

Building Block That Allows Instructors To Merge Courses

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<https://github.com/phillips1021/bbdevcon13>

About Me

- Java programmer – University of Kansas
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- Part of a team responsible for integrating Blackboard with other enterprise systems
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References

- GitHub -
https://github.com/phillips1021/phillips_b2_examples
- Blackboard Learn 9.1 SP 12 Help -
[https://help.blackboard.com/en-us/Learn/9.1 SP 12/Administrator](https://help.blackboard.com/en-us/Learn/9.1_SP_12/Administrator)
- Blackboard Learn 9.1 SP 12 Course Management -
[https://help.blackboard.com/en-us/Learn/9.1 SP 12/Administrator/160 Course Management/020 Managing Courses](https://help.blackboard.com/en-us/Learn/9.1_SP_12/Administrator/160_Course_Management/020_Managing_Courses)
- Building Blocks API -
<http://library.blackboard.com/ref/d9a0b6b8-1250-48eb-baa2-b1148e908f86/index.htm>

Requirements

- Create in Blackboard all classes offered per term
- Instructors who teach multiple classes need a way to merge those classes in Blackboard so they have only one Blackboard course to manage
- Starting with Bb Learn 9.1 SP 8 Blackboard provided administrators with mechanism to merge courses
- Having Blackboard administrator do all merges is not supportable due to volume and timeliness

Business Rules

- Parent (AKA Master) course must be an existing Bb course
- Instructor must be assigned to the parent and child courses
- A parent course cannot be a child of another course
- A child course can only have one parent course
- Parent and child courses must be in the same term

Course Merge Building Block

- Course tool visible only to instructors
- Instructor opens the Bb course that will be parent (AKA master)
- Instructor clicks on the Course Merge B2
- Instructor selects the child courses
 - Only sees child courses eligible for merging
- Instructor confirms the selections and completes the merge

Demonstration

Blackboard Course Merge APIs

- [CourseCourse](#)
 - represents a merged relationship between two courses
 - Stores PK1 values from course_main table for parent and child courses
- [CourseCourseDbLoader](#)
 - loadByParentId – returns collection of CourseCourse objects that are children of the provided parent course
 - loadParent – return CourseCourse object that represents the parent course of the provided child course

Blackboard Course Merge APIs

- [CourseCourseManagerFactory](#)
 - getInstance – returns CourseCourseManager object
- [CourseCourseManager](#)
 - addChildToMaster – creates the merge relationship; returns FailedCrossListEnrollments object
 - isCourseCrossListed – returns true if course is a parent or child course
- FailedCrossListEnrollments (not found in published API)
 - getAllFailedEnrollmentMessages – returns collection of Strings

Effect of Merging Courses

- What Do Instructors See?
- What Do Students See?
- What Do Systems Admin see?
- Blackboard Database Changes

What Do Instructors See

- Child courses are made unavailable
- Listing of courses includes note when a course is a child of another course
- Parent course enrollments include students from the child courses
- Instructor manages all content in the parent course

What Do Students See

- Title of child course in the listing of their courses
- Content shown for child course is content of the parent course

What Do System Admins See

- Up arrow indicating parent-child relationship
- Parent course enrollments include students from child course(s)
- Ability to separate the child course(s) from the parent course
- Ability to add additional child course(s) to the parent course

Database Changes

- For each parent – child relationship a record is inserted in the course_course table
- An enrollment record is inserted into the course_users table for each person who is in the child course but is not in the parent course
 - A column named child_crsmain_pk1 stores the value of the child course pk1
 - Problem is that for enrollments the merge only tracks one child course for a parent course but student could be in multiple child courses of the same parent
- If the person in the child course is already in the parent course then the child_crsmain_pk1 value is NOT updated in the course_users table

Issues

- Some parent course enrollments not correctly updated when courses are merged (SP 9)
- Some future child course enrollments are not correctly updated after courses are merged (SP 9-12)
- Student can be in multiple child courses but the merged enrollments can track only one child course (SP 9-12)
- What happens when students enrolled in a course that is merged drops either the parent or child course or both in Student Information System? (bug in SP 9, fixed in SP 12)

Questions?

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