

Bulk Course Create for Learning Environment 10.0 and higher July 2014

Contents

About Bulk Course Create Running the executable Configuration file Sample configuration file Elements in the configuration file CSV file Fields in the CSV file Sample CSV file Courses with no parent org units Setting up a course offering to manage bulk create Data logging for Bulk Course Create

Sample configuration file with data logging enabled Sample configuration log file path

About Bulk Course Create

Bulk Course Create (BCC) is a utility tool that enables you to create multiple courses at once using an automated process. You can also import multiple course packages without having to use the Import Course Components interface in Learning Environment.

You can run Bulk Course Create as a scheduled task. It uses a configuration file to identify the destination organization and location of the comma-separated values (CSV) files that specify which courses to create and what they should contain.

When BCC finishes processing all of the course offerings in a CSV file, it moves the file to the output directory you specified in the configuration file and begins processing the next CSV file. This continues until all CSV files are processed.

As the utility proceeds, it writes its progress to a message window. You can monitor the message window to verify that all course offerings are importing successfully. If an error occurs, it appears in the message window but it is not recorded in a log.

To create course offerings through BCC:

- 1. Create a CSV file containing the course's identifying information. (See <u>CSV file</u> for more information.)
- 2. Save the CSV file in the input directory.

The utility creates the course offerings the next time the process runs.

Running the executable

You must install the executable file BulkCourseCreate.exe on the server you use to run scheduled tasks (that is, your application or utility server). BulkCourseCreate.exe is available from Desire2Learn's Application Services department. Application Services can help you enable a scheduled task so you can upload CSV files through a course in Learning Environment to run through the process.

You can also run the utility from the command line, but you must have sufficient directory and file permissions for the process to succeed. Use the following command to run the executable:

<application path>\BulkCourseCreate.exe -c <configuration file> [-s] [-x]

-s is an optional parameter that causes the application to ignore the output folder. CSV files remain in the input folder as they are processed.

-x is an optional parameter that suppresses the message window. This parameter is required if you run the utility as a scheduled task under another account, otherwise the program does not exit when it is finished. You cannot review errors in the bulk course create process if the message window is suppressed.

Configuration file

The configuration file specifies the following:

- The organization to import course offerings to.
- The location of the input folder containing the CSV files to be processed.
- The location of the output folder where processed files are saved.
- The components that need to be imported for each course offering.

Note Since you can have multiple configuration files, specify which configuration file to use in the command line when you call the executable.

Sample configuration file

xml version="1.0" ?
<configuration></configuration>
<org_id>344</org_id>
<user_id>7110</user_id>
<folders></folders>
<sourcedata>\\stc01\math\web\content\math\BCC\math\ inbox</sourcedata>
<processeddata>\\stc01\math\web\content\math\BCC\math\outbox </processeddata>
<basecontentpath>\\stc01\math\web\content</basecontentpath>
<courses></courses>
<coursesinactive>true</coursesinactive>
<existingcourselink>true</existingcourselink>
<overwritebehaviour>true</overwritebehaviour>
<importcontent>true</importcontent>
<importdiscussions>true</importdiscussions>
<importdropboxes>true</importdropboxes>
<importexternallinks>true</importexternallinks>
<importglossary>true</importglossary>
<importgradebooks>true</importgradebooks>

<importquizzes>true</importquizzes>
<importselfassessments>true</importselfassessments>
<importsurveys>true</importsurveys>
<importmetadata>true</importmetadata>
<pre><importcompetencies>true</importcompetencies></pre>
<contentreplacewebctvar>true</contentreplacewebctvar>
<fixcoursepaths>true</fixcoursepaths>
<nextonerror>true</nextonerror>

You can omit any of the <import> elements within the <courses> element. If you omit them, the utility uses the default value (true) and imports the associated tools. If you omit all of them, you may also omit the <courses> element, in which case, all components supported by the BCC utility are imported.

Elements in the configuration file

Element	Description	Accepted Values
<org_id></org_id>	The ID number for the organization you want to create courses for.	Valid org ID
<user_id></user_id>	The ID number for the Desire2Learn user the utility uses when importing any tools that require a user ID. Available from Desire2Learn Application Services.	Valid user ID
<sourcedata></sourcedata>	The path for the input folder containing the CSV files to process.	Valid file path (folder must exist)
<processeddata></processeddata>	The path for the output folder where processed CSV files are saved.	Valid file path (folder must exist)
<basecontentpath></basecontentpath>	The base content path for the organization.	Valid file path (a new folder is created if one does not already exist)
<importchats></importchats>	Option to import chat items.	True, False (case insensitive).

Element	Description	Accepted Values
		Default is True.
<importchecklists></importchecklists>	Option to import checklist items.	True, False (case insensitive).
		Default is True.
<importcompetencies></importcompetencies>	Option to import competencies.	True, False (case insensitive).
		Default is True.
<importcontent></importcontent>	Option to import content modules and topics	True, False (case insensitive).
	topics.	Default is True.
<importdiscussions></importdiscussions>	Option to import discussion forums and	True, False (case insensitive).
	topics.	Default is True.
<importdropboxes></importdropboxes>	Option to import dropbox folders.	True, False (case insensitive).
		Default is True.
<importexternallinks></importexternallinks>	Option to import links from the Links tool.	True, False (case insensitive).
		Default is True.
<importfaqs></importfaqs>	Option to import FAQ questions.	True, False (case insensitive).
		Default is True.
<importglossary></importglossary>	Option to import glossary items.	True, False (case insensitive).
		Default is True.
<importgradebooks></importgradebooks>	Option to import grade items.	True, False (case insensitive).
		Default is True.
<importnews></importnews>	Option to import news items.	True, False (case insensitive).
		Default is True.
<importquizzes></importquizzes>	Option to import quizzes.	True, False (case insensitive).
		Default is True.
<importquestionlibs></importquestionlibs>	Option to import all questions contained in the question library.	True, False (case insensitive).
		Default is True.
<importrubrics></importrubrics>	Option to import rubrics.	True, False (case insensitive).
		Default is True.

Element	Description	Accepted Values
<importschedules></importschedules>	Option to import course offering events from the calendar.	True, False (case insensitive). Default is True.
<importselfassessments></importselfassessments>	Option to import self assessments.	True, False (case insensitive). Default is True.
<importsurveys></importsurveys>	Option to import surveys.	True, False (case insensitive). Default is True.
<importmetadata></importmetadata>	Option to import metadata associated with content topics and modules.	True, False (case insensitive). Default is True.
<overwritebehaviour></overwritebehaviour>	Option to overwrite existing content files when importing a course package.	True, False (case insensitive). Default is True.
<contentreplacewebctvar></contentreplacewebctvar>	Option to replace WebCT variables.	True, False (case insensitive). Default is True.
<fixcoursepaths></fixcoursepaths>	Option to fix course content paths when importing a course package.	True, False (case insensitive). Default is True.
<coursesinactive></coursesinactive>	Option to set the course to inactive at creation time.	True, False (case insensitive). Default is False (the course is active).
<existingcourselink></existingcourselink>	Option to link courses to existing course templates if they exist. Note If this value is False, but you provide a valid course template code, an error occurs.	True, False (case insensitive). Default is True.
<nextonerror></nextonerror>	Option to continue processing the next line of a CSV file or the next CSV input file, if an error occurs.	True, False (case insensitive). Default is True.

CSV file

You must specify the course offerings that will be created in one or more CSV files located in the input folder. Once the utility processes a CSV file, it moves the file to the

output folder. You must specify the locations of both folders in the configuration file when calling the utility.

Each line in the CSV file represents one course offering to be created (there is no header row). There are nine values that you can specify for each course. They appear in the table below in the order you must use.

Fields in the CSV file

Field	Description	Accepted values
Required values		
Course offering code	Code for the course offering.	Valid course offering code (created if it does not exist)
Course offering name	Name of the course offering.	Valid course offering name (created if it does not exist)
Semester code	Semester code for the course offering.	Valid existing semester code (obtain the necessary codes from your organization)
Template code	Template code that the course offering belongs to.	Valid template code (created if it does not exist)
Template name	Name of the template that the course offering belongs to.	Valid template name (created if it does not exist)
Department code	Department code that the course offering belongs to.	Valid existing department code
Course package path	Path the Bulk Course Create executable uses to locate a course package to import for course materials.	"None" or valid filename (path is optional)
	If you provide only a filename, the executable uses the path in the <sourcedata> element of the configuration file (the same location as the CSV).</sourcedata>	
	If you use the value "none", the executable creates only the course shell.	
Optional values		
Active status	Sets whether or not the course is active at creation.	True, False (case insensitive)
	This overrides the <coursesinactive> element in the configuration file.</coursesinactive>	

Link to existing	Sets whether course is linked to an existing course template.	True, False (case insensitive)
	This value overrides <existingcourselink> in the configuration file.</existingcourselink>	

Sample CSV file

Math101, Math101 - Introduction to Math, Q1-2011, Math101, Math100, Math, \\LVU\Math\Courses\Math101\W07\Math101.zip, False, True Math201, Math201 - Intermediate Math, Q3-2010, Math201, Math200, Math, none, False, True PSCI104D, The European Union, Q4-2010, PSCI104, PSCI100, PSCI, none, True, True ECON330, Industrial Organization - Distance Education, Q4-2010, ECON330, ECON-DE, ECON, \\LVU\ECON\Courses\ECON330\DE, True, True

Courses with no parent org units

The utility cannot create courses that reference departments or semesters that do not exist. If you set the <nextonerror> element in the configuration file to True, then the utility processes the next course in the CSV file. If you set it to False, the BCC process stops on the course with the error.

Setting up a course offering to manage bulk create

If you want to enable other users in your organization to create course offerings or import course content using the BCC process, but they don't have direct access to your file server, you can set up a course offering shell to provide access to the input and output folders through Learning Environment.

You can do this by creating a new course offering and setting the **Course Offering Path** to the bulk create folder, with the input and output folders beneath it. (For example, if your input folder is E:\BulkCourseCreate\input\ and your output folder is E:\BulkCourseCreate\output\, you would set the **Course Offering Path** to E:\BulkCourseCreate\.)

Note To provide access through a course offering, locate the bulk create folders under the organization's \content\ directory.

Enable the following File Management role permissions to give users access to the course offering:

- See the File Listing
- Upload Files
- Edit Files

These permissions allow users to upload CSV files to the input folder using the **Manage Courses** tool inside the course offering.

- Create a Bulk Course Create course shell
 - 1 In the S Admin Tools menu on the minibar, click Course Management.
 - 2 On the Manage Courses page, click Create a New Course Offering or Template.
 - 3 If you already have a generic support or system template for course offerings that are used for purposes other than teaching:
 - a) Choose the option **Create a new course offering based on an existing template**.
 - b) Select the template from the drop-down list or click **Search for template** to locate the template on a search page.
 - c) Click **Next**.

If you do not already have an appropriate template:

- a) Choose the option Create a new course template and a new course offering that has never been offered before, then click Next.
- b) On the Enter Template Information page, enter a **Course Template Name** and **Course Template Code** (e.g. enter "System" for both the name and code) and click **Next**.
- c) Click the option **New Department** or select a suitable department that already exists, and skip the next step.
- d) Enter a Department Name and Department Code.
- e) Click Next.
- 4 On the Enter Course Information page, type the **Course Offering Name** "Bulk Course Create" and the **Course Offering Code** "BCC".
- 5 Click the **Browse** button beside the **Course Offering Path** field.
- 6 Navigate to the Bulk Course Create folder by clicking the names of the folders in its path. Once you arrive at the Bulk Course Create folder (with the Input and Output directories beneath it) click the **Select** button.
- 7 Click **Next**, then click **Create**.

Access Bulk Course Create through the course offering

1 Access the Bulk Course Create course offering from the course selector on the minibar or the My Courses widget.

Note Users must be enrolled in the course and have an Active status to see Bulk Course Create in the course selector and access the course's Manage Files area.

- 2 Do one of the following to access the **Manage Files** area:
 - Click Section Edit Course on the navbar, then click Anage Files.
 - Click Manage Files in the Course Administration widget.
- 3 The Input and Output folders are in the list of folders on the Manage Files page. You can do the following:
 - Click the name of a folder to open it and view the files inside.
 - To add course offerings to the create process, select the Input folder, then click
 Upload to upload the CSV file listing the course offerings.

Data logging for Bulk Course Create

You have the option to create detailed data logs by adding the <enablelogging> element inside of \configuration\courses\ in the configuration file. Setting the value to True enables logging. Removing this element, or setting the value to False, disables logging.

Sample configuration file with data logging enabled

```
<?xml version="1.0" ?>
<configuration>
```

<pre></pre>		
<pre></pre>		<coursesinactive>true</coursesinactive>
<pre></pre>		<existingcourselink>true</existingcourselink>
<pre></pre>		<overwritebehaviour>true</overwritebehaviour>
<pre></pre>		<importcontent>true</importcontent>
<pre></pre>		<importdiscussions>true</importdiscussions>
<pre></pre>		<importdropboxes>true</importdropboxes>
<pre></pre>		<importexternallinks>true</importexternallinks>
<pre></pre>		<importglossary>true</importglossary>
<pre></pre>		<importgradebooks>true</importgradebooks>
<pre></pre> <pre><</pre>		<importquizzes>true</importquizzes>
<pre>true <importsurveys>true <importmetadata>true</importmetadata> true <fixcoursepaths>true</fixcoursepaths> true </importsurveys></pre>		<importselfassessments>true</importselfassessments>
<pre>true true true true </pre>		<importsurveys>true</importsurveys>
<pre><contentreplacewebctvar>true</contentreplacewebctvar> <fixcoursepaths>true</fixcoursepaths> <nextonerror>true</nextonerror> <enablelogging>true</enablelogging> </pre>		<importmetadata>true</importmetadata>
<fixcoursepaths>true</fixcoursepaths> <nextonerror>true</nextonerror> <enablelogging>true</enablelogging>		<contentreplacewebctvar>true</contentreplacewebctvar>
<nextonerror>true</nextonerror> <pre> </pre>		<fixcoursepaths>true</fixcoursepaths>
<mark><enablelogging>true</enablelogging></mark>		<nextonerror>true</nextonerror>
		<pre><enablelogging>true</enablelogging></pre>
	<	/courses>
	<td>></td>	>

The BulkCourseCreate.exe configuration file must specify the path of the log file. You specify the path name of the log file in \configuration\log4net\appender\"File". For example:

```
<param name="File"value=".\Outbox\bce.log"/>
```

Note The configuration file must be located in the same folder as BulkCourseCreate.exe.

Sample configuration log file path

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
      <configSections>
              <section name="log4net"</pre>
               type="log4net.Config.Log4NetConfigurationSectionHandler,
               Log4net"/>
      </configSections>
      <log4net>
              <logger name="D2L.BulkCourseCreate">
                      <level value="Info" />
                      <appender-ref ref="BCCLogFileAppender" />
              </logger>
              <appender type="log4net.Appender.RollingFileAppender"
               name="BCCLogFileAppender" >
                      <param name="File"value="E:\BulkCourseCreate\</pre>
                      Outbox\NewLog\bcc.log" />
                      <param name="AppendToFile" value="true" />
                      <param name="RollingStyle" value="Composite" />
                      <param name="DatePattern" value=".yyyyMMdd" />
                      <param name="StaticLogFileName" value="true" />
                      <param name="MaxSizeRollBackups" value="5" />
                      <param name="MaximumFileSize" value="1MB" />
                      <layout type="log4net.Layout.PatternLayout">
                             <param name="ConversionPattern" value="%-</pre>
                              5p%d{yyyy-MM-dd hh:mm:ss} - %m%n" />
```

</layout>

</appender>

</log4net>

</configuration>