



# *WebCT 2.0: A Guide for Administrators*

---

# Table of Contents

---

<b>Getting Started .....</b>	<b>1</b>
Who uses WebCT? .....	1
What makes up a WebCT system? .....	1
System requirements .....	2
Required skills for administrators .....	2
 <b>my WebCT and the Global Database .....</b>	 <b>4</b>
Building the global database .....	5
Setting up my WebCT .....	5
Server-wide communications .....	5
 <b>Installing WebCT .....</b>	 <b>7</b>
WebCT system setup .....	7
Setting up the operating system .....	7
The WebCT user (UNIX only) .....	7
Where to install WebCT .....	7
Installing WebCT on a Windows NT system .....	7
Setting the default port .....	9
Installing WebCT on a UNIX system .....	10
Setting the default port .....	12
Starting the WebCT server .....	12
 <b>WebCT Startup &amp; Shutdown .....</b>	 <b>14</b>
Starting WebCT for Windows NT .....	14
Starting WebCT for UNIX .....	15
Autostarting WebCT for Windows NT .....	15
Autostarting WebCT for UNIX .....	16
Shutting down WebCT .....	16
Shutting down WebCT Windows NT .....	17
Shutting down WebCT UNIX .....	18
 <b>WebCT Upgrades, Migration, and Deletion .....</b>	 <b>19</b>
Upgrading to a new version on the same system .....	19
Migrating to a different system .....	19
Deleting WebCT from a system .....	20
Deleting WebCT Windows NT .....	20
Deleting WebCT UNIX .....	20

<b>WebCT Backup.....</b>	<b>21</b>
Administrator Course Backup .....	21
Command line course backup .....	21
WebCT system backup.....	21
Server-wide backup .....	22
Best backup strategy .....	22
<b>WebCT Administration .....</b>	<b>23</b>
Server Management .....	23
Course Management .....	24
Creating courses .....	24
Using templates .....	25
Modifying course information .....	25
Changing the course ID.....	26
Deleting courses.....	26
Categories.....	26
Adding and deleting categories .....	26
Assigning a course to a category .....	27
Hiding/revealing a category.....	27
Communications .....	28
Announcements.....	28
Links .....	28
User Management .....	29
User Password .....	29
GlobalDB Access.....	29
Orphan User .....	29
Membership Detection .....	30
Account Creation .....	30
Global ID.....	30
Global Password .....	30
Language.....	30
Upgrade examples .....	30
<b>Frequently Asked Questions about WebCT 2.0.....</b>	<b>32</b>
Administrator FAQ .....	32
Course designer FAQ .....	32
ID & <i>my WebCT</i> FAQ.....	33
<b>Sample letter to students .....</b>	<b>36</b>
<b>Index.....</b>	<b>37</b>

## Getting Started

Setting up and administering WebCT might appear rather daunting, especially to new users. The development team at WebCT has tried to make system administration and setup as painless as possible. Once basic system installation is completed, most WebCT administration can be accomplished within the comfort of a Web browser.

However, the WebCT administrator sometimes must "get under the hood to check the oil" and perform tasks that are best accomplished through the underlying operating system. Fortunately, one does not have to become a complete UNIX or NT expert to effectively administer a WebCT system. A case in point: WebCT administrators at many institutions are faculty in non-computer disciplines, with little or no connection to an IT department.

### Who uses WebCT?

WebCT users can generally be classified into four types:

- Administrator
- Designer
- Grader
- Student

WebCT provides a different view of the course depending on whether the user is an administrator, designer, grader, or student.

There is only one **administrator** account. This person does not login to any courses, but rather logs in to the WebCT Administration page. Once there the administrator can add and delete courses, create user accounts, and modify settings that affect all courses on the WebCT server. The administrator does not configure or add content to courses but simply initializes courses, handing over the new, empty courses to designers. The administrator's User ID is **admin** and it cannot be changed, but the password can be changed.

The **designer** is usually the instructor of the course. The designer can design the look of the course, create quizzes, alter grades, define student presentation groups, adjust student accounts, and generally control the content of the course. Course designers can also assign users to be graders for their courses.

Designers can give other users designer-level access by creating *shared access accounts* for them. See the *Administrator FAQ* on page 32 for more information on shared access accounts.

A course can have any number of **graders**. A grader can mark quizzes and change student grades, but otherwise has the same privileges as a student.

A course can have any number of **students**. Students cannot manipulate the course content, except in student presentation areas defined by the designer. Students can change their own passwords at the discretion of the administrator. Course designers create student accounts.

### What makes up a WebCT system?

WebCT follows a Web browser (client-server) model consisting of several components:

- Stand-alone Web server software
- Pre-developed Web pages and Web page materials (icons, backgrounds, text)
- Web programs, program modules and scripts for dynamic Web course development and management.

## System requirements

WebCT is available for the following operating systems:

- AIX
- IRIX 6.2
- OSF1/Digital UNIX/Compaq Tru64 UNIX
- Solaris x86
- Sparc Solaris
- freeBSD 3
- HP-UX
- Linux (all Linux builds are supported. The distributions are broken down based on library version):
  - Linux libc5
  - Linux libc6
- Windows NT 4.0 Workstation (Apache)
- Windows NT 4.0 Server (IIS 4.0 and Apache)

The following operating systems are *no longer supported* for WebCT:

- BSDI
- IRIX 5.3
- SunOS
- freeBSD 2

The operating systems used for WebCT vary greatly across institutions. Fortunately, you can start with a low-end Linux system or Windows NT Workstation on Intel hardware and scale up to other operating systems and hardware. WebCT also fits very well into existing Web server systems because WebCT has its own Web server. There's no need to worry about damaging a finely tuned main Web server during installation of WebCT.

WebCT administrators often make the following recommendations:

1. The more memory in your WebCT server, the better. 128 megabytes of memory is a recommended minimum. NT systems generally require twice as much memory as equivalent UNIX systems.
2. A faster processor is good, but not necessarily as important as memory.
3. Your server needs enough fixed disk storage space to handle anticipated courses. The WebCT system takes up little room compared to a typical full Web course.

WebCT can operate on a relatively modest system, such as a 486 processor with 32 megabytes of memory running Linux or Windows NT, but it is painfully slow. Low-end systems are best for home development and test systems. A department-level UNIX server or NT server is a suggested minimum for delivering courses and course materials with WebCT.

## Required skills for administrators

A WebCT server requires two levels of server administration: **WebCT-specific administration** and **operating system administration**. The former requires only basic Web browser experience. The latter requires knowledge of the following commands and concepts:

- Basic operating system file organization
- Basic operating system file management commands
  - `cp` - copy
  - `mv` - move and rename
  - `mkdir` - make directory

- `cd` - change directory
- `ls` - list directory contents (`dir` in DOS)
- `df` - show disk free space
- File compression utilities
  - `tar`
  - `zip` (WinZip, PkZip or similar program in Windows/DOS)
  - `gzip/gunzip`
- User account setup (may be optional in NT)
- File ownership commands (may need equivalents in NT)
  - `chown` - change owner
  - `chgrp` - change group (optional)
- FTP

Many new versions of UNIX and Linux now offer a graphical user interface (GUI) or common desktop environment (CDE). The interfaces are similar to Microsoft Windows and Macintosh OS. Most of the UNIX commands and utilities now have a similar ease-of-operation.

In addition to the skills listed above, a WebCT administrator should know that Perl does not come from an oyster! Perl is the primary scripting/programming language for most of the programs and program modules in WebCT. A WebCT administrator does not need to know anything about Perl except that it exists, that Perl files often carry the extension ".pl" and that a Perl interpreter must be installed on the WebCT server.

## my WebCT and the Global Database

WebCT 2.0 offers a new feature called **my WebCT**, which presents users with a single point of entry for all of their WebCT courses. Rather than login to each course with a separate User ID, users can now login once to **my WebCT** with a Global ID and click hyperlinks to go to their courses. **my WebCT** also provides announcements and links to educational resources. Below is a typical **my WebCT** screen:

The key to **my WebCT** is the global database of users. Each record in the global database includes a

The screenshot displays the 'my WebCT' user interface. At the top, a blue header bar contains the 'WebCT Web Course Tools' logo on the left, the text 'my WebCT : User Name' in the center, and the date 'Oct. 29, 1999' on the right. Below the header, a navigation bar includes links for 'options', 'server homepage', and 'help'. The main content area is organized into several sections: a 'Courses' section with a green header and a link to 'Add Course', listing 'Introduction to Computer Science' and 'Law of Physics' with associated links for messages, quizzes, and assignments; a 'WebCT.com' section with a green header and a message about educational needs; an 'Announcements' section with a green header, featuring 'No School Today' and 'Construction on Highway' notices; and a 'Links' section with a green header, divided into 'Standard Links' and 'Personal Links' with various website links.

field for Global ID, first and last names, and a list of courses to which the user belongs. The global database is implemented as a Berkeley DB file, keyed on GlobalID. It is created automatically when the first user accesses WebCT. The files that comprise the global database reside in

`installation_directory/webct/webct/generic/admin/database/globalDB/directory/`.

We do not recommend that you modify this file directly. If you need to access the global database outside of the WebCT interface, you can do so by using our API via command-line interface or through http. Please refer to the API documentation, available at <http://about.webct.com/v2/>, for details on its use.

## Building the global database

When you first install or upgrade to WebCT 2.0, the global database is empty. There are two ways to populate the database:

1. A user can create an entry in the global database when he/she sets up *my WebCT* for the first time. **Note:** the administrator must enable users to do this.
2. The WebCT administrator can add, edit, and delete user entries in the global database with the new *User Management* area of WebCT's administration tools, or with the API interface.

The pre-2.0 user databases within each WebCT course have not been replaced in version 2.0. Each course still has the student and grader databases, as in earlier versions of WebCT. The global database and *my WebCT* have been added "on top" of the old data model as a new layer. If you upgrade an existing WebCT system to version 2.0, all of the course user databases remain unchanged. However, the users in the course databases are not at first associated with users in the global database; we will use the term "orphan" to describe such users.

When an orphan user first logs in to a WebCT course, the user is redirected to the *my WebCT* setup page. Setup involves creating a Global ID and entering User IDs and passwords for courses in which the user is registered. As users setup their individual *my WebCTs*, the global database becomes populated with user records.

## Setting up *my WebCT*

The process of setting up *my WebCT* involves the following data changes:

1. A record is created in the global database. If the chosen Global ID already exists in the database, then the add fails and the user is forced to choose a different Global ID.
2. Each of the courses in which the user indicated membership is added to the user's course list in the global database. The *courses* field in the global database lists WebCT course IDs. These are the courses that appear when the user logs in to *my WebCT*.
3. Within each of the courses that the user adds to the course list in *my WebCT*, the User ID is changed to match the new Global ID and password. This is how single-point authentication is enabled. If a user chooses a Global ID that is identical to the User ID of another user within one of their courses, then the chosen Global ID will be rejected by WebCT and the user will have to choose another.

For example: User Jane Smith belongs to two WebCT courses. In course BIOL300, she has User ID "smith." In course CHEM420, she has User ID "janesmith." Jane's brother John is also in CHEM420 and has User ID "smith" in this course. When Jane is setting up *my WebCT*, she indicates that she belongs to both CHEM420 and BIOL300. She chooses "smith" to be her Global ID. The Global ID "smith" is created for her, and BIOL300 is added to her course list successfully. However, CHEM420 is not added to her course list because there is already an entry for "smith" (her brother). Jane gets an error message indicating that CHEM420 could not be added because the ID "smith" was already in use.

The problem is resolved once John Smith sets up *my WebCT*. He is forced to choose a Global ID other than "smith," since Jane has already taken this Global ID. When John chooses another Global ID ("johnsmith") and adds CHEM420 to his course list, then the ID "smith" is replaced by "johnsmith." At this point, Jane can add the course to *my WebCT* successfully.

**Note:** in the previous scenario, Jane is not notified when the course can be added successfully.

## Server-wide communications

In WebCT 2.0, administrators have the ability to post URL links and announcements in *my WebCT* for all users on a single server. Designers, students, and graders do not have this ability. You can add URL links and announcements by clicking **Course Management**→**Communications** and then clicking **URL Links** or **Announcements**. Possible URL links to post include institutional, library, and student organization homepages. Announcements might include upcoming campus events, school closings,



and server outages. The URL links that you add to WebCT appear in *my WebCT* for all users on a single server; announcements, on the other hand, can be customized for particular courses. For detailed instructions, see the online Help for administrators by clicking the *Dr. C* icon in the *Communications* toolbar, which is located in the bottom frame of the WebCT window.

## Installing WebCT

Installing WebCT is not difficult. If you are installing WebCT on top of an existing WebCT system, you should create a backup copy of the original WebCT system directory before starting the installation. Then, if you make a mistake with a new installation, you can always delete the entire WebCT system directory and start over again.

### WebCT system setup

#### *Setting up the operating system*

Setting up a complete operating system is beyond the scope of this manual. If you are new to UNIX or Windows NT, it is best to seek assistance from other resources when installing an operating system.

When setting up a UNIX operating system, be sure to designate adequate space for a **usr/user** or **home** partition, since WebCT installs into a user file, which you will create (see the next section, *The WebCT User*). A course containing no multimedia or dense graphic images *generally* requires about 50-100 kb per student. Unlike other system software or applications, WebCT is not scattered across different directories and partitions during installation on a UNIX system.

#### *The WebCT user (UNIX only)*

On UNIX systems, WebCT should run under its own WebCT account. Therefore, before installing WebCT, you must create a user named **webCT**. This user owns of all the files in the WebCT directories.

The command to add a user is **adduser**. For administrators who want to avoid command lines, many operating systems now have user-friendly graphical utilities to add users and groups. For example, Digital UNIX features an Account Manager, and Red Hat Linux 6.x uses LinuxConf.

#### *Where to install WebCT*

The Windows NT version of WebCT can be installed almost anywhere it is considered acceptable to install other Windows applications, and where there is adequate file space on the disk drive. Do NOT install WebCT into a directory that has a space in its name, such as "Program Files." When installing WebCT, you must be logged into NT as the administrator, since WebCT needs to be run as a service.

For UNIX, WebCT installs completely into the filespace of the WebCT user, which you must create (see section above). Most systems automatically add new users to the **/home** directory or the **/usr/users** directory; however, you can specify another location.

### Installing WebCT on a Windows NT system

Installation on a Windows NT system is fairly painless, since an InstallShield setup application guides you through the process. Below are the steps to run the setup application.

1. Login as the NT Workstation or Server administrator.
2. Download a copy of WebCT for NT from the WebCT Web site (<http://about.webct.com>).
3. Unzip the downloaded file using WinZip, PkZip, or another unzipping utility.
4. Run Setup.exe

The WebCT setup application runs very much like other Windows setup programs. You will first be asked to specify a destination folder in which to install WebCT (see *Figure 1* below). Select any drive that has adequate space to run WebCT and all of your courses, keeping in mind that a course containing no multimedia or dense graphic images *generally* requires about 50-100 kilobytes per student. Do NOT install WebCT into a directory that has a space in its name, such as "Program Files."

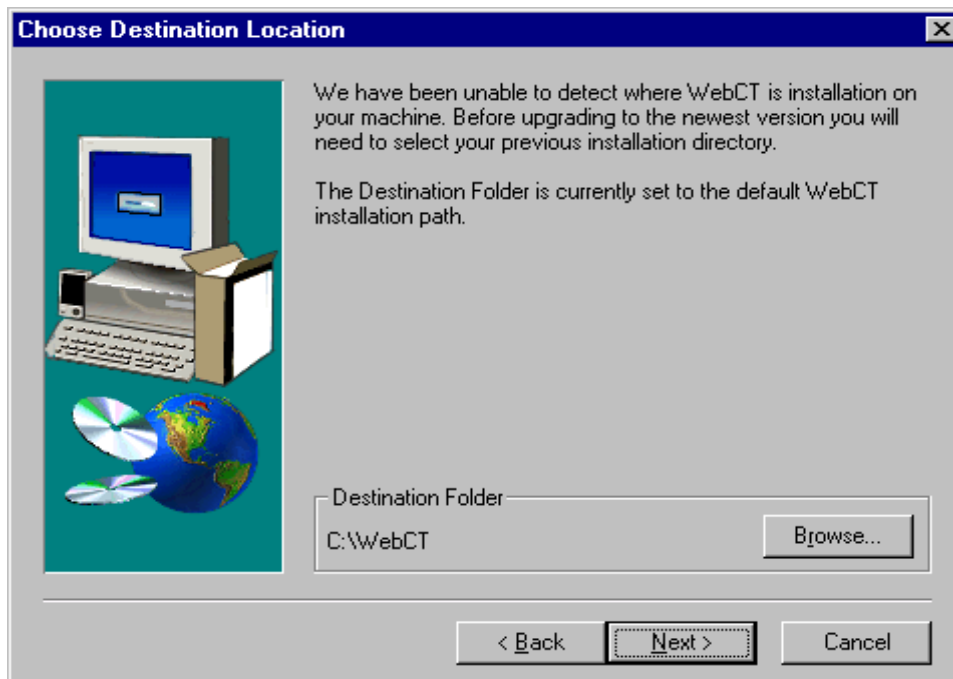
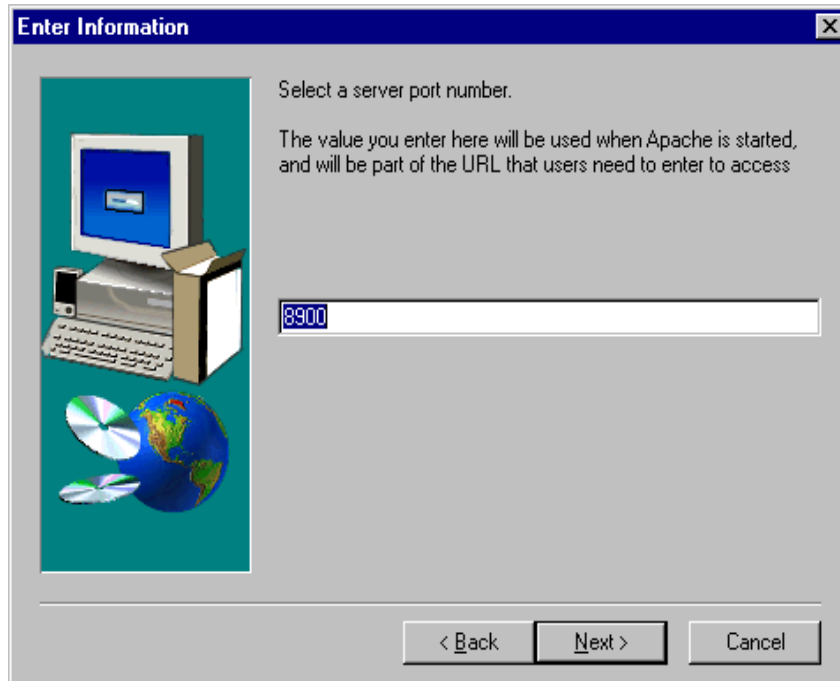


Figure 1

The second setup screen asks which Web server to use: the Apache-NT Web Server, which is included in the WebCT installation files, or Microsoft Internet Information Server (IIS). **Note:** if you elect to use IIS as your server, it must be present on the system before WebCT installation can proceed.

### Setting the default port

The last setup screen asks for the port number of the server that runs WebCT (see *Figure 2* below).



*Figure 2*

If no other Web server occupies the standard port (80), then you may want to consider changing the port number to 80 instead of using the default port of 8900. Windows NT has no problem using alternate port numbers, since you are installing WebCT as the NT administrator. Setting the port number to 80 makes user access a bit easier, since users won't need to include a port number to the course URL. Also, many firewalls and proxy servers do not handle non-standard port numbers very well, so firewall administrators are often reluctant to open non-standard ports.

Click **Next** to install. The InstallShield application displays a status bar indicating that files are being copied to the destination folder.

During installation, the setup application adds an entry to the NT Services control panel, updates the registry, and starts the server. The final screen gives you the option of viewing the included **readme** file.

## Installing WebCT on a UNIX system

Before proceeding with the installation, you must set up the installation files. The following steps will guide you through setup and installation.

1. Log in as the WebCT user.
2. Download a copy of WebCT from the WebCT site (<http://about.webct.com>).
3. Copy WebCT from the download directory or FTP site to the WebCT user directory that you have already set up (see the section titled *The WebCT user* on page 7). Below is an example command for copying WebCT from a download directory to the WebCT user directory:  

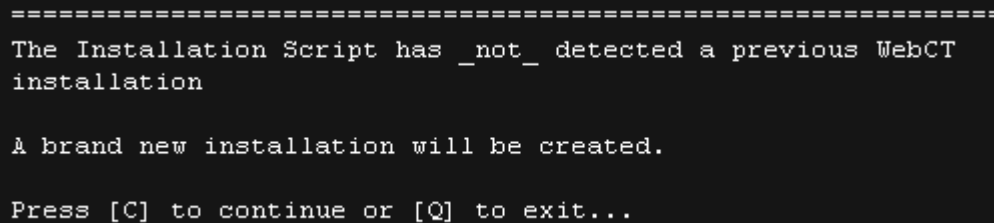
```
cp /downloads/webct2.0.tar.gzip /home/WebCT/
```
4. Navigate to the WebCT user directory, then unpack the compressed file with the following command:  

```
gunzip webct2.0.tar.gzip
```
5. Expand the resulting tar file into the WebCT installation directories using the command below. Note that the switch `xvf` is required. Check your operating system documentation for the proper syntax for switches; some operating systems require a preceding dash for switches (as in the example below) and some do not.  

```
tar -xvf webct2.0.tar
```
6. Type the command below to start the installation script.  

```
./install
```

First, the installation script checks for a previously installed version of WebCT in the current directory. If no version of WebCT exists, the message below appears.



```
=====
The Installation Script has _not_ detected a previous WebCT
installation

A brand new installation will be created.

Press [C] to continue or [Q] to exit...
```

Figure 3

If there is a previously installed version of WebCT in the current directory, all courses and system settings will be saved before installing the new WebCT system. However, we recommend that you make Administrator Backups of all your courses, as outlined in Administrator Course Backup on page 21. You probably won't need to restore these backups, but it's better to be safe than sorry.

The next screen reminds you to make sure that you have logged in as the **webct** user, with the option to cancel installation (see *Figure 4* below). Continuing the installation under another user account, such as **root**, causes problems when you startup the WebCT system, and it can open you up to many security problems.

```
=====
>> WebCT Version 2.0 Installation <<<
=====

Procedure
The following is an outline of the *recommended* installation steps:
1) If you are a system administrator, CREATE a new account for use
   by WebCT.
2) LOGIN to your system using this account.
3) MOVE the WebCT archive to your account directory.
4) UNTAR the contents of the WebCT archive into your account
   directory.
5) RUN the installation program.
=====
Press [Enter] to continue with installation, or [Q] to quit
=====

A brand new installation will be created.

Press [C] to continue or [Q] to exit...
```

Figure 4

Next, a pre-configuration menu confirms the location of the WebCT system and Perl interpreter, which is critical for running most modules in WebCT (see *Figure 5* below). Most UNIX systems include the Perl interpreter. If by chance the interpreter is missing or is an outdated version, you must install the latest version of Perl before proceeding. For more information on installing and upgrading Perl, visit the Perl Web site at <http://www.perl.com>.

```
=====
>>> WebCT Installation:  Pre-Installation Configuration <<<
=====

Press [P] to accept defaults or enter the number of the value
to change:

-----
[1] WebCT Install Location:    /home/WebCT2
[2] Perl Executable Location:  /usr/bin/perl
=====
[P]roceed with Installation
[H]elp
[Q]uit Installation
=====
Enter number or command:
```

Figure 5

If the installation location and the Perl location are acceptable, press the **P** key to proceed, then press the **Enter** key to start the installation process.

### Setting the default port

Near the end of installation, a post-installation configuration menu appears to confirm the email address of the administrator and the port of the server that runs WebCT (see *Figure 6* below).

```
=====
>>> WebCT Installation:  Post-Installation Configuration <<<
=====

| Please enter the number of the value you would like to change |
| or hit [P] to continue with configuration.                    |
=====

[1]  Administrator Address:
      WebCT@linux.myhouse.com

[2]  Port Number:
      8900

=====
[P]roceed with Configuration with these values
[H]elp on Configurable Items
[Q]uit WebCT installation
=====
Enter number:
```

Figure 6

If another Web server occupies the standard port (80), or you do not have access to the root account, then use the default port number 8900, as illustrated above. Web servers running on port numbers above 2000 do **not** require startup or management by the holder of the root account, who is usually the system administrator. Thus, you can start or stop the server that runs the WebCT system without consulting a system administrator.

If no other Web server occupies the standard port (80), then you may want to consider changing the port number to 80 instead of using the default port of 8900. Windows NT has no problem using alternate port numbers, since you are installing WebCT as the NT administrator. Setting the port number to 80 makes user access a bit easier, since users won't need to include a port number to the course URL. Also, many firewalls and proxy servers do not handle non-standard port numbers very well, so firewall administrators are often reluctant to open non-standard ports.

Once you set the configuration values, installation is complete, and a final page of instructions quickly scrolls by on the screen. If you do not have a scroll-back feature on your screen, a copy of the final startup instructions can be found in the *README\_RunWebCT* file.

### Starting the WebCT server

Unlike the NT installation, the UNIX installation requires you to start the WebCT server manually. To do so, enter the following commands:

```
cd /install_directory/webct/server
src/httpd -f /install_directory/webct/server/conf/httpd.conf
```

Next, start a Web browser (Netscape 3 or above, Internet Explorer 4 or above) and enter the following URL:

```
http://host.domain[:port_number]/webct/admin/admin.pl
```

You will be prompted for a user name and password. Enter the following:

**User Name:** admin

**Password:** webct

The above user name and password are temporary and must be changed immediately. Click **Password** in the *Admin* toolbar, located in the bottom frame of the *WebCT Administrator* page. Enter a new password in the space provided. **Note:** administrator passwords may **not** contain non-alphanumeric characters, which include most forms of punctuation as well as &, #, \*, etc. Periods ( . ) and underscores ( \_ ) are allowed, as well as all letters and numbers.



## WebCT Startup & Shutdown

### Starting WebCT for Windows NT

If you perform the standard installation of WebCT for Windows NT, the server is automatically started for you. If, for some reason, the WebCT server is not running, you can restart it in one of two ways, depending on whether you are running WebCT under Apache or IIS.

If you are running WebCT under Apache, go to the *Services* control panel, select the WebCT server from the list, and click **Start** (see *Figure 7* below).

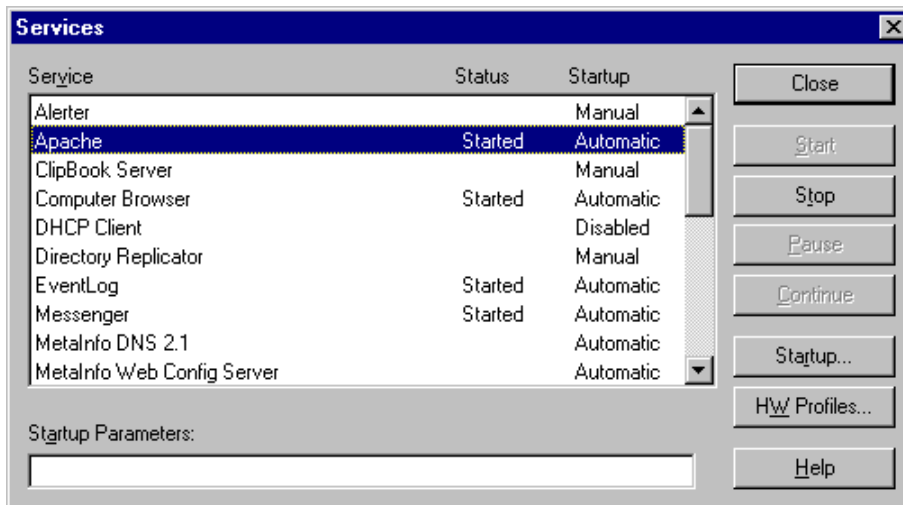
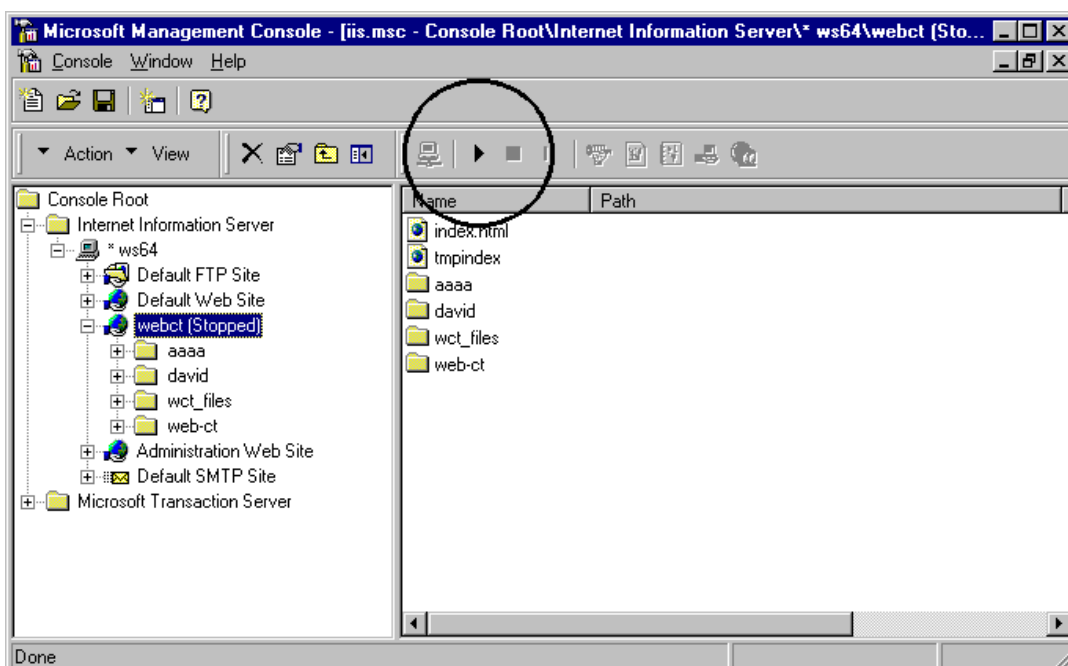


Figure 7

If you set up WebCT to run under IIS, go to the Internet Service manager by clicking:

**Start→Programs→Windows NT 4.0 Option Pack→Microsoft Internet Information Server→Internet Service Manager**

The Microsoft Management Console appears. Select WebCT in the list on the left side of the Console and click the Play button, which is circled in the illustration below.



## Starting WebCT for UNIX

At the UNIX command prompt or through a telnet/terminal session, you can start WebCT by performing the following procedure:

1. If the port is 2000 or above, log in as the WebCT user. If the server is set for the standard port 80, log in with the root account or have the system administrator start WebCT.

2. Change to the WebCT server directory by typing:

```
cd /install directory/WebCT/webct/server
```

3. Start the WebCT server:

```
src/httpd -f /install directory/webct/server/conf/httpd.conf
```

The command prompt returns when startup is successful. You can verify the WebCT system startup at the WebCT root index page, which can be accessed with a Web browser using the following URL (you will need to fill in the variables):

```
http://web_server_address[:port_number] /
```

## Autostarting WebCT for Windows NT

You can modify the startup parameters of the Web server through the *Services* control panel by clicking **Startup**. The default Startup Type is Automatic, and System Account is the default *Log On As* option (see *Figure 8* below).

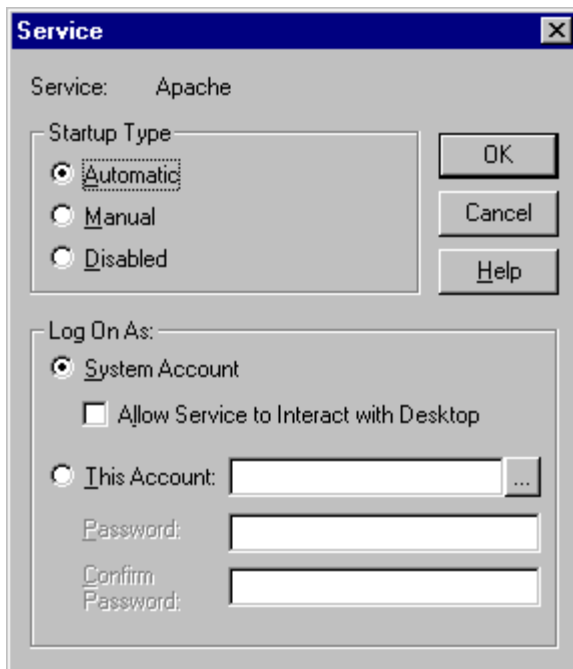
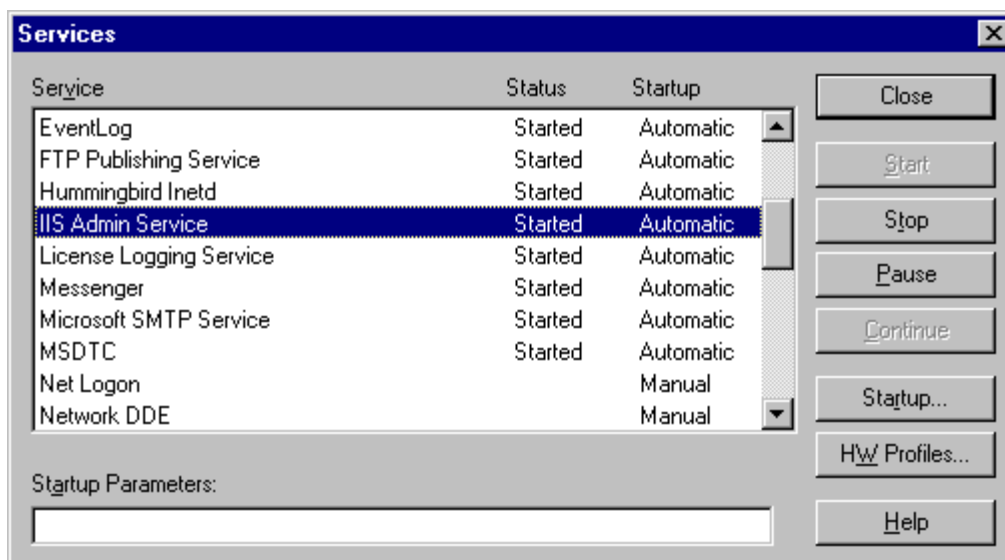


Figure 8

Setting up WebCT to autostart using IIS is similar to Apache, except that you should select IIS Admin Service instead of Apache at the Services control panel (see illustration below).



## Autostarting WebCT for UNIX

Most UNIX systems can be customized to automatically start programs when the server is powered up or rebooted. This feature is useful if a power outage occurs, if the server is shut down for service, or if the server is shut down each night. Usually, startup can be automated by adding the WebCT server startup command to an autostart or autoboot file.

Different systems have different methods for adding startup commands. Usually, a brief script is added to an **.rc** file or included in an **.rc** directory. For example, for Red Hat Linux 5.1, you could add startup commands or scripts to the **rc.local** file found in the **/etc/rc.d** directory. For Digital UNIX 4.0d, you could create a startup file in the **/sbin/rc3.d** directory that begins with the letter **S** and includes a number and some identifying text, such as **S98WebCT**.

You should consult a system operating manual or UNIX expert for advice on creating scripts to autostart WebCT.

## Shutting down WebCT

There are times when you need to shut down the active WebCT server to perform maintenance, activate changes in configuration, or update the WebCT system. Failure to shut down an active server when making changes can result in drastic consequences, including upset students and disgruntled faculty.

Whenever you plan to shut down an active server, notify the user community with a **my WebCT** announcement. See *Announcements* on page 28 for more information.

### Shutting down WebCT Windows NT

As with startup and autostart, shutdown of WebCT Windows NT using Apache is also controlled through the *Services* control panel. Select the WebCT server and click **Stop** (see *Figure 9* below).

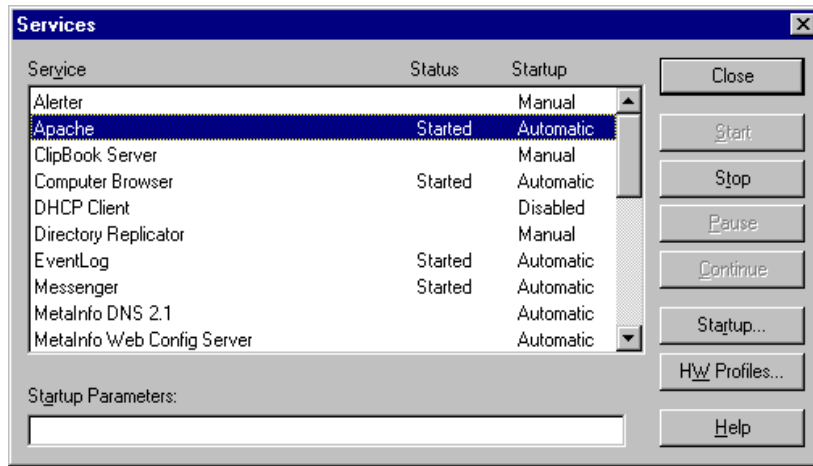
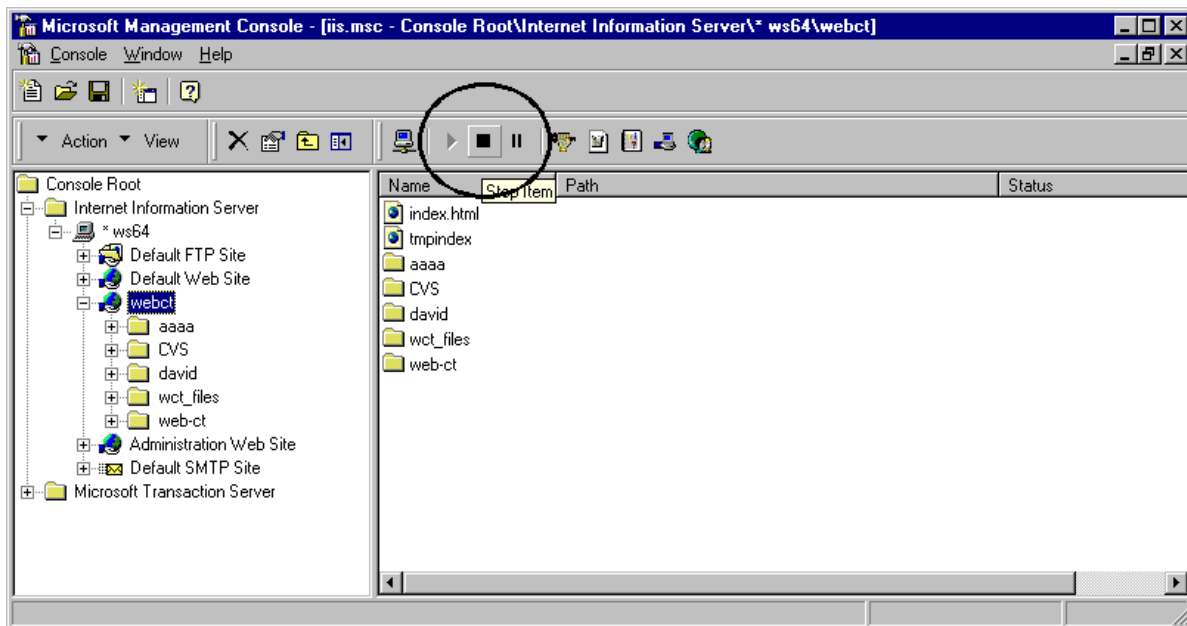


Figure 9

To shut down WebCT on a system running IIS, go to the Microsoft Management Console. Select WebCT in the list on the left side of the screen and click the stop button, which is circled in the illustration below.



## Shutting down WebCT UNIX

With UNIX, all applications, including servers, run as *processes*. If you type the command

```
ps a
```

you will get a table listing all currently running processes. In the left-most column is the *process ID number*. With the right process ID number, you can use the **kill** command to stop the server process. The **ps** command is also a good tool to check if the server is running, although you may have trouble identifying the correct process ID with this command. A better way to identify the process ID number is to look in the Web server **logs** directory, where the server's process ID number is kept in a file. Enter the following command to change to the log directory:

```
cd /install directory/webct/server/logs
```

Next, type **ls** to view a list of files in the directory. The file called **httpd.pid** contains the current process ID of the active Web server. To view the process ID number in the file, use the **cat** command to list the file's contents (**Hint**: it's like **TYPE** in DOS).

```
cat httpd.pid
```

Entering the command above should result in a number. Use this number with the **kill** command to stop the process:

```
kill process_id_number
```

To verify that the server has stopped, you can enter the **ps** command or try to access the WebCT home page with a Web server.

If you are comfortable writing scripts, you can create a WebCT shutdown command using the **cat** and **kill** commands. Here is a sample shutdown script:

```
kill cat /install_dir/webct/server/logs/httpd.pid
```

## WebCT Upgrades, Migration, and Deletion

### Upgrading to a new version on the same system

Updating to a new version of WebCT is similar to installing a new system. If an existing installation of WebCT is detected during the installation process, all previous settings and courses will be retained. To upgrade to a new version:

1. Login to the WebCT user account
2. Backup the existing WebCT system.
3. Copy the new version to the WebCT directory.
4. If you are working with a UNIX system, delete or rename the **archive** subdirectory in the WebCT directory.
5. Decompress the downloaded file: **gunzip** and **untar** the contents of the new UNIX version or unzip the setup files of the new Windows NT version.
6. Run the appropriate UNIX install script (see *Installing WebCT on a UNIX system* on page 10) or **setup.exe** (Windows NT) for the new version.

If you encounter problems during or after installation, the old version of WebCT can be restored from the backup.

### Migrating to a different system

Starting with version 1.3, WebCT courses can be moved across systems with different operating systems (UNIX to NT) if the WebCT version on the new system is the same version as the original system. For example, courses created in WebCT 1.3 can be moved from a UNIX to a Windows NT system, but courses created in WebCT 2.0 cannot be moved from a WebCT Windows NT 2.0 server to a WebCT UNIX 1.3 server.

Anytime you move WebCT courses from one server to another (even when they have the same operating system, such as Red Hat Linux 5.1 to Red Hat Linux 5.1), it is best to follow these steps.

1. Install WebCT on the new system.
2. With a Web browser, login as the WebCT Administrator on the old system.
3. Do an Administrator Backup on all courses to be moved to the new server.
4. Login to the WebCT account on the system level.
5. Using FTP, **copy**, or other file transfer method, copy the files from  
`/install_dir/webct/webct/generic/admin/backup`  
on the old server to the same directory on the new server.
6. Restore the courses with the *Course Backup/Restore* feature from the WebCT *Administrator* screen.

If you want to migrate a 2.0 server to another 2.0 server, the method above will work, but it won't preserve the global database. The global database can be rebuilt, as outlined in the Scenario 2 of *Upgrade examples* on page 30.

## Deleting WebCT from a system

There may come a time when the WebCT system needs to be deleted because the system has been moved to another server, testing/evaluation is complete, or installation did not go as planned.

### ***Deleting WebCT Windows NT***

For WebCT on a Windows NT system, stop the Apache or IIS server first. Remove WebCT through the *Add/Remove Programs* control panel in Windows. Use the uninstall program provided through the *Add/Remove Programs* control panel. **Do not** simply delete the WebCT folder! The uninstall program removes all entries in the Windows NT Registry and the *Services* control panel.

### ***Deleting WebCT UNIX***

Because WebCT for UNIX installs into its own directory, you can delete WebCT by simply deleting the main WebCT directory with all subdirectories. For example, on a Linux system, the command is typically:

```
rm -fR install_directory
```

This command will remove the directory and all subdirectories (the **R** switch) without any prompting (the **f** switch). On some UNIX systems, the **f** switch is not required for the root account. You should also remove any **cron** or **autostartup** scripts from the system.

**Because of its simplicity, this procedure can be dangerous. Make sure you are absolutely certain of what you are doing before you type this command!**

## WebCT Backup

### Administrator Course Backup

You can backup all courses or a select number of courses using your Web browser. Unlike an operating system backup, WebCT Administrator Backup is a batch version of the individual course backup.

In addition to providing additional backup to individual course backup by designers, WebCT Administrator Backup is the best way to migrate courses to another operating system. This method of backup prevents components specific to one operating system from carrying across to another. This is the safest method of backup if there is a need to quickly bring up WebCT on a server with a different operating system. With this method of backup, courses can be migrated from an NT server to one of several different UNIX servers, or vice-versa.

Currently, any backups created through the Web browser-based administrative page cannot be downloaded through the Web browser. These administrator backups are only accessible at the system level. If the WebCT administrator does not have access at the system level, make arrangements with your systems administrator to migrate the course backup files to another server or storage device.

### Command line course backup

In addition to being able to perform a backup through the WebCT administrator Web interface, an administrator with system-level access can initiate a backup at the command line. First, go to the **admin** directory by typing:

```
cd /install_directory/webct/webct/generic/admin/
```

Then type the following command:

#### UNIX:

```
perl admin.pl batch courseID_1 courseID_2 ... courseID_N
```

**or, to back up all courses on the server, enter:**

```
cd install_dir/webct/webct/courses
unalias ls
ls > ../generic/admin/courses.txt
cd ../generic/admin
perl admin.pl batch `cat courses.txt`
```

#### Windows NT (if .pl is a recognized extension to perl.exe):

```
admin.pl batch courseID_1 courseID_2 ... courseID_N
```

Backup from the command line is no different than from a Web browser. For most WebCT administrators, backup from a Web browser is the recommended method.

One advantage to a command line course backup is the ability to include the backup command in script for processing by an automated script processor such as **cron**. The use of **cron** and similar automated scripts is beyond the scope of this manual. The WebCT administrator should consult a system administrator on the use of **cron** or similar automated scripting to create a daily backup of WebCT courses.

Another advantage is that command line course backups do not time out. Backups performed with a Web browser tend to time out before the backup completes, particularly for large courses (over 50 megabytes).

### WebCT system backup

Because the WebCT system resides in a single WebCT user directory, the WebCT administrator can backup the entire WebCT system (UNIX) using **tar** along with **gzip** to further compress the tar file or archive/backup the entire system (Windows NT) using Winzip or similar utility. This is a useful method of backing up an entire WebCT system if tape backup or similar backup technology is not available.



For UNIX users (assuming that they have access to one level above WebCT), the WebCT system can be backed up by entering the following command:

```
tar cvf webct.backup.file.name WebCT_install_directory
```

The file can be further compressed by entering this command:

```
gzip webct.backup.file.name.tar
```

Once the tarred and gzipped file or WinZip file is created, this backup file can be stored on another storage media or transferred to another system using WebCT. However, unlike the administrator level course backup, restoring this backup to a different operating system *version* (such as between Sun Sparc and Windows NT or between Red Hat Linux 5.x and Red Hat Linux 6.0) will likely cause problems.

## Server-wide backup

If a system supports system-wide backup through a mass storage device such as a local/network tape drive or a CD-recorder, the WebCT system can be backed up along with all other files on the system.

This method is best for recovery from catastrophic failure when recovering an entire system to the same hardware and operating system. It is not recommended for recovering an individual course or few courses that were accidentally deleted from the WebCT system unless WebCT course backup files (from the Administrative Backup or command line backup or designer backup) happen to be included in the server-wide backup.

## Best backup strategy

Many WebCT administrators believe that the best backup strategy is **not** the typical server wide tape backup. Rather, it is a WebCT Administrator Course Backup or the WebCT Command Line Course Backup in combination with an automated script to create the backups and copy the backups to another storage device or server. This has several advantages over a typical system-wide or server-wide backup.

1. *Deleted sections of a course can be quickly and easily recovered.*

As mentioned earlier, a course is scattered across five to six different directories with references in several data records. It is not possible to replace pieces of a course deleted by a course designer from a standard mirror image backup of the WebCT system. Using a course backup, the WebCT administrator can create another temporary course, restore the backup to the temporary course, allow the faculty to copy out the necessary information to replace in the current course and delete the temporary course to free up the drive space.

2. *Courses can be archived for assessment purposes.*

Many colleges now require faculty to maintain all course information for up to a year for assessment purposes or grade challenges from students. If information is required for assessment or grade challenges, an administrator can restore an individual course to a new temporary course for access and review.

3. *WebCT system can be recovered to another operating system*

For many schools, a duplicate server running the same operating system may not be available if the production server is destroyed in a catastrophic event (fire, flood, vandalism, or theft.) The only recourse may be to install a new WebCT system on a server with a different operating system and hardware. In most instances, a system or server-wide backup cannot be restored to one operating system with a different operating system. Fortunately, WebCT course backups are upward version and cross-platform compatible. WebCT course backups created on WebCT-Windows NT can be restored on a WebCT-UNIX system and vice-versa. If there is no local server available, the course can also be restored on another course-hosting server operated by WebCT or another institution.

## WebCT Administration

WebCT's administrative tools provide you with access to a wide variety of information about your server, courses, and users. The following describes the functions controlled by the buttons on the *Admin* toolbar:

- **Server Management**
  - License functions
  - Publisher functions
  - System statistics
  - Settings for read/write permission, the Chat and Whiteboard ports, and WebCT mail
- **Course Management**
  - Create and delete courses
  - Backup courses
  - Set student name display and course backup limits
  - Create categories for courses
  - Communicate announcements to groups of users and add URLs to *my WebCT*
- **User Management**
  - User Settings, such as passwords, global database, and orphan users
  - Column Editor, used to define and rearrange fields in the user record database
  - User records: add, delete, or edit individual records and query the entire user database
- **Password**
  - Change the administrator password
- **Settings**
  - Adjust all settings in one Web page

One of the primary functions of a WebCT administrator is to create courses on the WebCT system. Once the courses are created, they are passed on to a WebCT designer, usually the instructor, for development. Often, the WebCT administrator has no involvement in a WebCT course after the course is created. However, WebCT administrators can modify course information (including the designer password), delete courses, and backup or restore courses on an administrative level. Since most WebCT course administration is performed using a Web browser, there is almost no difference between administering the UNIX version and the Windows NT version of WebCT.

### Server Management

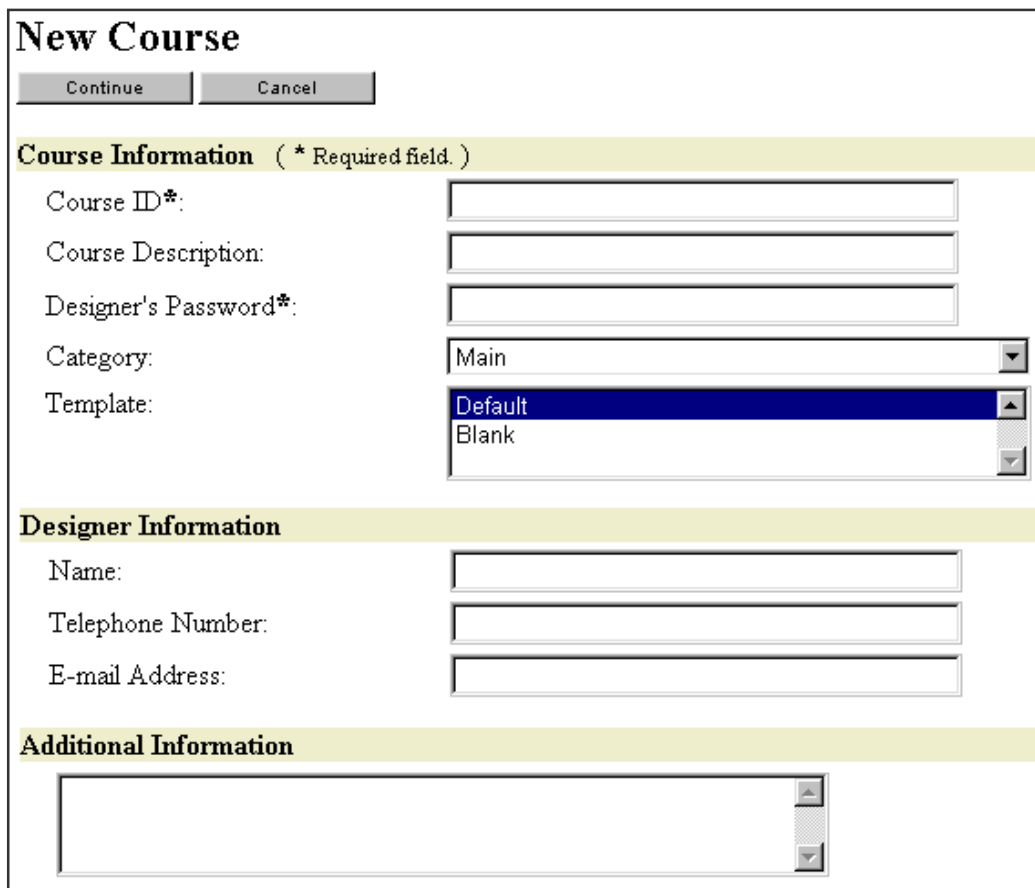
The Server Management area allows the administrator to enter license, assign read/write permission, set up Chat and Whiteboard ports, and configure WebCT mail. You can also set your publisher institution ID.

Many of the server management functions are set only once, after installation. The most important task of server management is the monitoring of statistics. Since all systems have limited resources, the statistics functions help the WebCT administrator determine when WebCT is consuming too many resources, when courses are unused, or when the number of users is near the maximum for a limited server license.

## Course Management

### Creating courses

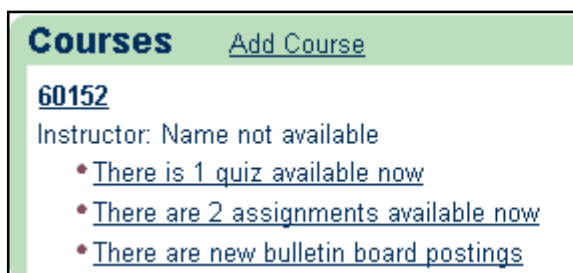
Clicking **Course Management** → **New Course** brings up the *New Course* form in the right-hand frame of the browser (see *Figure 10* below).



The **New Course** form is a web-based interface for creating a new course. It features a title bar with "Continue" and "Cancel" buttons. The form is divided into three sections: "Course Information", "Designer Information", and "Additional Information". The "Course Information" section includes fields for "Course ID\*", "Course Description", "Designer's Password\*", "Category" (a dropdown menu with "Main" selected), and "Template" (a dropdown menu with "Default" and "Blank" options). The "Designer Information" section includes fields for "Name", "Telephone Number", and "E-mail Address". The "Additional Information" section is a large text area. The form is styled with a light green header and a light yellow background for the sections.

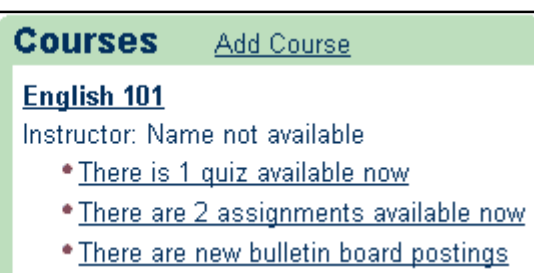
Figure 10

The form has two fields that must be populated: *Course ID* and *Designer's Password*. All other information on the form is optional. However, sometimes the Course ID is not very descriptive, particularly if course IDs are programmatically assigned. For example, English 101 could be assigned a Course ID of 60152. If only the Course ID has been entered in the New Course form, then 60152 appears in the **my WebCT** course listing (see *Figure 11a* below). A solution to this problem is to enter a course title, such as English 101, in the *Course Description* field on the form above. When the *Course Description* field is filled, then it appears in the course listings in **my WebCT** (see *Figure 11b* below).



This screenshot shows a course listing for the ID "60152". The header includes "Courses" and a link "Add Course". Below the ID, it says "Instructor: Name not available". There are three bullet points, each with a link: "There is 1 quiz available now", "There are 2 assignments available now", and "There are new bulletin board postings".

Figure 11a



This screenshot shows a course listing for the title "English 101". The header includes "Courses" and a link "Add Course". Below the title, it says "Instructor: Name not available". There are three bullet points, each with a link: "There is 1 quiz available now", "There are 2 assignments available now", and "There are new bulletin board postings".

Figure 11b

## Using templates

In the *New Course* form, there is an option to select a template. The administrator can use the WebCT default template, which contains a basic layout of course tools, or create a new, blank template. You can also use an existing course as a template for a new course. When another course is used as a template, all the information in the existing course is brought into the new course. This is useful when developing a common set of courses such as general English or Science courses. Keep in mind, however, that *all* of the course information, including student records, mail, and bulletin messages, carries over into the new course. The administrator should therefore delete student records and outdated material from a course before using it as a template.

## Modifying course information

Clicking on a course link in the course listing located in the leftmost frame will bring up *Course Profile* screen, which allows the administrator to modify course information and passwords or delete a course (see *Figure 12* below). Once a course has been created, all course information, *except for the Course ID*, can be modified through the *Course Profile* screen. Course IDs cannot be easily changed because they serve as keys to many directories and records within the WebCT system.

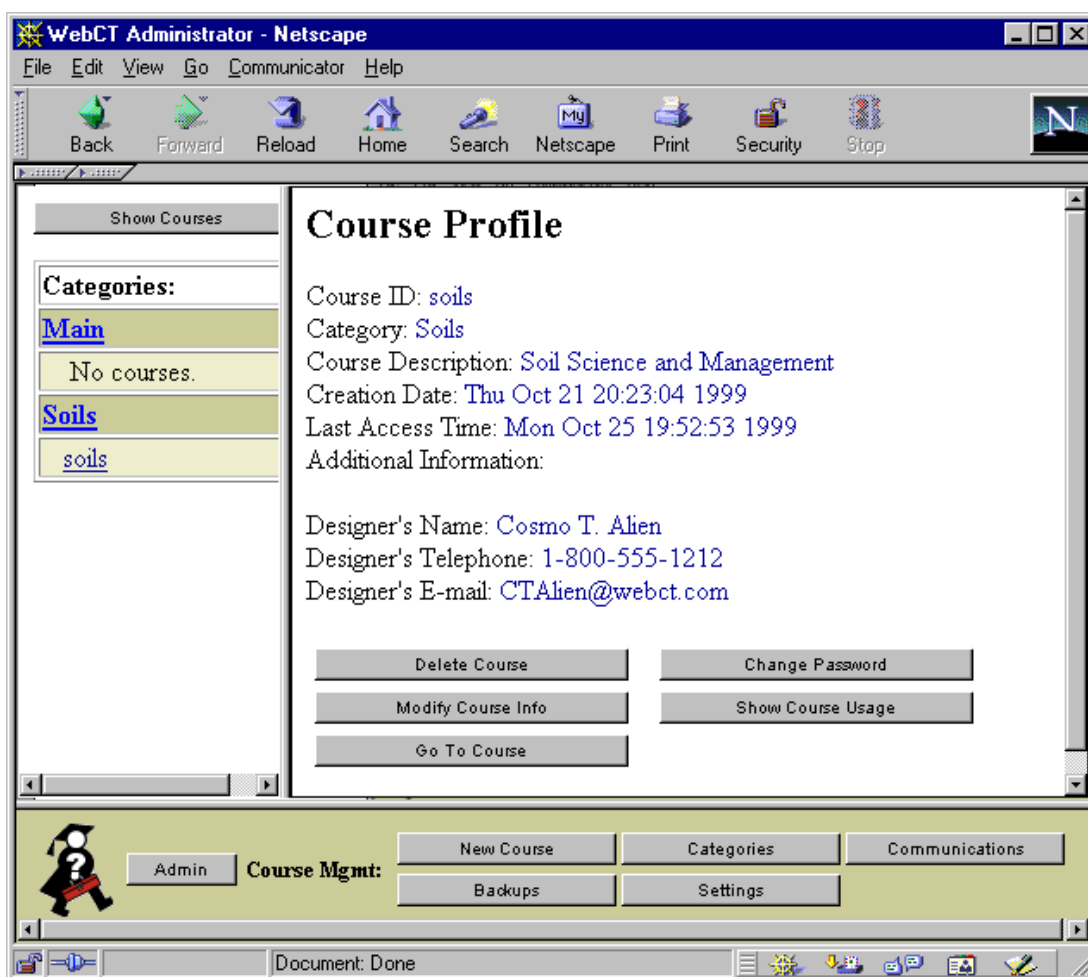


Figure 12

## Changing the course ID

If a Course ID must be changed, you will have to create a new course, using the old course ID as a template. Have no fear! All of the course information carries over through the template.

1. Backup the old course (see *WebCT Backup* on page 21).
2. Download the backup file to your computer.
3. Delete the old course on the WebCT server (see *Deleting courses* below).
4. Create a new blank course with a new Course ID.
5. Upload/restore the original course to the new course.

## Deleting courses

The WebCT administrator is the only user who can delete a course from the system. This is accomplished by clicking **Delete Course** when displaying the course profile. Once a course has been deleted, it cannot be recovered unless you've made an administrator backup.

When you delete a course, all of the course's backups (except administrator backups) will be deleted. If you want to archive a course but cannot keep it on the server, make several backups of the course and download it to another storage medium (hard drive, Zip disk, CD-ROM, etc.).

Deleting a course, or attempting to restore a deleted course, without WebCT Administration tools is not recommended, since a single course could span several directories.

## Categories

To organize courses on your server, you can create categories to organize courses. For example, many administrators organize courses by subject or department, and create a "development" category for courses that are under construction. When users view the *Course Listings* page for your WebCT server, the courses will be listed within their specified categories. You can also hide categories of courses, such as those under construction.

### Adding and deleting categories

From the *WebCT Administrator* screen, click **Course Management** → **Categories** in the *Admin* toolbar. The *Categories* screen appears (see *Figure 13* below).

To add a category, click **Add**. Enter a category name in the space provided and click **Add**.

To delete a category, click **Delete**. At the *Delete Category* screen, select the category to delete from the drop-down list, then click **Delete**. Courses within a deleted category are reassigned to the *Main* category.

Category	Members
Main	

Categories: Add Delete Hide/Reveal

Figure 13

### Assigning a course to a category

You can assign a course to a category in one of two ways:

1. When you first create a course, select a category for the course from the drop-down menu in the *New Course* form.
2. Click **Course Management** on the *Admin* toolbar to view the list of courses on your WebCT server. Click on the course you want to assign to a category, then click **Modify Course Info**. Select a category from the drop-down menu in the *Course Information Editor*.

### Hiding/revealing a category

WebCT administrators can also hide or reveal categories. Any courses assigned to a hidden category will be hidden from the main WebCT course listings. This is a useful tool for hiding courses still under development.

To hide or reveal courses, click **Hide/Reveal** on the *Categories* button bar. The *Hide/Reveal Categories* screen contains two list boxes that allow you to move categories between the *Revealed* and *Hidden* lists (see *Figure 14* below). Designating a category “hidden” hides all courses within a category.

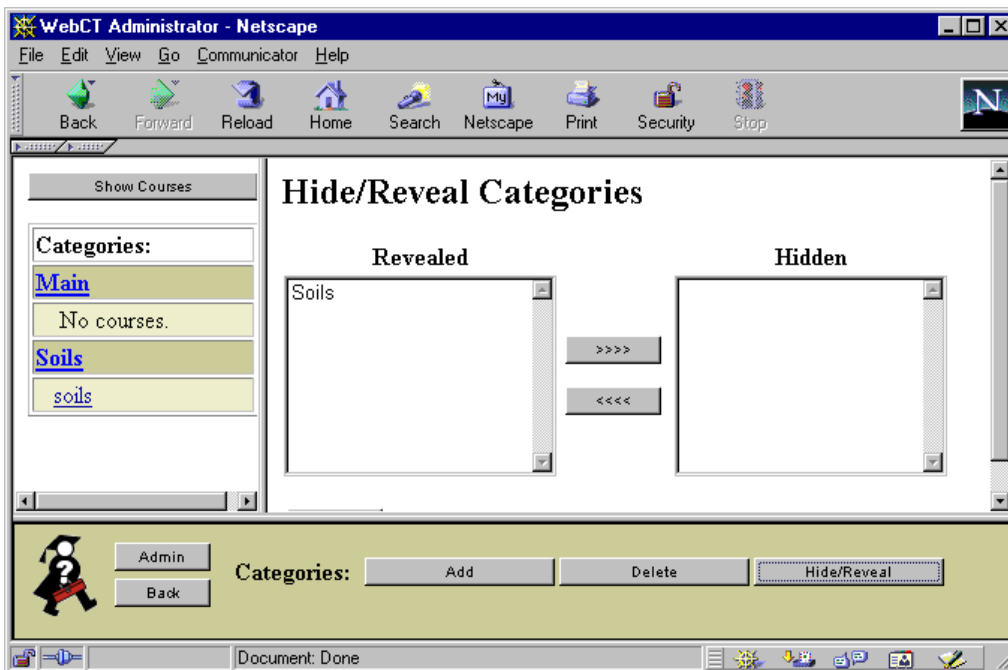


Figure 14

Designers, graders, and students can still access the course by entering the full URL of the course *Welcome Page* or course *Home Page* in the location field of their browsers.

Course URLs use the following syntax:

*Welcome Page:*

`http://host.domain[:port_number]/public/course_id/index.html`

*Home Page:*

`http://host.domain[:port_number]/SCRIPT/course_id/scripts/serve_home`

Once the user successfully logs in to the course and adds it to *my WebCT*, the course can be accessed through *my WebCT* or with a browser bookmark.

## Communications

*my WebCT* features announcements and URL links that can be modified *only* by administrators. The *Announcements* area of *my WebCT* can be used to provide updates and bulletins such as server outages, weather or traffic reports, school closings, or schedule changes that affect the academic community. The *Standard Links* area of *my WebCT* can be used to provide hyperlinks to educational resources, such as libraries and school homepages.

Only WebCT administrators can create, edit, and delete announcements and Standard Links in *my WebCT*.

### Announcements

To add, modify, or delete announcements for courses, click **Course Management → Communications** from the WebCT Administrator toolbar, then click **Announcements**.

To add an announcement, click **Add**. The *Announcement Addition* screen appears (see illustration below). When adding an announcement you can set the date and time to make it available and the recipients. Click **Add** at the bottom of the form to save the announcement or **Cancel** to return to the previous screen. You can send announcements to a select group of courses by pressing the Ctrl key (PC users) or Apple key (Mac users) and clicking on the courses you want to include in the group.

**Announcement Addition**

Title:

Summary:

Details: (optional)

Availability:

After: DD / MM / YYYY  /  /  HR : MIN  :

Until: DD / MM / YYYY  /  /  HR : MIN  :

Audience:

Courses:

Figure 15

### Links

Click **URL Links** on the *Communications* toolbar to open the *Administrator Universal URL Links* screen. You can create, edit, and manage URLs that appear in the list of Standard Links on the *my WebCT* area. To add, modify, or delete Standard Links, click **Course Management → Communications** from the WebCT Administrator toolbar, then click **Links**.

**Note:** Standard Links cannot be targeted to particular courses or categories. The Links you set up appear in all courses on your server.

## User Management

WebCT 2.0 maintains a **global database** of all users (designers, graders and students) for installations on a *single* server. The global database maintains a record for each user. It contains information such as Global ID, first name, last name, and the WebCT courses in which the user is registered. Previous versions of WebCT maintained separate course-specific databases of User IDs and passwords. An advantage of using the new global database is that designers and students can combine all their User IDs into a single Global ID. **Note:** if users are registered in courses on *separate* WebCT servers, they will need Global IDs and passwords for *each* of these servers.

The global database contains fields for courses and registered courses. Items in the **Courses** field are WebCT courses a user is a member of, while **registered courses** are all the courses offered by an institution (such as the courses listed in a university catalogue). An administrator can thus populate the WebCT global database with the complete list of an institution's courses and the students registered in them. These lists can then be used by WebCT to identify and populate WebCT courses. (See the description of **GlobalDB Access** below for further details.)

WebCT 2.0 provides a number of User Management settings to handle the needs of different institutions. These settings establish the degree of control that users have over Global IDs and passwords. The more control that you give to users, the less work you, the administrator, need to do to set up the global database. However, giving users more control also complicates the task of synchronizing WebCT's global database with your institution's existing registration databases. You will have to determine the most suitable balance for your institution.

User Management settings can be adjusted by clicking **User Management**→**Settings** from the *WebCT Administrator* homepage. The following options are available:

### User Password

This setting controls whether or not instructors are allowed to change the passwords of students in their course. In previous versions of WebCT, students may have had different passwords for each of their courses, so an instructor could change student passwords for a particular course without incident. However, in WebCT 2.0, students must replace all of their course passwords with a single, Global password. Thus, if an instructor changes student passwords for a course, the Global passwords for the students will be changed as well. **Note:** Designers will always be allowed to change the password of an orphan user in their course. (See the description of Orphan User on page 29 for further information.)

### GlobalDB Access

If you have populated the global database with all of the necessary user records (such as first name, last name, Global ID, and registered course names), then designers can add students to their courses automatically by importing a list of students from the global database. To enable designers to query the global database in this manner, select the check box for the **GlobalDB Access** option.

To enable designers to use this option, each user's registered courses must be in the global database. Each registered course must be identified by an alphanumeric string, which should uniquely identify the course at the institution. For example, the registered course name could be a university catalogue number, such as PSYCH100 or CHEM150. It need not be the Course ID of an existing WebCT course.

For more information on registered courses, see Administrator FAQ on page 32.

### Orphan User

A user who has a course that has not yet been added to his or her *my WebCT* area is considered as an "orphan" in that course. If you are upgrading from a previous installation of WebCT with existing courses and users, ALL users will be orphans until they set up *my WebCT* and associate their courses with a Global ID.

There are two ways that a course designer can add a new user to a course: 1) by importing user information from the global database using a query or specific Global ID, and 2) by adding an orphan. If the **Orphan User** setting is disabled, then the designer cannot add an orphan to the course, and all students must be imported from the global database. Therefore, unless you have already populated a global database with student records, you should enable this setting.



## **Membership Detection**

When an orphan user logs in to a course, a set-up page for *my WebCT* appears. Here, the user selects courses, validates registration in the courses by entering a User ID and password for each course, and then chooses a Global ID and password.

During this set-up, WebCT can save the user time by querying for courses containing the same User ID with which the orphan user logged on. If the institution has been consistent in assigning User IDs to students in WebCT courses, then this **Membership Detection** option should be enabled. For instance, if most or all of the courses at your institution use the student number as the User ID, then Membership Detection will work. When this feature is enabled, the set-up page for *my WebCT* will be populated with the names of all of the users' courses after they enter their User ID. The user then chooses a Global ID and password.

If, on the other hand, individual instructors have independently created and assigned User IDs, then a student may have different User IDs for each course, such as patsmith, psmith, and SmithP. Different users may also have been given the same User ID in different courses. In this case, WebCT cannot detect the user's course list based on a User ID entered by the student. In addition, there are security issues that arise from different users being given the same User ID. For example, a student could be presented with a course that he or she is not a member of, but for which they apparently have a valid User ID and then try to "guess" the password for this course. If they guessed successfully, they would gain access to a WebCT course in which they were not official members. For these reasons, then, the **Membership Detection** setting should be disabled.

## **Account Creation**

This setting controls whether or not an orphan can set up a new *my WebCT* area and thus create an account in the global database. If this setting is disabled, users will be able to log on to their "orphan" courses only if they have an existing *my WebCT* area. In most cases, particularly if you are upgrading, you should leave this setting enabled, unless you are confident that there will be no orphan users. **Note:** If you disable this setting, you should also disable the **Orphan User** setting.

## **Global ID**

If this setting is enabled, users can enter any string for their Global IDs when setting up *my WebCT*. If this setting is disabled, users must choose their Global IDs from a list of their course User IDs.

## **Global Password**

This setting controls whether users are allowed to change their own passwords. In most cases, this option should be selected, particularly if you have chosen NOT to allow designers to change students' passwords.

However, if your institution uses an external password/registration database that synchronizes with other institutional systems, such as email, then you should NOT select this option. Deselecting the Global Password option ensures that users cannot overwrite the passwords for their other accounts by changing their WebCT passwords.

## **Language**

Use this control to set the default language for the WebCT interface on a single server. The language selected here appears in all areas of WebCT, including *my WebCT*. Designers have the option of resetting the language option for their own courses. **Note:** as of December 1999, English is the only language option available. However, additional languages will be available for download in 2000. For more information on language translations and availability, visit our Web site at [http://about.webct.com/buy/supp\\_langs.html](http://about.webct.com/buy/supp_langs.html).

## **Upgrade examples**

There are several possible scenarios that an administrator may encounter while upgrading to WebCT 2.0, and different administration setting combinations will apply in each case. Presented here are a few examples.

**Scenario 1:** An administrator upgrades an active WebCT server to version 2.0. There are existing courses with students registered in those courses. A user may have a different User ID for each of their courses.

The existing users of the system will all be orphans after the upgrade. The first time these users log on to their courses after the upgrade, they will be redirected to the *my WebCT* set-up page. In this case, the **Membership Detection** setting should be disabled, and the **Global ID** setting should be enabled, since the existing User IDs are not organized and cannot be used for automatic detection. The **Account Creation** setting must also be enabled so orphan users can create new accounts in the global database.

**Scenario 2:** An administrator upgrades an active WebCT server to version 2.0. There are existing courses with students registered in those courses. However, unlike the previous scenario, User IDs in all courses match the student number (or other unique identifier) of the user.

In this case, User IDs are systematic and meaningful. The **Membership Detection** setting should be enabled, and the **Global ID** setting should be disabled. These settings force a student to use their student number as a Global ID, which makes it easier to maintain consistency between the WebCT global database and the institution's registration database

**Scenario 3:** The WebCT 2.0 installation is new, and not an upgrade of an existing server. There are no existing courses and students. The administrator wishes to use the institution's existing registration database to give each student a WebCT account, and to maintain consistency between registration lists and the global database.

First, the administrator should obtain a comma-delimited text export of the registration database to populate the WebCT global database. Each line of this file should include a user's first and last names, Global ID (such as a student number), and the names of courses in which the student is registered. The administrator will then upload this file into WebCT, thus populating the global database.

In this case, the **Orphan User** setting should be disabled to maintain control over class lists. The **GlobalDB Access** setting should be enabled so that designers can query the global database for users who are registered for their course and then add all students matching this query to their course. Because all students will be assigned to courses by importing existing records from the global database, the administrator can disable the **Account Creation** setting. The **Global ID** setting can be turned off as well, since students will not be setting up their own Global IDs.

## Frequently Asked Questions about WebCT 2.0

### Administrator FAQ

#### Can I run instances of WebCT 1.3.1 and WebCT 2.0 on the same server?

Yes. With UNIX, you can run WebCT 1.3.1 and WebCT 2.0 or two instances of WebCT 2.0 by specifying different ports during installation (see *Setting the default port* on page 12). Once running, you will need to change the *Chat* and *Whiteboard* ports in one of the WebCT 2.0 versions to avoid conflict.

With Windows NT, you can safely run two versions of WebCT on the same box, but it is not quite as simple as running two versions of WebCT on the same UNIX box. The best method is to run one server under Apache and one under IIS. They run quite well independently of each other, provided that you set up the *Chat* and *Whiteboard* ports to be separate. Another option is to install one Apache server as a service and then run another from the command line. This is much more tedious to administer, though.

#### How can I hide a course?

To hide a course, place it within a hidden category. For example, you can call the hidden category "Hidden Courses." Instructors can still access the course via the home page URL, but students will not see the course as being listed.

#### My operating system came with its own Apache server. When I install WebCT, will I have two different versions of Apache running?

WebCT installs the Apache server in its own directory (*install\_dir/webct/server/conf*) and does not overwrite the existing Apache server included with your operating system. If you select the default port 8900 for the WebCT Apache server, then both servers can run concurrently without problems.

However, if you run the WebCT Apache server on the standard port 80, you should kill the OS server and reset its port to something else before starting the WebCT Apache server. You also have to prevent the OS server from rebooting your system.

#### Can I run WebCT using my own Apache server?

Yes. Run your server pointing to our **httpd.conf** file, which is located in the installation directory:

```
(install_dir/webct/server/).
```

### Course designer FAQ

#### What is shared access?

Shared access allows a designer to give other users designer-level access. The only difference between shared access users and designers is that shared access users cannot create other shared access users.

#### Can I remove a course when there are shared access designers?

Courses are removed through the WebCT Administrator interface. As such, a shared access designer is treated as another user within a course. Deleting a course will remove that course link from the shared access designer's *my WebCT*. Deleting a course while a shared access designer is working in the course will have the same effect as deleting the course while a designer is working in the course. No responsible system administrator would delete a course (I hope!) without notifying the designers first.

#### Do shared access designers have a lower status than designers?

No, a shared access designer is treated as a normal designer within a course. The only difference between course designers and shared access designers is that only course designers can create shared access designers. To do this, a designer simply adds a shared access designer by specifying a Global ID.

Please keep in mind that a shared access designer is in all respects treated as a course designer within a course. They receive the same e-mail, and also appear as "Instructor" inside Chat and Whiteboard. From the student's perspective, a course designer and a shared access designer are exactly the same person.

**My institution is upgrading to version 2.0. Will I have to recreate all of the courses that I created in the old version of WebCT?**

No. When an existing WebCT system is upgraded to WebCT 2.0, all existing courses are automatically upgraded during installation.

If you want to switch operating systems, hardware, or you just want to make a fresh start with version 2.0, you can also perform a "clean install." **Note:** this method assumes that you have already installed WebCT 2.0 on a separate server.

1. Back up all courses on the existing WebCT server using WebCT's administrative tools.
2. Shut down the old server and start up the new 2.0 server.
3. Copy or FTP the backup files to the new server.
4. Restore the backup files with WebCT's administrative tools. During the restore process, courses will be updated to version 2.0.

**What are registered courses? How are they different from courses?**

"Courses" refers to WebCT courses that are currently on your server. "Registered courses" refers to a searchable text string that allows the administrator and designer to query the global database and find a particular group.

Perhaps an example to clarify would be helpful. Let's say an institution assigns an ID number to each course that it offers. When a student registers for a course, the course ID number is linked to the student's Global ID as a registered course. The designer/instructor of the course can query the global database for student Global IDs that are linked to the course ID number, and then use the query to populate the course with registered students.

## **ID & my WebCT FAQ**

**As an administrator, why can't I delete a designer's Global ID? How am I supposed to change the designer for a course?**

You cannot delete a designer's Global ID if he or she has a course. To delete a designer's ID, first change the designer so that he or she becomes an orphan user.

**Note:** An orphan user is a person whose User ID is not linked to a Global ID.

Normally, a designer cannot become an orphan user, because once a Global ID has been mapped to a designer's User ID within a course, it is not possible to change this assigned ID without deleting the course. However, you can follow these steps to remove a designer's Global ID mapping:

As the designer:

1. Back up the course and download the backup.

**Note:** You need to have a backup of the course because otherwise, after deleting your course, you will not be able to restore it.

As the administrator:

2. Delete the course and the designer's Global ID.
3. Create a new course with the same Course ID and description as the deleted course.

As the designer:

4. Log on to the new course. Use a new Global ID to set up *my WebCT*.
5. Upload and restore the course backup.

**Note:** This method will preserve the Global IDs of all the students within the course. If you just do an administrator back up and restore, then all the students within the course will become orphan users.

**As a designer, how do I change my Global ID?**

To change your Global ID, ask your administrator to create a new Global ID first. To do this, follow the steps from solution (1) above. You will then have to merge the *my WebCTs* in order to change your Global ID.

**As the designer, I cannot merge my two *my WebCTs*. What do I do?**

1. For the *my WebCT* you wish to delete (or merge), see the steps for solution (1) above.

2. Add the course (that needs to be merged) to the remaining *my WebCT* account that the designer will keep and use.

Example: Pat Smith has two courses, Computer Science 301 and Computer Science 450. In each course, Pat has a different Global ID:

Global ID	Course
Pat	Computer Science 301
Smith	Computer Science 450

After completing the steps for solution (1) above, the designer's User ID in Computer Science 301 will be an "orphan." As such, under Smith's *my WebCT*, the designer can now add Computer Science 301 to *my WebCT*. Thus, under the Smith ID, there will be two courses in *my WebCT*: Computer Science 301 and Computer Science 450.

**When selecting my Global ID, I have to select one of my course IDs as my Global ID. What if I don't want to do this?**

If the administration setting that allows users to enter any text for their Global ID is disabled, then designers must select one of their Course IDs as their Global ID. To use a different Global ID, follow these steps:

As the administrator:

1. Create a global account that matches the Global ID the designer wishes to use (for example, "patsmith").

As the designer:

2. Log on to the course.
3. When redirected to set up *my WebCT*, select the option titled: "Yes, already have *my WebCT* set up."
4. Log on using the Global ID and password that the administrator set up.

**As an administrator, I can only add students to courses, designers. How can I fix this?**

In the administrator menu, you cannot add a designer to a course. The solution? There is a Perl script, available at our Web page, which allows administrators, from the command line, to add a designer Global ID to a course.

**Our server was upgraded from 1.3.1 to 2.0. Now, as a designer, I can't add one of my courses to my course list (i.e., to my WebCT). How do I fix this?**

One reason may be because the selected User ID is already taken within the course you wish to add. Imagine the following scenario: A designer adds a student user to a course in 1.3.1 to see the course from the student's perspective. The designer uses the User ID "patsmith" for this student. After the server is upgraded to 2.0, the designer, when setting up *my WebCT*, wishes to use "patsmith" as a Global ID. The designer can successfully set up the global account "patsmith." However, the designer cannot add the course to the course list, because there is already a User ID ("patsmith") within the course.

*Solution 1:* Delete the student from the course. You can do this in one of two ways:

The first method is to have the administrator remove the student from the course by using the command line API.

The second method is to use the designer student management interface to remove the student. The problem is that the designer cannot log on to the home page for the course without first being redirected to set up *my WebCT*.

To work around this problem, follow these steps:

1. Don't go to the homepage. Instead, go directly to the Student Management page.
2. Type the following URL directly into your browser location bar:

**For a UNIX server:**

`http://server:port/SCRIPT/courseID/scripts/designer/serve_student_mgmt`

**For a Windows NT server:**

`http://server:port/SCRIPT/courseID/scripts/designer/serve_student_mgmt.pl`

3. Now, delete the student by using the student management interface. 4. Once the student is removed, the designer can add the course to *my WebCT*, since there is no longer an ID conflict.

*Solution 2:* As a designer, complete the following steps:

1. Instead of deleting the student in the course, set up the student account with a new Global ID.
2. Log on to the course as that student (in this case as "*patsmith*").
3. You will be redirected to set up *my WebCT*. Choose a different Global ID (for example, "smith\_student").
4. After you choose a different Global ID, shut down the browser to clear the ID and password from the cache.
5. Reopen the browser and log on to *my WebCT*, using "*patsmith*" as the Global ID.
6. Add the course to *my WebCT*.

**As a designer, I want to set up a guest account for a visitor. I also want to view my course as a student. How do I do this?**

Create a new User ID for the guest account. We suggest that you use an ID such as "guest\_patsmith" or "guest\_CompSci450" to differentiate between a regular user and a guest user. The guest user, when first logging on, will be redirected to *my WebCT*. This new User ID will view the course from a student's perspective.

## Sample letter to students

If you upgrade an existing server to 2.0, you might want to alert students to the major change in version 2.0, the ability for students (designers and graders) to access all of their courses from **my WebCT** using their **Global ID**. Below is a sample letter that could be posted on a public Web site for students to read or sent to them directly. You would have to customize this letter for your own use. The scenario that this letter addresses is Scenario 1, above.

### Welcome to WebCT!

Your course has recently been upgraded to WebCT 2.0. Now you can enjoy a host of new features, including improved online help, navigation tools, and a single Global ID that you can use to access all of your WebCT courses.

In response to user requests, WebCT now allows you to use a single Global ID to access all of your courses. Once you login to your course with the User ID provided by your instructor, you will add this course to **my WebCT**, where you can access all of your courses from one page. By clicking on a course name in **my WebCT**, you can access that course without re-entering your ID and password.

To get started, you will need a User ID for every course in which you are registered. You will probably get this User ID from your instructor, and you will use it to login to that instructor's course. When you login, you will be prompted to set up **my WebCT**. A series of help screens will guide you through the process. Once you have successfully validated your account and established your Global ID and password and your **my WebCT** area, you will have access to the following links and functions:

- Announcements about recent changes and additions to your courses
- Direct links to tools within your courses, such as bulletin board, mail, quiz, and assignment dropbox
- Links to university-wide resources, such as libraries and campus services
- A link to the WebCT Learning Hub, which contains additional resources for both students and instructors
- Password modification for **my WebCT** (and all of your courses)

If you have any questions please contact your instructor.

---

# Index

---

## A

- Account Creation, 31, 32
- Add/Remove Programs* control panel, 20
- adding courses, 35
- administration, 24
  - settings, 24
- Administrator Backup, 21
- administrators, 1
  - skills required for, 2–3
- announcements, 5, 6, 29
  - adding, 29
- Apache server, 8, 33
- API, 4
- archive, 19, 21, 23, 27
- Autostart
  - UNIX, 16, 20
  - Windows NT, 15

## B

- backups, 21–23, 27
  - command line, 21
  - strategies, 23
  - system, 21
- Berkeley DB, 4

## C

- categories, 27–28
  - adding, 27
  - assigning, 28
  - deleting, 27
  - hiding/revealing, 28, 33
- Categories* screen, 27
- Chat*, 33, 34
- client-server model, 1
- command line course backup, 21
- commands, 3
- common desktop environment (CDE), 3
- communications, 5, 29
- course ID, 25, 35
  - changing, 27
- Course Profile* screen, 26
- courses, 30
  - adding to my WebCT, 35
  - and registered courses, 30, 34
  - changing designer, 34
  - creating, 25, 26

- deleting, 27
- hiding, 28, 33
- management of, 24
- modifying, 26

## D

- Delete Category* screen, 27
- deleting WebCT
  - UNIX, 20
  - Windows NT, 20
- designers, 1, 33
  - deleting, 34
- Digital UNIX, 7

## F

- filespace, 7
- fixed disk storage, 2

## G

- global database, 4, 5, 30
  - building, 5
- Global ID, 4, 5, 31, 32, 34, 35
  - changing, 35
- Global Password, 31
- GlobalDB Access, 30, 32
- graders, 1
- graphic images, 7
- graphical user interface (GUI), 3, 7
- guest accounts, 36

## H

- hiding a course, 28, 33
- hiding categories, 28
- home directory, 7
- hyperlinks, 5, 6, 29

## I

- IIS. *See* Microsoft Internet Information Server (IIS)
- installation, 7, 10, 19
  - UNIX, 10
  - upgrading, 19
  - Windows NT, 7
- InstallShield, 9



## K

kill process, 18

## L

Language, 31  
links, 5, 6, 29  
Linux, 2  
log directory, 18

## M

Membership Detection, 31, 32  
memory, 2  
merging *my WebCT*, 35  
Microsoft Internet Information Server (IIS), 8  
multimedia, 7  
*my WebCT*, 4, 5, 25, 29, 31, 35  
    announcements in, 29  
    links in, 29  
    merging, 35  
    setup, 5

## N

*New Course* form, 25, 26

## O

operating systems, 2, 7, 33  
    moving WebCT across, 19, 21  
    no longer supported, 2  
orphan user, 5, 30, 31, 32, 34  
Orphan User, 30, 32

## P

password, 25, 30  
    changing, 13, 24, 26  
Perl, 3, 11  
Perl interpreter, 11  
port setting, 9, 12, 33  
power outage, 16  
process ID, 18  
processors, 2

## Q

queries, 31

## R

readme files, 9, 12  
recovery, 23  
Red Hat Linux, 7

registered courses, 30, 34  
registry, 20  
revealing categories, 28  
root index page, 15

## S

sample letter to students, 37  
scripts, 16, 18  
server, 8, 9  
    management of, 24  
    statistics, 24  
servers, 2  
*Services* control panel, 14, 15, 17, 20  
setup.exe, 7, 19  
shared access, 33  
    deleting a course with, 33  
shutdown  
    scripts, 18  
    UNIX, 18  
    Windows NT, 17  
Standard Links, 29  
startup  
    automated, 15, 16  
    scripts, 16, 20  
    UNIX, 12, 15, 20  
    Windows NT, 14  
storage devices, 23  
students, 1  
    sample letter to, 37  
system backup, 21

## T

tape backup, 22  
tar file, 10  
telnet, 15  
templates, 26  
terminal session, 15  
time out, 21

## U

uninstall, 20  
unzipping, 7  
upgrading WebCT, 7, 19, 34, 35–36  
    example cases, 32  
    running 1.3.1 and 2.0, 33  
URL links, 5, 6, 29  
User ID, 5, 34  
users, 1  
    management of, 24, 30  
usr/user directory, 7

## **W**

WebCT user, 7, 10, 15, 19

WebCT Web site, 7

*Whiteboard*, 33, 34

Windows NT Workstation, 2



**WebCT has**  
**4.3 Million Student Accounts**  
*in more than 1000 Institutions*

[FREE TRIAL](#)
[LICENSES](#)
[SUPPORT](#)

#### IN THIS SECTION:

[Download WebCT](#)
[Pricing & Licensing](#)
[Other Services](#)
[Supported Languages](#)
[Y2K Information](#)

## WebCT Language Translations

- [Student Languages](#)
- [Designer Languages](#)
- [Translated WebCT Homepages](#)
- [Future Considerations](#)

### Student Languages

The student view of WebCT is currently available in several different languages. This view is the area of WebCT that is seen by students subscribed to a particular course. It includes button labels, headings, and any other system phrases that may appear for the student. Course content will of course have to be added/edited in the appropriate language by the designer. The designer can change the student language preference for the course at any time by going to "Course Settings" then "Languages" in the designer menu bar.

#### Here are the languages involved with WebCT:

##### Currently Supported:

Dutch   English

Finnish   French

Spanish

##### Planned Languages:

Chinese   English (Canada)

English (US)   German

Greek   Hungarian

Italian   Japanese

Korean   Portuguese (Portugal)

Portuguese (Brazil) Russian  
Swedish

[\(Back To Top\)](#)

## Designer Languages

The designer view of WebCT is available in English only at the moment. The designer is the user who can edit and add new course content, as well as perform general management tasks on the course. With regards to translations, this is a much larger area of WebCT than the student view, as it includes several large documents in addition to the regular phrases. Code is now being modified to allow new languages for the designer view.

The first few languages that will be added to the designer view include:

Dutch French  
Spanish

[\(Back To Top\)](#)

## Translated WebCT Homepages

The WebCT homepage is viewable in the following languages. Please have your web browser set to the proper encoding type to view the pages properly.

Japanese

[\(Back To Top\)](#)

## Future Considerations

For more information on the separation between student and designer views, and how languages are dealt with at WebCT, please check out this [note written by Murray Goldberg](#). If you've read that, and you feel there is another language that you'd like to see WebCT available in, feel free to throw the suggestion over to our language co-ordinator, David Wilson. Also feel free to contact him if you have

any other questions/concerns regarding WebCT's language support. One final note: A big Thank You has to be given out to the many translators who have helped us to provide WebCT in multiple languages. We could not have accomplished what we have without these wonderful volunteers. Thanks folks!

[\(Back To Top\)](#)

---

[Company Story](#) | [News & Events](#) | [Partners](#) | [Employment](#) | [Contact Us](#) | [Site Map](#)  
[Free Trial](#) / [Licenses](#) / [Support](#) / [Library](#)

© 1999 WebCT