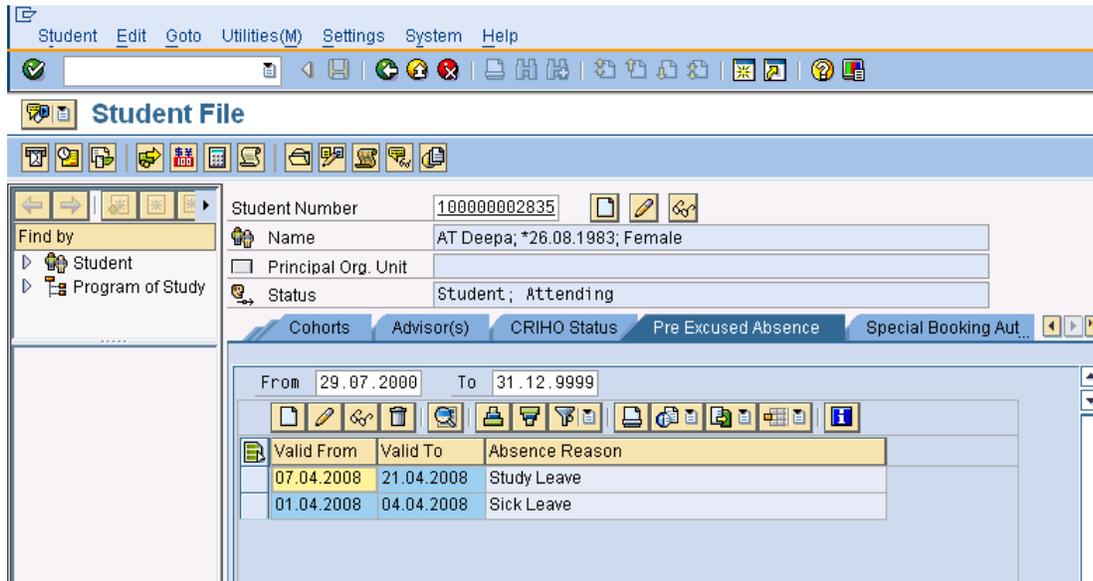
CM: Already Maintained Student attendance

Update Attendance Records

Module (Abbre..	Event Package	Event abbr.	Event Date	Eve S time	Abs. Rsn	Abs. Rsn	Eve occ Att compl
dk_mod1		dk_event2	07.04.2008	09:00:00	Preparation Leave	Study Leave	X
dk_mod1		dk_event2	14.04.2008	09:00:00	Preparation Leave	Study Leave	X
dk_mod1		dk_event2	21.04.2008	09:00:00	Preparation Leave	Study Leave	X

✓ ✗

The selected records are displayed with the new pre-excused absence reason as shown below.



1.3 RFC's

RFCs are offered to create, change, read, and delete pre-excused absences. The RFCs have the following interface:

Absence reason and a validity period including time and date

Use the following RFCs:

- **HRIQ_ATPREXCABS_CREATE_RFC** - to create pre-excused absences.
- **HRIQ_ATPREXCABS_CHANGE_RFC** - to change pre-excused absences.
- **HRIQ_ATPREXCABS_GET** - to get pre-excused absences.
- **HRIQ_ATPREXCABS_DELETE_RFC** - to delete pre-excused absences.

The function modules given above do not return any message if the function is executed successfully.

In the event of failure, the system displays an internal table with error messages.

2. Maintaining Attendance

2.1. General features of Attendance Maintenance

A web-based user interface (UI) is available where instructors can maintain attendances as well as absences for each occurrence of an event. You need to set up the following steps to start maintaining attendance.

1. Link a person with your system user name.
 - a) Go to transaction **PA30** to create a person.
 - b) In *Direct Selection*, type Communication as the Infotype, see below, and select the *Create* button.

HR master data Edit Goto Extras Utilities(M) Settings System Help

Maintain HR Master Data

Personnel no. 268
 Name Deepa A
 EE group 1 Active Pers.area DE01 Personnel area DE01
 EE subgroup DU Salaried employee

Basic personal data Contract data Gross/net payroll Net payroll Addtt...

Infotype text E...
 Actions
 Organizational Assignment
 Personal Data
 Addresses
 Bank Details
 Family Member/Dependents
 Challenge

Period
 Period
 From To
 Today Curr.week
 All Current month
 From curr.date Last week
 To Current Date Last month
 Current Period Current Year

Direct selection
 Infotype Communication STy 0001

- c) Select sub type **0001** in the maintenance screen box shown and specify your user name as shown below. Go to the Save button to save entries.

Infotype Edit Goto Extras System Help

Create Communication

Personnel No 268 Name Deepa AT
 EE group 1 Active Pers.area DE01 Personnel area DE01
 EE subgroup DU Salaried employees
 Start 01.01.2000 to 31.12.9999

Communication
 Type 0001 System user name (SY-UNAME)
 ID/number Kamalasanan

2. Now create events with class occurrences where you (having a person associated with your system user name) are the instructor. Note that the event types of these events need to have the *Att. Compulsory* checkbox selected. This is maintained in the *Category* infotype of the event type.
3. Book these events for certain students. These events will be displayed in the attendance tracking Web UI

This Web UI should be used only to enter the absence of the student for a particular class. If no reason is specified, the student is considered as present for that particular class. Only absences of the student are stored in the database.

If the class is canceled for any reason, the students who are supposed to attend the class are marked with the particular class cancellation reason. You maintain class cancellation reasons in Customizing (see 4.1)

Only one reason at a time can be marked as a class cancellation reason. In addition, the reason must be of type 'Excused absence'.

For each occurrence of an event, class attendance should only be maintained if the *Attendance Required* indicator is set for the event type. This can be maintained in the *Category* infotype of the event type by selecting the *Att. Compulsory* checkbox. Attendance can also be switched on globally using a general Customizing setting given below.

Go to the transaction SPRO -> *Student Lifecycle Management* -> *Processes in Student Lifecycle Management* -> *Attendance Tracking* -> *Switch on attendance Tracking globally*. Set the setting value to 'X'.

If the setting value is set to 'X', you do not need to select the *Att. Compulsory* checkbox in the event type.

This Customizing enables you to maintain the class attendance for all the events irrespective of whether the *Att. Compulsory* check box is checked or not. Attendance can be maintained only for students for whom attendance tracking is relevant and they would appear on the maintenance screen. By default, attendance is maintained for all students. You can make students irrelevant for attendance tracking by implementing the Business Add-In (BAI) HRPIQ00ATSTUDENT_ATTEND. To implement this BAI, follow the Customizing path given below.

Go to transaction SPRO -> *Student Lifecycle Management* -> *Processes in Student Lifecycle Management* -> *Attendance Tracking* -> *Business Add-Ins (BAIs)* -> *BAI: Check Student's Relevance for Attendance*.

If attendance tracking is not relevant for the student, parameter C_ISNOTRELEVANT must be marked as 'X' for the student.

Each student's attendance is recorded every time the class occurs. If a student is absent for a class, an absence reason is specified. When the student is present, no data is maintained, but the status for the class attendance indicates that data is completed.

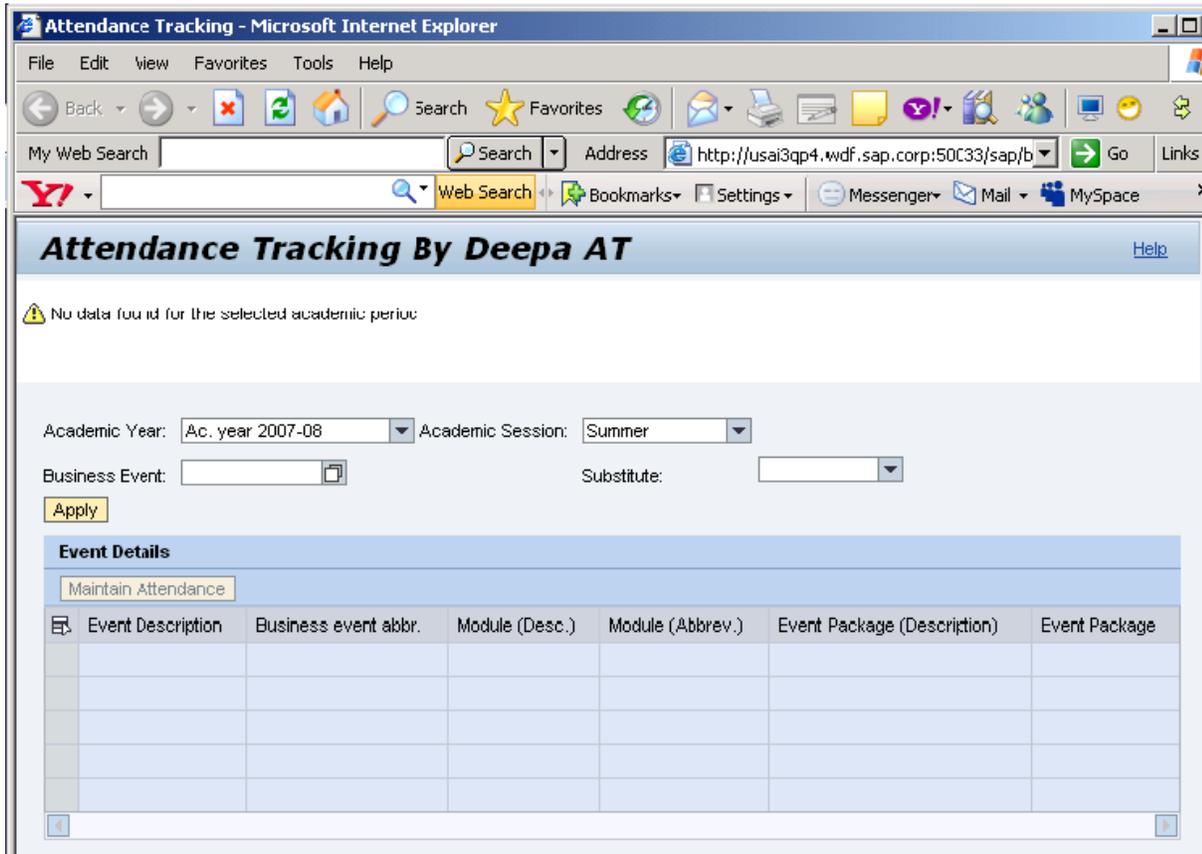
Steps for maintaining attendance on the *Attendance Tracking* maintenance screen:

1. Go to transaction SE80 and enter the package name PMIQ_EXT_IAP.
2. Go to PMIQ_EXT_IAP -> Web Dynpro -> Application Configurations ->

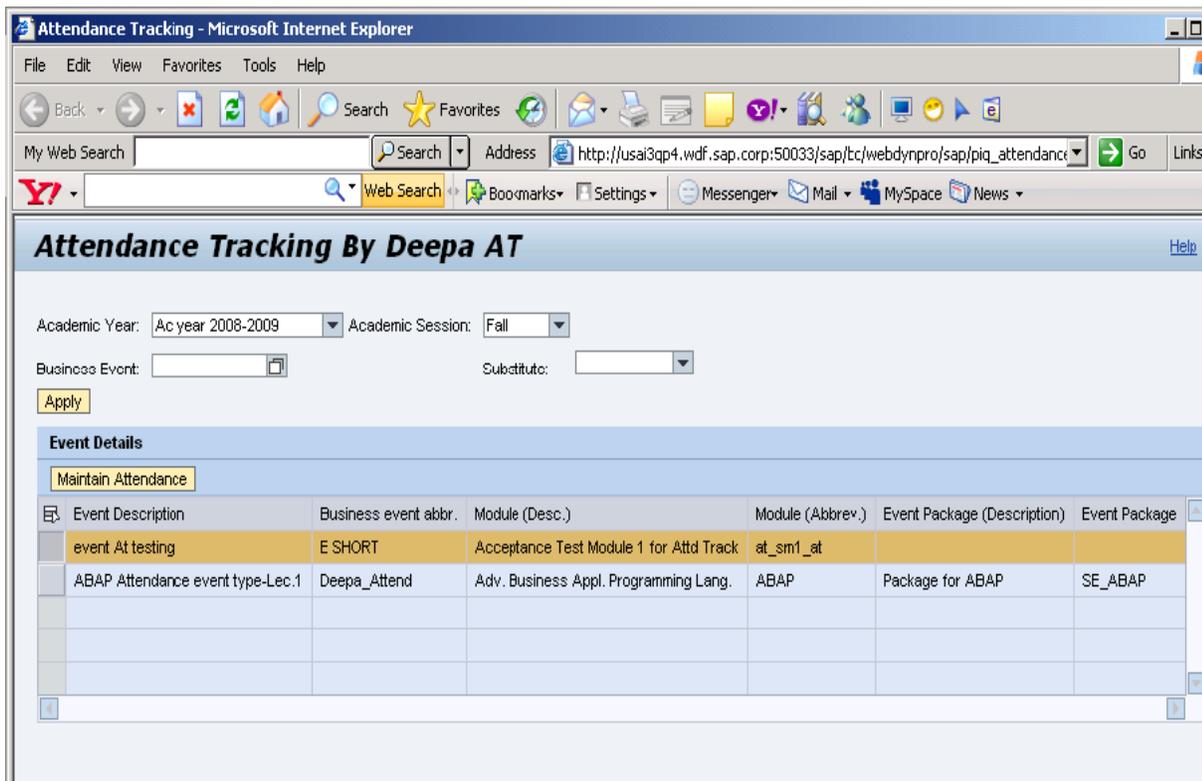
PIQAC_ATTENDANCE_TRACKING.

3. Right click **PIQAC_ATTENDANCE_TRACKING** and choose *Test*.

The system displays the Web UI as shown below.



4. Select an academic year and session and choose the *Apply* button. If you are a substitute for an instructor, select that instructor's user name from the dropdown list, and choose the *Apply* button. A list of events is displayed for which you are either an instructor or a substitute, as shown below.



- Select the event from the list for which you want to maintain attendance and choose the *Maintain Attendance* button. The maintenance screen shown below appears then.

Attendance Tracking By Deepa AT [Help](#)

Module Abbr. **dk_rts** Event Name **event type for appraisal** Start Date **01.10.2007** End Date **28.11.2011** Event Type **event type for appraisal**
 Module Desc. **real time systems** Teacher **Deepa AT**

Calendar view showing months June 2008, July 2008, and August 2008. Legend:
■ Class with Attendance Complete ■ Future Class Occurrence
■ Class with Incomplete Attendance

Class Details

Class Date	Class Time	Teacher
<input type="checkbox"/> Class Occurrence Attendance Completed		<input type="checkbox"/> Class cancelled

Cancelled Bookings | Create Note | Change Note | Display Note | Attendance Overview

Student No	Student Name	CM: Absence Reason	Tardy Reason	Total Exc.	Total Unex.	Total Tardies

- The header shows the following event information:
 - Module Name
 - Module Abbreviation
 - Event Name
 - Event Type
 - Begin Date
 - End Date
 - Rooms
 - Instructor Name.
- All the dates where the event is scheduled are marked with different colors in the calendar.
 - Green** - All event occurrences for which the *Class occurrence attendance completed* checkbox is selected (meaning maintenance of attendance is completed for that class).
 - Red** - All past event occurrences (before the system date) for which the *Class occurrence attendance completed* checkbox is not selected (meaning attendance is not complete for one or more of the classes on the same date).
 - Yellow** - For events that occur in the future (after the system date) for which *Class occurrence attendance completed* checkbox is not selected (meaning the attendance was completed for classes scheduled for future dates).

6. Now select a date from the calendar on which you need to maintain attendance.

- a) If there is more than one occurrence on the same day, a radio button is displayed for each event occurrence. You can view and maintain attendance details of the event occurrence by selecting the radio button. For example: if there are two occurrences on the same day, one from 8 am to 9 am and one from 11 am to 12 pm, you see two radio buttons as shown below.
- b) Class details, such as class date, time, and teachers are displayed.
- c) A list of students who booked the event is displayed. If a student has already requested a pre-excused absence and this has been maintained by the registrar, this absence reason on the selected date would be displayed in non-editable mode, as shown below.

Attendance Tracking By Deepa AT [Help](#)

Module Abbr. at_sm1_at Event Name business event type for AT Start Date 23.08.2007 End Date 07.11.2008
 Module Desc. Acceptance Test Module 1 for Attd Track Event Type business event type for AT Teacher Priya Kurur ; Deepa AT

◀ November 2008 December 2008 January 2009 ▶

Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa			
44	26	27	28	29	30	31	1	49	30	1	2	3	4	5	6	53	28	29	30	31	1	2	3
45	2	3	4	5	6	7	8	50	7	8	9	10	11	12	13	1	4	5	6	7	8	9	10
46	9	10	11	12	13	14	15	51	14	15	16	17	18	19	20	2	11	12	13	14	15	16	17
47	16	17	18	19	20	21	22	52	21	22	23	24	25	26	27	3	18	19	20	21	22	23	24
48	23	24	25	26	27	28	29	53	28	29	30	31	1	2	3	4	25	26	27	28	29	30	31
49	30	1	2	3	4	5	6	1	4	5	6	7	8	9	10	5	1	2	3	4	5	6	7

Class with Attendance Complete Future Class Occurrence
 Class with Incomplete Attendance

Class Details

Class from 08:00:00 to 09:00:00 Class from 11:00:00 to 12:00:00

Class Date 07.11.2008 **Class Time** 08:00:00 To 09:00:00 **Teacher** Deepa AT

Class Occurrence Attendance Completed Class cancelled

Student No	Student Name	CM: Absence Reason	Tardy Reason	Total Exc.	Total Unex.	Total Tardies
100000013182	AT, Test1	Personal Reasons		1	6	

- 7. Check the *Class occurrence attendance completed* checkbox to complete class attendance for the class on the selected date. If there is more than one occurrence on the same day, you need to select each of the radio buttons and then check the *Class occurrence attendance completed* checkbox to complete the attendance.
- 8. Display *Canceled Bookings*

The *Canceled Bookings* button displays the list of all students who canceled their bookings for this event. You cannot maintain attendance for these students. Select a date and then click on the *Canceled Bookings* button and choose the *Show* option. The students with the canceled bookings are displayed in the list with the booking status *Booking canceled* as shown below.

If you click *Canceled Bookings* and select *Hide*, the list of students with canceled bookings is no longer displayed.

Class Details

Class Date 15.04.2008 **Class Time** 10:00:00 To 11:00:00 **Teacher** Deepa Kamal

Class Occurrence Attendance Completed Class cancelled

Cancelled Bookings | Create Note | Change Note | Display Note | Attendance Overview

Total Exc.	Total Unex.	Total Tardies	Note Status	Event Date	Class Duration	Booking Status
7				15.04.2008	10:00:00 - 11:00:00	Booked
6		1		15.04.2008	10:00:00 - 11:00:00	Booked
7				15.04.2008	10:00:00 - 11:00:00	Booked
5				15.04.2008	10:00:00 - 11:00:00	Booking Cancelled
1	4			15.04.2008	10:00:00 - 11:00:00	Booking Cancelled

9. Notes

With the note feature instructors can maintain notes for a particular student. On the list which displays the students registered for an event, you see buttons for creating, changing, and displaying notes. These buttons are enabled only when a student is selected from the list. The *Create a note* button is disabled if a note already exists for a student. In this case, you can only change or display the note as shown below.

Attendance Tracking By Deepa AT Help

Module Abbr. ABAP **Event Name** ABAP Attendance event type-Lec.1 **Start Date** 15.08.2008 **End Date** 03.11.2008
Module Desc. Adv. Business Appl. Programming Lang. **Event Type** ABAP Attendance event type **Teacher** Deepa AT

Class Details

Class Date 15.08.2008 **Class Time** 10:00:00 To 11:00:00 **Teacher** Deepa AT

Class Occurrence Attendance Completed Class cancelled

Cancelled Bookings | Create Note | Change Note | Display Note | Attendance Overview

Student Name	CM Absence Reason	Tardy Reason	Total Exc.	Total Unex.	Total Tardies	Note Status
K, Vikram			1			
Khatri, vikram	Sick Leave		2			
Crow, Sheryl Anne			1			

You create a note by selecting a student and clicking the *Create Note* button. A dialog box appears with student name and event name as shown below.

The screenshot shows a 'Student Note' dialog box with the following fields:

- Note Context**
 - Student Name: Khatri, vikram
 - Event Name: ABAP Attenda
 - Note Type: Attendance Note
- Text**
 - Short Title: ABAP Attenda
 - Comments: (Empty text area)

Buttons: Save, Cancel

You can enter comments for this student for the given event and then save the note. Once you have saved the comments, it cannot be edited. The 'Short Title' here displays the Event name.

9.1 Change a note

Select a student and click the *Create Note* button. A dialog box will appear, showing previous comments from the instructor. You can enter comments in the appropriate space, as shown below, then save the note.

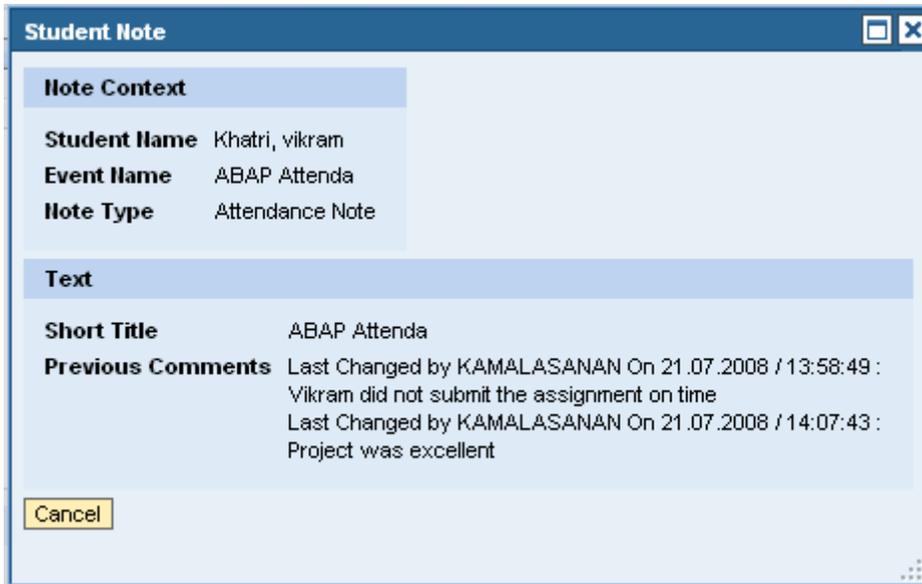
The screenshot shows the 'Student Note' dialog box with the following fields:

- Note Context**
 - Student Name: Khatri, vikram
 - Event Name: ABAP Attenda
 - Note Type: Attendance Note
- Text**
 - Short Title: ABAP Attenda
 - Previous Comments: Last Changed by KAMALASANAN On 21.07.2008 / 13:58:49 : Vikram did not submit the assignment on time
 - Comments: Project was excellent

Buttons: Save, Cancel

9.2 Display a note

Select a student and click the *Display Note* button. A dialog box appears (see below) showing previous comments along with the person's name who made the change and the date and time of the change.



10. You can also create absence reasons for students, but this should be done before completing the attendance for the selected date. For each student you can maintain an absence (excused or unexcused) or a tardy reason. You can either select an absence or a tardy reason for a student for a selected class occurrence from the list box as shown below.

Attendance Tracking By Deepa AT [Help](#)

Module Abbr. ABAP Event Name ABAP Attendance event type-Lec.1 Start Date 15.08.2008 End Date 03.11.2008
 Module Desc. Adv. Business Appl. Programming Lang. Event Type ABAP Attendance event type Teacher Deepa AT

← August 2008 September 2008 October 2008 →

Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa			
31	27	28	29	30	31	1	2	36	31	1	2	3	4	5	6	40	28	29	30	1	2	3	4
32	3	4	5	6	7	8	9	37	7	8	9	10	11	12	13	41	5	6	7	8	9	10	11
33	10	11	12	13	14	15	16	38	14	15	16	17	18	19	20	42	12	13	14	15	16	17	18
34	17	18	19	20	21	22	23	39	21	22	23	24	25	26	27	43	19	20	21	22	23	24	25
35	24	25	26	27	28	29	30	40	28	29	30	1	2	3	4	44	26	27	28	29	30	31	1
36	31	1	2	3	4	5	6	41	5	6	7	8	9	10	11	45	2	3	4	5	6	7	8

Class with Attendance Complete Future Class Occurrence
 Class with Incomplete Attendance

Class Details

Class Date 15.08.2008 Class Time 10:00:00 To 11:00:00 Teacher Deepa AT

Class Occurrence Attendance Completed Class cancelled

Student No	Student Name	CM: Absence Reason	Tardy Reason	Total Exc.	Total Unex.	Total Tardies
100000008731	K, Vikram	Study Leave		2		
100000010430	Khatri, vikram	Sick Leave		2		
100000013639	Crow, Sheryl Anne		Tardy reason1	1		1

11. A student can withdraw from an event and you can specify the date for which this becomes valid. For example: the student will not attend classes from a particular day on until the end of the event. You

can maintain the student's reason for withdrawal and subsequently all dates after the specified one will be marked with the withdrawal reason.

- If you want to record the absence reason for all students in case a class is canceled, you maintain this information by selecting class cancellation as reason. This will then be entered for all the relevant students, except those who had already withdrawn from the class.

- If you select a student from the list and access the *Attendance Overview*, a list is displayed showing that student's complete attendance for an event, along with details like attendance completed or not for that day, number of excused absences, number of unexcused absences, and number of absences due to tardiness.

You can also select the withdrawal reason from this overview screen. All occurrences thereafter are then marked with withdrawal reasons, but you need to save the data after making the changes. If the student had already withdrawn from the classes, the list box with the withdrawal reason in the *Attendance Overview* screen is disabled, as shown below.

Attendance Overview

Student Name K, Deepa	Event Name event1 for
No. of Unexcused Absences 0	No. of Excused Absences 182
No. of Tardies 1	Event Booking Status Booked

Withdrawal Reason

Attendance Overview								
	Event Date	Start Time	End Time	Absence Reason	Withdrawal Reason	Tardy Reason	Attendance Completed	Pre Excused
	19.05.2008	08:10:00	08:15:00	Casual Leave				
	26.05.2008	08:10:00	08:15:00			Tardy reason1		
	02.06.2008	08:10:00	08:15:00				X	
	09.06.2008	08:10:00	08:15:00				X	
	16.06.2008	08:10:00	08:15:00		Withdrawal		X	
	23.06.2008	08:10:00	08:15:00		Withdrawal		X	
	30.06.2008	08:10:00	08:15:00		Withdrawal		X	
	07.07.2008	08:10:00	08:15:00		Withdrawal			
	14.07.2008	08:10:00	08:15:00		Withdrawal			
	21.07.2008	08:10:00	08:15:00		Withdrawal			

2.2 Attendance Maintenance by Substitutes

Substitutes who are replacing another instructor need to be able to maintain attendance on behalf of that person. The following steps describe how substitutes maintain attendance for those events.

2.2.1 Maintain Substitute

1. To activate the substitute feature the relevant customizing entry must be maintained (see section 4.10 Maintain Substitute)

- If the setting value is "*", all the users for whom you are a substitute are shown in the Web UI.
- If the setting value is 'ATTR' all the users for whom you are a substitute with the profile that has the task 'ATTR' are shown in the Web UI.
- If setting value is " " then the substitute feature is inactive.

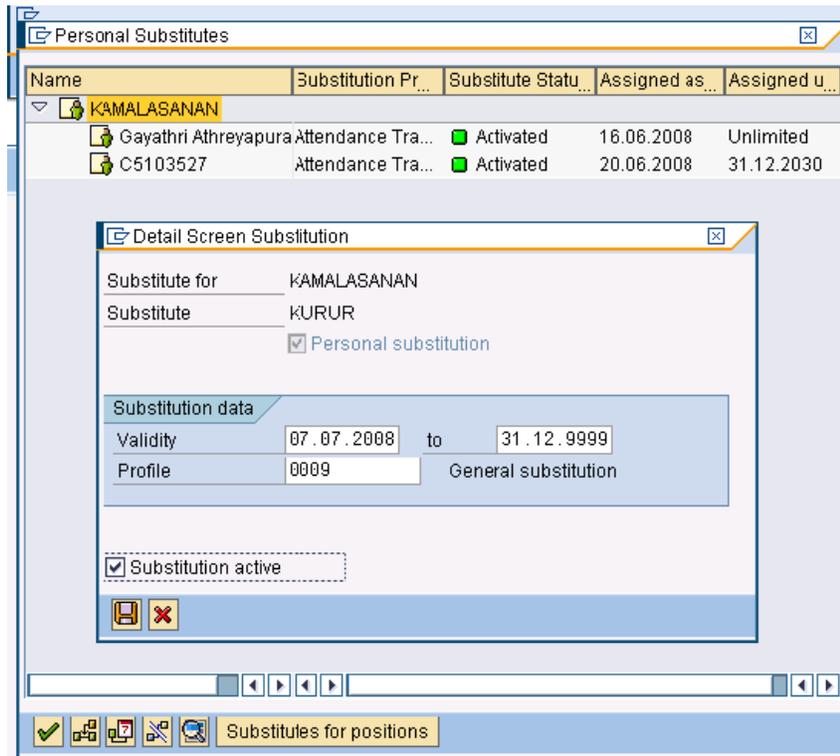
2. To enter another instructor as substitute, the following prerequisites must be fulfilled:

- Link a person P with his or her user name. Follow Step 1 above to assign the user to the person.
- Go to transaction PIQ_MAINT_SUBSTITUTE, select the relevant user name, and click the *Create Substitute* button or press F5.

Name	Substitution Pr...	Substitute Statu...	Assigned as...	Assigned u...
KAMALASANAN				
Gayathri Athreyapura	Attendance Tra...	Activated	16.06.2008	Unlimited
C5103527	Attendance Tra...	Activated	20.06.2008	31.12.2030

Create

c) Select your user name as a substitute and specify a validity period for the substitution. Select the profile for attendance tracking and check the *Substitution Active* checkbox as shown below. Then save the data.



Note: During this, you have the option of specifying a profile. If you do not specify a profile for any assignment, all substitutions are considered. If you specify a profile with the task 'ATTR' for Attendance Tracking, only those profiles are considered.

- d) Profiles are maintained in Customizing (see section 4.8 create profile for substitute)
- e) Create an event with a schedule where the user (having a person associated to his or her system user name) is the instructor. Note that the event type of these events needs to have the *Att. Compulsory* checkbox checked. This can be maintained in the *Category* infotype of the event type.
- f) Book these events for the students required. These events are then displayed in the attendance tracking Web UI

2.2.2 RFCs

RFCs are offered to create, change, and read attendance:

- **HRIQ_AT_ATTENDANCE_CREATE_RFC** - to create attendance.
- **HRIQ_AT_EVENTATTEND_CHANGE_RF** - to change attendance.
- **HRIQ_AT_EVENTATTEND_GET_RFC** - to retrieve pre-excused absences.

These function modules do not return any message if the function is executed successfully. In the event of failure, it returns an internal table with error messages.

3. Calculating Appraisals

Regular course attendance can represent a requirement that students have to fulfill in order to pass a course (module). If a student has low attendance, s/he could receive a grade which leads to failing a course.

After the attendance for all the events has been maintained, you can appraise students based on the attendance result. You can determine the minimum attendance required for the student to pass the module and implement a method on how to calculate the attendance of the student.

Individual attendance data is stored on the database for each event occurrence. To make it available for appraisal, a calculation rule is performed and the result is transferred to a particular appraisal type.

If there is more than one event in the module where attendance is required, the attendance is aggregated into one appraisal. The attendance can only be transferred if all occurrences were maintained in full. You can transfer data from the attendance tracking to appraisal via transaction PIQSMFU and calculate the appraisal data there.

When individual attendance data is transferred from an event to the module appraisal, an attendance calculation rule must be derived. The attendance calculation rule, attendance scale, and threshold value are stored in a (new) Infotype 1723 - *Attendance Calc. Rules*. This Infotype can be used for the *Module* and *Organization* object types, as shown below.

The screenshot shows the SAP 'Maintain object' interface. At the top, there is a menu bar with 'Object', 'Edit', 'Goto', 'Utilities(M)', 'Settings', 'System', and 'Help'. Below the menu is a toolbar with various icons. The main area is titled 'Maintain object' and contains a toolbar with icons for creating, editing, deleting, and other actions. Below the toolbar, there are input fields for object details:

Plan version	01 Current plan
Object type	SM Module
Object ID	50027999 Adv. Business Appl. Programming Lang.
Object abbr.	ABAP

Below the input fields, there are tabs for 'Active', 'Planned', 'Submitted', 'Approved', and 'Rejected'. The 'Active' tab is selected. Below the tabs is a list of infotypes with checkboxes and arrows:

Infotype Name	E
Object	✓
Relationships	✓
Description	
Cost Distribution	
Capacity	✓
Evaluation	✓
Attendance Calc. Rules	
Program Type Assignment	
Sessions of Offering	✓
Module Credits	✓

To the right of the infotype list is the 'Time period' section:

Time period

Period

From 01.01.1800 to 31.12.9999

Today

Current week

All

Current month

From curr.date

Last week

To current date

Last month

Current Year

At the bottom of the 'Time period' section is a 'Select.' button.

1. Define a calculation rule

Every module might have a different way of calculating attendance and different thresholds. To define the calculation rule, threshold value and scale for your module, follow the following steps:

- You can create your own calculation rule. To do this, go to transaction SM30, enter table/view T7PIQATCALCRULE, and maintain the new calculation rule in this table.
- Assign the calculation rule to your module or to the organization unit offering the module. Go to transaction PP01. Maintain Infotype *Attendance Calc. Rules* (1723). You need to specify both the threshold value and the scale as shown in the figure below.

The screenshot shows the SAP 'Create Attendance Calc. Rules' transaction. The menu bar includes 'Infotype', 'Edit', 'Goto', 'View', 'System', and 'Help'. The main area contains the following fields:

Module	ABAP	Adv. Business Appl. Programming Lang.
Planning Status	Active	
Validity	01.01.2000	to 31.12.9999

There is a 'Display change infor' button. Below this is a section titled 'Attendance Calc. Rules' with the following details:

Calculation Rule	CAL
THRESHOLD	70
Scale	p-10

2. Derive the calculation rule for a module

a) Customers can define their own implementation for deriving the calculation rules for a module. Otherwise, the system calls a default implementation. This default implementation derives the calculation rule from Info type 1723 of the module. If 1723 is not maintained at module level, it reads Infotype 1723 from the organization offering the module

Attendance calculation rules are defined in IMG (see section 5.2 Define Attendance calculation rules)

It is necessary to define calculation rules, which are later used to transfer data to the appraisal. SAP does not deliver calculation rules, just sample coding which customers can use for their own implementation.

In the sample coding, the number of attended events is divided by the number of event occurrences, and compared with the threshold value. If the calculated value is lower than the threshold, the grade is set to *Failed*. Otherwise it is set to *Passed*.

3. Define the implementation for the calculation rule

a) You need to implement BAdI HRPIQ00AT_ST_ATTEND_CALC. This BAdI is filter dependent and the filters are the calculation rules defined in table T7PIQATCALCRULE. You need to have an implementation with the filter as your calculation rule.

The BAdI is accessed in IMG (see 5.3 Set up Derivation for Attendance Calculation Rule)

4. Create appraisal type

After creating the calculation rule, you need to have an appraisal type for storing the attendance result. This appraisal type should be used specifically for the attendance result. To create appraisal types, follow the following steps in Customizing (see 4.5 Define Appraisal Type for Attendance):

- Define appraisal types
- Specify which appraisal type you are using for holding the attendance result

5. Define IO Semantics (4.3 Define IO Semantics for Attendance Tracking)

6. Set up new appraisal template in Customizing (see 4.5 Define Appraisal Type for Attendance)

a) The appraisal template must contain an appraisal type (maintained in the above customizing) that is used to hold the attendance result. It must be assigned directly below the top result, otherwise the calculation does not work.

b) Assign the key figure GCAA to the top appraisal. This key figure evaluates the appraisal result. In the appraisal template, no weighting needs to be assigned to the appraisal type being used for attendance.

7. Assign the Appraisal template to your module. Go to transaction PP01 and maintain the Appraisal template in Infotype *Evaluation* as shown below.

Plan version: 01 Current plan

Object type: SM Module

Object ID: 50027999 Adv. Business Appl. Programming Lang.

Object abbr.: ABAP

Active | Planned | Submitted | Approved | Rejected

Infotype Name	
Object	✓
Relationships	✓
Description	
Cost Distribution	
Capacity	✓
Evaluation	✓
Attendance Calc. Rules	✓
Program Type Assignment	
Sessions of Offering	✓
Module Credits	✓

Time period

Period

From 01.01.1800 to 31.12.9999

Today

Current week

All

Current month

From curr.date

Last week

To current date

Last month

Current Year

Select.

Module: ABAP Adv. Business Appl. Programming Lang.

Planning Status: Active

Start Date: 01.01.2000 to 31.12.9999 Change Information

Evaluation

Acad. Scale (ID): 0-10 0 to 10

Passed/Failed Scale: 0-10 0 to 10

Appr. Template: 5555 Attendance Relevant Appraisal

If the student fails the attendance requirement, the top appraisal can be set to a special failed grade specifying that the student has failed the module due to low attendance.

The special grade symbol is maintained in customizing.

- Go to IMG (see 4.4 Define Failed Grade Symbol for Attendance)
- You need to implement the BAD1 to ensure that the system accepts the grade symbol, which is not part of the specified scale. Go to chapter 4.4 Define Failed Grade Symbol for Attendance.

Follow the steps below to calculate the appraisal:

- Go to the transaction PIQSMFU. Enter your module name, academic year, and session and click *Find Students* as shown below.

Appraisal Overview Change : Final grade

Grade	Appraiser	StudentNo.	First name	Last name	Organizational unit	Program (Descrip
6,25	Shalini Krishnar	100000008731	Vikram	K		
8,75	Shalini Krishnar	100000010430	wikram	Khatri		
8,00	Shalini Krishnar	100000013639	Sheryl Anne	Crow		

2. On the right side, the appraisal template is displayed. Select the top appraisal.
3. Select the student for whom you have maintained the attendance. Click the *Calculate* button.

If the sub appraisal result relevant for attendance is:

- **Failed**, the top appraisal should be set to the special grade symbol.
- **Passed**, the top appraisal should **not** consider attendance, but should consider the rest of the appraisal and calculate the result based on that.

8. Last Day of Attendance

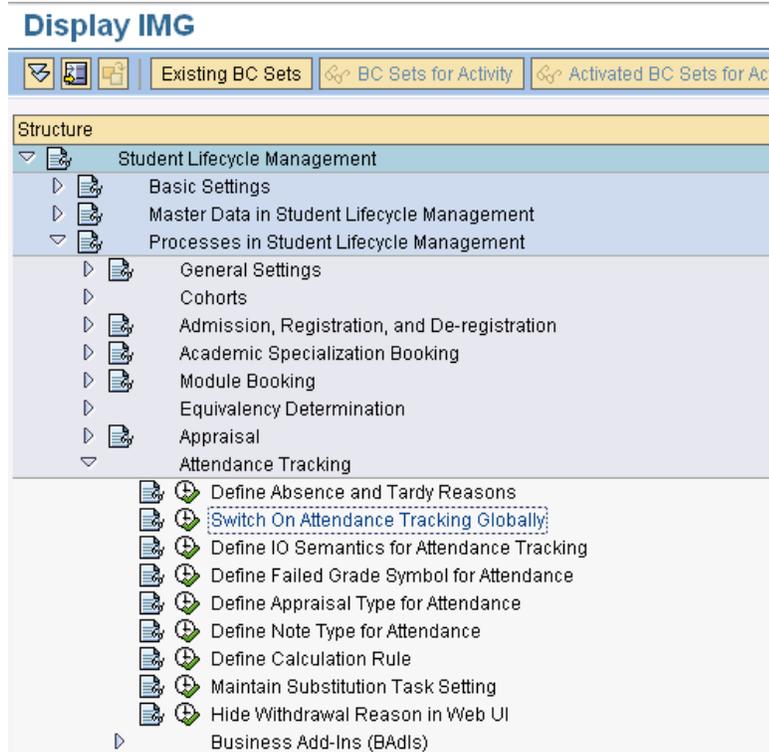
In transaction PIQSMFU a new field called *last day of attendance* has been added to the ALV in the appraisals tab. This ALV displays the student's details along with his or her grades for the sub appraisal, as well as the top appraisal. The *last day of attendance* field is updated only for students whose attendance is completed. This could be done by calculating the top appraisal for a student.

The field is filled with the date the student attended the class for the last time. For example: If the class was scheduled from April 1, 2008, to June 30, 2008, but the last time the student attended the class was June 15, 2008, this last day of attendance will have the value 15.06.2008 during appraisal calculation.

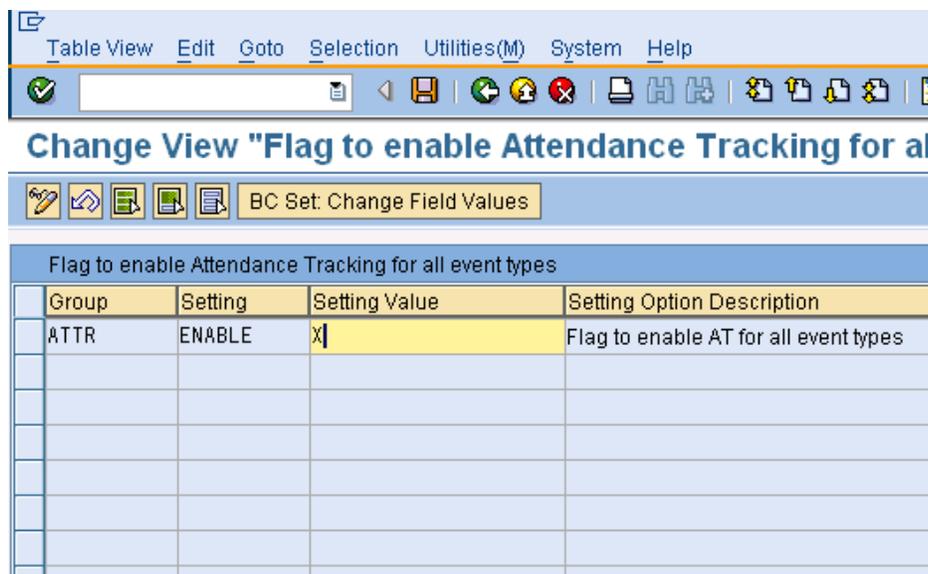
4.2 Maintain Attendance for all Events in the System

Attendance tracking can either be switched on as global setting for any events in Customizing or it can be activated on event type level. If you switch it on at the event type level, any events related to the event type become relevant for attendance tracking. Follow the customizing path as shown below:

Student Lifecycle Management -> Processes in Student Lifecycle Management -> Attendance Tracking -> Switch on attendance tracking globally.



To switch on attendance tracking globally, you need to maintain the Setting Value 'X' in Customizing:

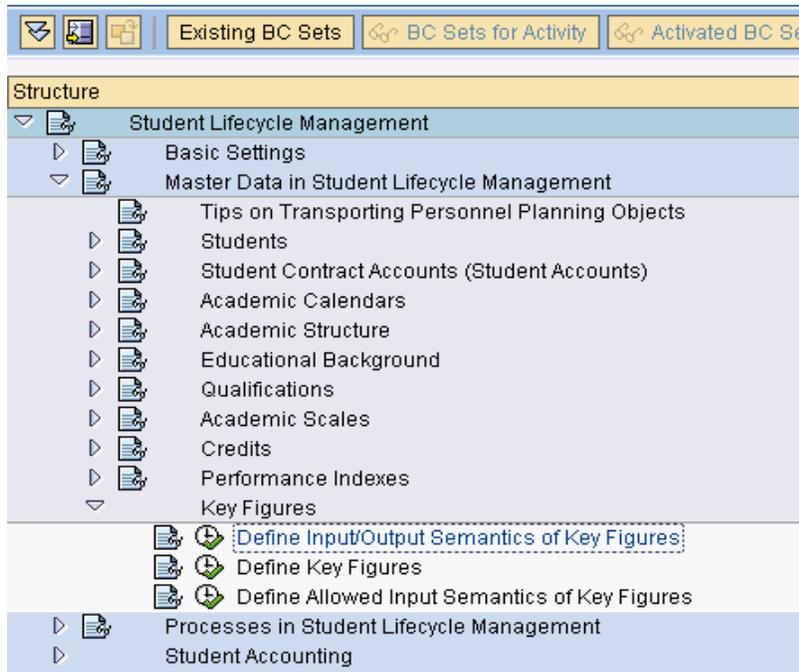


4.3 Define Input/Output Semantics for Attendance Tracking

You set up IO semantics in Customizing. The entries are later then used for your attendance appraisal type. The system maps the type to these IO semantics. The mapping is based internally on the attendance appraisal type. The IO semantics are available in the PI calculation when you calculate the overall module result to identify the attendance appraisal type. To define I/O semantics, follow the IMG path:

Student Lifecycle Management -> Master Data in Student Lifecycle Management -> Key Figures -> Define Input/Output Semantics of Key Figures

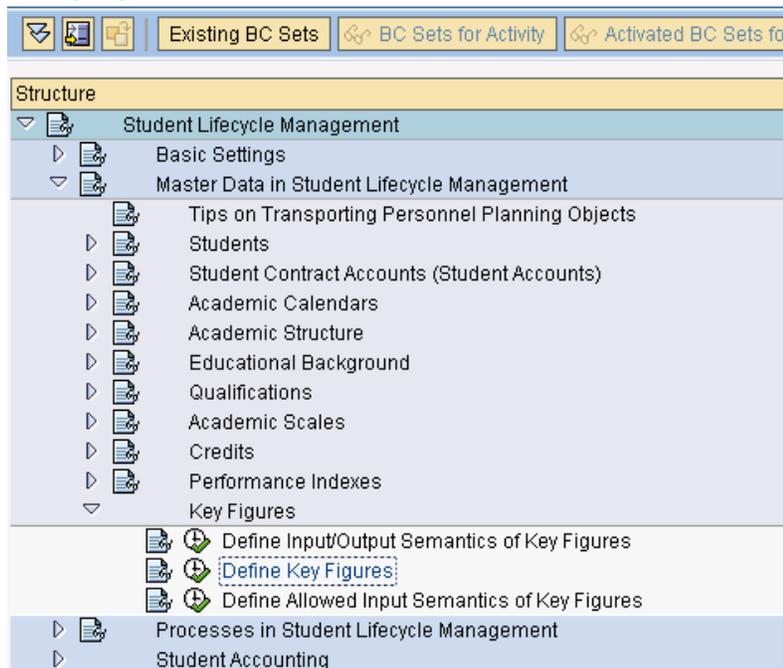
Display IMG



To create a key figure for attendance calculation, follow the IMG path which is shown in the figure below:

Student Lifecycle Management -> Master Data in Student Lifecycle Management -> Key Figures -> Define Key Figures

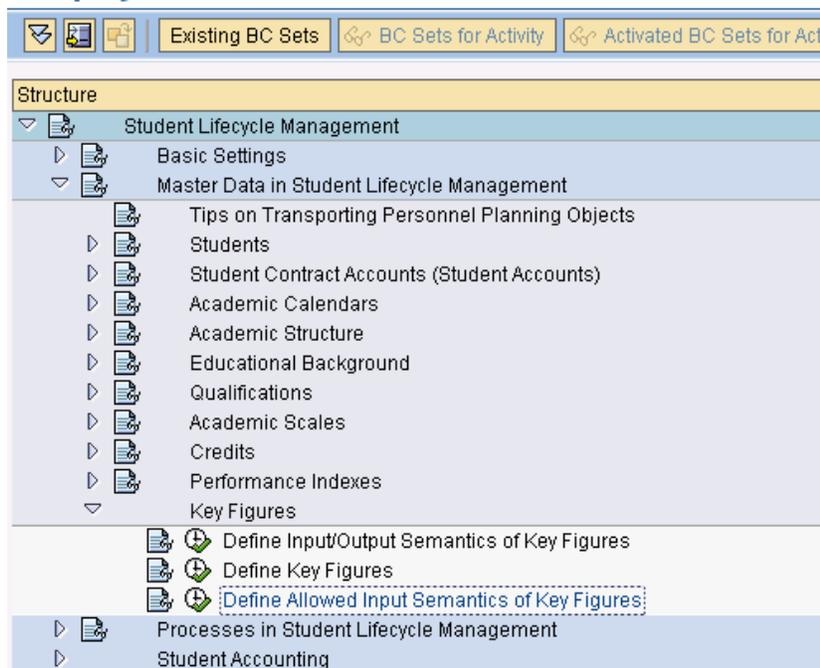
Display IMG



To define allowed I/O semantics of Key figures go to

Student Lifecycle Management -> Master Data in Student Lifecycle Management -> Key Figures -> Define Allowed Input Semantics of Key Figures

Display IMG



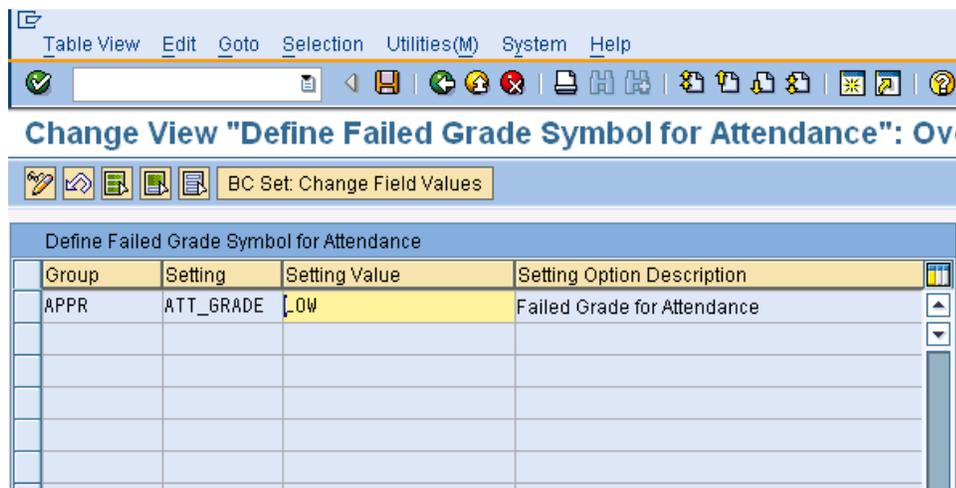
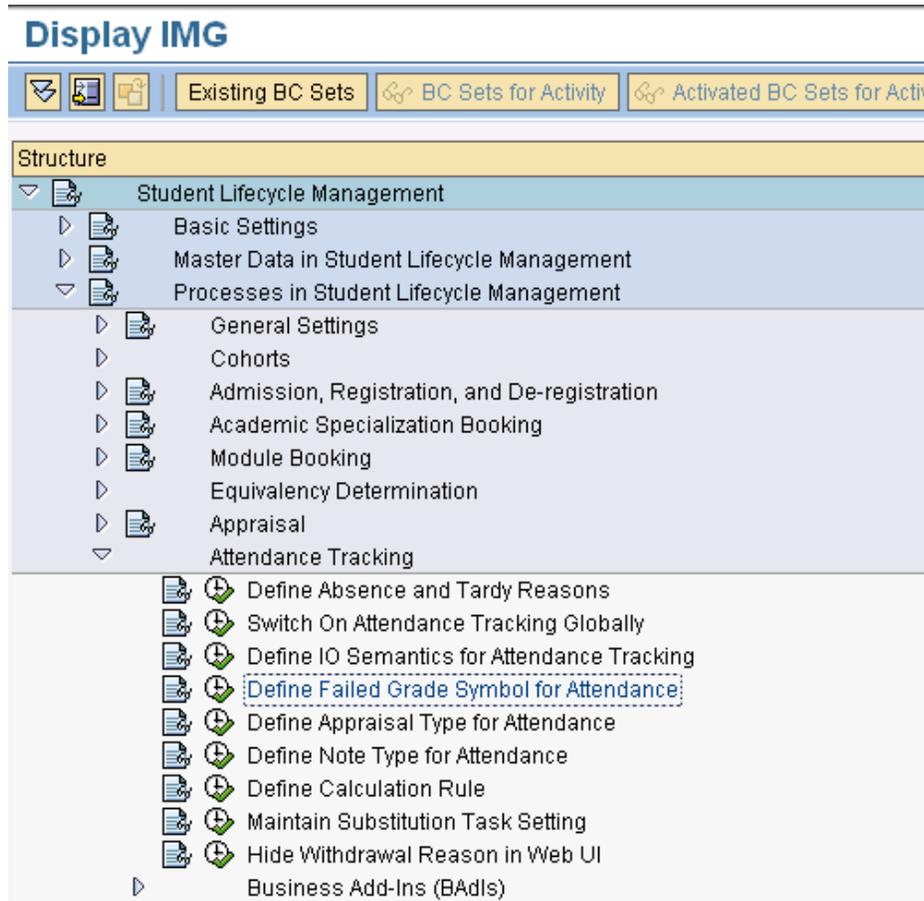
The IO semantics must be used for attendance tracking only and must exist once in the appraisal type which is used for attendance tracking.

Student Lifecycle Management -> Processes in Student Lifecycle Management-> Attendance Tracking-> Define IO Semantics for attendance tracking

4.4 Define Failed Grade Symbol for Attendance

When a student has failed attendance, you can set up the system in such a way that it sets a special grade in the top appraisal based on the attendance result. In this case you must maintain the relevant special grade symbol in Customizing. To define this grade symbol, follow the path:

Student Lifecycle Management -> Processes in Student Lifecycle Management-> Attendance Tracking-> Define Failed Grade Symbol for Attendance.

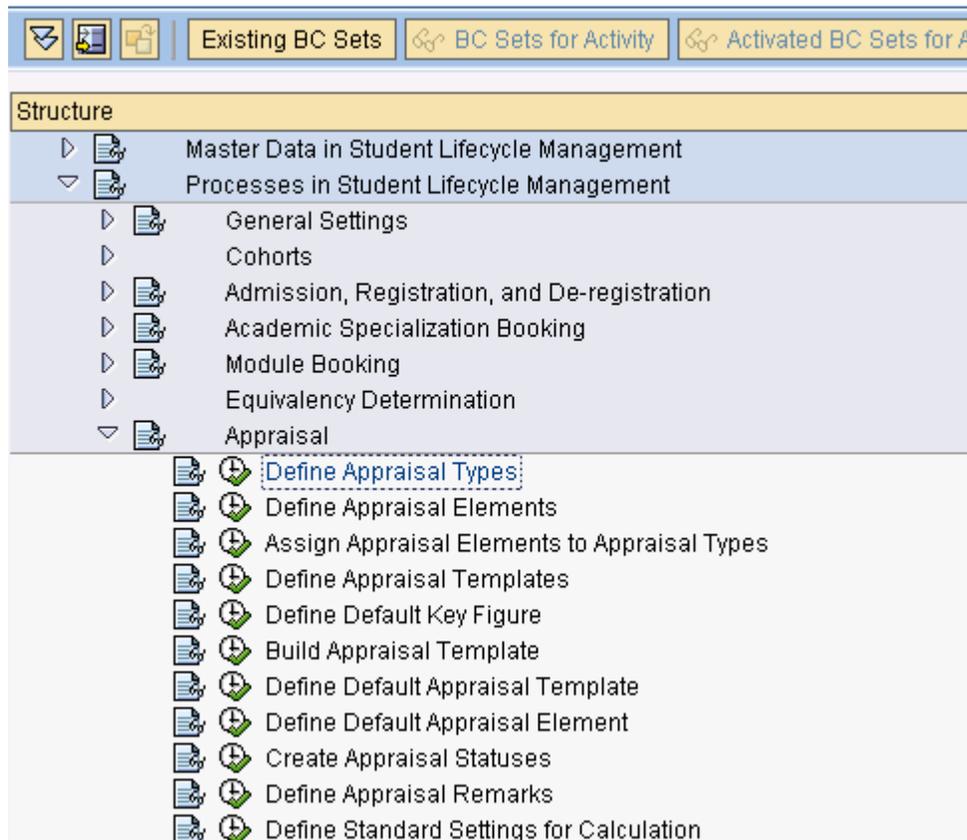


4.5 Define Appraisal Type for Attendance

The system performs a calculation on the individual attendance data for the events relevant for attendance. The calculated result is stored in a particular appraisal type set up for attendance tracking. This appraisal type has to be maintained in Customizing. To define the appraisal type, follow the path:

Student Lifecycle Management -> Processes in Student Lifecycle Management-> Appraisal-> Define Appraisal Types

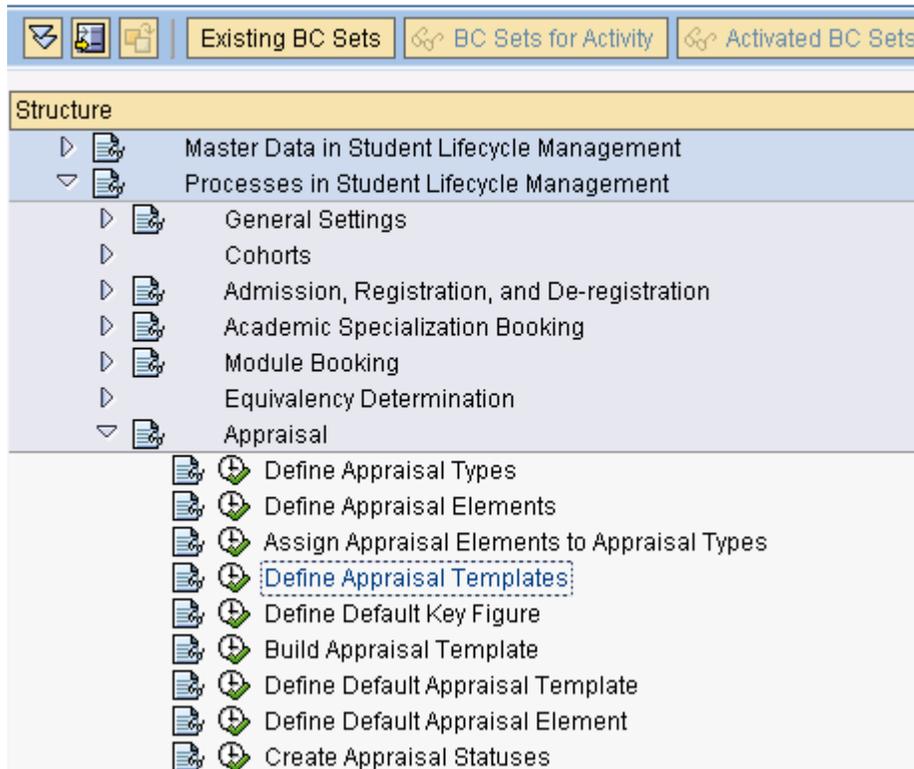
Display IMG



This appraisal type must be used only in the appraisal template and also has to be assigned directly below the top appraisal. To set up a new appraisal template follow the path:

Student Lifecycle Management -> Processes in Student Lifecycle Management -> Appraisal -> Define Appraisal Templates.

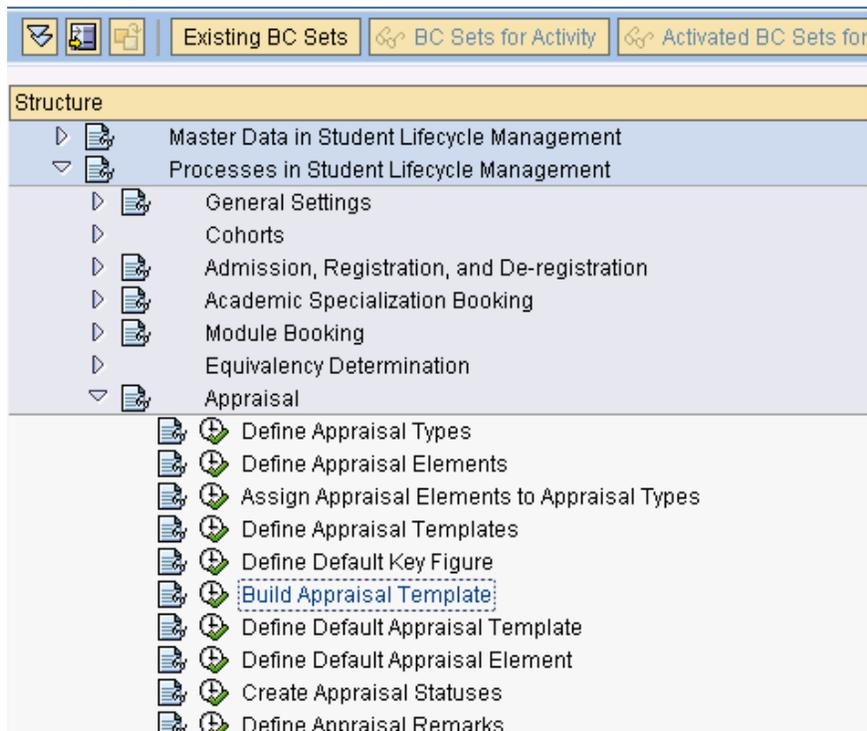
Display IMG



To build appraisal templates for the template created above, follow the path:

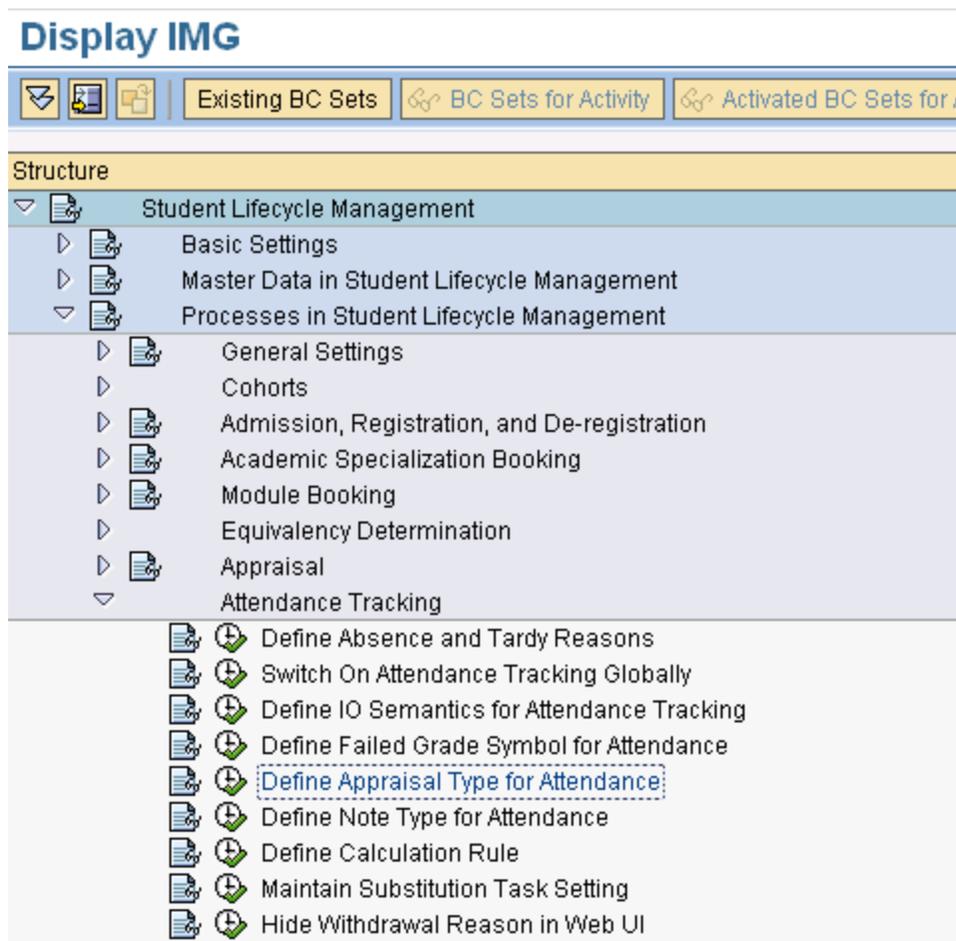
Student Lifecycle Management -> Processes in Student Lifecycle Management-> Appraisal-> Build Appraisal Template

Display IMG

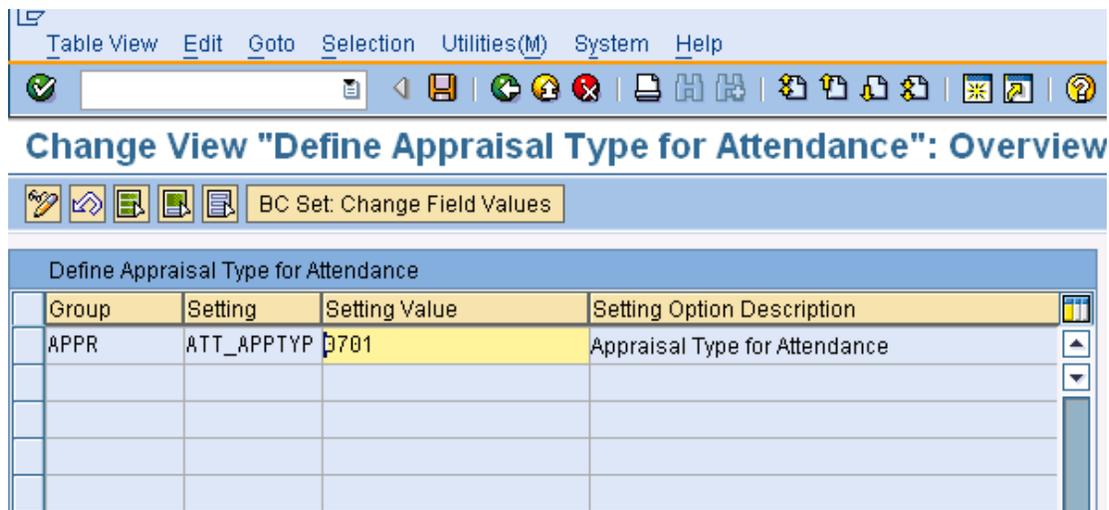


To specify which appraisal types you are using to hold the attendance result follow the path:

Student Lifecycle Management -> Processes in Student Lifecycle Management-> Attendance Tracking-> Define Appraisal Type for Attendance



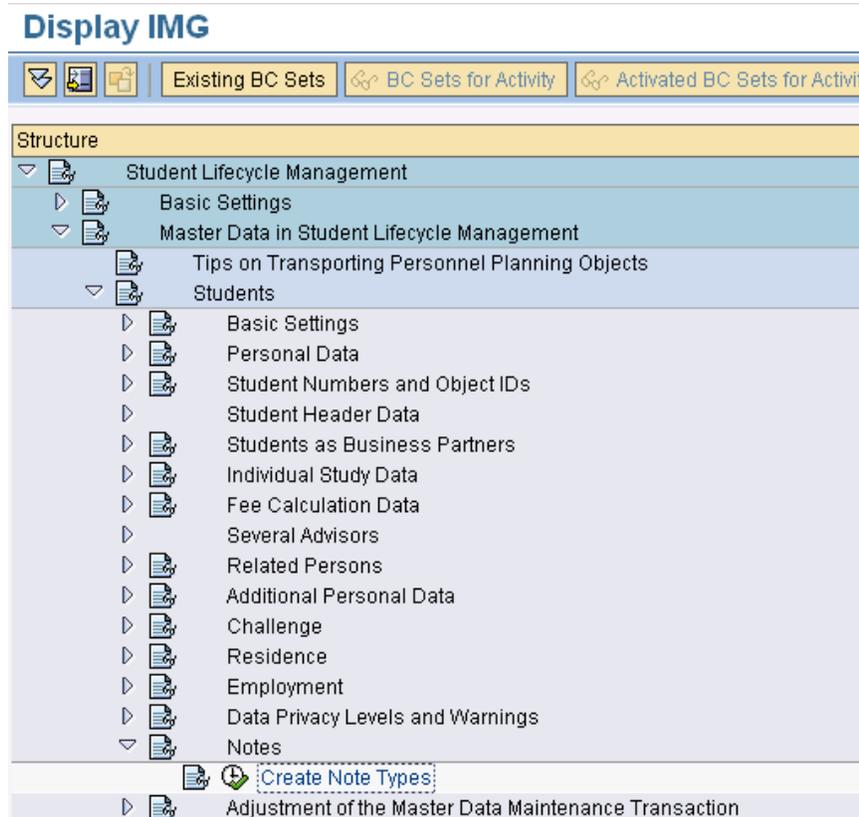
The system performs a calculation on individual attendance data for the events relevant for attendance. The calculated result is stored in this appraisal type. Enter the appraisal type that you have created above in the 'Setting Value' field for the group 'APPR' as shown below.



4.6 Maintain Note Type

You need to specify the note type to be used for attendance tracking. The note type you specify here should not have any note reference. To create note types, follow the path:

Student Lifecycle Management -> Master Data in Student Lifecycle Management -> Students -> Notes -> Create Note Types



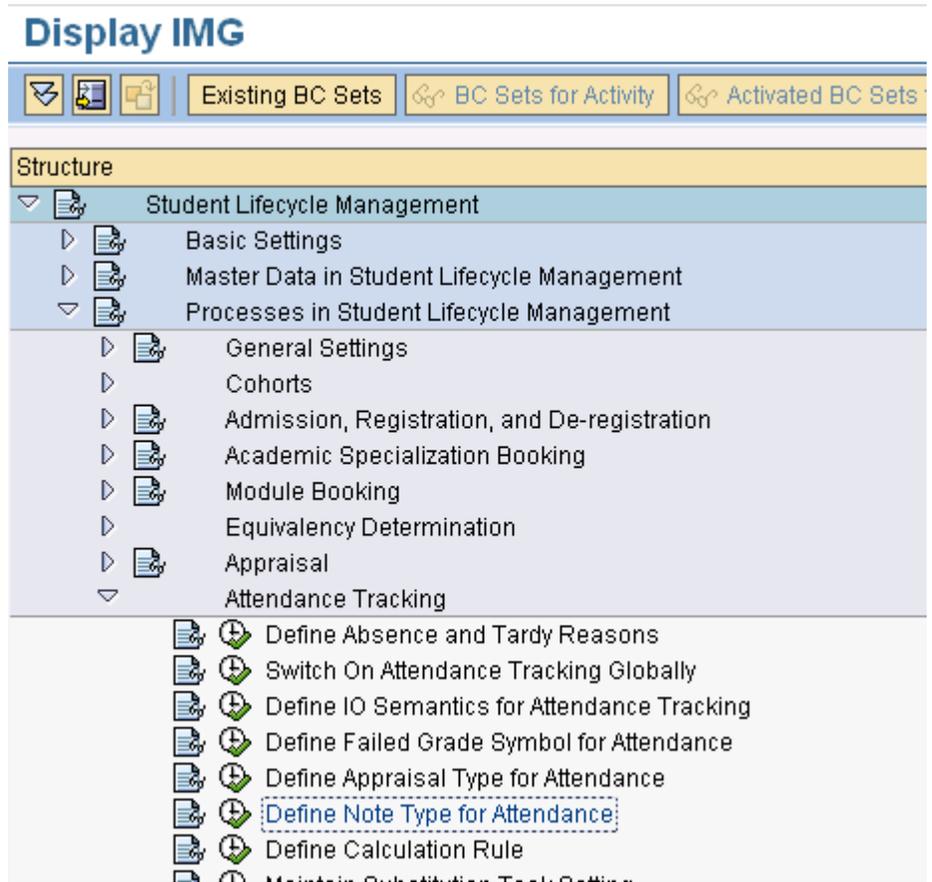
Change View "Create Note Types": Overview

The screenshot shows the 'Create Note Types' dialog structure. The 'Create Note Types' folder is expanded, showing a list of note types. The 'Class Attendance' note type is highlighted in yellow.

Note Type	Note Type (Description)	Note Category	Rel.	Ina	Prog.T
0000	Predefined Note Type	2 Predefined Note	<input type="checkbox"/>	<input type="checkbox"/>	1 Not
0001	Class Attendance	1 User-Defined Note	<input type="checkbox"/>	<input type="checkbox"/>	1 Not
1890	Studielink Note Type	2 Predefined Note	<input type="checkbox"/>	<input type="checkbox"/>	1 Not
1891	Studielink Announcements	2 Predefined Note	<input type="checkbox"/>	<input type="checkbox"/>	1 Not
9000	General Note	1 User-Defined Note	<input type="checkbox"/>	<input type="checkbox"/>	1 Not
9001	Academic Note	1 User-Defined Note	<input type="checkbox"/>	<input type="checkbox"/>	1 Not
9002	Progression Note (PT)	1 User-Defined Note	<input type="checkbox"/>	<input type="checkbox"/>	3 Req
9003	Registration Note	1 User-Defined Note	<input type="checkbox"/>	<input type="checkbox"/>	1 Not
9004	Campus Activities	1 User-Defined Note	<input type="checkbox"/>	<input type="checkbox"/>	1 Not
9005	Disciplinary Note	1 User-Defined Note	<input type="checkbox"/>	<input type="checkbox"/>	1 Not
9009	Special Dean's Note	2 Predefined Note	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1 Not
9999	Class Attendance Note	1 User-Defined Note	<input type="checkbox"/>	<input type="checkbox"/>	1 Not

Enter the note type you created above in the *Setting Value* field for the group 'ATTR' and setting 'NOTES'. To enter this value, follow the path:

Student Lifecycle Management -> Processes in Student Lifecycle Management -> Attendance Tracking -> Define Note Type for Attendance



Change View "Note Type for Attendance Tracking": Overview

BC Set: Change Field Values

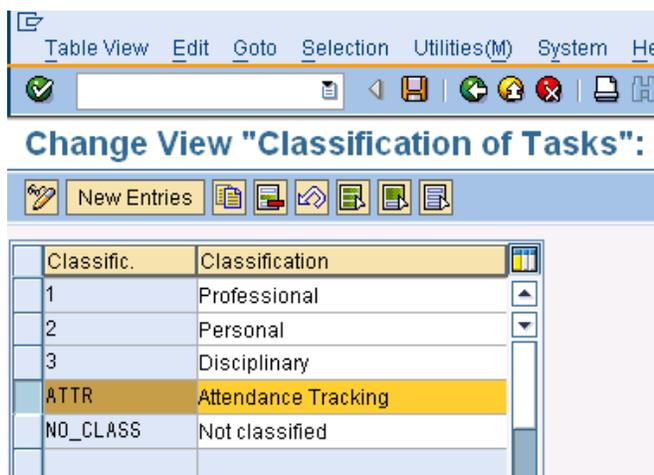
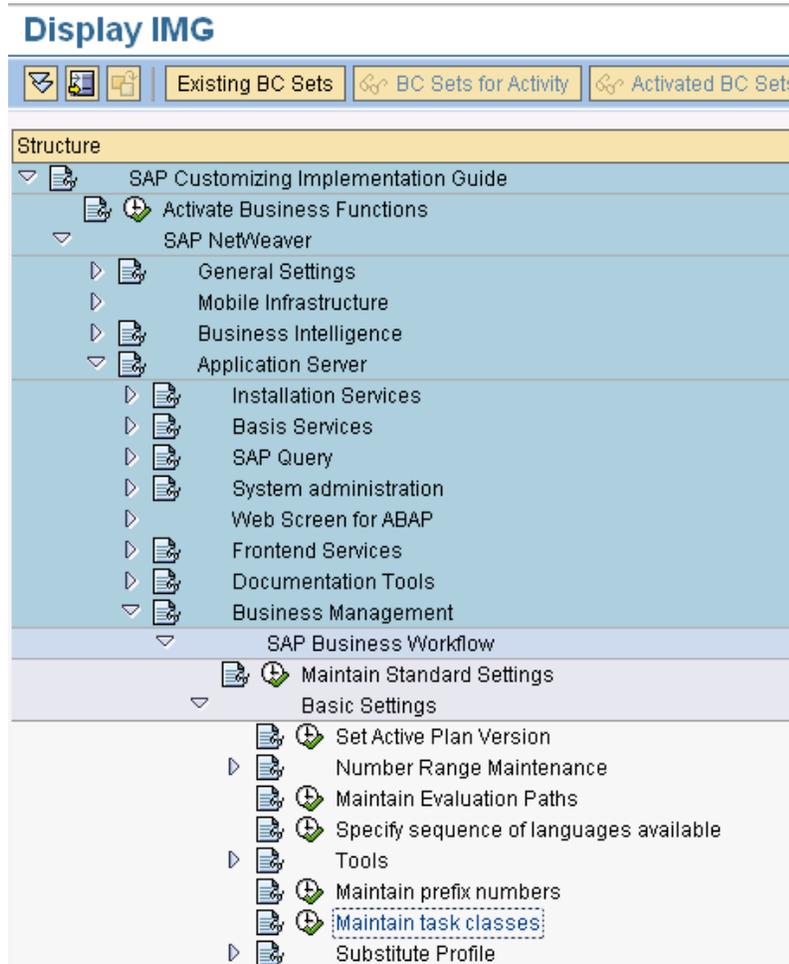
Note Type for Attendance Tracking				
Group	Setting	Setting Value	Setting Option Description	
ATTR	NOTES	0001	Default Note Type to be used for AT	

4.7 Maintain Task Classes

You can classify and group tasks according to your own criteria. A task can be classified when it is defined. Create a new class for attendance tracking, for example, with name 'ATTR'.

To create the class, follow the path

SAP Netweaver -> Application Server -> Business Management --> SAP Business Workflow -> Basic Settings -> Maintain task classes



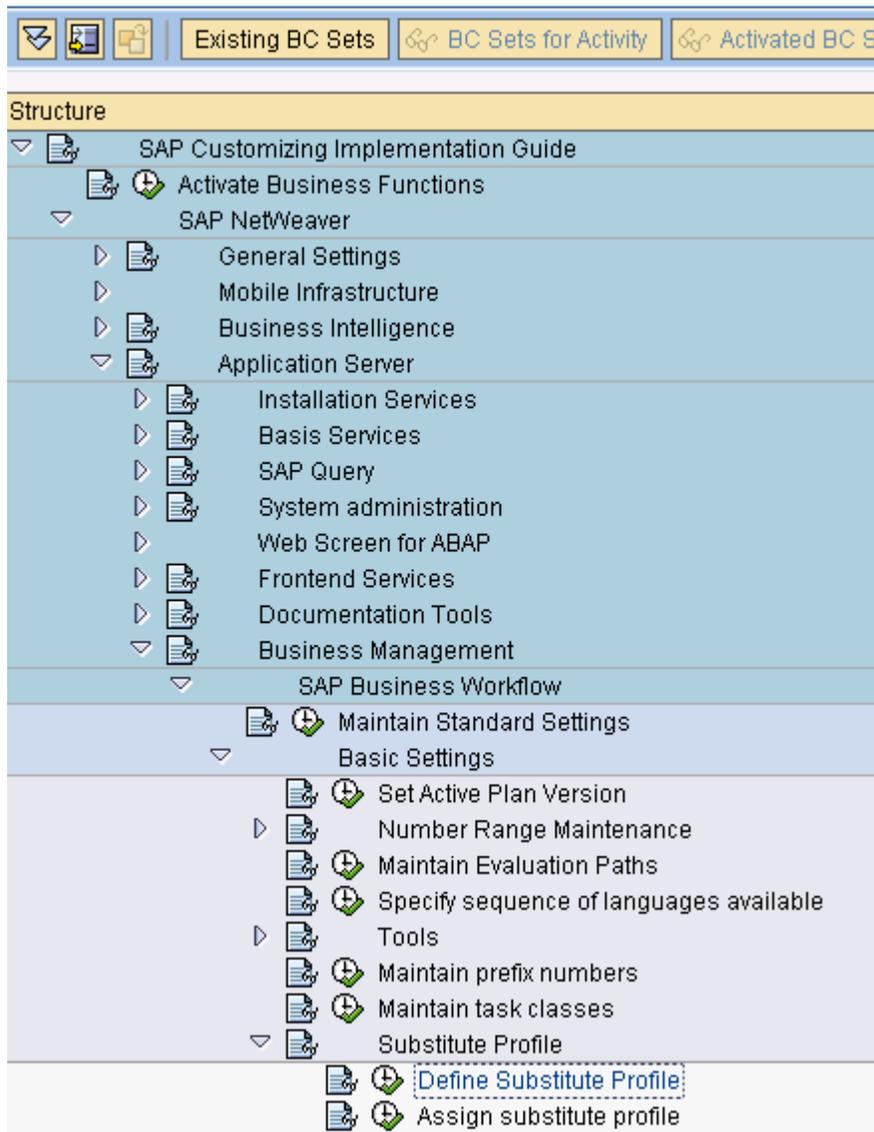
4.8 Create Profile for Substitute

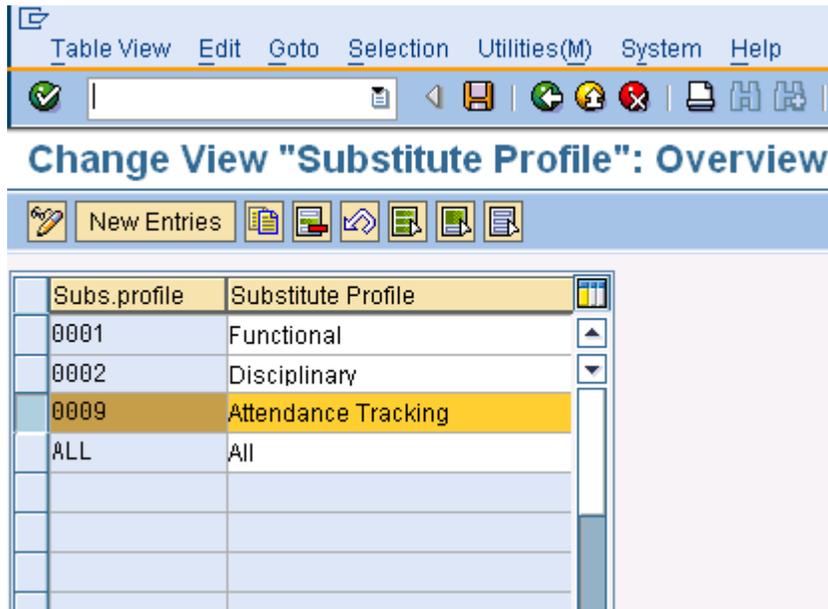
Create new profile for attendance tracking. Assign an identification code for the proxy profile and describe it in the long text.

To create profiles, follow the path

SAP NetWeaver -> Application Server -> Business Management --> SAP Business Workflow -> Basic Settings -> Substitute Profile -> Define Substitute Profile

Display IMG





4.9 Assign Profile for Substitute

Here you determine which task classes should be grouped together in a profile. Allocate task class created for attendance tracking in Customizing No 7 (Maintain task classes) to the above created profile.

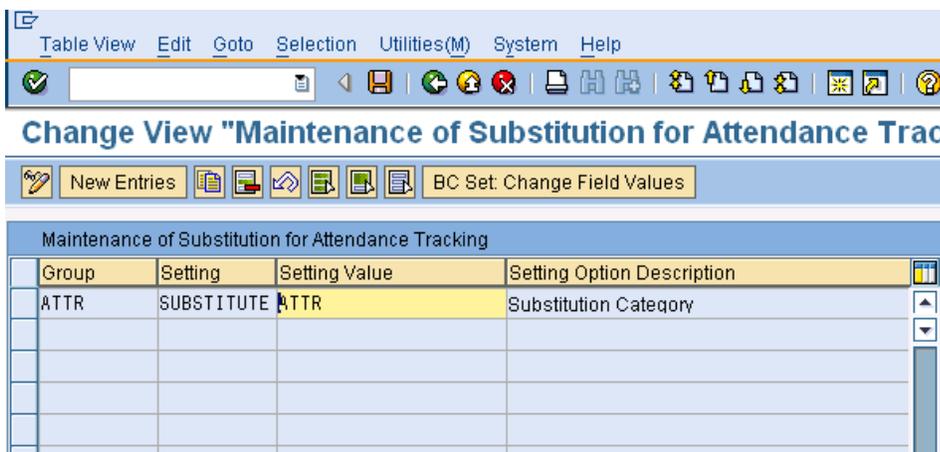
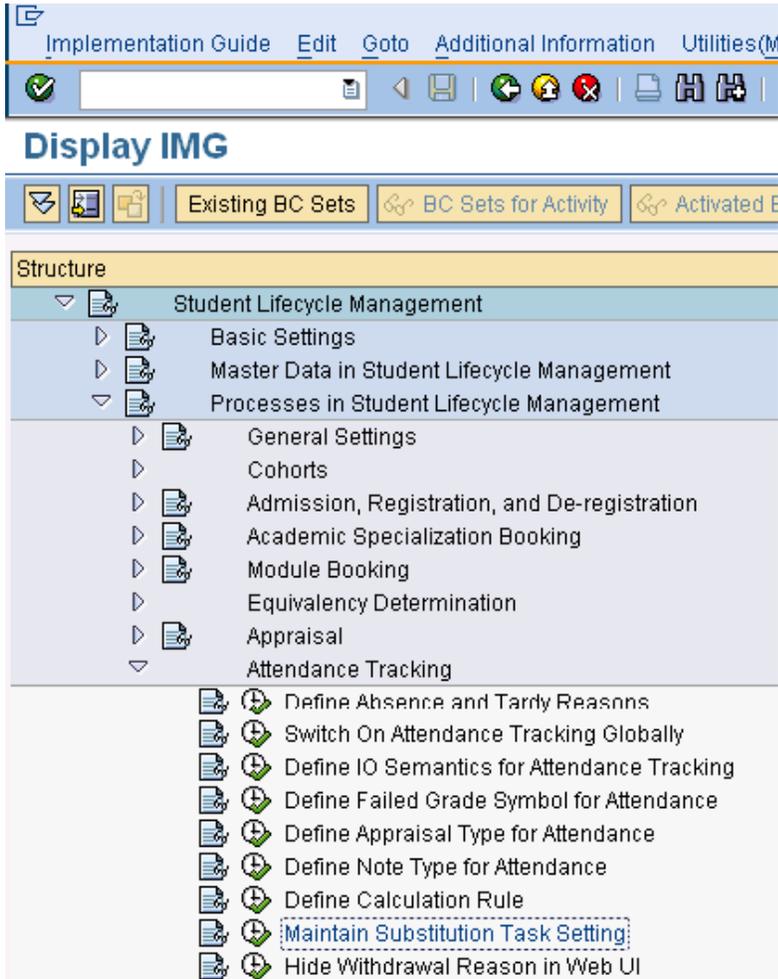
To assign a profile, follow the path.

Profiles can be maintained in Customizing by choosing SAP NetWeaver -> Application Server -> Business Management --> SAP Business Workflow -> Basic Settings -> Substitute Profile -> Assign Substitute Profile.

4.10 Maintain Substitute

Student Lifecycle Management -> Processes in Student Lifecycle Management -> Attendance Tracking -> Maintain Substitution Task Setting

- a) If the setting value is '*', then all the users for whom you are a substitute are shown in the Web UI.
- b) If the setting value is 'ATTR', then all the users for whom you are a substitute with the profile that has the task 'ATTR' are shown in the Web UI.
- c) If setting value is " " then the substitute feature is inactive.



4.11 Hide Withdrawal Reason in Web UI

This customizing is provided to allow user to display the withdrawal list box in the Attendance Overview screen as shown in the figure below.

Attendance Overview

Student Name K, Deepa	Event Name event1 for
No. of Unexcused Absences 0	No. of Excused Absences 182
No. of Tardies 1	Event Booking Status Booked
Withdrawal Reason <input style="width: 80%;" type="text"/>	

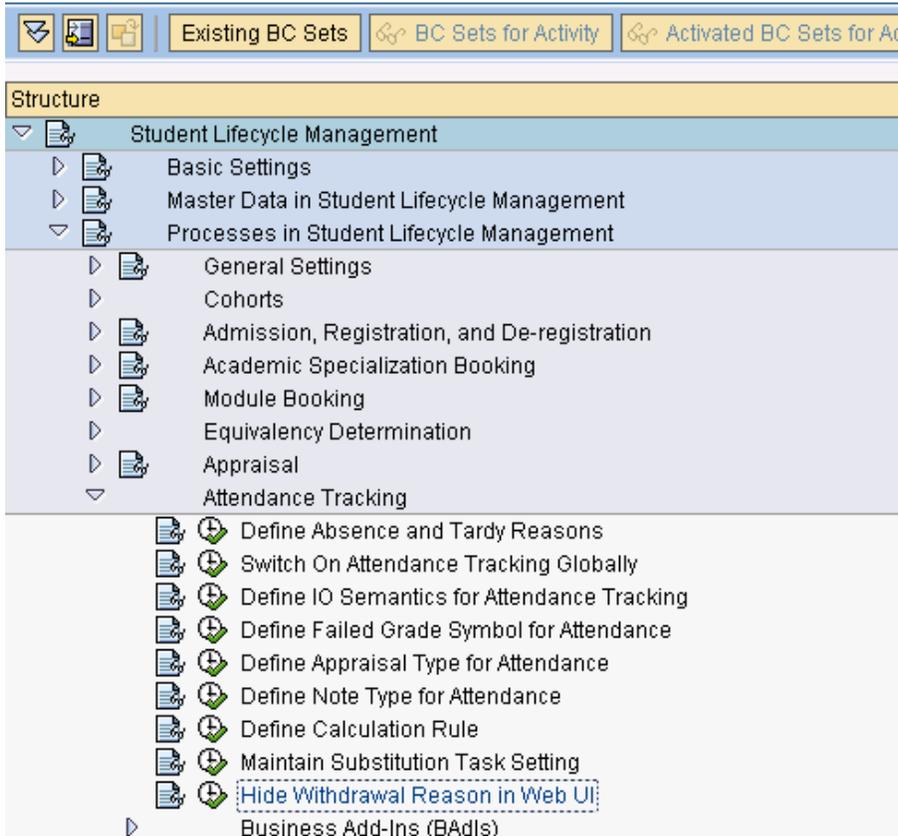
Attendance Overview								
Event Date	Start Time	End Time	Absence Reason	Withdrawal Reason	Tardy Reason	Attendance Completed	Pre Excused	
19.05.2008	08:10:00	08:15:00	Casual Leave					
26.05.2008	08:10:00	08:15:00			Tardy reason1			
02.06.2008	08:10:00	08:15:00				X		
09.06.2008	08:10:00	08:15:00				X		
16.06.2008	08:10:00	08:15:00		Withdrawal		X		
23.06.2008	08:10:00	08:15:00		Withdrawal		X		
30.06.2008	08:10:00	08:15:00		Withdrawal		X		
07.07.2008	08:10:00	08:15:00		Withdrawal				
14.07.2008	08:10:00	08:15:00		Withdrawal				
21.07.2008	08:10:00	08:15:00		Withdrawal				

Withdrawal reason

This withdrawal reason list box could be used to enable a student to withdraw from all the classes from the selected date onwards by selecting a reason from the dropdown.

You can either display or hide the list box by using the value for the *Setting Value* in Customizing as either blank or 'X' respectively.

Display IMG



- Blank – means the withdrawal reason will be displayed in the list box in the 'Attendance Overview' screen.
- 'X' – means the withdrawal reason list box would not be displayed in the 'Attendance Overview' screen.



Change View "Customizing for showing the withdrawal Reason in Web UI"

BC Set: Change Field Values

Customizing for showing the withdrawal Reason in Web UI				
Group	Setting	Setting Value	Setting Option Description	
ATTR	NOWITHDRAW	X	Dont Display the withdrawal in web UI	

5. Customer Enhancements

5.1 Defining Students' relevant for Attendance Tracking

In some universities, students are exempted from attendance based on certain conditions, such as belonging to a particular group or a category. For example, a student's attendance in a sports group may not count for attendance and therefore not be appraised based on the attendance data.

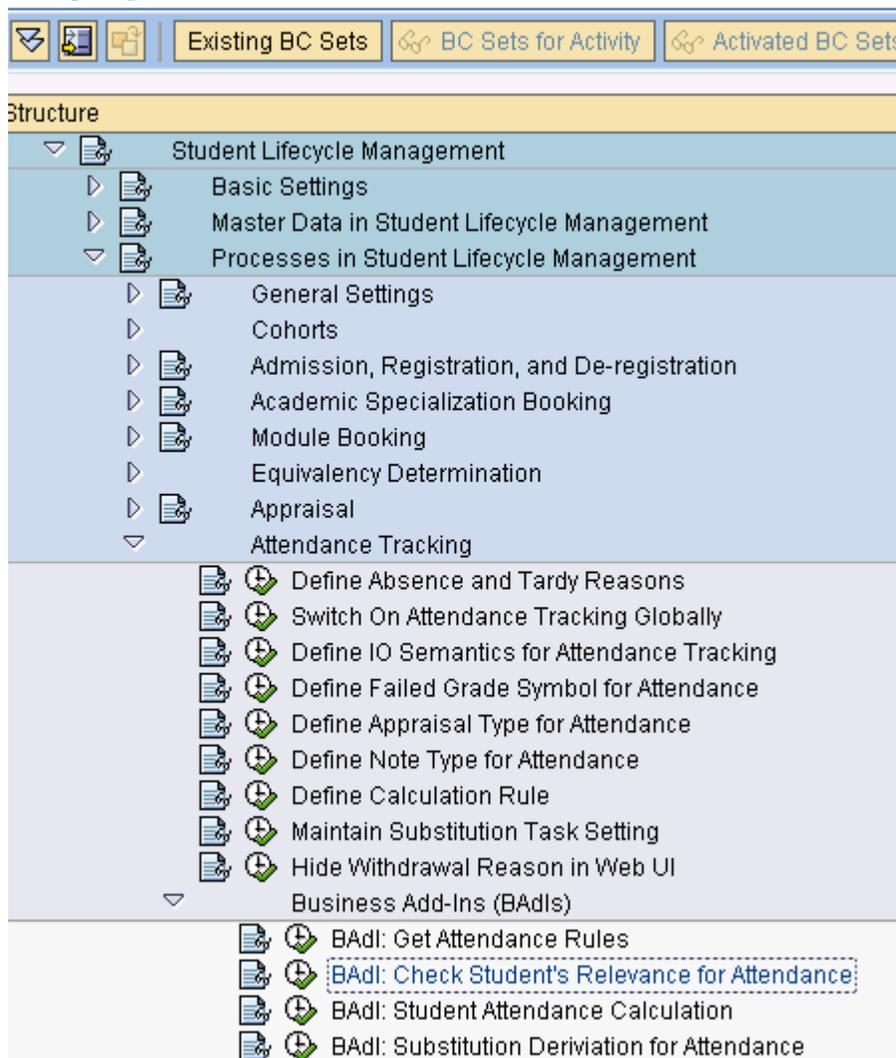
You can exempt students from attendance tracking by implementing a BAdI. By default, attendance is maintained for all students. Once you have implemented this BAdI, you cannot see the students whose attendance data does not count in the Attendance Tracking maintenance screen.

To implement BAdI HRPIQ00ATSTUDENT_ATTEND, go to transaction SPRO and follow the path:

Student Lifecycle Management -> Processes in Student Lifecycle Management -> Attendance Tracking -> Business Add-Ins (BAdIs) -> BAdI: Check Student's Relevance for Attendance.

If the student's attendance is not relevant, mark the changing parameter C_ISNOTRELEVANT with an 'X' in the BAdI implementation.

Display IMG



5.2 Define Attendance calculation rules

A filter-dependent BAdI must be implemented in Customizing to perform any attendance calculations. SAP delivers a sample implementation where the threshold value stored on infotype 1723 is compared with the attendance percentage for related events. In addition, the attendance rule, the threshold value and the attendance scale have to be maintained at infotype 1723. The scale can be set to a constant in the BAdI.

Student Lifecycle Management -> Processes in Student Lifecycle Management -> Attendance Tracking -> Business Add-Ins (BAdIs) -> BAdI: Get Attendance Rules.

Display IMG

The screenshot shows the SAP IMG (Implementation Guide) interface. At the top, there are three tabs: "Existing BC Sets", "BC Sets for Activity", and "Activated BC Sets". Below the tabs is a "Structure" pane with a tree view. The tree view is expanded to show the following path:

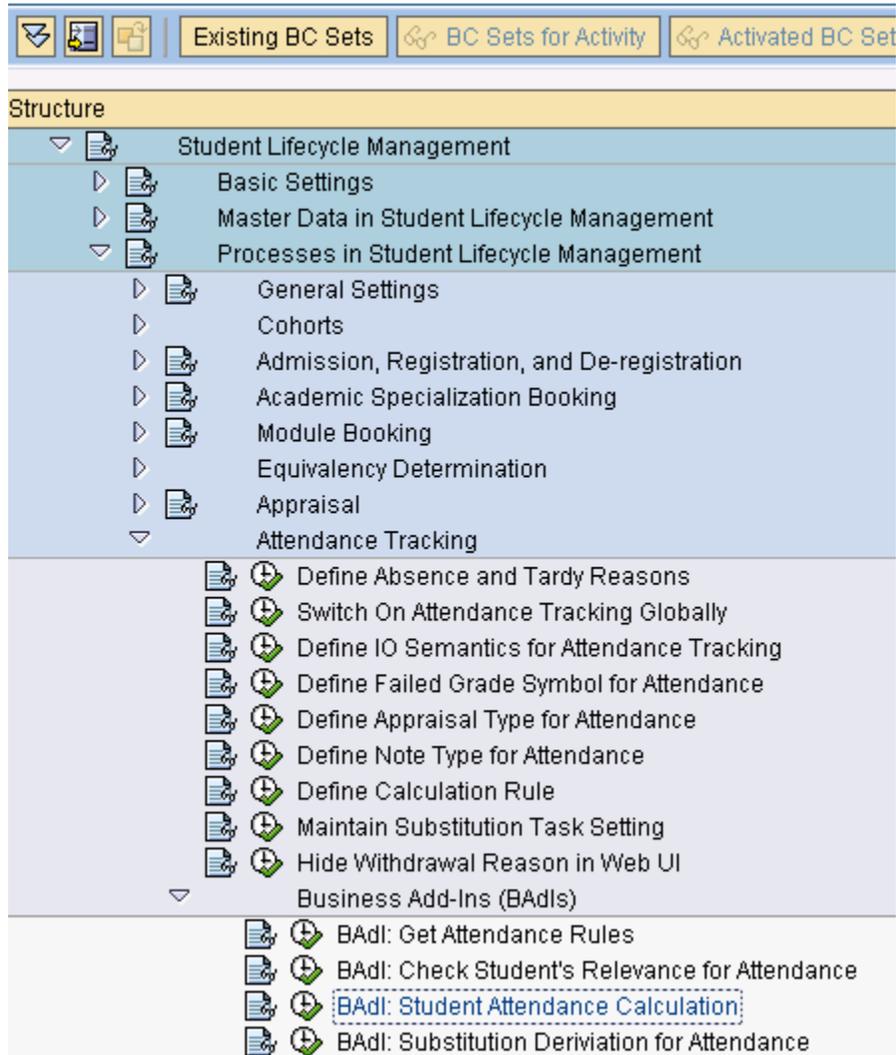
- Student Lifecycle Management
 - Basic Settings
 - Master Data in Student Lifecycle Management
 - Processes in Student Lifecycle Management
 - General Settings
 - Cohorts
 - Admission, Registration, and De-registration
 - Academic Specialization Booking
 - Module Booking
 - Equivalency Determination
 - Appraisal
 - Attendance Tracking
 - Define Absence and Tardy Reasons
 - Switch On Attendance Tracking Globally
 - Define IO Semantics for Attendance Tracking
 - Define Failed Grade Symbol for Attendance
 - Define Appraisal Type for Attendance
 - Define Note Type for Attendance
 - Define Calculation Rule
 - Maintain Substitution Task Setting
 - Hide Withdrawal Reason in Web UI
 - Business Add-Ins (BAdIs)
 - BAdI: Get Attendance Rules** (highlighted with a dashed box)
 - BAdI: Check Student's Relevance for Attendance
 - BAdI: Student Attendance Calculation
 - BAdI: Substitution Derivation for Attendance

5.3 Set up Derivation for Attendance Calculation Rule

To derive the attendance rule for attendance calculation, a BAdI can be implemented. The BAdI default implementation reads the calculation rule from infotype 1723 at the module and, if nothing found, from the offering org unit.

Student Lifecycle Management -> Processes in Student Lifecycle Management -> Attendance Tracking -> Business Add-Ins (BAIs) -> BAdI: Student Attendance Calculation.

Display IMG

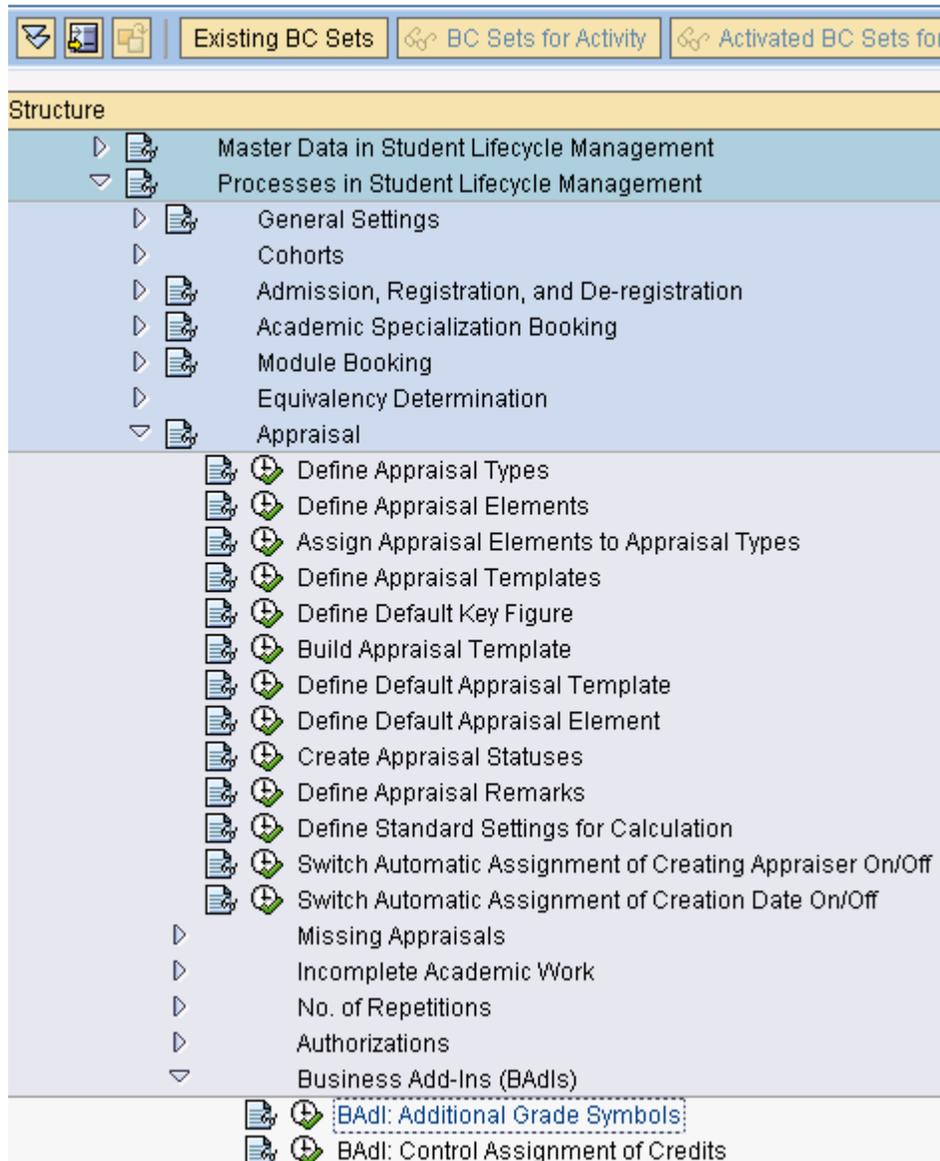


5.4 Set up special grade for failed attendance

When a student has failed attendance you can set up the system so that it sets a special grade in the top appraisal based on the attendance result. To achieve this, you must maintain the special grade symbol in Customizing. You must also implement a BAdI (Additional Grade Symbols) so that the system accepts grade symbols that are not a part of the scale. To implement this BAdI, choose

Student Lifecycle Management -> Processes in Student Lifecycle Management-> Appraisal-> Business Add-Ins (BAdIs) -> BAdI: Additional Grade Symbols.

Display IMG



5.5 Substitution Derivation for Attendance

You can use this BAdI to derive the substitutes for a user. This BAdI is called in the Remote Function Module HRIQ_AT_GET_SUBSTITUTES RFC. There is a default implementation that derives the personal substitution, which is the direct substitution between users.

Student Lifecycle Management -> Processes in Student Lifecycle Management-> Attendance Tracking -> Business Add-Ins (BAdIs) -> BAdI: Substitution Derivation for Attendance.

Display IMG

The screenshot shows the SAP IMG interface. At the top, there are three tabs: 'Existing BC Sets', 'BC Sets for Activity', and 'Activated BC Sets'. Below the tabs is a 'Structure' tree. The tree is expanded to show the following path:

- Student Lifecycle Management
 - Basic Settings
 - Master Data in Student Lifecycle Management
 - Processes in Student Lifecycle Management
 - General Settings
 - Cohorts
 - Admission, Registration, and De-registration
 - Academic Specialization Booking
 - Module Booking
 - Equivalency Determination
 - Appraisal
 - Attendance Tracking
 - Define Absence and Tardy Reasons
 - Switch On Attendance Tracking Globally
 - Define IO Semantics for Attendance Tracking
 - Define Failed Grade Symbol for Attendance
 - Define Appraisal Type for Attendance
 - Define Note Type for Attendance
 - Define Calculation Rule
 - Maintain Substitution Task Setting
 - Hide Withdrawal Reason in Web UI
 - Business Add-Ins (BAdIs)
 - BAdI: Get Attendance Rules
 - BAdI: Check Student's Relevance for Attendance
 - BAdI: Student Attendance Calculation
 - BAdI: Substitution Derivation for Attendance**

The BAdI 'Substitution Derivation for Attendance' is highlighted with a dashed border.

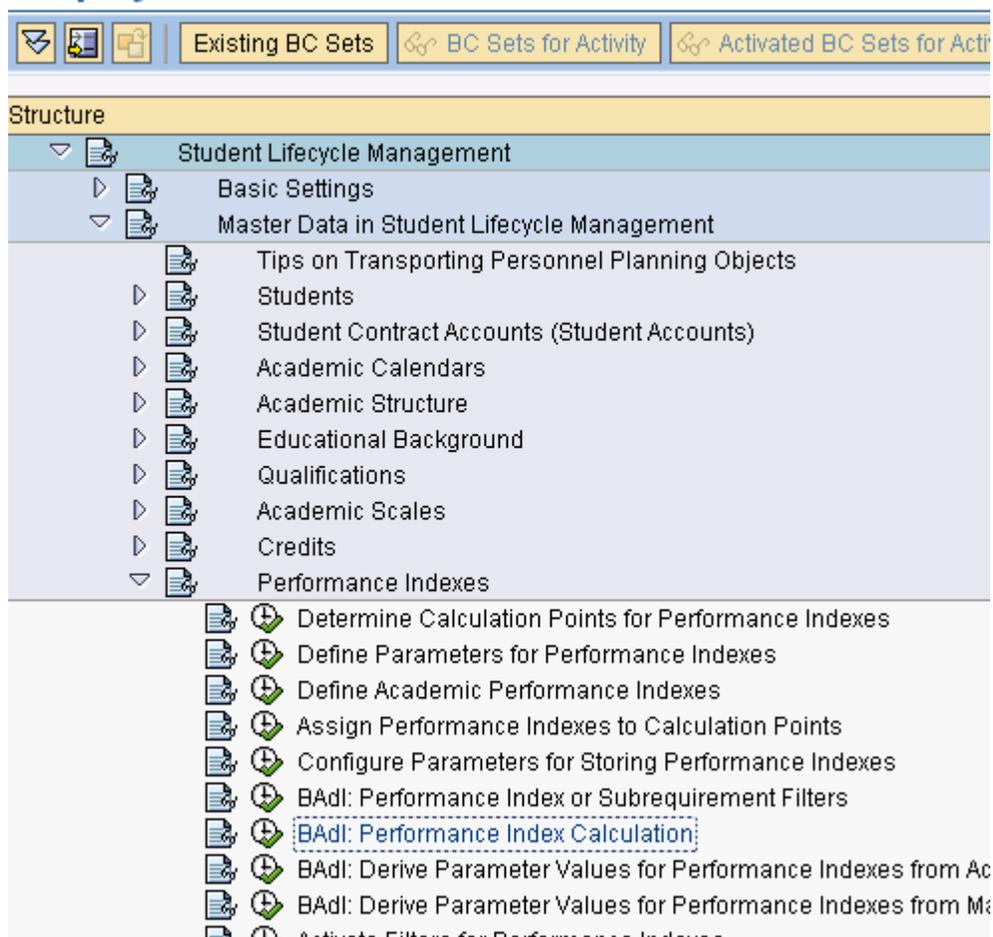
5.6 Perform Appraisal Calculation

Individual attendance data is transferred to the appraisal process by pressing the calculate button in PIQSMFU. You can also start the calculation of the top appraisal including the attendance result. For this calculation a new PI calculation GRAT is delivered. This works in the same way as PI calculation GRAD, with the exception that the special grade symbol is set in the top appraisal if the student failed on attendance. If you would like to perform a different calculation, you can use the PI calculation as an example. However, you must set up a key figure that uses this PI calculation and assign this key figure to your top appraisal.

You can use this BAdI HRPIQ00SI2_PINDX_CAL for which default implementation has been provided. The implementation name is HRPIQ00SI2_GRAT. To access the BAdI, choose

Student Lifecycle Management -> Master Data in Student Lifecycle Management -> Performance Indexes -> BAdI: Performance Index Calculation

Display IMG



6. Additional Information

6.1 Different Scenarios

1. For those cases where attendance is incomplete, both the 'attendance completed' checkbox, as well as the 'class cancellation reason' list box are enabled.
2. For occurrences where the attendance completed flag is checked, the class cancellation reason list box is disabled. This is because a class can either be canceled or can have attendance complete but not both at the same time.
3. Once the attendance completed flag is checked for an occurrence, the list of students displayed also becomes non-editable.
4. Select a record from the list of students displayed on the second screen. The *Attendance Overview* button is enabled. Click the *Attendance Overview* button. The dialog box that opens up would be disabled if the attendance completed checkbox is checked.
5. Select a date for which attendance is not complete. Select a student from the student list. Now click the attendance overview button. Select a withdrawal reason and save the data. You will return to the second screen. Now either select the same date and occurrence or any future date or occurrence and click on the attendance overview button. The withdrawal reason list should be disabled.
6. When an occurrence on a date is selected and class cancellation reason is selected, then, by default, the class attendance is marked as completed for that occurrence.
7. If the absence reason is entered, then the functions *tardy reason* and *withdrawal reason* are disabled for the student for that occurrence, and vice versa.
8. If a class is canceled because a class cancellation reason has been selected, the user is still allowed to change the absence reason for a student.
9. If an absence reason or tardy reason is maintained for a student, and then a class cancellation reason is selected, then the absence reason or tardy reason would be overwritten by the class cancellation reason.
10. If a withdrawal reason is maintained for a student and then a class cancellation reason is selected, the withdrawal reason is not overwritten by the class cancellation reason.
11. For canceled bookings, the attendance overview dialog box appears only in the display mode.
12. For canceled bookings, the user cannot create or edit notes.
13. For future dates, if the occurrences are marked with attendance complete, the date is marked green in the calendar instead of yellow.
14. If a student who canceled the event is selected, then nothing can be edited but the user can view the existing notes and attendance by clicking the appropriate button
15. Attendance cannot be maintained for the students who canceled their attendance at the event
16. Anything changed in the dialog box is saved in the buffer and once the save button in the main attendance tracking screen is used, all the data is saved into the database.

6.2. Lock Objects

When you try to create a pre-excused absence as well as attendance at the same time, the event for which the attendance is to be maintained is locked. This is to ensure that two users do not edit the attendance or absence at the same time which would lead to data inconsistency.

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