CIM Courses Project Documentation

CIM Courses Project Overview

Please note that this page and related pages are being developed as part of the CIM Courses Project and are subject to change.

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Project Scope

The CIM Courses Project can be broken down into five major initiatives:

1. New Subject Proposal Management System - Replace the existing subject proposal system, CIS, with a product named CIM Courses developed by Courseleaf/Leepfrog.
2. New Container/Template Based Subject Structure - Replace the existing MITSIS table structure with a New Subject Structure in which to store subject data.
3. New Subject Management API - Implement an API through which all subject data must pass in order to populate the Container/Template Structure
4. New Forms for Subject Management - Replace the existing Oracle Subject Forms (SCASUBJI, SCASUBJB) and develop new Term Plan form
5. Backfill "Old" Subject Tables - Implement a "backfill" of subject data to CIS and the "old" MITSIS tables.

#subjecttochange - currently out of scope is Subject Offerings - which include Oracle Form SSASUSUB

Project Needs

New Proposal Management System

Users of the Curricular Information System (CIS) needed an updated proposal system. The decision was made to purchase a commercial-off-the-shelf product named "CIM Courses" (Curriculum Information Management). The model for this product is to modify out-of-the-box functionality to meet the customer's specific needs.

New Container/Template Based Subject Structure

The decision to implement a new subject structure was made to address two problems with the existing MITSIS structure:

1. Difficulty in querying the data. Because the old structure was comprised of many different versions of subject subparts, joining the appropriate versions of the subparts to identify the actual subject structure in a given term was very difficult.
2. Difficulty in tracing a subject’s history over time. Because the old structure did not have primary keys for subjects and used changeable subject numbers in their place, determining the subject's history was a nontrivial task.

New Subject Management API

Project requirement was to incorporate an API based model to write to the new Container/Template Subject Structure.

New Forms for Subject Management

The CIS Proposal system and and the existing Oracle forms had reached the end of their useful life.

Backfill "Old" Subject Tables

Because many downstream systems depend on the data in CIS and MITSIS, the subject data collected in the new Container/Template Based Subject Structure must be "backfilled" into those systems (examples: scheduling, Online Subject Listing, etc.).

Project Solutions

CIM Courses

The administrative documentation for CIM Courses can be found here.

Container/Template Subject Structure

The functional documentation of the Container/Template Subject Structure can be found here.

MIT-SUBJECTS API

The new, central API through which all subject data must pass in order to populate the Container/Template Subject Structure.

New Subject Management Forms

New "SCASUBJI" Form

The new form developed in Angular used by the Registrar to make approved changes in the Container/Template Subject Structure.

Term Plan Form

The new form developed in React used by Department Administrators to make "Editorial" changes (edits to term plan, instructor, and URL fields) that do not require administrative approval by the Registrar or committee.

Backfill Programs

Other Changes

#work - may need to be relocated to a more intuitive location
-Repeatable - the flag to indicate that a subject is repeatable for credit is now the "RPT" attribute rather than a field of its own (SCRSU_VAR.SUBJ_REPEAT_IND)
-Total Credit Limit Units - this data was previously captured in a MITSIS table that was not part of the standard subject tables. Project Team decided to include this field in the subject_template table in the Container/Template Subject Structure. This field is designed to handle the scenario when a student can only get X number of credits from a subject, when X does not equal the sum of Lecture, Lab, and Prep units.
-Billing Units - this concept was carried into the Container/Template Subject Structure. This field is designed to store X number of units a student will get charged for, when X does not equal the sum of Lecture, Lab, and Prep Units.
-Design Units - this concept was not carried into the Container/Template Subject Structure, as the business plan is to discontinue use of these.

Changes to the Online Subject Listing

The source for Instructor and Url information to be shown will be the NSS (New subject Structure) tables.

Changes to the CIS menu system

As the CIS system will not be used for editing subject proposals, or as the upload source for MITSIS, adjustments are made to the menus. Also

the SEMI, SEMR, and SEMX menus will be removed.

Project Team Members

The following individuals worked on the CIM Courses project.

- Zahida Taher - Project Manager
- Jennifer Weiss - Technical Lead
- Felicia Leung - API Developer
- Preethi George Matheikal - Developer for MITSIS/CIS Backfills (Darsan)
- Steve Turner - Sr. Applications Architect (primarily focused on data conversion and Subject Requisites)
- Tim Riley - Business System Analyst
- Jeff Welch - User Interface Developer (primarily focused on SCASUBJI)
- Jan De Wilde - User Interface Developer (primarily focused on Term Plan)
- Marc Sacks - DevOps Engineer (primarily focused on QA and Automated Test Cases)
- Jude McJohn - Software Engineer (primarily focused on SDM Forms)
- Rikus Goosen - User Interface Developer
- Evert du Toit - Developer (assisted with CIM Inbound Feed Processing)
- Sharath Kancharla - User Interface Developer (no longer with MIT)

Subject Management Documentation Index

The Subject Management Documentation Index is the central listing for documentation pertaining to Subject Management.