



Blackboard

Blackboard Academic Suite™

Release Notes

Release 4, Application Pack 2
Blackboard Learning System™ - Vista Enterprise
Release 6, Application Pack 2
Blackboard Learning System™ - CE Enterprise

Release Notes

Publication Date: May 2007

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INTRODUCTION

About the Release Notes

The Release Notes provide Administrators with the information needed for a successful installation or upgrade. This includes information on installation, product and browser compatibility, new feature descriptions, and fixed and known issues. It also includes changes to existing functions that may impact the way the system is currently used.

What is in the Release Notes?

The Release Notes contain the following sections:

- [New Features and Enhancements](#) – Describes new features in this release, and additional important enhancements that have been made to the system. This section also includes information about how to enable or disable these features.
- [Compatibility Matrixes](#) – Explains dependencies between the new application and existing Blackboard applications in the field. Also, includes information on which server configurations are supported with this release and which end user browsers and operating systems are supported.
- *Blackboard Learning System™ - Vista Enterprise* [Updater Instructions](#) – Describes general information about the *Blackboard Academic Suite* Updater and explains steps for running the Updater. For new installations, please consult the Installation Guides.

NEW FEATURES AND ENHANCEMENTS

Overview

Blackboard Learning System – Vista Enterprise Application Pack 2 (Release 4) and *CE Enterprise* Application Pack 2 (Release 6) contains enhancements to both system administration and course management.

This section reviews the new features in Application Pack 2, explains their default availability upon installation, and specifies Blackboard license requirements.

New features and enhancements fall into the following categories:

- [Terms](#)
- [Additional Learning Context Information](#)
- [Expanded Search Capabilities](#)
- [User Manager Improvements](#)
- [More Flexible Learning Contexts](#)
- [Course Management Enhancements](#)
- [Assessment Improvements](#)

TERMS

Overview

Administrators can now organize Sections into terms to enable a school's course management system to integrate seamlessly with their course offerings. Administrators can create Terms at the institution level from the Utilities tab and can sort Sections by start and end dates. Administrators can now use term criteria to search for Sections, or they can sort a list of Sections by Term.

Terms can also be used to control Section access. New options added to Learning Context Settings allow Administrators, Designers, and Instructors to specify when Sections are available, and to whom, based on their term start and end dates.

ADDITIONAL LEARNING CONTEXT INFORMATION

Overview

The new Learning Context View Information option added in Application Pack 1 has been extended to include more options. Administrators can now view the following types of information for a Learning Context:

- Term data
- Whether content is assigned to the Learning Context
- Date last accessed by a Learner
- Date last accessed by an Instructor, Designer, or TA
- Title of parent Course
- Direct-Link-to-Section URL
- Number of enrollments by role and, depending on the Learning Context, the names of enrolled users

EXPANDED SEARCH CAPABILITIES

Overview

The Section Search tool includes, but is not limited to, the following new search criteria:

- Term Start Date
- Instructor Enrollments
- Last Accessed by a Student
- Created on
- Parent Course Title

In addition, nine new search criteria added to the Find Portfolios feature include, but is not limited to, the following:

- Portfolio Designer Enrollments
- Created on
- Last Accessed by Portfolio Reviewer.

Both search tools now allow searches to be saved. Administrators will find that these enhancements result in more accurate and efficient searches.

Search results have also been enhanced; the Search Results page now displays the total number of Sections returned and the query statement.

EXAMPLE: *Total Results: 13 | Query: Section Instructor Enrollments Greater than 10*

This will be particularly helpful if boolean operators (And/Or) are used to combine multiple criteria into a single search. Administrators can see exactly how the search results were generated.

USER MANAGER IMPROVEMENTS

Overview

The User Manager tool has been moved to a new tab in the Administration area to improve efficiency and streamline Administrator tasks. The User Manager main page has been simplified and now displays four links to the primary User management tasks: creating users, finding users, deleting users, and managing user data columns. There have also been improvements to user queries and enrollment.

Expanded User Query Options

The User query feature has been updated and is now accessed from the Find Users screen. This screen is divided into three tabs: **Query by User Information**, **Saved Queries**, and a new option, **Query by Enrollment**. With this new query, Administrators can navigate to a Learning Context, select a role or set of roles, and find Users based on their enrollment in that Learning Context and all child Learning Contexts.

Three new query criteria have been added: **Last logout time**, **My Files (MB)**, and **Photo**. Query results have also been enhanced; the Query Results page now displays the total number of users returned, and the query statement.

EXAMPLE: *Total Results: 93| Query: Last name begins with Ba*

Enhanced Enrollment

Administrators can now enroll multiple users from within User Manager to improve enrollment efficiency. By selecting users from the Query Results screen, Administrators can search for a Section, or multiple Sections, and enroll the Users in a role. This new function has also been applied in Portfolios; Administrators can now use Find Users to enroll one or more users in multiple Portfolios.

In addition, a new field has been added to each Learning Context's Enrollment screen to allow Administrators to enroll a single User by simply entering his or her Username. After entering the User's username, the Administrator clicks **Enroll** and the User is enrolled.

MORE FLEXIBLE LEARNING CONTEXTS

Overview

Learning Context administration is more efficient through the addition of some new controls. Administrators can now move Learning Contexts, remove assigned content from a Section, and batch-copy Section content to template.

Movable Learning Contexts

Administrators can now move Sections, courses, and groups, including their associated child Learning Contexts, from one parent Learning Context to another to facilitate the management of Learning Contexts. All enrollments, content, templates, and file subscriptions associated with the Learning Context and all child Learning Contexts will also be moved. As part of the move process, Administrators have the option to maintain all existing settings, inherit settings from the new parent, or a combination of both.

In some cases, Learning Contexts cannot be moved:

- Sections, Courses, Groups and Divisions cannot be moved to another institution.
- Institutions cannot be moved to another server.
- Only lateral moves are allowed; Learning Contexts cannot be moved up or down the Learning Context hierarchy. For example, a course Learning Context cannot be promoted to the group Learning Context level.

Enhanced Content Assignment

Administrators can now remove content from a Section using the Section's Edit Properties option. After content is removed, the Administrator can re-assign content from another source, or a Designer can enter the Section and select a content assignment option.

More Efficient Template Creation

Administrators can now simultaneously copy more than one Section to a template. Administrators can select multiple Sections and copy each Section's content to a template. Template naming and saving options are also available.

COURSE MANAGEMENT ENHANCEMENTS

Overview

Enhancements in course management increase efficiency in the Media Library and Assessments tools. Furthermore, the Blackboard Learning System allows for the management of time zones to enable consistency and similarity.

Media Library Improvements

Designers and instructors can now export and import Media Library entries. This includes all text entries and associated file attachments, such as images. If Designers and Instructors want to import Media Library entries that were not originally created using the Media Library tool, the entries must be stored in a CSV (comma separated value file), text file, or zip file.

Time Zone Support

Administrators can now specify the system default time zone for each institution on a server by configuring a new setting in International Settings. In addition, users that reside in a different time zone than the system default can now go to My Settings to configure their local time zone and override the system default.

EXAMPLE: An instructor for a distance education institution creates an assignment that is due at 4:00 P.M. Eastern Time. A student has set her local time zone in My Settings to Pacific Time. The assignment will be displayed to this student with a submission cutoff time of 1:00 P.M. Pacific Time.

In addition, for those time zones that use daylight savings time, the time will now automatically adjust.



NOTE: All dates and times continue to be stored in the database based on the time zone of the server.

ASSESSMENT IMPROVEMENTS

Assessment Reporting Enhancements

Some significant improvements have been made to the View Reports option in Assessment Manager:

- The user interface has been simplified to improve usability.
- The full set of statistics is now generated for surveys.
- The Performance and Item Statistics reports have been combined into a single Overall Statistics report, which instructors can view by student or by question. This report can be converted to a Printable Statistics View that includes a Grade Distribution Summary chart to give instructors more insight into student performance. In addition, instructors can now view the following from the Printable Statistics View:
 - statistics for each answer set in a calculated question
 - all student responses to a paragraph question
- The Summary Statistics and Class Statistics reports have been combined into a single Comparison Statistics report. It allows instructors to compare students by summary statistics or by question.
- A new column that displays the median score for each question has been added to the two new reports.

Greater Flexibility in Releasing Grades

Two new options have been added to the Student Score section of the Edit Assessment Properties screen:

- Release the score after the availability period has ended.
- Release the score after the availability period has ended and all of the questions have been graded.

APPLICATION PACK 2 CHANGES

The table below displays a quick look at the functional changes in Application Pack 2.

COMPONENT/ SUBSYSTEM	CHANGE	DESCRIPTION
Administrator Panel	Drop-down menu for terms	Allows the Administrator to define terms
Administration Panel	Term Support	Allows Administrators to define terms with specific start and end dates.
Administration Panel	Terms field	Allows for sorting, searching, and organization of Sections within the Administrator user interface and the Section Search user interface.
Administration Panel	Access term options	Allows Administrators to determine the accessibility of viewing terms.
Administration User Interface	User Manager tab moved under Administrator tab	User Manager tab is not a peer to the Administrator. It allows for better integration with the Blackboard Community System.
Administrator User Interface	Option to Un-Assign Content to Section	Administrators can now go into the Section edit screen and select an option to delete content.
Assessments	New statistics: Paragraph, calculated questions statistics, grade distribution charts per question, median and percentages per answer	Allows for a more complete view of assessment and survey results.
Assessment	Release options	Assessment results can now be released when the availability date has passed, or when the availability date has passed and all questions have been graded.
Media Library	Import/Export of Glossary Terms	Designers and Instructors can now import and export Media Library entries and their attachments.
Portfolio Search	New search field: Portfolio Reviewer Enrollments, Portfolio Designer Enrollments, Portfolio Owner Enrollments	Allows Portfolio searching by enrollments.
Portfolio Search	New search field: Total Enrollments	Allows Administrators to search by total enrollments of users.
Portfolio Search	New search field: Creation Date	Allows Administrators to search by the creation date of a Portfolio.
Portfolio Search	New search field: Content Assigned	Allows Administrators to search according to the content assigned.

COMPONENT/ SUBSYSTEM	CHANGE	DESCRIPTION
Portfolio Search	New search field: Portfolio's Files	Allows Administrators to search for particular Portfolio files.
Portfolio Search	New search field: Date Last Accessed by Portfolio Reviewer, Date Last Accessed by Portfolio Owner	Allows Administrators to search for the last date of a review or access of a Portfolio.
Section Search	New search field: Learning Context ID (LCID) [N]	Allows searching by a Learning Context ID.
Section Search	New search field: Term Title, Term Start Date, Term End Date	Allows searching by Terms.
Section Search	New search field: Section Instructor Enrollments, Section Designer Enrollments, Section Teaching Assistant Enrollments, Learner Enrollments, Total Enrollments	Allows searching by Enrollments.
Section Search	New search field: Creation Date	Allows searching by Creation Date.
Section Search	New search field: Content Assigned	Allows searching by Content Assigned.
Section Search	New search field: Section's Files	Allows searching by Section's Files.
Section Search	New search field: Date Last Accessed by Learner, Date Last Accessed by Designer/Instructor/TA	Allows searching by access date.
Section Search	New search field: Parent Course Title	Allows searching by Parent Course Title.
Section Search	New search field: Full Description	Allow searching by Full Description.
Section Search	New search field: Cross-Listed	Allows searching by Cross-Listed.
Section Search	New control: Copy to Template added	Permits an Administrator to copy a large group of sections to a template at once.

COMPONENT/ SUBSYSTEM	CHANGE	DESCRIPTION
Section and Portfolio Search	Search query results display query	When viewing query results, Administrators see the exact query entered.
Section and Portfolio Search	Saved searches	Allows a search to be saved for later use.
Section and Portfolio Search	Paging increased to 9999	Displays more results in a search.
User Query/Search	Query for Users by role	Allows Administrators to search for Users by role.
User Manager: User Query	New user query field options: Last Institution (Before / Equal to / Not equal to / After) DATE	Allows User Managers to search by Date.
User Manager: User Query	New user query field options: My Files (Equal to / Not equal to / Greater than / Greater than or equal to / Less than / Less than or equal to) Megabytes	Allows User Managers to search by size.
User Manager: User Query	New user query field options: Profile Contains Photo (True / False)	Allows Users Managers to search by availability of Photo.
User Manager: User Query	Paging increased to 9999	Allows for greater search results.

COMPATIBILITY MATRIXES

Overview

This section of the document includes information on the following:

- [Server Compatibility Matrix](#) – Explains which server configurations are supported with this release. For example, the required versions of databases and operating systems are included here.
- [End User Compatibility Matrix](#) – Reviews which end-user browsers and operating systems are supported with this release.

SERVER COMPATIBILITY MATRIX

Server Compatibility

Server software must meet certain requirements before installing the *Blackboard Learning System™ - Vista Enterprise and CE Enterprise*, Application Pack 2. The following are important to keep in mind when setting up the server software:

- The database is run on a separate server when using two or more servers. Thus, appropriate client tools for the database must be installed on the Web/Application server or servers when using a configuration with two or more servers.
- Certified configurations are fully tested and supported.
- Compatible configurations are partially tested but should function properly.

Updating the Operating System or Database Version

When installing an update to the operating system or database to support a new version of the Blackboard Academic Suite, always update the Blackboard Academic Suite and then make the updates to the database and operating system. Installing the database or operating system on an earlier version creates the risk of destabilizing the existing, earlier version. Please take care to back up the database and file system and test the restore process before installing an update.

Certified Server Configurations for the Blackboard Learning System – Vista Enterprise (Release 4.2)

WINDOWS	SUN SOLARIS	RED HAT ENTERPRISE LINUX
<p>Microsoft® Windows® 2003 Server R2</p> <ul style="list-style-type: none"> • Microsoft® SQL Server 2005 Enterprise Edition or Microsoft® SQL Server 2005 Standard Edition • Java 2 Platform®, Standard Edition 5.0 • WebLogic® 9.2 	<p>Sun® Solaris™ 10 Updater 2</p> <ul style="list-style-type: none"> • Oracle® 10g R2 version 10.2.0.2 • Java 2 Platform®, Standard Edition 5.0 • WebLogic® 9.2 	<p>Red Hat® Enterprise Linux® 3.0</p> <ul style="list-style-type: none"> • Oracle® 10g R2 version 10.2.0.2 • Java 2 Platform, Standard Edition 5.0 • WebLogic® 9.2

Compatible Server Configurations for Blackboard Learning System – Vista Enterprise (Release 4.2)

WINDOWS	SUN SOLARIS	RED HAT LINUX
<p>Microsoft® Windows® 2003 Server R2</p> <ul style="list-style-type: none"> • Microsoft® SQL Server 2005 Enterprise Edition or Microsoft® SQL Server 2005 Standard Edition • Java 2 Platform®, Standard Edition 5.0 • WebLogic® 9.2 	<p>Sun® Solaris™ 10 Update 2</p> <ul style="list-style-type: none"> • Solaris® 10 Update 2 and Solaris 9 • Java 2 Platform®, Standard Edition 5.0 • WebLogic® 9.2 	<p>Red Hat® Enterprise Linux® 3.0/4.0</p> <ul style="list-style-type: none"> • Oracle® 9i version 9.2.0.7 (w/Patch Set 419214) and 10.2.0.3 • Can Also connect to Microsoft® Windows® 2003 Server R2 Database Server Running Microsoft® SQL Server 2005 Enterprise Edition or Microsoft® SQL Server 2005 Standard Edition • Java 2 Platform®, Standard Edition 5.0 • WebLogic® 9.2

Certified Server Configurations for Blackboard Learning System – CE Enterprise (Release 6.2)

WINDOWS	SUN SOLARIS	RED HAT LINUX
Microsoft® Windows® 2003 Server R2	Solaris 10 Update 2	Red Hat Linux 3.0
<ul style="list-style-type: none"> • Microsoft® SQL Server 2005 Enterprise Edition or Microsoft® SQL Server 2005 Standard Edition • Java 2 Platform®, Standard Edition 5.0 • WebLogic® 9.2 	<ul style="list-style-type: none"> • Oracle® 10G R2 10.2.0.3 • Java 2 Platform®, Standard Edition 5.0 • WebLogic® 9.2 	<ul style="list-style-type: none"> • Oracle® 10G R2 10.2.0.3 • Java 2 Platform®, Standard Edition 5.0 • WebLogic® 9.2

Compatible Server Configurations for Blackboard Learning System – CE Enterprise (Release 6.2)

WINDOWS	SUN SOLARIS	RED HAT LINUX
Microsoft® Windows® 2003 Server R2	Solaris 10 Update 2	Red Hat Linux 3.0/4.0
<ul style="list-style-type: none"> • Oracle® 9.2.0.7 (w/Patch Set 419214) and 10.2.0.3 • Java 2 Platform®, Standard Edition 5.0 • WebLogic® 9.2 	<ul style="list-style-type: none"> • Oracle® 9.2.0.7 (w/Patch Set 419214) • Java 2 Platform®, Standard Edition 5.0 • WebLogic® 9.2 	<ul style="list-style-type: none"> • Oracle® 9i version 9.2.0.7 (w/Patch Set 419214) and 10.2.0.3 • Can Also connect to Microsoft® Windows® 2003 Server R2 Database Server Running Microsoft® SQL Server 2005 Enterprise Edition or Microsoft® SQL Server 2005 Standard Edition • Java 2 Platform®, Standard Edition 5.0 • WebLogic® 9.2

- Non-English applications, both operating systems and databases (such as a Chinese-language version of Oracle), are considered compatible with *Blackboard Learning System Application Pack 2* for CE and Vista. These systems have not undergone official Blackboard Product Development testing.
- Java 2 Platform® and WebLogic® ship with the product.

END USER CONFIGURATION MATRIX

End User Configuration Guidelines

End users must use a certified or compatible operating system and browser configuration with Application Pack 2.

		Windows® Operating Systems			Mac® Operating Systems		
		2000	XP	Vista Desktop	10.2	10.3	10.4
Microsoft® Internet Explorer® Web Browsers	5.2	N/A	N/A	N/A	N/A	N/A	N/A
	5.5	N/A	N/A	N/A	N/A	N/A	N/A
	6	C	✓	N/A	N/A	N/A	N/A
	7	N/A	✓	C	N/A	N/A	N/A
Netscape® and Mozilla® Web Browsers	NS 7.1	N/A	N/A	N/A	N/A	N/A	N/A
	NS 8.0	N/A	N/A	N/A	N/A	N/A	N/A
	Firefox 1.0	N/A	N/A	N/A	N/A	N/A	N/A
	Firefox 1.5	C	C	N/A	N/A	N/A	N/A
	Firefox 2.0	C	✓	C	N/A	✓	✓
Web Browsers Apple® Safari®	1	N/A	N/A	N/A	N/A	N/A	N/A
	1.1	N/A	N/A	N/A	N/A	N/A	N/A
	1.3	N/A	N/A	N/A	N/A	C	C
	2	N/A	N/A	N/A	N/A	✓	✓

KEY	
✓	Certified – fully tested and supported
C	Compatible – key application areas tested
N/A	Not tested – specified Browser is not supported for the Operating System
P	Provisional – will test on Beta versions of new platforms and browsers. Certification is dependant on release by 3 rd parties

- All configurations marked as Compatible and have undergone a limited engineering analysis to test areas of the application that may have browser issues. Additional information on known browser issues may be found in the Knowledge Base.
- Gecko is the shared rendering engine at the heart of the Firefox 1.0, Netscape 7.1 and Mozilla 1.5 browsers, which are all considered compatible browsers. Only Firefox has undergone testing that qualifies it as Certified.

Java Runtime Environment (JRE) Versions

Some features in this application pack require your browser to be configured to use a supported Java plug-in. The Java plug-ins are part of the Sun Microsystems™ Java Runtime Environment (JRE) installation packages, which can be downloaded from <http://www.java.com>. This application pack supports the following JRE versions but we recommend that you use the most recent WebCT-certified version:

- 1.3.1 on Mac OS operating system software only
- 1.4.2_x
- 1.5.0_04 and higher

SUPPORTED PATHS FOR IMPORTING AND RESTORING COURSES

Supported Paths for Blackboard Learning System – Vista Enterprise (Release 4.2) and CE Enterprise (Release 6.2)

The table below identifies the supported paths for importing or restoring a course that was exported or archived from an earlier version. Certified paths are fully tested and supported by Blackboard. Compatible paths are not fully tested but should function correctly based on past performance.

SOURCE*	SUPPORT
CE 4	Certified

*Paths for Importing and Restoring courses are not backward compatible. Courses may be Imported or Restored to a newer version, but courses from a newer version may not be Imported or Restored to an earlier version.

SUPPORTED UPDATE PATHS

The table below outlines the update paths for Release 4 and 6, Application Pack 2.

PREVIOUS VERSION	DIRECT UPDATE TO 4.2	DETAILS
Vista 3	No	Update to Vista 4.1/CE 6.1, Service Pack 1; then update to Vista 4.1/CE 6.1, Service Pack 2; then, update to Vista 4.2/CE 6.2.
CE 4	No	Install Vista 4.1/CE 6.1, Service Pack 1; migrate data to new version; then update to Vista 4.1/CE 6.1, Service Pack 2; then, update to Vista 4.2/CE 6.2.
Vista 4.1/CE 6.1	No	Run the Utility Webct1300_sp1_check_62590 to update to Vista 4.1/CE 6.1, Service Pack 1; then update to Vista 4.1/CE 6.1, Service Pack 2; then, update to Vista 4.2/CE 6.2.
Vista 4.1/CE 6.1 (SP1)	No	Update to Vista 4.1/CE 6.1, Service Pack 2. The update to Vista 4.2/CE 6.2..
Vista 4.1/CE 6.1 (SP2)	Yes	Direct upgrade to 4.2 See the installation instructions in this document.

UPDATE INSTRUCTIONS FOR APPLICATION PACK 2

Before Upgrading

Before you install Application Pack 2, you must do the following:

1. Ensure the database has been backed up.
2. Ensure the WebCT domain directory has been backed up.
3. Ensure you have installed Application Pack 1.
4. If WebCT has not been started since Application Pack 1 was installed, you must start WebCT:
 - On a standalone deployment, start the application server.
 - On a clustered deployment, start the administration server and at least one managed server.
5. If the Vista 3 to Vista 4 Updater has been used to update from Vista 3.0.7 to Vista 4.1.1/CE 6.1.1, drop view DC_WEBCT_FOLDER_PATH before the update to 4.2
6. If you are using custom colors in MyBlackboard, your custom color scheme is not retained during installation; the system default color scheme is applied. To assist you in reconfiguring your custom colors after installation is complete, from the MyBlackboard screen, click **Color** and record the color you are currently using for each setting. If you are using Kerberos™ for user authentication, some values in the Kerberos (A) and Kerberos (B) Authentication settings are not retained during installation. To assist you in reconfiguring the Kerberos settings after installation is complete, from the Settings screen, click **Kerberos (A)** and **Kerberos (B)** and record the current values for Host name and Port number.
7. We recommend that you perform a garbage collection on your existing WebCT installation to remove all deleted data:
 - a. Log in as a Server Administrator.
 - b. Change the URL in the internet address field to the following:
`http://<hostname>:<port number>/webct/support.jsp`



NOTE: If you are using SSL, replace http with https.

- c. Press ENTER.
- d. Under Option, click **Run Vista Garbage Collection now**.



NOTE: You can disregard the Note at the top of the screen.

- e. Scroll to the bottom of the page and click **Return to WebCT**.
 - f. From the Background Jobs tab, click **Refresh**.
 - g. Locate the garbage collection job that you initiated. If the job's status is In Progress, continue to click **Refresh** periodically until the status updates to Complete (Success).
8. Ensure Java is installed and the path to the Java executable is included in your environment's path.

9. If installing on Linux or Solaris, ensure there is an X Server running.
10. Ensure the database server is running.
11. Ensure WebCT is shut down.
12. If installing on Windows, ensure the directory from which you run the installer does not contain any of the following characters:
 - exclamation points (!)
 - number signs (#)
 - percents (%)
 - spaces

The WebCT Installation Wizard will not start if it is launched from a directory that contains these characters in the path name.

SETTING THE OPEN_CURSORS INITIALIZATION PARAMETER



NOTE: This section applies to Oracle database users only.

If using an Oracle database, you must adjust the value of the **open_cursors** initialization parameter before you install the application pack:

1. Log in to the database server machine as the **oracle** user.

2. Start SQL*Plus:

```
sqlplus /nolog
```

3. Execute the following:

```
connect sys/<sys_password> as sysdba
```

```
show parameter open_cursors;
```

4. Do one of the following:

- If **open_cursors** is set to 500, go to the next section, *Installing Application Pack 2*.
- If **open_cursors** is not set to 500, execute the following:

```
alter system set open_cursors = 500 scope = both;
```

INSTALLING APPLICATION PACK 2

Overview

During installation, the existing domain directory is renamed and a new domain directory is created with the same domain name as the original domain directory.

If you encounter a warning that the `cursor_sharing` parameter is not set correctly, ignore it. It will be set during installation.

If you are installing in a clustered environment, you must perform these steps on the administration server and on each managed server.

Run the Updater

1. Extract the installation package to a temporary directory. This creates a **webct1400installer** subdirectory.
2. Set the **JAVA_HOME** environment variable to the WebLogic JDK.
3. If the server where you are installing Application Pack 2 does not have access to the Internet, you must perform the following steps before installing the application pack:

- a. Add a line to the server's **hosts** file to force the **bea.com** domain name to resolve to a web server on your local network. For example, if there is a web server running at 10.1.1.28, the line you add would look like one of the following:

- On Linux/Solaris (in the **/etc/hosts** file):

10.1.1.28 www.bea.com www.bea.com

- On Windows (in the **%WINDIR%\system32\drivers\etc\hosts** file):

10.1.1.28 www.bea.com

- b. On the Web server, create the following directory structure:

<webroot>/servers/wls810/dtd

where **<webroot>** is the root directory for web content.

- c. Copy the **weblogic912-web-jar.dtd** file from the **webct1400installer/config** directory to the web server's **<webroot>/servers/wls912/dtd** directory.

4. Change to the **webct1400installer** subdirectory and launch the Installation Wizard as follows.

For Linux/Solaris:

sh ./setup

For Windows:

setup.cmd

5. From the Welcome screen, review the checklist and click **Next**.
6. From the License Agreement screen, select **I ACCEPT** the terms and conditions and click **Next**.
7. From the License File screen, enter the path to your license key file (**license.bin**) and click **Next**.
8. From the License Options screen, confirm that the options match your installation and click **Next**.
9. From the Installation or Upgrade screen, select **Upgrade** and click **Next**.
10. From the Database or Application Server Upgrade screen, select the appropriate option.

UPGRADE	INSTRUCTIONS
Full Upgrade	For a standalone deployment, select this option to upgrade the application server and the database at the same time. For a clustered deployment, select this option to upgrade the administration server and the database.
Database only	Select this option to upgrade the database only.
Application server only	Select this option to upgrade the application server only. For a clustered deployment, select this option to upgrade a managed server.

Then click **Next**.

11. From the Upgrade Domain screen, specify the domain directory that you want to upgrade and click **Next**.
12. If you selected **Full Upgrade** or **Database only** in step 10, do the following:

SERVER	INSTRUCTIONS
Microsoft SQL Server	<ol style="list-style-type: none"> a. In the SA Password screen, enter the password for the SQL Server system administrator (SA) database account. Then click Next. b. In the New Database Name screen, enter the name of your WebCT database. Do not enter a different name. Then click Next. c. In the SQL Server File Group screen, confirm the names of your WebCT file groups. Change them if necessary. Then click Next. d. If you selected Database only in step 10, proceed to step 15.
Oracle	<ol style="list-style-type: none"> a. In the Oracle SYS Password screen, enter the password for the Oracle sys database account. Then click Next. b. In the Oracle SYSTEM Password screen, enter the password for the Oracle system database account. Then click Next. c. In the Oracle CTXSYS Password screen, enter the password for the Oracle ctxsys database account. Then click Next. d. In the New Database Name screen, enter the name of your WebCT database. Do not enter a different name. Then click Next. e. In the Oracle Tablespace screen, confirm the names of your WebCT tablespaces. Change them if necessary. Then click Next. f. If you selected Database only in step 10, proceed to step 15.

13. From the Database Configuration Complete screen, click **Next**.
14. From the Java Home screen, specify the path to the JDK and click **Next**.
15. From the Pre-installation Summary screen, review the summary information and click Install. Upgrade takes between 5 and 20 minutes. When installation is complete, close the message box and click **Next**.
16. From the Installation Complete screen, click **Finish**.

17. During the installation of this application pack, the following configuration files are not copied to the new domain directory. New versions of these files are created in the new domain directory. If you had made changes to any of the following files, you must make those changes in the new version of these files.
 - `<webct_domain>/backup_request.xml`
 - `<webct_domain>/restore_request.xml`
 - `<webct_domain>/monitorframework/config.xml`
 - `<webct_domain>/serverconfs/browserchecker.xml`
 - `<webct_domain>/serverconfs/frameworkmonitoring/trapDefinitions.xml`
 - `<webct_domain>/serverconfs/HtmlSecurity.config`
 - `<webct_domain>/importlogger.properties`
 - `<webct_domain>/serverconfs/log4j.properties`
 - `<webct_domain>/serverconfs/log4jstartup.properties`
 - `<webct_domain>/siapilogger.properties`
 - `<webct_domain>/standalone/log4j.properties`
 - `<webct_domain>/serverconfs/user_config.xml`

18. During the upgrade process, the WebLogic system password contained in the `startup.properties` file may have been altered. This can occur if the password contains a special character, such as a "\$".
 - a. Go to the `<webct_domain>/customconfig` directory and use a text editor to open the `startup.properties` file.
 - b. Verify that the value of the `WEBLOGIC_PASSWORD` is the same as the value set in the WebLogic administration console. If it is not, change it or you will not be able to start the Blackboard Learning System.

19. If you are installing Application Pack 2 on a clustered Windows application server deployment, see Clustered Windows Application Server Issue.
20. Start the Blackboard Learning System. For a clustered deployment, start the administration server first, followed by the managed servers.
21. If you are using custom colors in MyBlackboard, reconfigure the color settings using the values you recorded in step 5 of the Pre-Steps. For more information, see Changing the Color Scheme of the MyBlackboard Screen in the online help.
22. If you are using Kerberos for user authentication, configure the setting for KDC list in Kerberos (A) and Kerberos (B) Authentication settings using the values you recorded in step 6 of the Pre-Steps. For more information on configuring the KDC list setting, see Kerberos (A) Settings and Kerberos (B) Settings in the online help

Clustered Windows Application Server Issue

After installing the application pack, the service that launches the Blackboard Learning System on the administration server fails to start correctly and the status remains in the Starting state and cannot be started or stopped. To correct the problem, do the following:

1. If you have started Blackboard Learning System, stop Blackboard Learning System on all managed servers.
2. On the administration server, open Services.
3. In the details panel, locate the Blackboard Learning System administration server's service and take note of the exact name.
4. Select the administration server's service and from the Action menu, click **Properties**.
5. Select **Manual** from the **Startup type** drop-down list,.
6. Click **OK**.
7. Restart the administration server.
8. From a DOS prompt, change to the domain directory and execute the following:
webctservice.exe -name "<service_name>" -remove
9. In Services, verify that the service has been removed.
10. From the DOS prompt, execute the following:
webctservice.exe -name "<service_name>" -install -style admin -dir <domain_dir>
11. In Services, verify that the service has been added again. The administration server service will now start properly.