
PeopleSoft Enterprise Academic Enterprise Student Administration Integration Pack 9.0 PeopleBook

March 2010

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PeopleSoft Enterprise Student Administration Integration Pack Preface

This preface discusses:

- PeopleSoft products.
- PeopleSoft Enterprise PeopleBooks.
- PeopleBook structure.

Note. This PeopleBook documents only page elements that require additional explanation. If a page element is not documented with the process or task in which it is used, then either it requires no additional explanation or it is documented with common elements for the section, chapter, PeopleBook, or application.

PeopleSoft Products

This PeopleBook refers to the following separately licensed PeopleSoft Enterprise product: Student Administration Integration Pack (SAIP).

PeopleSoft Enterprise PeopleBooks

Your PeopleSoft Enterprise Campus Solutions system, including PeopleSoft Enterprise Student Records, must be implemented before you implement SAIP. Essential information describing the setup and design of your Campus Solutions system appears in these three companion volumes of documentation:

- *PeopleSoft Enterprise Campus Solutions 9.0 Application Fundamentals PeopleBook*
- *PeopleSoft Enterprise Campus Community Fundamentals 9.0 PeopleBook*
- *PeopleSoft Enterprise Campus Solutions 9.0 Student Records PeopleBook*

PeopleBook Structure

PeopleSoft PeopleBooks follow a common structure. By understanding this structure, you can use this PeopleBook more efficiently.

The PeopleBooks structure conveys a task-based hierarchy of information. Each chapter describes a process that is required to set up or use the application. Chapter sections describe each task in the process. Subsections within a section describe a single step in the process task.

Some PeopleBooks may also be divided into parts. PeopleBook parts can group together similar implementation or business process chapters within an application or group together two or more applications that integrate into one overall business solution. When a book is divided into parts, each part is divided into chapters.

The following table provides the order and descriptions of chapters in a PeopleBook.

<i>Chapters</i>	<i>Description</i>
Preface	<p>This is the chapter you're reading now. It explains:</p> <ul style="list-style-type: none"> • How to use the Application Fundamentals book. • How PeopleBooks are structured. • Common elements used in the PeopleBook, if necessary.
Getting Started With...	<p>This chapter discusses product implementation guidelines. It explains:</p> <ul style="list-style-type: none"> • The business processes documented within the book. • Integrations between the product and other products. • At a high-level how our documentation maps to the overall implementation process; it doesn't offer step-by-step guidance on how to perform an actual implementation.
Navigation	<p>(Optional) Some PeopleSoft applications provide custom navigation pages that contain groupings of folders that support a specific business process, task, or user role. When an application contains custom navigation pages, this chapter provides basic navigation information for these pages.</p> <p>Note. Not all applications have delivered custom navigation pages.</p>
Understanding...	<p>(Optional) This is an introductory chapter that broadly explains the product and the functionality within the product.</p>

Chapters	Description
Setup and Implementation	<p>This can be one or more chapters. These chapters contain documentation to assist you in setting up and implementing the product. For example, if functionality X is part of a product, this chapter would be devoted to explaining how to set up functionality X, not necessarily how to use functionality X. You would look to the corresponding business process chapter to learn how to use the functionality.</p> <p>Note. Sometimes, a small amount of business process information is included in a setup chapter if the amount of business process documentation is insufficient to create a separate section in the book.</p>
Business Process	<p>This can be one or more chapters. These chapters contain documentation that addresses specific business processes with each chapter generally devoted to a specific functional area. For example, if functionality X is part of a product, this chapter would be devoted to explain how the functionality works, not necessarily how to set up functionality X. You would look to the corresponding setup and implementation chapter to learn how to set up the functionality.</p> <p>Note. Sometimes a small amount of setup and implementation information is included in a business process chapter if the amount of setup and implementation documentation is insufficient to create a separate chapter in the book.</p>
Appendixes	<p>(Optional) If required, one or more appendixes might be included in the book. Appendixes contain information that is considered supplemental to the primary documentation.</p>
Delivered Workflow Appendix	<p>(Optional) The delivered workflow appendix describes all of the workflows that are delivered for the application.</p> <p>Note. Not all applications have delivered workflows.</p>
Reports Appendix	<p>(Optional) This appendix contains an abbreviated list of all of the product's reports. The detailed documentation on the use of these reports is usually included in the related business process chapter.</p>

PeopleBooks and the Online PeopleSoft Library

A companion PeopleBook called PeopleBooks and the Online PeopleSoft Library contains general information, including:

- Understanding the PeopleSoft online library and related documentation.
- How to send PeopleSoft documentation comments and suggestions to Oracle.
- How to access hosted PeopleBooks, downloadable HTML PeopleBooks, and downloadable PDF PeopleBooks as well as documentation updates.
- Understanding PeopleBook structure.
- Typographical conventions and visual cues used in PeopleBooks.
- ISO country codes and currency codes.
- PeopleBooks that are common across multiple applications.
- Common elements used in PeopleBooks.
- Navigating the PeopleBooks interface and searching the PeopleSoft online library.
- Displaying and printing screen shots and graphics in PeopleBooks.
- How to manage the PeopleSoft online library including full-text searching and configuring a reverse proxy server.
- Understanding documentation integration and how to integrate customized documentation into the library.
- Glossary of useful PeopleSoft terms that are used in PeopleBooks.

You can find this companion PeopleBook in your PeopleSoft online library.

Chapter 1

Getting Started with SAIP

This chapter provides an overview of PeopleSoft Enterprise Student Administration Integration Pack (SAIP) and discusses:

- SAIP integrations.
- SAIP implementation.

SAIP Overview

Student Administration Integration Pack (SAIP) is a web-service based interface for passing person, course, and enrollment data from your PeopleSoft Enterprise Campus Solutions system to external systems such as your learning management system (LMS). The process captures corresponding data and structures from the PeopleSoft Campus Solutions system and uses PeopleSoft Integration Broker to transfer them to the target external system.

SAIP also provides an interface for importing final grades from the external system to your PeopleSoft Enterprise Student Records grade roster.

SAIP is the first product in Oracle's Academic Enterprise Solutions (AES) line of products. The first version of SAIP is aligned with PeopleSoft Enterprise Student Administration Release 9.0, specifically with PeopleSoft Enterprise Student Records Release 9.0.

SAIP also engages PeopleSoft Integration Broker in PeopleTools Release 8.49.

SAIP Integrations

SAIP integrates with these PeopleSoft Enterprise applications:

- Campus Solutions Student Administration, specifically Student Records.
- Campus Solutions Campus Community.
- PeopleTools Integration Broker.
- (Optional) Campus Self Service.

Consult the documentation for the external system for installation and implementation information about the external system. Supplemental information and technical white papers may also be available on the My Oracle Support web site.

Important! If you are installing SAIP, be sure to review the SAIP Installation Guide on My Oracle Support.

See <http://www.oracle.com/us/support/index.htm>.

SAIP Implementation

By implementing SAIP, you set options to enable you to move and update large amounts of academic data from PeopleSoft Campus Solutions to an external system with minimal manual intervention.

SAIP does not use Setup Manager.

SAIP supports the following business processes, which are discussed in this PeopleBook:

- Using Event-Driven Integration.
- Setting Up SAIP.
- Mapping Courses.
- Importing Grades.

Chapter 2

Understanding PeopleSoft Enterprise SAIP

This chapter discusses:

- The Integration Pack
- Snapshot integration
- Event-based trigger integration
- Courses and event-based operations
- Common terms

The Integration Pack

PeopleSoft Student Administration Integration Pack (SAIP) is a separately licensed product that provides a web-service based interface for passing academic data (person, course, and enrollment) from PeopleSoft Enterprise Campus Solutions to consuming applications such as your learning management system (LMS). The web services process creates and maintains corresponding data and structures in the target external system. For example, as a course is created in PeopleSoft Campus Solutions, the web service passes the data to an LMS, which creates a corresponding course site or virtual learning space. Then, as students successfully enroll in the course in the PeopleSoft Campus Solutions system, their enrollment information is passed to the LMS so that they are listed as valid members of that course site with all appropriate privileges.

SAIP provides two types of integration: snapshot and event-driven.

The snapshot model enables you to move volumes of data between systems, for example, when initializing an integration between Campus Solutions and a learning management application, or creating course sites at the beginning of a term.

The event-driven model permits near real-time updates, for example, adding enrolled students immediately to course sites as they enroll in courses, or the creation of course sites as the courses are created. The event-driven model is supplemented by snapshots in cases in which an institution or term is pivotal and large quantities of data must be moved between PeopleSoft Campus Solutions and the external system.

SAIP also provides Grade Import. When enabled, Grade Import allows your faculty members to import final grades on a per-course basis from your LMS into the PeopleSoft Enterprise Student Records online grade roster.

The SAIP interface is based on the IMS Learning Information Services standard specification. This specification provides standard information models and protocols representing person, courses, enrollments, and outcomes. Specifically, IMS Learning Information Services provides the following services:

- IMS Person service for person information.
- IMS Group service for non-course hierarchical or relational entities.
- IMS Course Management service for information pertaining to course definitions (including related course hierarchies and combined or associated sections).
- IMS Membership service for enrollment information.
- IMS Outcome service for communicating grades from the external system back to the Campus Solutions system.

The IMS Learning Information Services specification includes a data model for entities relevant to each of the services it provides. SAIP maps to PeopleSoft Enterprise Student Administration data and transforms it into the schema defined by IMS.

Note. As an active participant in the standards committee for IMS Learning Information Services, Oracle is aware of changes in the IMS specifications as they occur. Oracle incorporates relevant IMS specification changes and communicates them to SAIP customers through product updates and maintenance.

The PeopleSoft Enterprise to IMS data transformation includes:

- For the IMS person service and data model, SAIP transforms data (defined on the SAIP Installation page) from the PeopleSoft Student Administration biographical and demographic tables.

Note. SAIP only integrates person data for persons in the context of membership in a course, either as a student or instructor.

- For the IMS group service and data model, SAIP transforms data from PeopleSoft Student Administration institution, academic organization, and term session tables.
- For the IMS course service and data model, SAIP maps to the PeopleSoft Student Administration Student Records course structure and transforms data for the IMS course hierarchy, including:
 - For the IMS course template, SAIP transforms PeopleSoft Student Administration course and course offering data.
 - For the IMS course offering, SAIP transforms PeopleSoft Student Administration class section data.
 - For the IMS course section, SAIP transforms PeopleSoft Student Administration class section data.
- Also, for the IMS course service, SAIP provides operations and a data model for the combining of multiple class sections into single course sections by transforming data from PeopleSoft Student Administration combined sections data and SAIP-defined class association tables.
- For the IMS membership service and data model map, SAIP transforms data from PeopleSoft Student Administration enrollment and class instructor tables.
- For the IMS outcome service, SAIP maps inbound final grade and outcome information to the PeopleSoft Student Administration grade roster tables.

Snapshot Integration

A snapshot enables you to move the full set of relevant academic data from your PeopleSoft Enterprise Campus Solutions system to the target external system when needed. Snapshots are tolerant of lost messages or missed data objects. Any subsequent snapshot transmittal sets the target system back in synchronization with the source system.

Snapshots are requested by external systems according to the IMS Learner Information Services specification. SAIP returns a response defined in the same specification.

With the snapshot method you decide when you want a group of data to be transmitted to the external system.

A full synchronization snapshot captures and transfers all of the data in your system that is defined as in scope for SAIP.

An incremental snapshot captures and transfers only data that has been newly created or changed since the time that you define, such as since the last snapshot was run. Consider setting incremental snapshot integration to run frequently, perhaps nightly, to keep your external system updated.

An incremental snapshot:

1. Captures any changes to groups (representing institutions, organizations, terms), persons, courses, and enrollment information that are in scope for SAIP.
2. Captures any future effective-dated changes as they become current.

Note. Currently, future effective-dated changes do not engage event-based triggers.

3. Confirms and rectifies results of event-based triggers.

A full synchronization snapshot is one that overwrites all previous data.

Warning! When a full synchronization snapshot runs, all existing data is overwritten. Run a full synchronization snapshot integration infrequently and only to initialize or reinitialize the systems.

A full synchronization snapshot uses processes to move data in a specific order to maintain data integrity. The order is:

1. Groups: institutions, organizations, terms (ReadGroups service operation).
2. Persons (ReadPersons service operation).
3. Course templates (ReadCourseTemplates service operation).
4. Course offerings (ReadCourseOfferings service operation).
5. Course sections (ReadCourseSections service operation).
6. Section association (ReadSectionAssociations service operation).
7. Memberships (ReadMemberships service operation).

SAIP sends the snapshot outputs (XML files) to your external system as the result of a request from that system. You must set which snapshot to use as a request-level parameter in your external system.

When you include or exclude items in scope, you set them to be included or ignored in snapshot data transfers. You can override the inclusion or exclusion at cascading levels down from the highest level of institution to the most granular element of class section.

Incremental snapshot integration uses the following service operations:

- ReadGroupsfromSavePoint
- ReadPersonsfromSavePoint
- ReadCourseTemplatesfromSavePoint
- ReadCourseOfferingsfromSavePoint
- ReadCourseSectionsfromSavePoint
- ReadSectionsAssociationsfromSavePoint
- ReadMembershipsfromSavePoint

When an incremental snapshot is requested, SAIP generates an XML document using the naming convention that concatenates the service operation name with the date (YYYY-MM-DD) and time (HH.MM.SS.mmmmmm, where m is milliseconds) of the snapshot creation, for example READCOURSEOFFERINGS2008-01-11-14.55.23.000000.xml

The IMS Learning Information Services service operation model allows automatic transfer of XML incremental snapshot documents between systems. You must point each system to the desired destination directory or server. For SAIP, you specify the destination on the SAIP Installation page.

See [Chapter 3, "Setting Up SAIP," File Directory Settings, page 15.](#)

SAIP posts the XML snapshot documents to the specified destination, making it available for the external system to retrieve, and provides the URL for that location in the response that it returns to the requesting system. SAIP requires no user intervention to transfer the XML snapshot documents after they are posted, however you can manually access and edit the files if necessary.

Event-Based Trigger Integration

Event-driven integration enables near real-time synchronization between your PeopleSoft Enterprise Campus Solutions systems and the external system. For example, if a student successfully enrolls in a course in PeopleSoft Enterprise Student Administration, and a corresponding course site exists in your external system, that student is added in near real time as a valid participant in the course site.

Event-based triggers are embedded within PeopleSoft Campus Solutions where key enterprise data (groups, persons, courses, and enrollments) can be created, updated, or deleted. The PeopleSoft Campus Solutions system publishes data object messages as events occur that change the relevant data. A subscription handler invokes the appropriate external system web service. The target system receives the messages and processes the event transactions.

The existence of an event-driven interface does not eliminate the usefulness of the snapshot interface. Because an event-driven interface is not tolerant of missed transactions, you will want to use the snapshot interface at regular intervals to resynchronize the data in the target system with that of your PeopleSoft Campus Solutions system.

Note. Running the event-driven model is not required. If you choose not to engage event-driven integration, you can use full and incremental snapshots to keep data synchronized. However, changes to data in the PeopleSoft Campus Solutions system will not be reflected in the external system until the next time the external system requests the incremental snapshot.

Embedded event-based triggers include, but may not be limited to, the following processes:

- Foundational:
When an institution, term, or academic organization is removed from scope or details of those entities are modified.
- Courses:
 - When a class section is scheduled or canceled.
 - When a class rollover process automatically schedules new term-based instances of course offerings.
 - When a meeting pattern for a class is changed.
- Enrollments:
 - When a student adds, drops, or swaps a class.
 - When a student enrolls in a class, is withdrawn from a class, or removed from a waitlist.
 - When a student drops a class due to class cancellation.
 - When a student withdraws from all classes.
 - When an instructor is assigned to a class section.
- Grades:
When an instructor imports final grades from an LMS or external source.
- Persons:
When biographical or demographic data is updated for enrolled students and assigned instructors.

Warning! Changing the embedded triggers or creating new ones requires coding and may have significant negative administrative impact.

Courses and Event-Based Operations

The mapping of PeopleSoft Enterprise Student Administration course structures to IMS course structures (CreateCourseTemplate service operation) is complex. This section describes SAIP's creation or modification of the necessary course items.

IMS course structure items are:

- Course template.
- Course offering.

- Course section.

SAIP creates a course template when a new course is created in the PeopleSoft Student Administration course catalog, provided that the course is associated with an academic institution and academic organization that are set as in scope for the integration process and that the course's status is *Approved*. A PeopleSoft Student Administration course always requires at least one course offering.

SAIP updates a course template when any data in the course catalog component is modified and the component is saved. In addition, if a course's status is *Inactive*, SAIP updates the course template with a status of *Inactive*.

A PeopleSoft Student Administration course cannot be deleted. However, SAIP will send a delete action to the external system for a course template if any of the following occur:

- A course's approval status is changed from *Approved* to any other value.
- The current effective-dated row is deleted and the previous row does not have an effective status of *Active*.
- A course offering is deleted from the course catalog component.

SAIP creates a course offering when a new class section is created in either PeopleSoft Student Administration's Schedule New Course or Maintain Schedule of Classes components if the class section is associated with an institution, term and academic organization that are in scope. The IMS course offering item includes an academic session attribute that maps to the PeopleSoft Student Administration term. Terms are associated with the PeopleSoft Student Administration course hierarchy only at the class section level. Therefore, course offering is a blending of PeopleSoft Student Administration's course offering and class section.

SAIP updates a course offering when information in either the PeopleSoft Student Administration's Course Catalog component or Maintain Schedule of Classes components is updated and the component is saved.

SAIP deletes a course offering when a class section is deleted in the PeopleSoft Student Administration Maintain Schedule of Classes component.

Using the same in-scope criteria as course offering, SAIP creates a course section when a new class section is created in the either PeopleSoft Student Administration's Schedule New Course or Maintain Schedule of Classes components.

SAIP updates a course section if information in the PeopleSoft Student Administration Maintain Schedule of Classes component is modified and the component saved.

SAIP deletes a course section when a class section is deleted in the Student Administration Maintain Schedule of Classes or Schedule Class Meetings component.

Common Terms Used in This PeopleBook

In Scope

Refers to the items included in the data transfer. To include an item in scope is to mark it for inclusion in the next snapshot data transfer (by either full or incremental snapshot integration) and in event-based updates. When an item is included in scope, SAIP continues to capture the data from the PeopleSoft Enterprise Campus Solutions system and use it to update the same data in the target external system until the item is cleared from scope.

For an item to be included in scope, all elements in the item's hierarchy must be in scope. For example, for an academic organization to be in scope, its parent institution must be in scope; for a class section to be in scope, its parent institution, academic organization, and the term for that class section must be in scope.

Element

The more granular levels of items eligible for inclusion in scope. The highest levels are institution, academic organization, and term. The lower levels, or elements, are course offerings, class sections, and persons.

All three high levels must be in scope for the more granular elements to be available for inclusion or exclusion.

External System or Target System

The external third-party system or target system is the system intended to request data and receive the data captured and transferred from your PeopleSoft Enterprise Campus Solutions system, or in the case of grade import, it is the external third-party system from which grades are received by your PeopleSoft Campus Solutions system.

In many cases, the external system is your institution's learning management system (LMS).

Snapshot

A snapshot is a capture of data as it exists in the PeopleSoft Enterprise Campus Solutions system at the moment of the capture.

An incremental snapshot captures only data that was newly created or changed or newly placed in scope in the PeopleSoft Campus Solutions system as of the date and time defined in the request. SAIP makes the captured data available to the external system. When the external system requests the data, the snapshot is applied, updating the existing data and adding the newly created data in the external system.

A full synchronization snapshot captures all in-scope data from the PeopleSoft Campus Solutions system no matter when it was created or changed. SAIP makes the captured data available to the external system. When the external system requests the data, the snapshot is applied, overwriting all of the data in the target system.

Chapter 3

Setting Up SAIP

This chapter provides an overview of SAIP setup and discusses how to:

- Set default installation settings.
- Set default SAIP scoping and association values.
- Set the IMS integration start date.
- Set up Integration Broker for SAIP.
- Set up enrollment batch processing.

Understanding SAIP Setup

Before you install SAIP, you must consider and determine the default settings for your institution to use. These decisions include which name and address usages to use, whether to implement event-based triggers, whether to enable grade import, and whether to point the external system to information in a file path or on an FTP server.

You must also determine which academic organizations whose academic elements (courses, sections, combined sections, and so on) your institution wants to include within the scope of the initial transfer and subsequent snapshot updates. For course elements, you can override scoping decisions at the element levels, but the institutions, academic organizations, and terms to which they belong must be in scope for the element to be available. For example, if the Biology organization is not included in scope, then none of the Biology courses, sections, or persons data are available for transfer. If, however, the Biology organization is included in scope, and the Spring 2008 term is in scope, then all of the Biology courses, sections, and persons data for the Spring 2008 term are available for inclusion in scope, and can be set as in scope at the organization level. You can override scope inclusion or exclusion at the element level on the pages where you create or view the specific element.

Warning! Changes to the installation settings after initialization affect only data from the date of the change forward. This may introduce different data and formatting, causing the systems to become out of synchronization. You can change the settings and initialize the system at any time to resynchronize the systems, but doing so will overwrite all manual changes including the changes made to include or exclude elements at the specific course, section, and person level. Unless otherwise noted, Oracle recommends that you do not change the default settings after initialization.

You must set service operations, routings, and routing URLs in your PeopleTools Integration Broker specifically for SAIP.

You must also set Integration Broker and PeopleSoft Process Scheduler to use COBOL-based processes for SAIP.

See Also

PeopleSoft Enterprise Campus Solutions 9.0 Application Fundamentals PeopleBook, "Designing Your Academic Structure," Defining Academic Organizations

PeopleSoft Enterprise Campus Community 9.0 Fundamentals PeopleBook, "Designing Campus Community," Establishing Name Usages

Enterprise PeopleTools PeopleBook: PeopleSoft Integration Broker

Enterprise PeopleTools PeopleBook: PeopleSoft Process Scheduler

Setting Default Installation Values

To define default installation settings, use the SAIP Installation component (SAE_SETUP).

This section discusses how to set default installation settings.

Page Used to Set Default Installation Values

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
SAIP Installation	SAE_SETUP	Set Up SACR, Install, SAIP Installation	Enable or disable event triggers and grade import, and identify the default usages file to use for integration initialization, and updates.

Setting Default Installation Values

Access the SAIP Installation page (Set Up SACR, Install, SAIP Installation).

SAIP Installation

☐ Enable Event Triggers

☐ Enable Grade Import

IMS Source

Mapping

Name Usage

IMS Form Name

IMS Name

Contact Info Usage

IMS Address

IMS Phone

IMS SMS

IMS Web

Email Usage

☐ Preferred Email

☒ Address Usage

SAIP Installation page (1 of 2)

File Directory Settings

'Directory Path

FTP Settings

☒ Upload to FTP ☐ Embed credentials

FTP URL

User Name

Password

SAIP Installation page (2 of 2)

Enter or select the items to use as default settings for your institution's initial and subsequent transfers of data to the external system.

Enable Event Triggers Select to enable all of the event-based triggers that are delivered preset within the SAIP system.

Enable Grade Import Select to provide the ability to import final grades from the external system into Campus Solutions Student Records grade roster.

When this check box is selected, the Grade Import group box and the Import Grades button appear on the Grade Roster page (GRADE_ROSTER_TYPE) in the Student Records Grade Roster component (GRADE_ROSTER) and on the grade roster page in faculty self-service (SS_GRADE_ROSTER).

You must click the Import Grades button on the Grade Roster page to run the import.

When the check box is not selected, grade import is not available.

You can select or clear this check box at any time after initialization without consequence.

IMS Source Specify the source of the IMS attributes to use. The integration process uses this value as the high-level key to identify the source that is sending data to the external system, and to identify which source the external system must query for updates.

The default value is *CS* (Campus Solutions). This value can be changed to any value meaningful to your institution, but should not be changed once integration with the external systems is initialized.

Mapping

Enter the name, contact, and email usages to use. The name, phone, email and address usages available for selection are the usages defined in your PeopleSoft Enterprise Campus Solutions system.

See *PeopleSoft Enterprise Campus Community 9.0 Fundamentals PeopleBook*, "Designing Campus Community."

IMS Form Name Enter the usage to use to identify an individual's formatted name at the top of the IMS form.

IMS Name Enter the usage to use for an individual's name as it should appear elsewhere on the IMS form.

IMS Address Enter the usage to use for an individual's address information.

IMS Phone Enter the usage to use for an individual's telephone information.

IMS SMS Enter the usage to use for an individual's text messaging address.

IMS Web Enter the usage to use for an individual's URL address.

Preferred Emailor Address Usage	Select either the Preferred Email option for SAIP to always use the preferred email address for individuals, or select the Address Usage option and specify the email type to use.
--	--

File Directory Settings

When snapshot integration runs (either incremental or full snapshot), SAIP creates an XML file of the captured data. You must specify where in the source system the process is to place the XML file. You must also identify the same destination on the target external system side for it to query the appropriate place for data updates.

The naming convention for the XML file is *serviceoperationname+datetimestamp*. You can make manual changes to the XML file to apply to the target external system, but those changes will not also exist in your Campus Solutions system unless you manually make them there also.

If you provide both a directory path and FTP settings, SAIP places the XML file in both places.

See *PeopleSoft Enterprise Campus Community 9.0 Fundamentals PeopleBook*, "Designing Campus Community."

Directory Path	If you want SAIP to place the snapshot XML file in file, you must specify that path here.
-----------------------	---

Upload to FTP, FTP URL, User Name, and Password	<p>If you want SAIP to place the snapshot on an FTP server, you must identify the server and settings here.</p> <p>If you select Upload to FTP, and a directory path is provided, the process looks for the XML file in the specified directory path, and uploads it from there.</p> <p>If you select Upload to FTP, but do not provide the directory path, the process looks for the XML file in the application server's TEMP folder, and uploads it from there.</p>
--	--

Embed Credentials	<p>Select to embed FTP credentials in the response URL</p> <p>When an external system requests either a full or incremental snapshot, the SAIP generates the snapshot, places the snapshot in the specified destination, and returns a response to the requesting system that includes a URL to the snapshot's location. If that location is an FTP server, you may determine the authorization mechanism for access to the snapshot.</p> <p>When selected the user name and password defined for the FTP URL are included in the response URL, enabling the requesting system to directly access the snapshot using just the URL.</p> <p>If not selected, you must configure your environment to otherwise allow the requesting system to log in to the FTP server to access the snapshot.</p>
--------------------------	---

Setting Default SAIP Scoping and Association Values

To set default SAIP scoping and association values, use the SAIP Scoping and Association component (SAE_SCOPE_SETUP).

This section discusses how to set default SAIP scoping and association settings.

Page Used to Set Default SAIP Scoping and Association Values

Page Name	Definition Name	Navigation	Usage
SAIP Scoping and Association	SAE_SCOPE_SETUP	Set Up SACR, Product Related, SA Integration Pack, Scoping/Association Defaults	Identify default settings for including academic organizations and their elements during system initialization and for all subsequent snapshot and event-based data transfers.

Setting Default SAIP Scoping and Association Values

Access the SAIP Scoping and Association page (Set Up SACR, Product Related, SA Integration Pack, Scoping/Association Defaults).

SAIP Scoping and Association

Institution: PSUNV

Institution Defaults

☒ **Default All Academic Organizations in Scope** **Last Set:** 10/23/2009 12:29:48PM

☒ **Default Association for Combined Sections**

☒ **Default IMS Association from Class Association**

Academic Organization Defaults

[Customize](#) | [Find](#) | [View All](#) |

First 1-4 of 7 Last

	*Academic Organization	Default Class Association	Default in Scope	Set All In Scope	Last Set		
1	ANTHRO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Set All In Scope"/>		<input type="button" value="+"/>	<input type="button" value="-"/>
2	BIOLOGY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="button" value="Set All In Scope"/>	10/23/09 12:31:52PM	<input type="button" value="+"/>	<input type="button" value="-"/>
3	CHEMISTRY	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="button" value="Set All In Scope"/>	10/23/09 12:31:55PM	<input type="button" value="+"/>	<input type="button" value="-"/>
4	DANCE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Set All In Scope"/>	10/23/09 12:31:56PM	<input type="button" value="+"/>	<input type="button" value="-"/>

SAIP Scoping and Association page

Use this page to identify items that you want to automatically include within the scope of your institution's initial and subsequent integration processes.

Institution Defaults

Default All Academic Organizations in Scope

Select to include all newly created academic organizations and all newly created elements (courses and sections) of previously existing academic organizations.

If this check box is not selected, then by default, no newly created entities (academic organizations or elements) will be included unless you specifically and manually set them to be included. To include a specific organization when the check box is not selected, you must manually add it to the Academic Organization Defaults group box. To include a specific element when the check box is not selected, the organization must be in scope and then you must manually set element in scope where you define the specific element.

For example, assume that the Biology department, an existing academic organization, is within scope. Because it is within scope, its elements are also available for scope. Perhaps your institution creates several new Biology courses or sections since the last snapshot transfer.

When the check box is selected, all of the newly created Biology courses and sections are set to transfer automatically in the next and all subsequent snapshot transfers and if you have enabled event-based integration, set to participate in future event-based integrations. You can, however, manually exclude any of the elements from scope at any time at the element level. The element will continue to be excluded until manually set back into scope.

If the check box is not selected, then none of the newly created Biology courses or sections will transfer in the integration processes. To include the newly created elements, you must manually set each of them in scope at the element level. The element will continue to be included until manually removed from scope.

Warning! If you reinitialize the system at any time, all manual settings are lost including all scoping settings made at the element level.

Set All in Scope

Click to include all of the academic organizations and their elements that are in the system for the institution as of the date you click the button.

When you click the button, the system displays values for the institution in the Academic Organization Defaults group box.

Default Association for Combined Sections Select to automatically include all new associations for combined class sections.

Note. An association is the name of a set of combined sections that you want SAIP to present as the same section in the external system. All sections in the combination must be in scope for the association to be included.

If this check box is selected, you can, from the element level, manually exclude an association from scope at any time.

If this check box is not selected, then section associations are ignored and their combined sections are presented as separate sections in the external system. To include an association when the check box is not selected, you must manually include it in scope where you defined the combined section.

See *PeopleSoft Enterprise Student Records 9.0 PeopleBook*, "Managing the Schedule of Classes," Defining Class Associations.

See *PeopleSoft Enterprise Student Records 9.0 PeopleBook*, "Managing the Schedule of Classes," Creating Combined Sections.

Default IMS Association from Class Association Click to use the associations for newly created class sections on the Class Association page in PeopleSoft Enterprise Student Records to create the course sites in the external system.

You can override class association at the course level on the IMS Scoping and Association page (SAE_CLASS_CONFIG) within SAIP.

Academic Organization Defaults

Use this group box to add or remove academic organizations to or from scope.

When the integration process runs, only the academic organizations listed in this group box will be included within the integration.

Warning! For the integration process to include an academic organization's associated elements, that academic organization must be listed in this group box. If the element is marked as in scope at the element level, but the academic organization is not listed in scope here, the associated element will not be included.

If you clicked the Set All In Scope button, the system displays all of the academic organizations in the system for the institution on the date that you clicked the button and selects the check boxes in the Default In Scope and Default Class Association. columns.

To add an academic organization to scope, add a row for that organization.

To remove an academic organization from scope, delete the row for that academic organization.

You can add and remove as many academic organizations from scope as you want. However, deleting an organization from scope after initialization causes the data transfer related to that organization to stop as of the next snapshot transfer and going forward. Carefully consider the impact of deleting an organization from scope.

Academic Organization Enter the name of an academic organization that you want to include in scope.

Default Class Association

Select to use the associations for newly created class sections on the Class Association page in PeopleSoft Enterprise Student Records to create course sites in the external system.

If the Default IMS Association from Class Association check box is selected at the Institution Defaults level, that value appears here.

You can override the default value at the academic organization level by clearing this check box. You can also override the default value the element level. When the check box is cleared, newly created class sections for this academic organization will not derive the IMS association from the class association.

Default in Scope

Select to include all new elements related to this academic organization.

When this check box is selected, all related elements created since the last snapshot transfer are included and updated in snapshot transfers, and if event-based integration is enabled, in event-based transfers, until manually excluded.

Clear this check box to exclude from scope all new elements related to this academic organization.

You can override this setting at any time either here or at the element level. You can clear the check box here to exclude all new elements, or you can exclude specific elements at the element level.

Set All in Scope

Click to include in the integration processes all existing elements related to this organization.

Last Set

Displays the date and time when items were last set for inclusion by clicking the Set All in Scope button in this row.

Setting the IMS Integration Start Date

To set the IMS integration start date, use the Term/Session Table component (TERM_TABLE).


This section discusses how to set the IMS integration start date.

Page Used to Set IMS Integration Start Date

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
IMS Integration	DESIGN_ACADEMIC_STRUCTURE	Set Up SACR, Foundation Tables, Term Setup, Term/Session Table, IMS Integration	Identify the date on which the system should begin to integrate for a specific term with the IMS attributes and make that data available for transfer.

Setting the Integration Start Date

Access the IMS Integration page (Set Up SACR, Foundation Tables, Term Setup, Term/Session Table, IMS Integration).

Term Table	Session Table	Session Time Periods	IMS Integration
Academic Institution: PSUNV PeopleSoft University Academic Career: BUSN Graduate Business Term: 0600 2008 Spring Integration Start Date: 04/23/2008 			

IMS Integration page

Integration Start Date

Enter the date on which you want SAIP to begin integrating data from this term with the IMS attributes and make the term and its related elements available in the next and all subsequent snapshot and event-based transfers. The term remains included in scope unless the integration start date is cleared, reset, or the term has ended.

Note. The integration start date cannot be later than the term end date.

Warning! Not entering an integration start date for a desired term results in no data publication from the event-driven services for that term and no extraction of any data from that term by the full or incremental snapshot processes.

The term start date and integration start date are unrelated. You can set a term for integration and inclusion as much in advance of the term start date as desired. Allowing the term and related course information to be published to your external system in advance enables faculty to create their course sites in preparation for when enrollments begin.

Including terms gradually as they and their related courses, classes, and sections become finalized minimizes the manual changes that may be required to present data as desired and keep data synchronized between your Campus Solution and external systems.

To include all terms regardless of term start date, you could enter an integration start date of *01/01/1900* for each term.

If you remove a term after integration or clear the integration start date after integration, all integration and snapshot transfers for that term will stop.

To include the term and its elements in the upcoming snapshot transfer, consider entering the current system date.

Setting Up Integration Broker for SAIP

To set up Integration Broker for SAIP, you must activate each SAIP service operation. You must also activate each SAIP service operation routing and specify the destination URL for routing each service operation.

Set up the broker in PeopleTools as you would for any third-party system. Then use the PeopleTools Service Operations component (IB_SERVICE) to set up SAIP service operations and the PeopleTools Routings component (IB_ROUTINGDEFN) to set up the SAIP routings.

This section discusses how to:

- Activate an SAIP service operation.
- Activate an SAIP routing.
- Specify an SAIP routing URL.

See Also

Enterprise PeopleTools PeopleBook: PeopleSoft Integration Broker

Pages Used to Set Up Integration Broker for SAIP

Page Name	Definition Name	Navigation	Usage
General	IB_SERVICE	PeopleTools, Integration Broker, Integration Setup, Service Operations, General	Activate an SAIP service operation.
Routing Definitions Page	IB_ROUTINGDEFN	PeopleTools, Integration Broker, Integration Setup, Routings, Routing Definitions	Activate an SAIP service operation routing.
Connector Properties	IB_ROUTINGDEFNCON	PeopleTools, Integration Broker, Integration Setup, Routings, Connector Properties	Specify the destination URL for routing each SAIP service operation.

Activating an SAIP Service Operation

Access the General page (PeopleTools, Integration Broker, Integration Setup, Service Operations, General).

General	Handlers	Routings
Service Operation: UPDATECOURSEOFFERING Service: COURSEMANAGEMENTSERVICE Operation Type: Synchronous *Operation Description: <input type="text" value="Update Course Offering"/> <input type="checkbox"/> User/Password Required Operation Comments: <div><div></div><div></div></div> Object Owner ID: <input type="text" value="SA Integration Platform"/> <input type="button" value="v"/> Operation Alias: <input type="text"/> Service Operation Security		
Default Service Operation Version		
*Version: <input type="text" value="V1"/> <input checked="" type="checkbox"/> Default <input checked="" type="checkbox"/> Active Version Description: <input type="text" value="Update Course Offering"/> Version Comments: <div><div></div><div></div></div> <input type="checkbox"/> Non-Repudiation <input type="checkbox"/> Runtime Schema Validation Introspection <input type="button" value="Add Fault Type"/>		
Routing Status Any-to-Local: Does not exist Local-to-Local: Does not exist Routing Actions Upon Save <input type="checkbox"/> Generate Any-to-Local <input type="checkbox"/> Generate Local-to-Local		
Message Information		
Type: Request Message.Version: <input type="text" value="SAE_COURSEOFFERING_NRS.V1"/> <input type="button" value="m"/> View Message		
Type: Response Message.Version: <input type="text" value="SAE_LMS_RESP.V1"/> <input type="button" value="m"/> View Message		

General page

Default Service Operation Version

Active

Select to activate the service operation for the SAIP service.

Note. SAIP service operations are delivered inactive. You must activate each service operation that your institution wants to use. Consult the installation documentation for a list of service operations to consider.

Note. In addition to activating SAIP service operations, ensure that the PERSON_BASIC_SYNC message service operation is set to *Active* and that the PERSON_DATA queue is running. SAIP person-based services depend on the PERSON_BASIC_SYNC message service operation for transforming and routing the SAIP payload.

See *Enterprise PeopleTools PeopleBook: PeopleSoft Integration Broker*, "Managing Service Operation Queues"

Activating an SAIP Routing

Access the Routing Definitions page for the web service routing (PeopleTools, Integration Broker, Integration Setup, Routings, Routing Definitions).

Routing Definitions

Parameters

Connector Properties

Routing Name:

SAE_LMS_UPDATECRSOFFERING

☒ Active

*Service Operation:

UPDATECOURSEOFFERING

☐ System Generated

Version:

V1

*Description:

SAE_LMS_UPDATECRSOFFERING

Comments:

*Sender Node:

HC900SN1

*Receiver Node:

WSDL_NODE

Routing Type:

Synchronous

☐ User Exception

Object Owner ID:

SA Integration Platform

*Log Detail:

Header and Detail

Routing Definitions page

Active

Select to activate the routing for the SAIP service operation.

Note. SAIP service operation routings are delivered inactive. You must activate each service operation routing that your institution wants to use.

Specifying an SAIP Routing URL

Access the Connector Properties page for the web service routing (PeopleTools, Integration Broker, Integration Setup, Routings, Connector Properties).

Routing Definitions

Parameters

Connector Properties

Routing Name:

SAE_LMS_UPDATECRSOFFERING

Service Operation:

UPDATECOURSEOFFERING

Service Operation Version:

V1

Gateway ID:

LOCAL

Connector ID:

HTTPTARGET

Connector Properties			Customize Find View All			First	1-5 of 5	Last
Property ID	Property Name	Value						
HEADER	Content-Type	text/xml						
HEADER	sendUncompressed	Y						
HTTPPROPERTY	Method	POST						
HTTPPROPERTY	SOAPUpContent	Y						
PRIMARYURL	URL	http://<hostname>:<port>						

Connector Properties page

You must specify the primary URL to use if the target node for the routing is not the local node.

In the Value field of the PRIMARYURL row, enter the destination URL for the routing.

See *Enterprise PeopleTools PeopleBook: PeopleSoft Integration Broker*, "Managing Integration Gateways"

Setting Up Enrollment and Course Batch Processing

COBOL-based enrollment processes must be set to operate with SAIP.

When the Enrollment Cobol program adds and processes enrollment data, the data is captured by a batch event table. The data in the table is then processed by a daemon that invokes the same logic that the online enrollment components use.

Similarly, the Copy Prior Term's Schedule process, which creates classes automatically for a new term based on previously defined classes, also uses a Cobol program that must be processed by a daemon.

You must set the frequency with which you want the daemon process to run. Prior to setting the frequency, carefully consider the amount of time between updates and your hardware and processing capacity.

These business processes use the batch event table:

- Quick Enroll.
- Repeat Checking.
- Grade Posting.
- Copy Prior Term's Schedule.

Use the PeopleTools Recurrences (PRCSRECURDEFN) and Schedule JobSet Definition (SCHDLDEFN) components, and the Event Register (SCC_INTEG_EVT_PUB) component to set up Cobol-based enrollment processing for SAIP.

This section discusses how to:

- Set the recurrence frequency.
- Set the event register.
- Set the jobset definition.

Pages Used to Set Up Enrollment and Course Batch Processing

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
Recurrence Definition	PRCSRECURDEFN	PeopleTools, Process Scheduler, Recurrences, Recurrence Definition	Define the SAIP enrollment batch process start date and recurrence frequency.
Event Register	SCC_INT_EVT_PUB	Set Up SACR, System Administration, Integrations, Event Register	Identify the process recurrence frequency for the service operation.
Schedule JobSet Definition	SCHDLDEFN	PeopleTools, Process Scheduler, Schedule Jobset Definitions, Schedule Jobset Definition	Run the Event Replay Schedule load job to set the process recurrence.

Setting the Recurrence Frequency

Access the Recurrence Definition page (PeopleTools, Process Scheduler, Recurrences, Recurrence Definition).

Recurrence Definition

Recurrence Exception

Recurrence Definition

Recurrence Name: SAIP_ENR_INT
Description: SAIP_ENR_INT

Schedule Next Recurrence when
☐ Current request is initiated
☒ Prior recurrence has completed

Recurrence Pattern
☒ Daily
☐ Weekly
☐ Monthly
☐ Customize Dates
☒ Everyday
☐ Every Weekday
☒ Sunday
☒ Monday
☒ Tuesday
☒ Wednesday
☒ Thursday
☒ Friday
☒ Saturday

Start Request
Date: 01/22/2008
Time: 11:50:33PM

End Request
Date:
Time:

Repeat
Every: 0 Minutes
For: 0 Hours

☐ Do not schedule any processes missed from the recurrence pattern.

Run on Specific Dates

Customize | Find | First 1 of 1 Last

Run Date (From)	Run Date (To)	Effective Until (Year)	Description

Recurrence Definition page

Use the Recurrence Definition page to set the time and frequency for running the SAIP process. For example, if you want the process to run every night at 11:00 PM beginning today and repeating indefinitely or until you intervene, select the following:

- Daily.
- Everyday.
- Start Request: Date = *Today's date*; Time = *Current time*.
- End Request: (leave blank).
- Repeat: Every = *24 hours*; For (leave blank).

If you want to run the process four times a day for the next three months, perhaps to process enrollment data more often, select:

- Daily.
- Everyday.
- Start Request: Date = *Today's date*; Time = *Current time*.
- End Request: (leave blank).
- Repeat: Every = *6 hours*; For: = *3 months*.

Schedule Next Recurrence when

Select the Prior occurrence has completed option.

Recurrence Pattern

Select the recurrence frequency that is appropriate for your business needs. Different days of the week are available based on the interval option (daily, weekly, monthly, and so on) that you select.

Start Request

Enter the date and time for the enrollment batch processing to begin.

Repeat

Specify the repetition frequency that is appropriate for your business needs and your hardware and processing capacity.

See Also

Enterprise PeopleTools PeopleBook: PeopleSoft Process Scheduler, "Defining PeopleSoft Process Scheduler Support Information," "Setting Up Recurrence Definitions"

Setting the Event Register

Access the Event Registry page (Set Up SACR, System Administration, Integrations, Event Register).

Event Registry

Service Operation: NOTIFYCLASSSECTION ☒ **Active**



Description:

Long Description:


Object Owner ID: SA Integration Pack


Batch Replay Chunk Size:


☒ **Event Replay Support** ☐ **Effective Dated Filtering**

Event Replay Mode					
Customize Find View All  First <input type="button" value="◀"/> 1 of 1 <input type="button" value="▶"/> Last					
	Integration Mode	Recurrence Name	Chunk Size		
1	<input type="button" value="v"/>	<input type="text"/> 	<input type="text"/>	<input type="button" value="Run Now"/>	<input type="button" value="+"/> <input type="button" value="-"/>

Application Class

Package Name: 

Path: 

Application Class ID: 

Event Registry page

- Service Operation** Enter the service operation that you want to register.
For SAIP, you must register these service operations:
- NotifyMembership.
 - NotifyClassSection.
- Description and Long Description** Enter descriptions of the service operation. Consider describing its purpose and intended usage.
- Object Owner ID** Displays the PeopleTools object owner ID that was set when the service operation was defined.
- Batch Replay Chunk Size** (Not used by SAIP integrations.) Enter the maximum number of rows to send when performing real-time replay of batch updates.

Event Replay Support	<p>Select only if the service operation stores event details in a database table for later replay according to a replay schedule.</p> <p>When selected, the Event Replay Mode group box appears.</p> <hr/> <p>Note. You must select the Event Replay Support check box for each SAIP service operation that you register. Clear the check box if the service operation sends event information immediately.</p> <hr/> <p>Clear the check box if the service operation sends event information immediately.</p>
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Event Replay Mode

This group box appears only when the Event Replay Support check box is selected.

Integration Mode	<p>Enter the mode in which the events should be replayed.</p> <p>For SAIP event replay, select only the <i>Incremental</i> integration mode.</p>
Recurrence Name	Enter the Process Scheduler recurrence definition that defines the frequency with which you want the events to replay.
Chunk Size	Enter the maximum number of rows of outgoing event message data to send at a time.
Run Now	Click to schedule and run a real-time event replay.

Application Class

Package Name, Path, and Class ID	Enter the name of the application class root package that contains the PeopleCode class for this service operation.
Page	Enter the path to specified application class root package.
Class ID	Enter the ID for the application class PeopleCode that provides the service operation implementation.

Setting the Jobset Definition

Access the Schedule JobSet Definition page (PeopleTools, Process Scheduler, Schedule Jobset Definitions, Schedule Jobset Definition).

Schedule JobSet Definition		Schedule JobSet Items	Schedule JobSet Requests
Schedule Name:	SAIP_SOA		JobSet Report Report Manager Process Monitor
Job Name:	SCCEVTLD		
Schedule Information			
User ID:	PS		
*Description:	SAIP_SOA	*Status:	Inactive
*Run Control ID:		*Priority:	Medium
Time Information			
*Begin Date:	01/23/2008	*Time:	5:48:46PM
*Time Zone:	PST		
Recurrence Name:	SAIP_ENR_INT	Run Now	
Server Information			
*Server Run Option:	Any Server		
Primary Server:		Operating System:	

Schedule JobSet Definition page

If the Event Replay Support check box is selected on the Event Registry page, then the Campus Integration framework Event Replay Schedule Load job (SCCEVTLD) with the desired recurrence name is required.

Note. This job must run at installation and at any time that the recurrence name on the Event Registry page changes.

SCCEVTLD evaluates the event registry for integration points that support event replay. For each potential event replay integration point, SCCEVTLD loads a new Process Scheduler recurring job with the recurrence schedule that is specified on the corresponding service operation's Event Registry page. At the specified time, the loaded job runs and subsequently replays event data stored for that integration point.

Create a schedule name, and schedule the Event Replay Schedule Load job, SCCEVTLD. Enter the recurrence name for the frequency at which the events should replay.

See *Enterprise PeopleTools PeopleBook: PeopleSoft Process Scheduler*, "Defining Jobs and JobSets," Creating Scheduled JobSet Definitions

Time Information

Recurrence Name Enter the name of the recurrence pattern that is set on the Recurrences Definition page for this service operation.

Run the process as you would any Process Scheduler job.

See *Enterprise PeopleTools PeopleBook: PeopleSoft Process Scheduler*, "Defining Jobs and JobSets," Monitoring Jobs and JobSets

Chapter 4

Mapping Course Elements for Course Sites

If the institution, organization, and term are in scope, then you can include or exclude class sections, and combined sections to create a course site for each class section or create a single course site for associated sections.

This chapter discusses how to:

- Map and associate class sections.
- Map combined sections.
- Generate the SAIP Class Integration report.

Mapping and Associating Class Sections

This section discusses how to map and associate class sections.

Page Used to Map and Associate Class Sections

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
IMS Scoping and Association	SAE_CLASS_CONFIG	Curriculum Management, Schedule of Classes, SA Integration Pack, Scoping and Association	Identify and associate class sections to create course sites for a course.
IMS Scoping and Association - Integration Status	SAE_CLS_SCOPE_STAT	Click the link in the Integration Status column on the IMS Scoping and Association page.	Display the scope status of the criteria that determine overall integration status.

Mapping and Associating Class Sections

Access the IMS Scoping and Association page (Curriculum Management, Schedule of Classes, SA Integration Pack, Scoping and Association).

IMS Scoping and Association

Course ID: 003700 **Course Offering Nbr:** 1
Academic Institution: PeopleSoft University
Term: 2008 Spring
Subject Area: BIOLOGY Biology
Catalog Nbr: 100 General Biology I

Scoping and Association										
Customize Find View All First 1-4 of 4 Last										
	Include in Scope	IMS Association Number	Associated Class	Component	Class Section	Session	Class Type	Start Date	End Date	Integration Status
1	<input checked="" type="checkbox"/>		1	Lecture	1	Regular	Non-Enroll	01/24/2008	05/07/2008	Inactive
2	<input checked="" type="checkbox"/>		1	Laboratory	1A	Regular	Enrollment	01/24/2008	05/07/2008	Inactive
3	<input checked="" type="checkbox"/>		1	Laboratory	1B	Regular	Enrollment	01/24/2008	05/07/2008	Inactive
4	<input checked="" type="checkbox"/>		1	Discussion	1C	Regular	Non-Enroll	01/24/2008	05/07/2008	Inactive

Include All

Use Class Association

IMS Scoping and Association page

Include in Scope

Select to include the class section in the next snapshot or next event-based transfer. When this check box is selected, SAIP continues to transfer and update the class section until it is manually excluded from scope.

The system automatically selects this check box if the class section is currently included in scope whether it was set automatically as the result of a default installation setting, or set manually at the element level.

Clear to exclude the class section in the snapshot transfer and event-based transfers. When this check box is cleared, SAIP ignores the class section and any changes to it.

If the class section was previously transferred and you clear the Include in Scope check box, then the class section remains in the course site. SAIP will not send a message to delete the course section, however any changes made to the course section in the Campus Solutions system will also not be reflected in the external system course site.

IMS Association Number

Enter a number (up to four digits) to uniquely identify each course site that you want to appear in the LMS or other target system. Enter the same number for each of the rows that you want to appear in the same course site. If the field for a given row is left blank or if it assigned an IMS association number that is not shared by any other row, then the row is sent as its own course site.

Associated Class	<p>Displays the Associated Number value from the Class Association page.</p> <p>See <i>PeopleSoft Enterprise Student Records 9.0 PeopleBook</i>, "Managing the Schedule of Classes," Defining Class Associations.</p> <hr/> <p>Note. If the Default IMS Association from Class Association check box is selected on the Scoping and Assn. page, then for each newly created section SAIP enters each class section's Associated Class value from the Class Association page in PeopleSoft Enterprise Student Records. You can override the number to associate class sections differently for the external system course site.</p> <hr/>
Integration Status	<p>The link in this column indicates the state of readiness (Active or Inactive) of the class section to participate in the integration.</p> <p>A status of Active indicates that all items are in scope (including the class section itself for which the Include in Scope check box must be selected) and the class section is available to the integration.</p> <p>A status of Inactive indicates that at least one item is not in scope, and the class section information cannot be transmitted to an external system.</p> <p>Click the link to access the Integration Status page where you can view detail status for relevant criteria for the class section.</p>
Include All	Click to select the Include in Scope check box for all rows.
Use Class Association	Click to set all rows to their Associated Number values from the Class Association page in PeopleSoft Enterprise Student Records.

All other fields on this page are from Student Records components under the Curriculum Management menu.

See Also

PeopleSoft Enterprise Student Records 9.0 PeopleBook, "Setting Up the Course Catalog"

Viewing Integration Status

Access the Integration Status page (click the link in the Integration Status column on the IMS Scoping and Association page or on the Combined Sections page).

Integration Status		
Course ID:	003700	Course Offering Nbr: 1
Subject Area:	BIOLOGY	Biology
Catalog Nbr:	100	General Biology I
Section:	1	
Scope Status		
Institution:	Yes	PeopleSoft University
Academic Organization:	Yes	Biology
Term:	No	2008 Spring
Parent Course/Offering		
Academic Organization	Yes	Biology
Current Effective Date:	Yes	
Offering Approved:	Yes	

Integration Status page

Including a class section in scope will not, by itself, enable the class section to participate in the integration and the information about the class section to be transmitted to an external application. Other items must be in scope and dependencies met before the class section is fully available for integration (for example, the term for the class section must also be in scope, the parent course of the class section must have a current effective date, and so on).

Use the Integration Status page to determine the status of criteria required for integration.

A scope status of *Yes* indicates that the item is included in scope or otherwise meets the criteria on the appropriate page.

A scope status of *No* indicates that the item is not in scope or does not meet the criteria and therefore prevents the class section from participating in the integration.

Scope Status

Institution	Indicates whether the parent institution of the class section is included in scope on the IMS Scoping and Association page.
Academic Organization	Indicates whether the academic organization attached to the class section (defined on Maintain Schedule of Classes, Basic Data page) is included in scope on the IMS Scoping and Association page.
Term	Indicates whether the term for this scheduled class section (defined on the Maintain Schedule of Classes component).

Parent Course/Offering

Academic Organization	Indicates whether the academic organization attached to the parent course of this class section (defined on the Course Catalog) and of the parent offering (defined on the Course Catalog, Offering page), are both included in scope on the IMS Scoping and Association page.
Current Effective Date	Indicates whether the parent course of the class section has a currently effective row on the Course Catalog, Catalog Data page.
Offering Approved	Indicates whether the course offering associated with this class section has a Course Approved status of <i>Approved</i> on the Course Catalog, Offering page.

Mapping Combined Sections

This section discusses how to map combined sections.

Page Used to Map Combined Sections

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
Associate Combined Sections	SAE_CMBNDSE_ASSOC	Curriculum Management, Combined Sections, Associate Combined Sections	Identify combined sections to include or exclude in the snapshot transfer.
Associate Combined Sections - Integration Status	SAE_CMDCLS_SCOP_ST	Click the link in the Integration Status column on the Associate Combined Sections page.	Display the scope status of the criteria that determine overall integration status.

Mapping Combined Sections

Access the Associate Combined Sections page (Curriculum Management, Combined Sections, Associate Combined Sections).

Associate Combined Sections

Academic Institution: PSUNV PeopleSoft University
Term: 0590 2007 Fall
Session: 1 Regular Academic Session
Combined Sections ID: 0003 Psychology Special Topics

Combined Sections						
				Customize Find View All	First 1-2 of 3 Last	
	Include in Scope	Class Nbr	Subject	Catalog Nbr	Section	Integration Status
1	<input checked="" type="checkbox"/>	2076	PSYCH	495	01	Active
2	<input checked="" type="checkbox"/>	2264	PSYCH	295	1	Active

☐ Associate Combined Sections

Interested Targets			
		Customize Find View All	First 1-4 of 4 Last
	Class Nbr	Target ID	Edit/View Class Targets
1	2076	ADAS0124	Edit/View Class Targets
2	2076	SAKAI	Edit/View Class Targets
3	2264	ADAS0124	Edit/View Class Targets
4	2264	SAKAI	Edit/View Class Targets

Associate Combined Sections page

Combined Sections

Class sections appear as they are combined for Combined Sections ID on the Identify Combined Sections page in PeopleSoft Enterprise Student Records.

See *PeopleSoft Enterprise Student Records 9.0 PeopleBook*, "Managing the Schedule of Classes," Linking Classes to a Combined Section ID.

Include in Scope

Select to include the class section in future snapshot and event-based transfers. When this check box is selected, SAIP continues to transfer and update the class section until it is manually excluded.

The system automatically selects this check box if the class section is currently included in scope, whether set automatically as the result of a default installation setting, or set manually at the element level.

Clear to exclude the class section from snapshot transfer. When this check box is cleared, SAIP ignores the class section and any changes to it until it is manually reincluded in scope.

Note. To associate a combined section for the external system course site, both or all sections must be in scope.

Associate Combined Sections

Select to associate the in-scope sections and present them as one course site.

The course name displayed in the external system is by default drawn from the long description of each course in the course catalog. Consider viewing the resulting description and editing it in the target system.

Integration Status

The link in this column indicates the state of readiness (Active or Inactive) of the class section to participate in the integration.

A status of Active indicates that all items are in scope (including the class section itself for which the Include in Scope check box must be selected) and the class section is available to the integration.

A status of Inactive indicates that at least one item is not in scope, and the class section information cannot be transmitted to an external system.

Click the link to access the Integration Status page where you can view detail status for relevant criteria for the class section.

Interested Targets

The Interested Targets group box lists all of the targets for each of the combined sections. All combined sections go to all targets of any section. For example, if Section 1 is targeted to LMS A and Section 2 is targeted to LMS B, then both Section 1 and Section 2 will be sent to both LMS A and LMS B, as long as the combined sections are associated.

The Edit/View Class Targets links take the user to the Class Targets page (SAE_CLS_TARGET) for that section, where the targets may be edited.

Generating the SAIP Class Integration Report

This section discusses how to run the SAIP Class Integration report, including defining the parameters for the report and printing it using various output formats.

See Also

Chapter 4, "Mapping Course Elements for Course Sites," Mapping and Associating Class Sections, page 31

Page Used to Run SAIP Class Integration Report

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
SAIP Class Integration Report	SAE_REPORT_PAGE	SA Integration Pack, SAIP Class Integration Report	Print list of all in-scope class sections within defined parameters.

Running the SAIP Class Integration Report

Access the SAIP Class Integration Report page (SA Integration Pack, SAIP Class Integration Report).

SAIP Class Integration Report

Run Control ID: aud [Report Manager](#) [Process Monitor](#) [Run](#)

*Output Format: DEFAULT

*Institution: PSUNV PeopleSoft University

Academic Organizations Customize | Find | View All | First 1 of 1 Last

	*Academic Organization	Description		
1	BIOLOGY	Biology	+	-

Terms Customize | Find | View All | First 1 of 1 Last

	*Term	Description		
1	0620	2009 Spring	+	-

SAIP Class Integration Report page

Output Format

The SAIP Class Integration Report uses the XML Publisher capability within PeopleTools to generate data that is usable by a range of output formats. Use this field to determine the format in which you would like the final data to be generated.

The available values are:

- **DEFAULT:** The default format for the report is PDF.
- **HTM:** The report will be generated as an HTML (web-browser based) document.
- **PDF:** The report will be generated as an Adobe Acrobat PDF document.
- **RTF:** The report will be generated as a rich-text-format document.
- **XLS:** The report will be generated as a Microsoft Excel spreadsheet.

Note that all of these formats can be displayed within your browser.

Institution

Select the institution for the class sections on which you wish to report.

You must select an institution. Selecting an institution without selecting an Academic Organization or Term will return ALL class sections defined as in scope for that institution. Be aware that this could generate a large quantity of data, depending on the nature of the institution and the state of the data.

Academic Organizations

Select one or more academic organizations as a limiting parameter for your report.

By selecting an academic organization, you will limit the results of the report to only those class sections that are defined as in scope and associated with both the Institution and the Academic Organization(s) you have selected.

Term

Select one or more terms as a limiting parameter for your report.

By selecting a term, you will limit the results of the report to only those class sections that are defined as in scope and associated with both the Institution and the Term(s) you have selected.

If you select one or more academic organizations and one or more terms, the results will be limited to those class sections which meet all of the criteria (for example, if you select Academic Organizations Anthropology and Biology, and terms 0590 and 0600, the report will list class sections that meet all scope criteria and have an Academic Organization of Anthropology or Biology, for terms 0590 or 0600).

See Also

[Appendix A, "SAIP Reports," page 61](#)

Chapter 5

Importing Grades

SAIP enables you to import final grades from an external system to your PeopleSoft Enterprise Student Records grade roster.

This chapter discusses how to:

- Set up grade import.
- Import grades.

Note. The SAIP Grade Import service imports final grades into the Student Records grade roster only. It does not interact with Campus Solutions Gradebook. If you use SAIP Grade Import, you cannot also use Gradebook.

Setting Up Grade Import

To enable grade import, you must select the Enable Grade Import check box on the SAIP Installation page. This can be selected at implementation time or any time that you want to enable grade import.

When selected, the Grade Import group box and Import Grades button appear on the PeopleSoft Enterprise Student Records Grade Roster page for any class section that is currently in scope.

Page Used to Set Up Grade Import

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
SAIP Installation	SAE_SETUP	Set Up SACR, Install, SAIP Installation	Enable or disable event triggers and grade import, and identify the default usages, file to use for SAIP initialization and updates.

Importing Grades

This section discusses how to import grades into your Student Records grade roster.

Note. SAIP Grade Import imports final grades into the Student Records grade roster. It does not import grades into PeopleSoft Enterprise Gradebook.

See Also

PeopleSoft Enterprise Student Records 9.0 PeopleBook, "Grading Students"

PeopleSoft Enterprise Campus Self Service 9.0 PeopleBook, "Using Faculty Center," Entering Grades Through Self-Service

Page Used to Import Grades

Page Name	Definition Name	Navigation	Usage
Grade Roster	GRADE_ROSTER1	Curriculum Management, Grading, Grade Roster, Grade Roster	Enter official grades and requirement designation grades, view enrollment summary information, and add transcript notes.
Grade Roster	SS_GRADE_ROSTER	Self Service, Faculty Center Click the Grade Roster icon on the Faculty Center page.	If your institution also licenses PeopleSoft Enterprise Campus Self Service, instructors can view or enter grades, update the roster's approval status, and post grades to the grade roster from the self-service faculty center.

Importing Grades

Access the Grade Roster page (Curriculum Management, Grading, Grade Roster, Grade Roster).

Grade Roster Type
Grade Roster

Find
First
1 of 1
Last

Term: 2008 Spr **Class Nbr:** 1266 General Biology I **Section:** 1
Session: Regular **Catalog:** BIOLOGY 100 **Seq Nbr:** 1

Roster Type
Final Grade Final Grade ☐ **Display Unassigned Roster Grade Only**
Approval Status: Not Reviewed

Grade Import
Last Import 04/28/2008 8:26AM [Grade Import Error Log](#)

	ID	Name	Grade Input	Converted Roster Grade	Official Grade	Career	Grading Basis	Final Roster Status	Detail	Note
1	SR14007	Baca, Lee	P			Undergrad	Graded	Pending	Detail	Note
2	SR14002	Cabalbag, Ruben				Undergrad	Graded	Pending	Detail	Note
3	SR12206	Kalombo, Chantal	A			Undergrad	Graded	Pending	Detail	Note
4	SR12210	Omar, Raad	A+	A		Undergrad	Graded	Pending	Detail	Note

Grade Roster page

Note. In order for the Import Grades button to appear on the grade roster, *both* Enable Grade Import must be checked on the SAIP Installation page (Set Up SACR, Install, SAIP Installation) *and* a Grade Source ID must be entered on the Class Targets page (Curriculum Management, Schedule of Classes, SA Integration Pac, Class Targets). If a grade source target is not set for a section, then the grade import functionality for that section will be unavailable to the user even if Enable Grade Import is checked at the system level.

Grade Import

Last Import Displays the date and time when the Import Grades button was last clicked.

Grade Import Error Log Appears if any row containing either a student ID or a grade did not successfully import for the course.

Click to access the error log page where you can view descriptions of unsuccessful imports.

Note. If a row cannot be imported because no ID is associated, then it also cannot appear in the log, which is ID dependent. A message appears at the bottom of the error log page instead.

Import Grades

Click to capture and import final grades from the external system into the Student Records grade roster.

Grades are pulled for the roster as a whole. You can import grades as many times as desired so long as the roster's approval status is not *Approved* or *Submitted for Approval*, and as long as the grades have not yet been posted.

Rows for the imported grades appear in the grid area at the bottom of the page. The grades appear in the Grade Input column and with a status of *Assigned*. Instructors can check, change, and control grades before finalizing and posting them.

Warning! When you re-import grades, all grades data are overwritten and any manual adjustments that you made will be lost.

See *PeopleSoft Enterprise Student Records 9.0 PeopleBook*, "Grading Students," Using the Grade Roster Page to Enter Grades.

Chapter 6

Setting Up and Using LDAP Integration

This chapter provides an overview of SAIP LDAP integration and discusses how to:

- Set up LDAP integration.
- Run an LDAP synchronization.
- Manage multitarget integration

Understanding SAIP LDAP Integration

In addition to the web service support, SAIP provides the ability to provision person, enrollment, and course data to an LDAP directory. This enables applications that cannot consume web services but can read groups from an LDAP directory to be provisioned. The data is fundamentally the same as that which is provisioned via web services. All XML record types are replicated as LDAP directory subtrees. Because common LDAP practice discourages use of object hierarchy within records, there is an additional subtree type of Person Detail which contains a subset of the data that is contained within the Person XML record in the SOAP integration.

With LDAP integration, SAIP generates one or more LDIF files that may be imported into an LDAP directory. The process of generating LDIFs is conceptually similar to running a batch process for SOAP integration, with two important differences. First, the LDIF process is initiated within SAIP rather than by the consuming application. Second, LDAP integration checks the target system when generating an LDIF in order to validate the delta between the two systems.

Note. The Student Administration Integration Pack is a single target (multi-consumer) mechanism, meaning that it is currently designed to produce a single output stream, although multiple applications can consume that output simultaneously. An LDAP directory would be considered a "target" in the same way that an integration gateway would be considered target. Therefore, you can run either the web serviced binding of the SAIP, or the LDAP binding, but you cannot run the two bindings simultaneously. Doing so will produce unpredictable results.

Setting Up LDAP Integration

This section lists prerequisites and discusses how to set up SAIP LDAP integration with a directory that has been added to PeopleSoft.

Prerequisites

Before a directory can be added to SAIP integration, it must first be added to the PeopleSoft installation via the Directory Setup page (PeopleTools, Security, Directory, Configure Directory). Only the information on the Directory Setup need be entered. It is not necessary to cache the directory schema.

See Also

PeopleSoft Enterprise Components PeopleBook for PeopleSoft Enterprise HRMS & Campus Solutions 9.0,
"Using PeopleSoft Directory Interface,"Configuring the Directory Connection

Page Used to Set Up LDAP Integration

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
LDAP Targets	SAE_LDAP_TBL	Set Up SACR, Product Related, SA Integration Pack, Set Up Targets, LDAP Targets	Add an LDAP directory for SAIP integration.

Adding a Directory to SAIP

Once the directory has been added to PeopleSoft, access the LDAP Targets component (Set Up SACR, Product Related, SA Integration Pack, Set Up Targets, LDAP Targets) and add the directory there.

LDAP Targets

Target ID03115

Version

Version 1.5

Description

Target Type

LDAP

[Link to Update/Display Web Service Targets](#)

Directory ID

Description

Directory Paths

Person Path

Detail Path

Last Sync Person

Template Path

Last Sync Template

Offering Path

Last Sync Offering

Section Path

Last Sync Section

LDAP Targets page (1 of 2)

Association Path

Last Sync Association

Group Path

Last Sync Group

Membership Path

Last Sync Membership

Delete Type

☐ Delete Record

☒ Inactivate Record

LDAP Targets page (2 of 2)

Enter or select the items to use as default settings for your institution's initial and subsequent transfers of data to the external system.

Target ID	Set the ID of the target.
	Note. The Target ID must be globally unique across both LDAP and web service bindings. Consequently, a link is provided to display web service targets in the event of a naming conflict.
Version	Set the version of the SAIP binding to be used. (There are no differences between SAIP LDAP Version 1.0 and Version 1.5.)
Target Type	Describes the type of target (LDAP or web service).
Person Path	Set the directory path for person entries.
Detail Path	Set the directory path for person detail entries.
Last Sync Person	This field provides the date and time that the last synchronization of person entries was run.
Template Path	Set the directory path for course template entries.
Last Sync Template	This field provides the date and time that the last synchronization of course template entries was run.
Offering Path	Set the directory path for course offering entries.
Last Sync Offering	This field provides the date and time that the last synchronization of course offering entries was run.
Section Path	Set the directory path for course section entries.
Last Sync Section	This field provides the date and time that the last synchronization of course section entries was run.
Association Path	Set the directory path for section association entries.
Last Sync Association	This field provides the date and time that the last synchronization of section association entries was run.
Group Path	Set the directory path for group entries.
Last Sync Group	This field provides the date and time that the last synchronization of group entries was run.
Membership Path	Set the directory path for membership entries.
Last Sync Membership	This field provides the date and time that the last synchronization of membership entries was run.

Delete Type

Select to indicate integration behavior when an entry is deleted in PeopleSoft.

Selecting *Delete Record* will remove the LDAP entry from the directory.

Selecting *Inactivate Record* will update the LDAP entry by setting the appropriate status attribute in the entry to Inactive.

Running an LDAP Synchronization

This section discusses generating LDIF files for import into the target directory.

Page Used to Run LDAP Synchronization

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
LDAP Synchronization	SAE_LDAPRUNCNTL	SA Integration Pack, LDAP Synchronization	Generate an LDIF file based on SAIP data.

Generating the LDIF File

Access the LDAP Synchronization run control page (SA Integration Pack, LDAP Synchronization).

LDAP Synchronization

Run Control ID: 1256246932

[Report Manager](#) [Process Monitor](#) [Run](#)

Target ID

[Target Info](#)

Directory ID

Description

Synchronization Request Type

☒ Full Synchronization

☐ Incremental Synchronization

Synchronization Scope

Person Extract Option

☒ Based on Usage

☐ All Detail

☐ Select All

☐ Synchronize Group

☐ Synchronize Course Template

☐ Synchronize Course Offering

☐ Synchronize Course Section

☐ Synchronize Course Association

☐ Synchronize Person

☐ Synchronize Membership

LDIF File Name and Path

LDAP Synchronization page

Enter or select the items to use as settings for your institution's transfer of data to the external system.

- Target Info

Click this link to access SAE_LDAP_TARGETS, where you can configure the LDAP target.
- Directory ID

Select a directory ID from those defined during the setup in the LDAP Targets component.

Synchronization Request Type	<p><i>Full Synchronization</i> compares all the data that is in scope with the data in the target system and updates the target system by adding any missing entries, deleting or deactivating any removed entries (depending on setup configuration), and updating any changed entries.</p> <p><i>Incremental Synchronization</i> compares only data that has been changed in PeopleSoft since the last synchronization with the data in the target system and updates the target system accordingly.</p>
Person Extract Option	<p><i>Based on Usage</i> provides Person data based on the options set in the SAIP Installation page.</p> <p><i>All Detail</i> provides all Person data available regardless of the options set in the SAIP Installation page.</p> <p>See Chapter 3, "Setting Up SAIP," Setting Default Installation Values, page 12.</p>
Synchronize...	<p>Check the box for each directory subtree to be synchronized. One LDIF will be generated containing all of the entries for all of the subtrees selected. Entries will automatically be listed in the proper order required to maintain data integrity.</p> <hr/> <p>Warning! If LDIFs for subtrees are generated one at a time, they must be created in the proper order.</p> <hr/>
Update LMS Sent Indicator	<p>Clear this box to prevent the LMS Sent flag from being set after an entry is set.</p> <hr/> <p>Note. Because the LMS sent flag will not be switched to Y, child entities will not be picked up as in scope until such time as the parent offering LMS Sent flag has been set to Y. It is recommended that you always set LMS Sent to Y in production situations in order to ensure data integrity.</p> <hr/>
LDIF File Name and Path	<p>Specify the path and name of the LDIF file being generated. Be sure to include the .ldif extension in the file name.</p>
<p>Click Run to bring up the Process Scheduler Request page. Click OK to run the process scheduler. Check the Process Monitor to ensure that the process has completed without errors.</p> <hr/> <p>Warning! If the LDAP directory integration has not been set up, or if the LDAP directory is down, the process will fail.</p> <hr/> <p>Import the LDIF file into the external system using LDIF import mechanism or tools provided by the maintainers of the LDAP directory.</p>	

Managing Multitarget Integration

This section provides an overview of multitarget integration and discusses how to:

- Add a target.
- Set default targets at the academic institution level.

- Set default targets at the academic organization level.
- Set targets at the section level.
- Synchronize SAIP extension tables.

Understanding Multitarget Integration

Multitarget integration functionality is intended to support campuses that need to provision course roster information into more than one system. For example, they may have a secondary LMS that is used by one or more departments, or an individual faculty member may wish to provision her class into a Web 2.0 tool in addition to the LMS. While previous versions of the SAIP allowed more than one target to receive data, all targets would receive the same data on the same schedule. It was designed to support only one target. Multitarget integration provides a number of enhancements over the previous design:

- It is now possible to use both the web service and LDAP bindings simultaneously.
- Different course sections may be assigned to different targets.
- Each target can have its own settings, for example, frequency and method of update (batch or event-driven), defined end points, etc.
- Cascading preferences for targets may be set at the academic institution and academic organization levels.
- Sections can be published to more than one target.
- Grade return and event-driven updates are now supported on a per-target basis for the web service binding.
- If a section is published to more than one target that supports grade return, then a preferred grade return target can be chosen.

Note. While SAIP does support publishing the same section to more than one target, it is advisable for performance reasons to limit the number of targets per section to two or three as a general rule. If sections are going to be provisioned to 4 or more targets on a routine basis, it may be advisable to consider using SAIP to provision into an Identity Management System.

Targeting

In earlier versions of SAIP, the process of selecting course sections for inclusion in the integration is called "scoping." Scoping is still present in SAIP, but there is also a second process called "targeting". Targeting is when one or more external systems (for example, an LMS, Facebook, a portal) are designated as the integration end points. The process within SAIP works as follows:

1. First sections are "set in scope," meaning that they are designated as ready to be sent to some external systems via SAIP.
2. Once they are set in scope, sections are then "targeted," meaning that they are assigned to specific external systems for integration.

Note. Course section records will not be sent until a course section has *both* been set in scope *and* targeted.

Targets may optionally support grade return. If a section has more than one target that supports grade return, then SAIP provides a functional interface to choose the preferred source of grade import data.

Architectural Changes

Because SAIP is now designed to integrate with an arbitrary number of targets, it no longer tracks the data that was sent to any particular target. This difference leads to two changes in the way that SAIP communicates with the target systems. First, SAIP no longer distinguishes between Create or Update messages. Any message other than a Delete is sent as a Create. The target system is expected to create the record if none exists or replace it if one is already in place. Second, when requesting snapshots, target systems must provide target ID as a request parameter. This way SAIP will know which data set to prepare for the target. SAIP is designed to support one legacy target that does not provide the target ID as a request parameter. See below for details.

In order to ease the handling of similar changes in the future, SAIP now includes a per-target SAIP binding version. The changes described above are contained in the web service SAIP binding version 1.5, while the previous version was version 1.0. There are no differences between versions 1.0 and 1.5 of the SAIP LDAP binding.

Handling Legacy Targets

Because of the changes to support multiple targets, SAIP now requires targets to provide an identifier as a parameter in the snapshot request so that the system can provide data that is appropriate for that target. If the target does not provide a request parameter, and if SAIP has a web service target set up to use the 1.0 version of the binding, then the system will assume that the requesting target is the one that has been identified as using the 1.0 binding. This is why SAIP can only support one target using the 1.0 web service binding.

Cascading Defaults

As with scoping, the targeting mechanism in SAIP has cascading defaults. For example, LMS A can be added as a default target to the PeopleSoft University academic institution and have it cascade down to the biology academic organization and the Biology 101 Fall 2010 class section. However, there are some important differences in the details of how the cascading defaults work:

- Because multitarget allows one section (or academic organization) to have more than one target, it is possible to add targets at the academic organization or class section level in addition to the defaults provided at the academic institution level.
- Combined sections inherit targets from all of their constituent sections. If a target has been set for one of the combined sections, then it will apply to all of them.
- For performance reasons, defaults set at the academic institution or academic organization level cannot be deleted at the section level. Instead, they are inactivated.

Pages Used to Manage Multitarget Integration

<i>Page Name</i>	<i>Definition Name</i>	<i>Navigation</i>	<i>Usage</i>
SAIP Target Setup	SAE_TARGET_GENERAL	Set Up SACR, Product Related, SA Integration Pack, Set Up Targets, Web Service Targets	Set up web service targets.

Page Name	Definition Name	Navigation	Usage
SAIP Targeting - Academic Institution Level	SAE_INST_TARGET	Set Up SACR, Product Related, SA Integration Pack, Default Targets, Academic Institutions	Set default targets at the academic institution level. These targets may be effective dated.
Institution SAIP Target - History	SAE_INST_TRGT_HIST	Click the Edit/View SAIP Target Details link on the SAIP Targeting – Academic Institution Level page.	View institution target history.
SAIP Targeting - Academic Organization Level	SAE_ACAD_TARGET	Set Up SACR, Product Related, SA Integration Pack, Default Targets, SAIP Targeting – Academic Organizations	Set default targets at the academic institution level. These targets may be effective dated.
Acad Org SAIP Target - History	SAE_ACAD_TRGT_HIST	Click the Edit/View SAIP Target Details link on the SAIP Targeting – Academic Organization Level page.	View academic organization target history.
Class Section Targeting	SAE_CLS_TARGET	Curriculum Management, Schedule of Classes, SA Integration Pack, Class Targets	Add or edit targets for a class.

Adding a Target

Access the SAIP Target Setup page (Set Up SACR, Product Related, SA Integration Pack, Set Up Targets, Web Service Targets).

SAIP Target Setup

Target ID:

BLACKBOARD

Description:

Blackboard

Directory Path:

C:\Temp

☒ Grade Import Source

☒ Enable Event Triggers

Version:

1.5

FTP Settings

☒ Upload to FTP

☐ Embed credentials

FTP URL:

ftp://10.138.125.144/AEI/BLACKBOARD

User Name:

ftpuser1

Password:

.....

Integration Metadata Settings

Node Name

BLACKBOARD

[View Node](#)

[AddNode](#)

Customize | Find | View All

First 1-5 of 6 Last

	Service	Description	URL		
1	BULKDATAEXCHANGEMGMTSERVICE	Bulk Data Exchange Mgmt	http://10.221.105.117:7001/BLACKBOARD/Bulk	+	-
2	COURSEMANAGEMENTSERVICE	Service for CourseManagement	http://10.221.105.117:7001/BLACKBOARD/Cou	+	-
3	GROUPMANAGEMENTSERVICE	Group Snapshot Service	http://10.221.105.117:7001/BLACKBOARD/Gro	+	-
4	MEMBERSHIPMANAGEMENTSERVICE	Membership Snapshot Service	http://10.221.105.117:7001/BLACKBOARD/Men	+	-
5	OUTCOMESERVICE	Grade Outcome Service	http://10.221.105.117:7001/BLACKBOARD/Out	+	-

Generate Routings

SAIP Target Setup page

SAIP will autogenerate the routings in Integration Broker for each target.

- Target ID

Set the target ID.
- Description

Set the target description.
- Directory Path

If you want SAIP to place the snapshot XML file in file, you must specify that path here. If no directory path is specified, the XML file is placed in the application server's TEMP folder.

Grade Import Source	<p>Select to define the target as the source for the import of final grades into the grade roster.</p> <p>When this check box is selected, the Grade Import group box and the Import Grades button appear on the Grade Roster page (GRADE_ROSTER_TYPE) in the Student Records Grade Roster component (GRADE_ROSTER) and on the grade roster page in faculty self-service (SS_GRADE_ROSTER), <i>provided that grade import has also been enabled on the SAIP Installation page (SAE_SETUP).</i></p> <p>You must click the Import Grades button on the Grade Roster page to run the import.</p> <p>When the check box is not selected, grade import is not available.</p> <p>You can select or clear this check box at any time after initialization without consequence.</p>
Enable Event Triggers	<p>Select to enable all of the event-based triggers that are delivered preset within the SAIP system.</p>

Note. The Target ID must be globally unique across both LDAP and web service bindings.

FTP Settings

Upload to FTP, FTP URL, User Name, and Password	<p>If you want SAIP to place the snapshot on an FTP server, you must identify the server and settings here.</p> <p>If you select Upload to FTP, and a directory path is provided, the process looks for the XML file in the specified directory path, and uploads it from there.</p> <p>If you select Upload to FTP, but do not provide the directory path, the process looks for the XML file in the application server's TEMP folder, and uploads it from there.</p>
Embed Credentials	<p>Select to embed FTP credentials in the response URL.</p> <p>When an external system requests either a full or incremental snapshot, the SAIP generates the snapshot, places the snapshot in the specified destination, and returns a response to the requesting system that includes a URL to the snapshot's location. If that location is an FTP server, you may determine the authorization mechanism for access to the snapshot.</p> <p>When selected the user name and password defined for the FTP URL are included in the response URL, enabling the requesting system to directly access the snapshot using just the URL.</p> <p>If not selected, you must configure your environment to otherwise allow the requesting system to log in to the FTP server to access the snapshot.</p>

Integration Metadata Settings

These settings provide information for the Integration Broker routings.

Node Name Select the Integration Broker node to be used for this target. Because each node represents an end point, you will need one node per target. SAIP can share a node with other integration processes for the same target, however. At a minimum, SAIP needs to have the Description and Valid Default User ID fields populated, and the Node Type set to PIA.

Enter the target's endpoint URL for each of the services required by SAIP:

- BULKDATAEXCHANGEMGMTSERVICE
- COURSEMGMTSERVICE
- GROUPMANAGEMENTSERVICE
- MEMBERSHIPMANAGEMENTSERVICE
- PERSONMANAGEMENTSERVICE
- OUTCOMESERVICE

Once the URLs have been entered, press Generate Routings to finish the target setup.

See Also

Chapter 6, "Setting Up and Using LDAP Integration," page 45

Setting Default Targets at the Academic Institution Level

Access the SAIP Targeting – Academic Institution Level page (Set Up SACR, Product Related, SA Integration Pack, Default Targets, Academic Institutions).

SAIP Targeting - Academic Institution Level

Academic Institution: PSUNV PeopleSoft University Reset Academic Org. Setup

Target Details						
Target ID	Description	As Of Date	Status	Edit/View SAIP Target Details	Associate Class Sections	
1 SAKAI	Sakai	10/23/2009	Active	Edit/View SAIP Target Details	Associate Class Sections	+ -

Grade Return Details

Grade Source ID:

SAIP Targeting - Academic Institution Level page

Targets may be added from the list of targets that have been enabled on the SAIP Target Setup Page (SAE_TARGET_GENERAL) and the LDAP Targets page (SAE_LDAP_TARGETS).

Reset Academic Org. Setup	Remove any targets at the Academic Organization level that have not cascaded down from the Academic Institution level.
Edit/View SAIP Target Details	Add an effective date for activating or deactivating a target default. While a target is inactivated, integration information will no longer be sent to the target.
Associate Class Sections	Individual targets will only pick up section associations that are created after the target has been set. Click this button to ensure that pre-existing IMS Associations are sent to the target. (In large databases, this process can take some time.)
Grade Source ID	Add a source for final grade imports from the list of default and additional targets for the section that been enabled for grade import on the SAIP Target Setup Page (SAE_TARGET_GENERAL).

Setting Default Targets at the Academic Organization Level

Access the SAIP Targeting – Academic Organization Level page (Set Up SACR, Product Related, SA Integration Pack, Default Targets, Academic Organizations).

SAIP Targeting - Academic Organization Level

Academic Institution: PSUNV PeopleSoft University
Academic Organization: BIOLOGY Biology

Target Details							Customize	Find	View All	First	1-2 of 2	Last
Target ID	Description	As Of Date	Status	Edit/View SAIP Target Details	Associate Class Sections							
1 ADAS0124	Sun One Test Floor Directory	10/23/2009	Active	Edit/View SAIP Target Details	Associate Class Sections							
2 SAKAI	Sakai	10/23/2009	Active	Edit/View SAIP Target Details	Associate Class Sections							

Grade Return Details

Grade Source ID:

SAIP Targeting - Academic Organization Level page

Targets may be added from the list of targets that have been enabled on the SAIP Target Setup Page (SAE_TARGET_GENERAL) and the LDAP Targets page (SAE_LDAP_TARGETS). Targets that have already been added to the parent Academic Institution will appear automatically. They may be removed at the Academic Organization level.

Edit/View SAIP Target Details	Add an effective date for activating or deactivating a target default. While a target is inactivated, integration information will no longer be sent to the target.
--------------------------------------	---

- Associate Class Sections** Individual targets will only pick up section associations that are created after the target has been set. Click this button to ensure that preexisting IMS Associations are sent to the target. (In large databases, this process can take some time.)
- Grade Source ID** Add a source for final grade imports from the list of default and additional targets for the section that been enabled for grade import on the SAIP Target Setup Page (SAE_TARGET_GENERAL).

Setting Targets at the Section Level

Access the Class Section Targeting page (Curriculum Management, Schedule of Classes, SA Integration Pack, Class Targets).

Class Section Targeting

Course ID:	003700	Course Offering Nbr:	1
Academic Institution:	PeopleSoft University	Class Section:	1
Term:	2008 Spring	Session:	1
Subject Area:	BIOLOGY Biology		
Acad Org:	BIOLOGY Biology		

Default Targets
[Customize](#) | [Find](#) | [View All](#) |
First 1-2 of 2 Last

	Target ID	Description	Status
1	ADAS0124	Sun One Test Floor Directory	Active
2	SAKAI	Sakai	Active

Additional Targets
[Customize](#) | [Find](#) | [View All](#) |
First 1 of 1 Last

	*Target ID	Description		
1	<input type="text" value="BLACKBOARD"/>	Blackboard		

Grade Target Details

Grade Source ID

Class Section Targeting page

- Default Targets** Set targets defaulted from the academic institution or academic organization level to active or inactive. For performance reasons, targets set at the Academic Institution or Academic Organization level may not be deleted at the Class Section level. However, setting those targets to *Inactive* will prevent data from being sent to them.
- Additional Targets** Add section-specific targets from a list of available targets.

Grade Source ID	Add a source for final grade imports from the list of default and additional targets for the section that been enabled for grade import on the SAIP Target Setup Page (SAE_TARGET_GENERAL).
------------------------	---

Synchronizing SAIP Extension Tables

SAIP maintains extension tables to keep track of events that must be shared with one or more targets. However, these extension tables can occasionally lose synchronization with the parent tables. The most common cause is customizations to Student Administration that creates events that are not trapped by SAIP. For this reason, SAIP now includes a utility for re-synchronizing the extension tables.

To use this utility, go to the System Process Requests component (PeopleTools, System Schedule, System Process Requests) and run the SAE_EXT_SYNC Application Engine process.

Appendix A

SAIP Reports

This appendix provides an overview of SAIP reports and discusses how to view a summary table of all reports.

Note. For samples of these reports, see the Portable Document Format (PDF) files published on CD-ROM with your documentation.

See Also

Enterprise PeopleTools PeopleBook: PeopleSoft Process Scheduler

SAIP Reports: A to Z

This table lists the SAIP reports, sorted alphanumerically by report ID. If you need more information about a report, refer to the report details at the end of this appendix.

Report ID and Report Name	Description	Navigation	Run Control Page
Report ID and Report Name SAE_CLS_SCO (SAIP Class Integration report)	Enables you to generate a printable report of all class sections that currently meet all scope criteria and are participating in or are ready to participate in the integration.	SA Integration Pack, SAIP Class Integration Report	SAE_REPORT_PAGE

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