ENTHUSIASTIC SOFTWARE

Software Documentation: Version 1.3

CTESTAR®
User Manual

SOFTWARE DOCUMENTATION: VERSION 1.3
REVISION T

CTESTAR® User Manual

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Chapter

1

Introduction

Overview of the CTESTAR® Program

The purpose of the CTESTAR® software application is to generate student certificates, and task achievement reports for students enrolled in any of the various Career Technical Education courses. Additional reports, such as the curriculum cross-walk report, may also be generated. Data entry is accomplished via a Microsoft Windows workstation application, and/or a Palm OS Handheld application. Once entered, this data is archived with the data warehouse application. From the warehouse application, data from prior years may be searched, analyzed, and reprinted. Each application is briefly discussed below.

CTESTAR® for Windows

The *CTESTAR® for Windows* application is a 32-bit Microsoft Windows application. This application runs on Microsoft Windows 95, 98, ME, 2000, and XP with a minimum of 64 mb RAM. The application is loaded on the user's workstation from an install CD, which will also install a database containing the standard task lists for a number of courses, possibly augmented by the Career Technical Education staff of the Intermediate School District (ISD). Once the application and this data have been loaded onto the workstation, a list of students may be loaded from a download supplied on diskette by the CTE staff of the ISD. This data imports the name, identification number, and program entry/exit dates for the student. By selecting from the various courses presented by the software from the data contained in this download, a teacher's student records are loaded on to the workstation. This saves the teacher from manually entering all the initial students into his/her database. Subsequent enrollment changes, after the initial data load, must be manually entered by the teacher.

The teacher is able to select the tasks that are to be assessed for his/her courses from the installed database of task descriptions. If necessary, they may add their own task definitions. Task lists for the sixteen nationally standardized program clusters have

been included, along with the Michigan Health Care Standards, and the Van Buren ISD standards. The Michigan Curriculum Framework of 1996 has also been included for generating the *Curriculum Cross-Walk* reports.

Once the students have been loaded, and the tasks selected, the teachers may begin assessing students. Options are provided to assess all of the students in a course against a specific task, and a specific student in the course against all of the tasks in the course. The assessment criteria are numbered zero through four. These assessments correspond to the following proficiencies:

Assessment	Proficiency Level
0	Not Covered
1	Aware of Task
2	Completes with Help
3	Completes without Help
4	Can Demonstrate to Others

Additional data to be entered for each student are: the program entry and exit dates, and an assessment of the student's attendance. The required course data is: pathway, number, name, section, instructor, and host school. An optional facility is also available.

By combining the student and course data, the *Student Task Achievement Record* (STAR) may be printed. Additional reports which may be printed from the workstation include the *Task Progress by Class*, and *Blank Task List* reports.

An alternate approach to course database initialization is for the CTE administrator or staff to provide each teacher with a diskette containing all of their courses with students already imported, and an initial task list. The data warehouse application can be used to build this diskette.

By adding a curriculum framework to a task list, *CTESTAR® for Windows* may also be used to cross-walk the curriculum against the framework. The user identifies whether each task in the task list applies to the framework element. The *Curriculum Cross-Walk* report lists the tasks that apply to an individual framework element in task list/framework order.

CTESTAR® for Palm OS

The purpose of the *CTESTAR® for Palm OS* application is to facilitate data entry from a portable, easy to use, handheld PDA utilizing Version 4.1 of the Palm OS, and incorporating a minimum of 8 mb RAM. (The Palm m130 and Tungsten E are inexpensive PDA's that satisfy these requirements.) This application functions in conjunction with *CTESTAR® for Windows* on the workstation. Once the course, task, and student data have been defined on the workstation, this data may be downloaded to the PDA via the standard Palm OS synchronization utilities. Student assessment data may then be edited on the PDA. As in the workstation application, the teacher may grade all students across an individual task, or an individual student across all tasks. Once data has been edited on the PDA, it may be uploaded to the workstation through the standard Palm OS synchronization utilities. Note that because the *CTESTAR® for Palm OS* application relies on the standard Palm OS utilities, the Palm OS utilities should be installed on the workstation **before** *CTESTAR® for Palm OS* is installed on the workstation. All reports must be printed from the *CTESTAR® for Windows* or *CTESTAR® Data Warehouse* applications.

CTESTAR® Data Warehouse

The *CTESTAR® Data Warehouse* application archives all student, course, and task list data. Additionally, this application may be used to print CTESTAR® Certificates and CTESTAR® Task Lists. At the beginning of the year, this application may be used to create data diskettes for each teacher. At the end of the year, data from each of the workstation applications will be saved to diskette. This data from these diskettes will then be imported back into the warehouse application. The warehouse application should be installed on a centrally located computer. In the event a student loses their certificate or task list, this application can be used to print a new one. By backing up this application, all data may be archived. The data issearchable by student name. The warehouse application can be used to generate year-end file copies of all reports, however, this functionality is <u>not</u> supported on Microsoft Windows 95, or Microsoft Windows 98. These reports are saved as PDF files which can then be backed up to CD.

CTESTAR® Certificate and Student Task Achievement Reports

The primary purpose of the CTESTAR® application suite is to produce a record of each individual student's proficiency in all of the individual tasks covered within the course. These two reports demonstrate this proficiency. The workstation and warehouse applications will print certificates in the format illustrated in Appendix A. The student name, partial id, program entry and exit dates, attendance assessment,

course pathway, name, instructor, host school, and optionally facility are all printed on the certificate. A separate *Student Task Achievement Report* is also generated. This report includes the student name, id, program entry and exit dates, attendance assessment, course pathway, name, instructor, host school, and optionally facility. A list of all task descriptions along with the corresponding proficiency will be printed for the student. A legend defining the assessment criteria is printed at the bottom of this report. Both reports are presented in a visually appealing format suitable for presentation, and use in a job interview.

Additional Reports

In addition to the CTESTAR® Certificate and Task List reports, five additional reports are provided. These are the *Progress Report*, *Course Task List*, *Task Assessment by Competency Summary*, *Curriculum Cross-Reference with Assessment*, and *Curriculum Cross-Walk* reports. A brief summary of each follows.

Progress Report

The *Progress Report* is a concise summary of task proficiencies for each student in the class. This report may be printed with or without student names. Each student is identified by either student id number, or name, in the first column of a row. Rows of data represent individual student's task proficiencies. Subsequent columns of data represent all of the proficiencies for an individual task. Additional pages of columnar data, as well as additional pages with rows of student data, are generated as necessary. Individual rows of student data are sorted by the identification field. Appendix A illustrates this report printed with student names.

Course Task List

The *Course Task List* report is similar to the *Student Task Achievement Report*, however, it does not include any student proficiencies or demographic information. A sample of this report is included in Appendix A.

Task Assessment by Competency Summary

The *Task Assessment by Competency Summary* report summarizes the number of students attaining each competency level for each individual task in a course. This report is useful in analyzing the curriculum. Appendix A includes a sample page from this report.

Curriculum Cross-Reference with Assessment

The *Curriculum Cross-Reference with Assessment* report is generated from the *CTESTAR® Data Warehouse* application. For each item of the selected task list, all of the courses that include the item are listed, along with the teacher name and a summary of student achievement.

Curriculum Cross-Walk

The *Curriculum Cross-Walk* report summarizes the relationship between the task list and the selected curriculum frameworks. The report used to document where each task fits into the framework, and how much of the framework is covered.

Documentation

Program documentation is supplied in PDF format only, and will be installed along with the application. All procedures, such as beginning of year, end of year, and printing will be documented. Program usage is also documented.

Chapter

2

System Requirements

Insure that CTESTAR® is compatible with your computer and handheld

The *CTESTAR® for Windows* program has been designed to operate on the following versions of Microsoft Windows, with the indicated upgrade, memory (RAM), and browser requirements. As the following table indicates, Microsoft Windows 95 may need to have two additional components installed, along with a browser upgrade. Microsoft Windows 98 may require only one component upgrade, plus the browser. As these components are required by many newer programs, they may have been already installed on your computer. If they, or later versions, have already been installed on your computer, the CTESTAR® installation program will not re-install them. Installing each of these upgrade components may necessitate rebooting your computer. The warehouse application can be used to generate year end file copies of all reports, however, this functionality is not supported on Microsoft Windows 95, or Microsoft Windows 98. Thus for full support of the warehouse application, avoid these versions of Microsoft Windows.

Windows Requirements

Operating System	Installation Requirements	RAM	Browser Upgrade
Microsoft Windows 95	DCOM95 1.3 MDAC 2.5 SP2	64 MB	Internet Explorer 5.5 SP1
Microsoft Windows 95 (OSR2)	DCOM95 1.3 MDAC 2.5 SP2	64 MB	Internet Explorer 5.5 SP1
Microsoft Windows 98	MDAC 2.5 SP2	64 MB	
Microsoft Windows 98 (SE)	MDAC 2.5 SP2	64 MB	
Microsoft Windows ME	-	64 MB	
Microsoft Windows 2000	-	64 MB	
Microsoft Windows XP	-	128 MB	

Although the CTESTAR® Installation program will install the DCOM and MDAC upgrades, it will not upgrade your browser. If you are uncertain of this task, consult your system administrator.

Palm Requirements

The *CTESTAR® for Palm OS* requires a Palm handheld device with at least version 4.1 of the Palm OS, with a minimum of 8 mega-bytes of memory. The current version has been tested extensively on the Palm m130 which meets these requirements. Version 4.0.1 or later of the *Palm Desktop* software, (supplied with the m130,) is also required. If you plan to use *CTESTAR® for Palm OS*, install the *Palm Desktop* software, and insure that your Palm device hotsync's correctly before installing CTESTAR®. Although *CTESTAR® for Palm OS* may work earlier Palm devices, this configuration is not officially supported. If you are trying to use a different Palm device, the *Palm Desktop* software must be upgraded to at least version 4.0.1 for the synchronization and installation software to work correctly. All current Palm devices ship with this version, or a later version, of the *Palm Desktop* software.

Chapter

3

Installation

Installing and Uninstalling the CTESTAR® Program

When the installation CD is inserted into your CD drive, the following screen should appear. If it does not, *AutoRun* has probably been disabled on your drive. If this is the case, or if the screen does not appear, browse to the drive, and execute the *BROWSE* program. If you can not browse to the CD, or the *BROWSE* program does not appear, check to insure that you have correctly inserted the CD into your drive. (Depending upon the configuration of your computer, the program name may appear as *BROWSE.EXE*.**)** When the *BROWSE* program is executed, the following screen will appear.

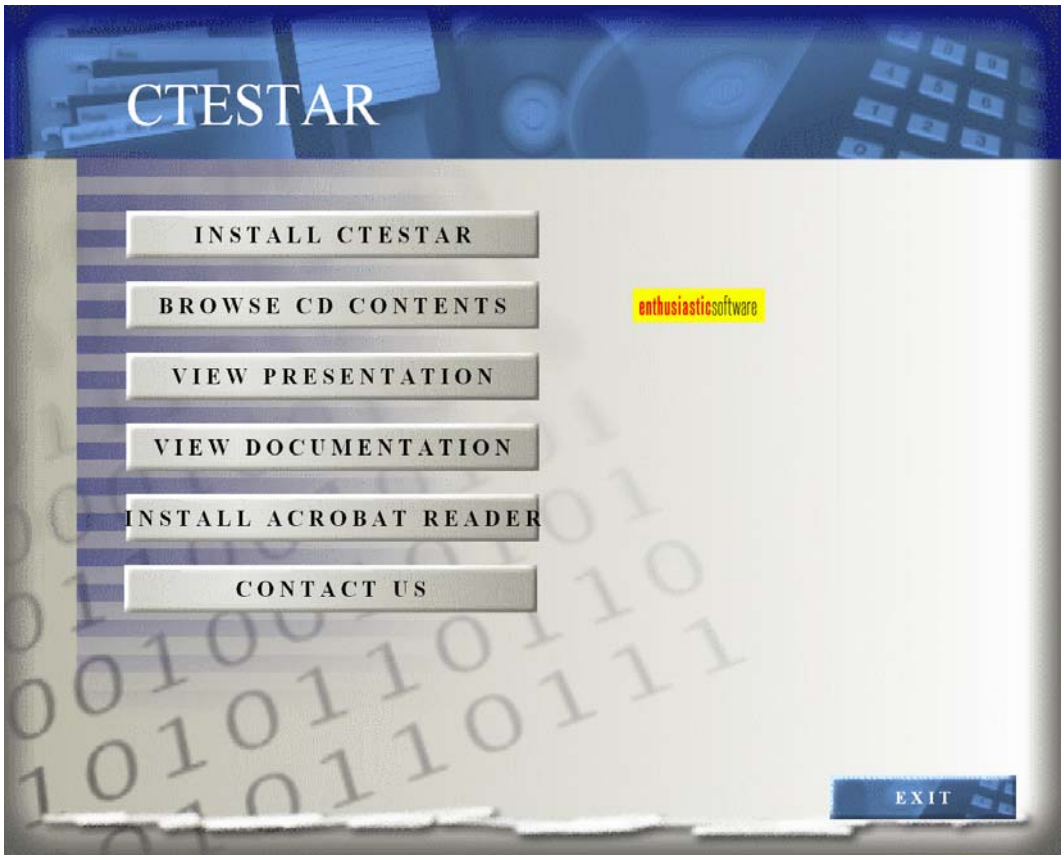

Figure 1

Installing CTESTAR®

From this screen, a number of tasks may be performed. To install any of the *CTESTAR®* applications, click the *Install CTESTAR®* button. The *Browse CD Contents* button brings up an explorer view of the CD contents. This allows you to see what files are actually included on the CD. (Additional documentation for each of the sixteen national career clusters is also included on the CD.) The *View Presentation* button launches a presentation on *CTESTAR®*. The *View Documentation* button will display the program manual (this document), however, the Adobe *Acrobat Reader* must be installed before the file can be viewed. If your computer does not already have the Adobe *Acrobat Reader* installed, the *Install Acrobat Reader* button can be used to install the reader. The *Contact Us* button will display contact information for Enthusiastic Software, the organization which created the *CTESTAR®* program. Lastly, the *Exit* button may be used to exit the *BROWSE* program.

Once the *Install CTESTAR®* button is clicked, one of two install programs is run. If the screen looks like Figure 2, follow the *Script Based Installation Sequence* instructions, otherwise, follow the *MSI Installation Sequence* instructions found later in the chapter.

Script Based Installation Sequence

Once the *Install CTESTAR®* button has been clicked, the *Setup* program searches your hard drive for any previously installed program components, and insures that all required updates to Microsoft Windows have been installed. Depending on the size of your hard drive, it may take a few minutes for this search to complete. (If your computer has network drives mapped, searching your entire network can consume considerable time. If this is the case, be patient, the search will eventually complete.) While searching, a small dialog is displayed. Once this search is complete, if *Setup* determines that your version of Windows must be updated, the required updates are installed. (Refer to the prior chapter, *System Requirements* to determine the updates which will be installed.) Installation of these updates may reboot your computer a number of times. Follow the directions carefully. After all of these updates have been installed, the following dialog is displayed. The purpose of this dialog is to confirm that you want to install any of the CTESTAR® program components. To continue with the installation of any of the CTESTAR® applications, click the *Next* button.

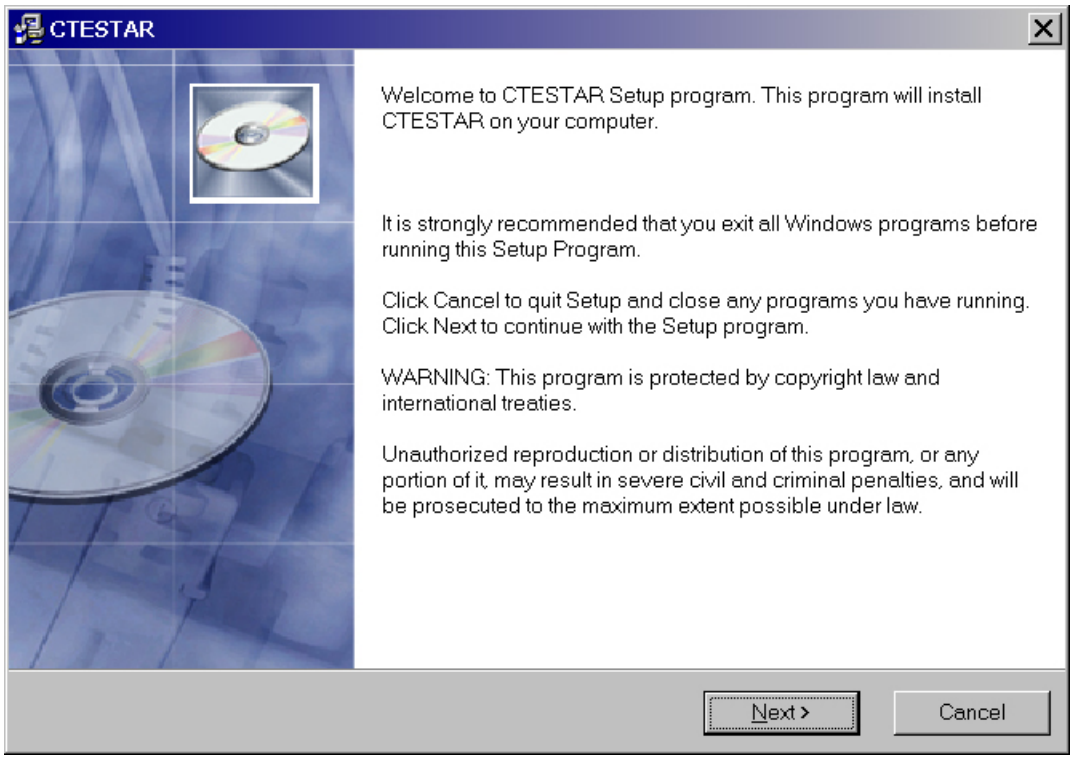

Figure 2

After clicking the *Next* button in the prior dialog box, the following *Destination Location* dialog should appear (Figure 3). This dialog indicates the folder where the CTESTAR® application components will be installed, and presents an option to

change this location. If previously installed components were found in the prior search of your system, the program will default to the folder where they were found. If these components were not found, the program will default to the *\Program Files\ESX\CTESTAR* folder on your system drive. Unless your system administrator directs otherwise, accept the default destination folder, and click the *Next* button.

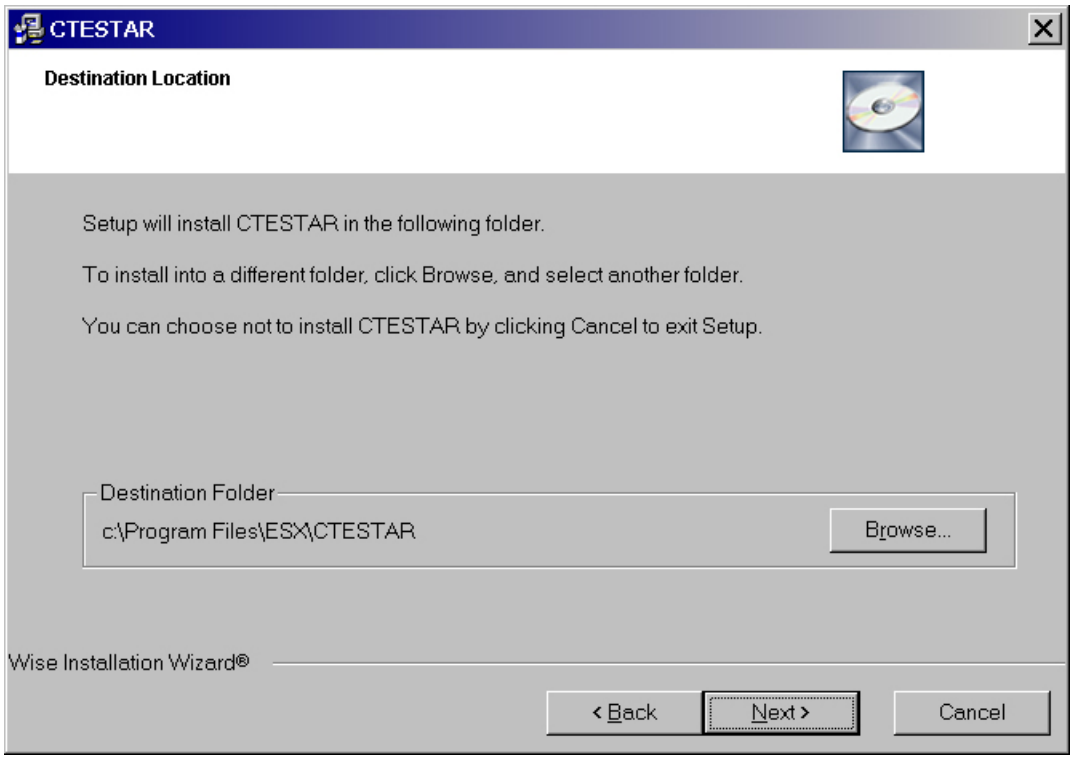

Figure 3

Once the *Destination Location* dialog has been dismissed, the following *Select Components* dialog (Figure 4) will be displayed. This dialog allows you to select which components of the CTESTAR® application suite are installed. "Checked" components will be installed. Note that before installing the *CTESTAR® for Palm OS* application, the *Palm Desktop* software must have been installed on your computer. Failure to install the *Palm Desktop* before installing the *CTESTAR® for Palm OS* component will result in a failed installation of the Palm OS components of CTESTAR®, and will necessitate a re-installation of this component. If the *Palm Desktop* software has not been installed, exit the installation immediately by clicking the *Cancel* button, install the required Palm software, and restart the CTESTAR® installation.

Unless you know that your computer already has version 9 or later of Crystal Reports installed, or your system administrator directs otherwise, you should install the *Crystal Reports Runtime* components. The *Crystal Reports Runtime* components are required to

generate and view all CTESTAR® reports. To access any of the standard task lists included with the software, the *Task Lists* component must be installed. (Note that both of these are enabled by default.) Once you are confident of your selections, and that sufficient disk space is available in the destination folder, click the *Next* button to proceed to the *Start Installation* dialog (Figure 5).

NOTE: The *CTESTAR® Data Warehouse* component should be installed only on a single central computer and not on individual teacher workstations.

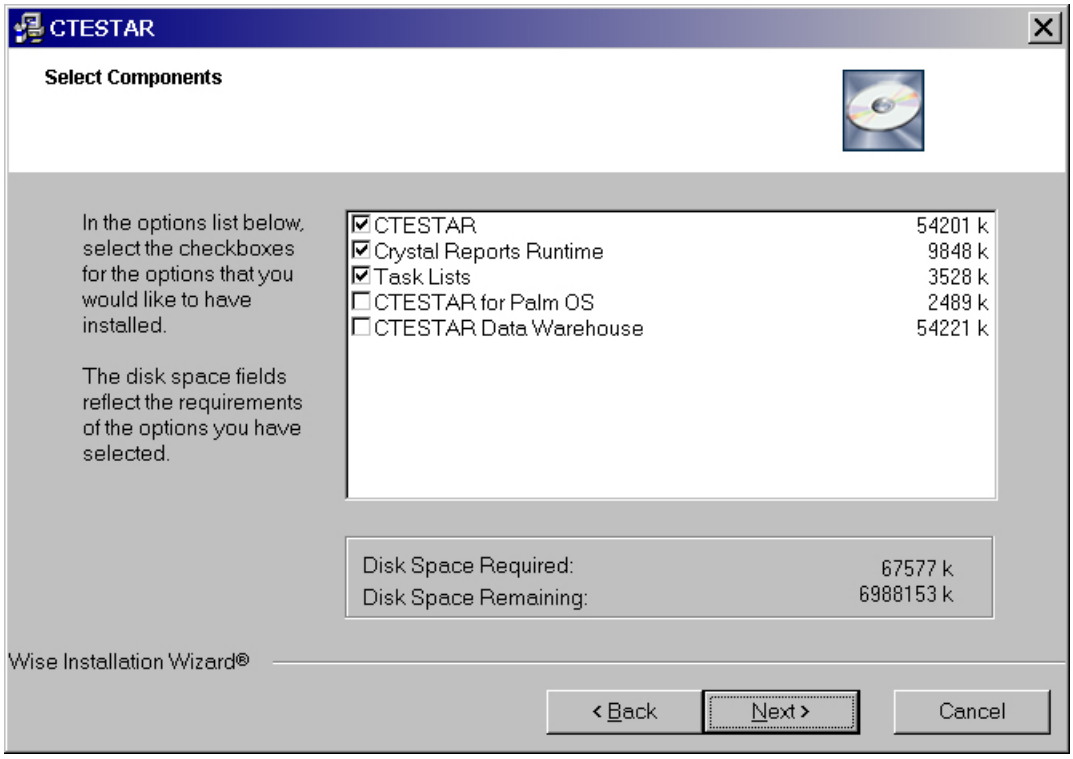

Figure 4

As a final check before the installation begins, the *Start Installation* dialog will again prompt you. This is your last chance to confirm that you want to install the selected CTESTAR® components into the selected destination location. If you want to review these selections, you may click the *Back* button to return to prior installation dialogs. When you are sure of your decision, click the *Next* button and the installation will begin.

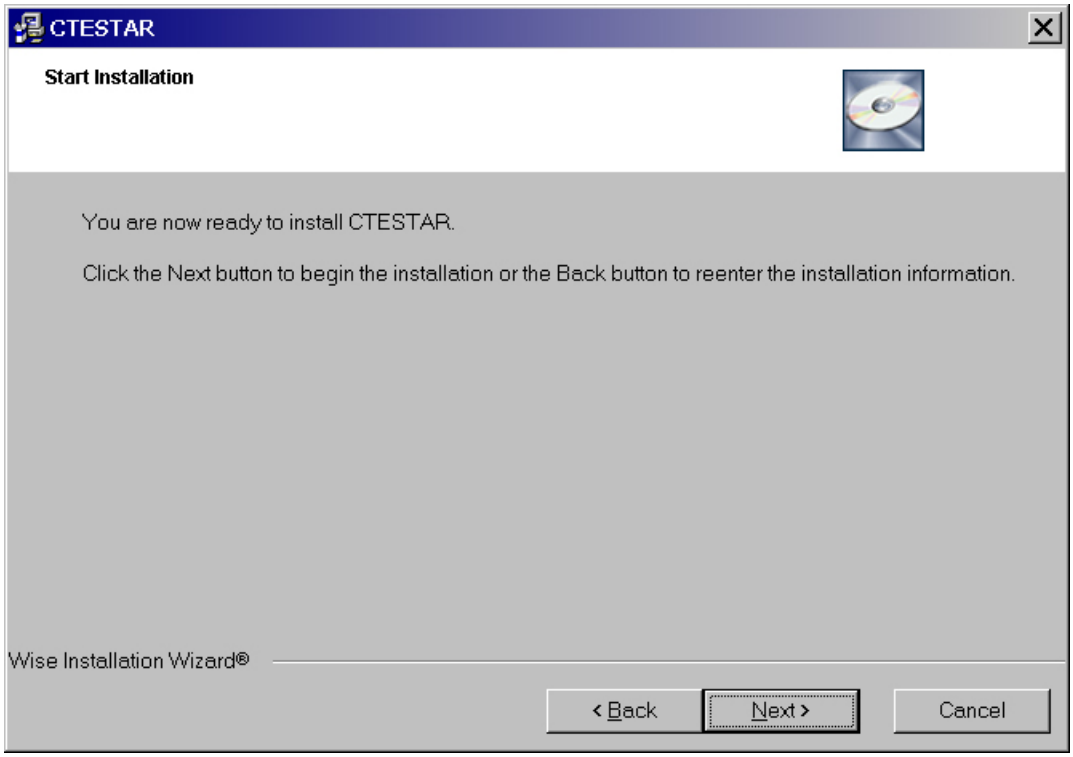

Figure 5

When the installation process begins, the following *Installing* dialog will appear (Figure 6). As the installation proceeds, the progress bars should both fill. If the installation program encounters any problems, an error dialog will be displayed. The installation of some components may necessitate rebooting your computer. Such component installations will precede the *CTESTAR*® components installation.

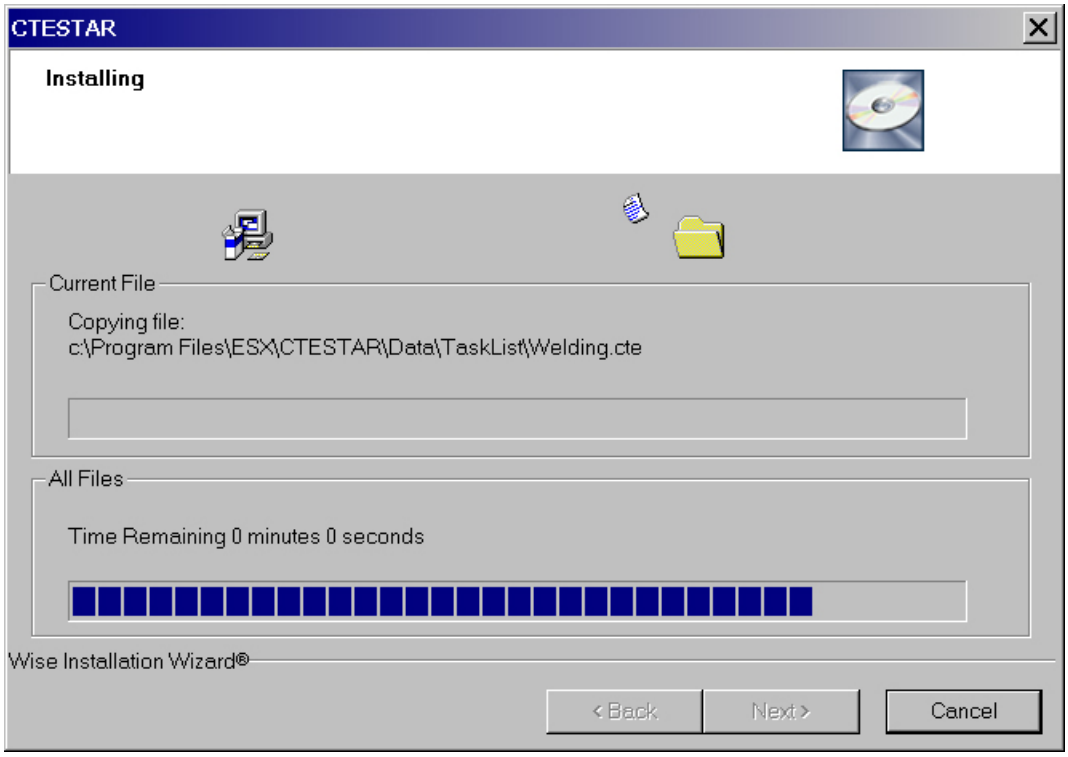

Figure 6

If you have elected to install the *CTESTAR® for Palm OS* application component, additional Palm dialogs may appear asking you to select a Palm user (Figure 7). This determines which Palm user configuration the Palm OS components are installed for. When the selected user is next HotSync'd, the *CTESTAR® for Palm OS* application will be downloaded to your Palm OS handheld computer. Once the application has been downloaded, subsequent HotSync's will download any created course data to the handheld. Two HotSync's are required before a full configuration will be downloaded to the handheld.

Figure 7

The following dialog confirms that the CTESTAR® application has been successfully installed (Figure 8). To exit the installation, and return to the *BROWSE* program on the installation CD, click the *Finish* button. Once you have returned to the *BROWSE* program, click the *Exit* button and totally exit the installation program. Assuming that you installed the *CTESTAR® for Windows* program, you may execute it from the *Start Menu*, or from an icon installed on your desktop. Look for the "yellow star" labeled "Shortcut to CTESTAR.EXE" (Figure 39) on your desktop.

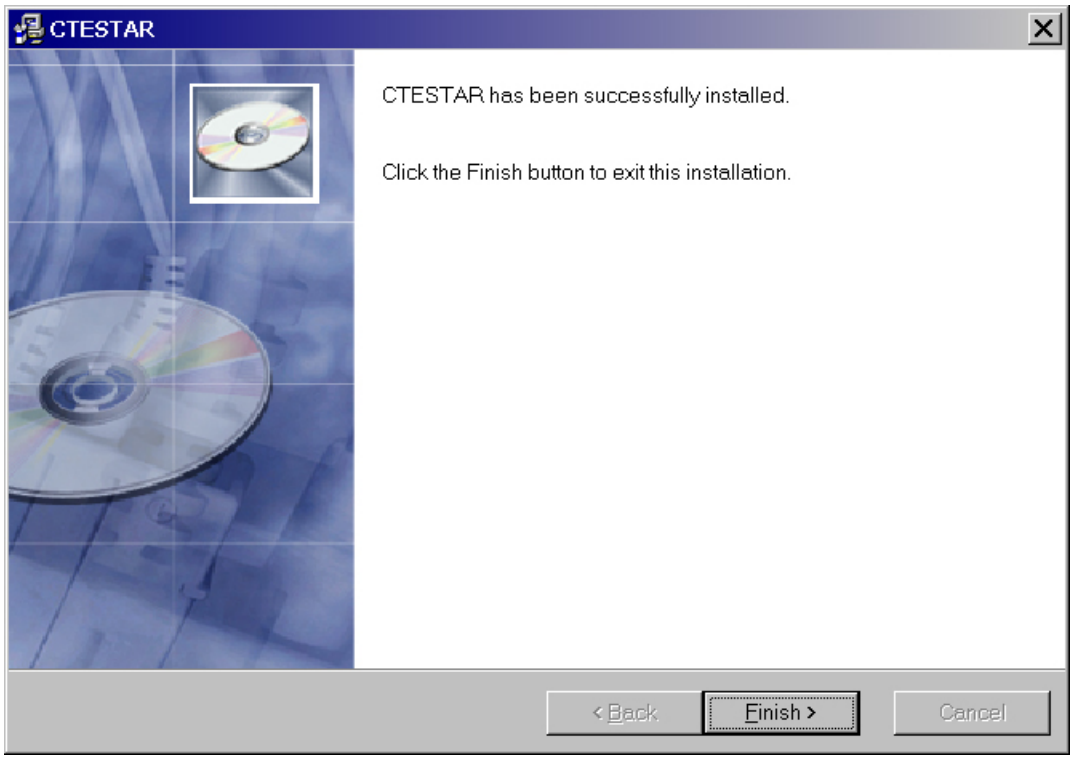

Figure 8

Uninstalling CTESTAR®

If you should need to uninstall CTESTAR®, click on the Windows *Add/Remove Programs* icon. This icon is found in the Control Panel. If you have trouble finding the *Control Panel*, consult your Windows documentation. (Windows XP labels this icon *Add or Remove Programs*.)

Once you have double clicked the *Add/Remove Programs* icon, a dialog similar to the following will be displayed (Figure 9). Highlight *CTESTAR* as shown, and click the *Change/Remove* button.

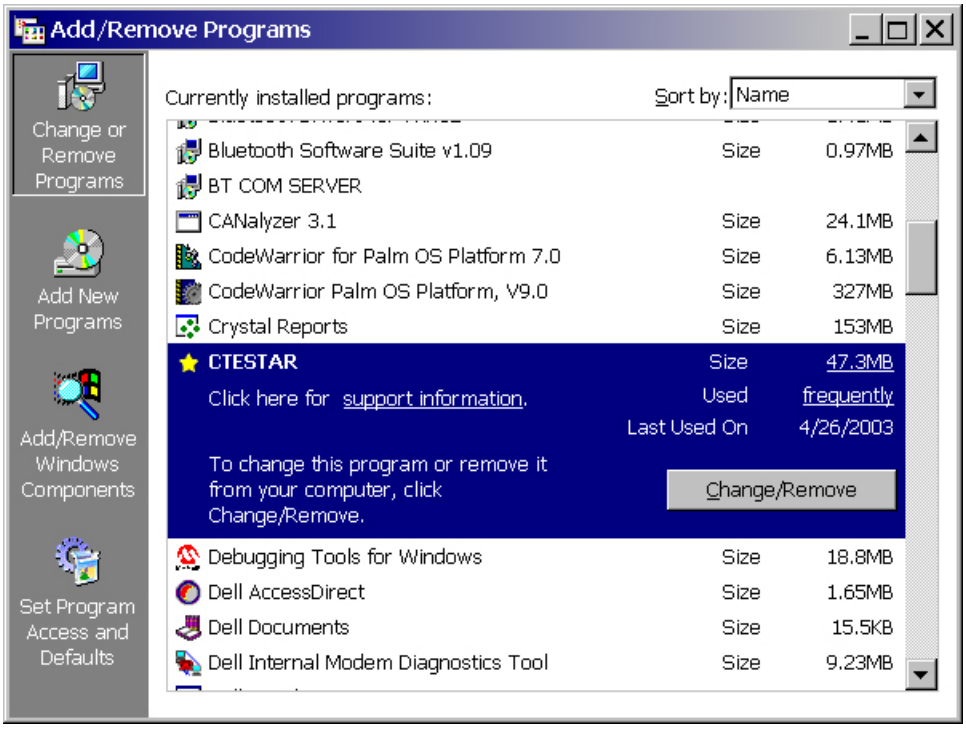

Figure 9

Clicking the *Change/Remove* button launches the CTESTAR® un-installation program. The following *Select Uninstall Method* dialog is displayed (Figure 10). Select the *Automatic* option, then click the *Next* button.

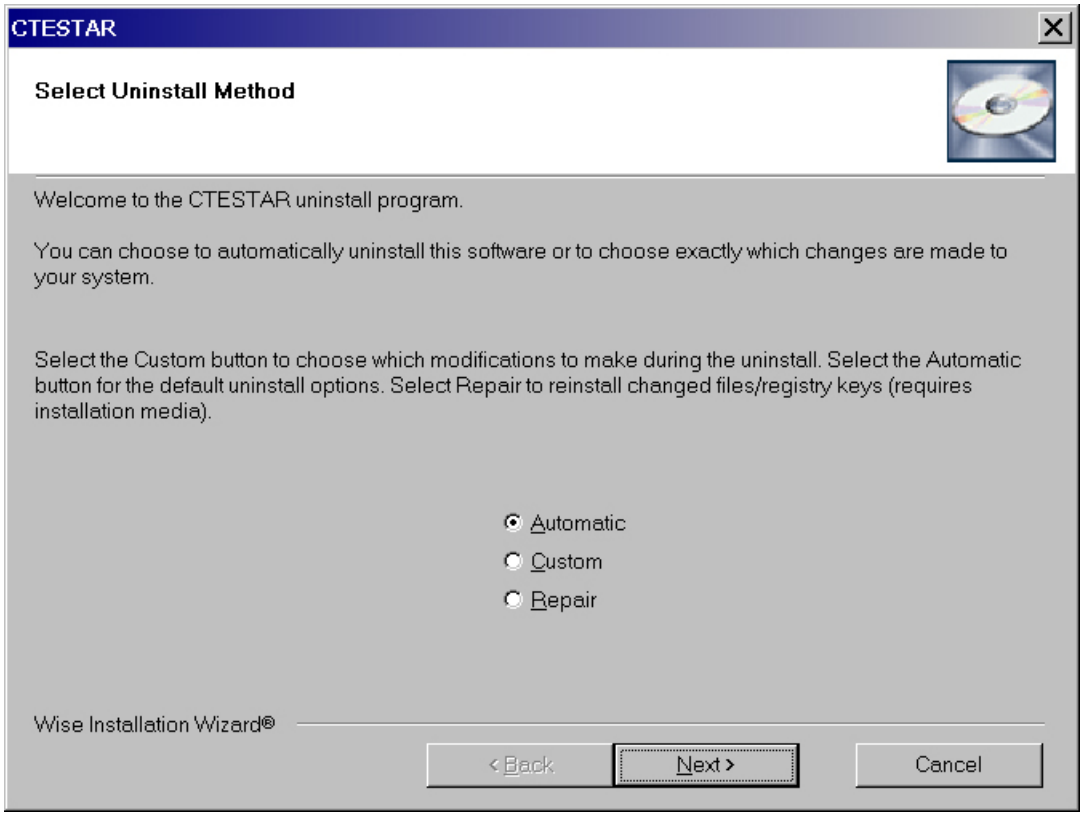

Figure 10

Once the uninstall method has been selected, the *Perform Uninstall* dialog is displayed (Figure 11). This is your last opportunity to confirm your intent. Clicking the *Finish* button will immediately begin to uninstall all CTESTAR® components. Course data which you have created will not be uninstalled, however, you will not be able to access the files without the CTESTAR® program. If you need to transfer your data to diskette, do this before uninstalling CTESTAR®.

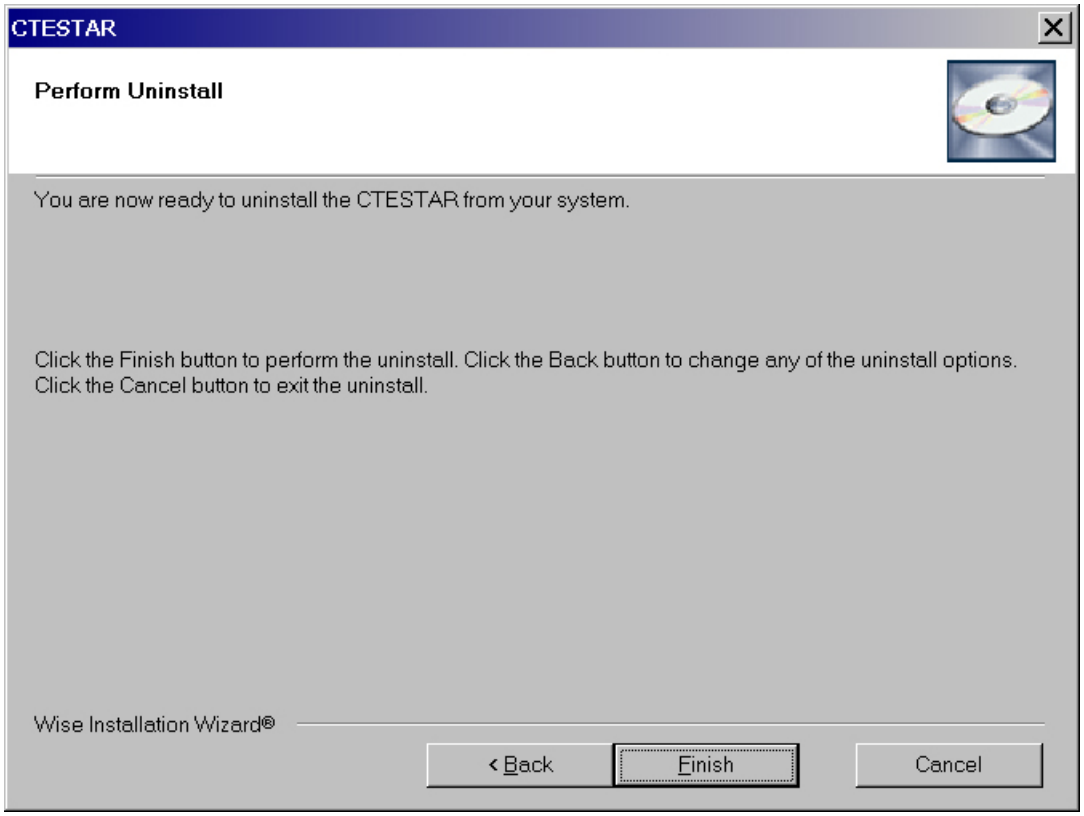

Figure 11

After clicking the *Finish* button, the uninstall program displays a progress dialog which disappears once the uninstall program has finished. You will be notified of any un-installation problems during this phase of the un-installation.

MSI Installation Sequence

The following screens illustrate the install sequence with the MSI install package. When you first start the install sequence, the following screen is displayed (Figure 12).

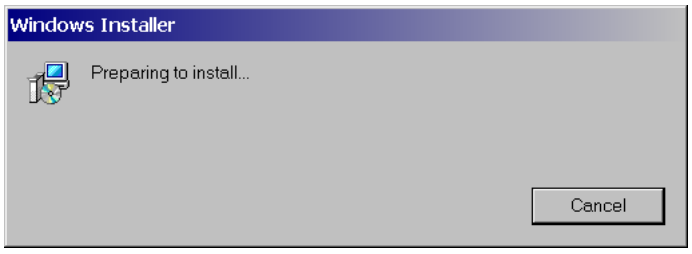

Figure 12

If all proceeds without error, the following screen will automatically be displayed (Figure 13).

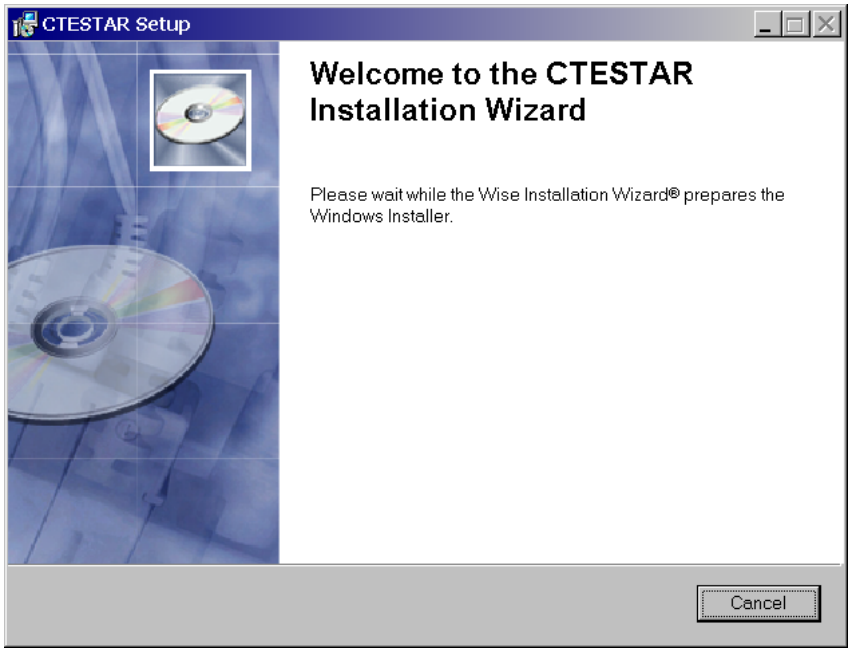

Figure 13

Finally, the following screen should automatically be displayed (Figure 14). These screens all appear automatically without user intervention.

Figure 14

At this point, click the *Next>* button to proceed with the installation. If you started the installation by mistake, click the *Cancel* button. When you click the *Next* button, the following screen will appear (Figure 15).

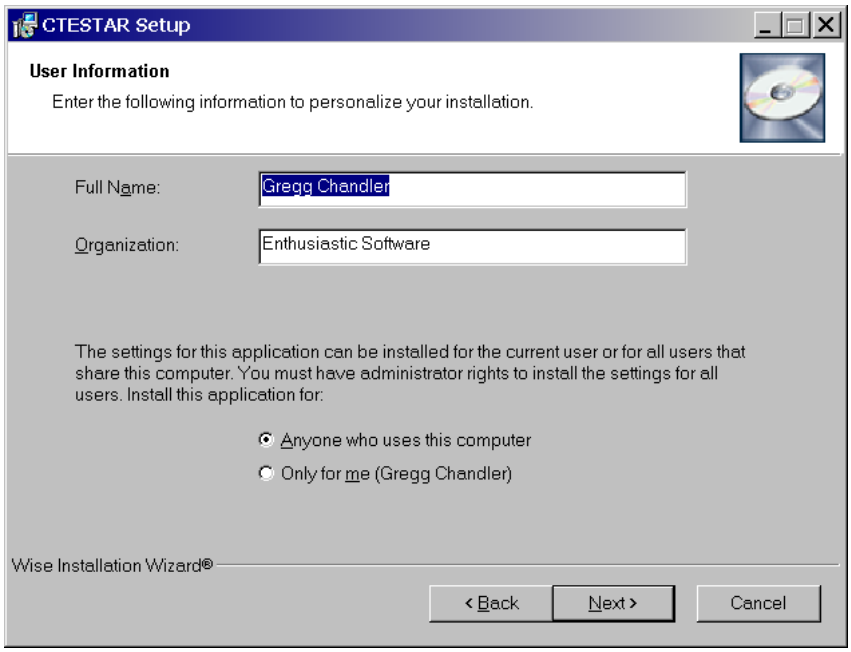

Figure 15

At this point enter the user's full name, and the organization name. Usually these will default to appropriate values. Then, select the users that you intend to install this application for. If you select *Anyone who uses this computer*, the advertising features of MSI will allow other users that use the workstation to automatically access the software when they log in to this workstation. If you only want the current user to use the software, select the *Only for me* option. Click the *Next>* button, and the following screen will appear (Figure 16).

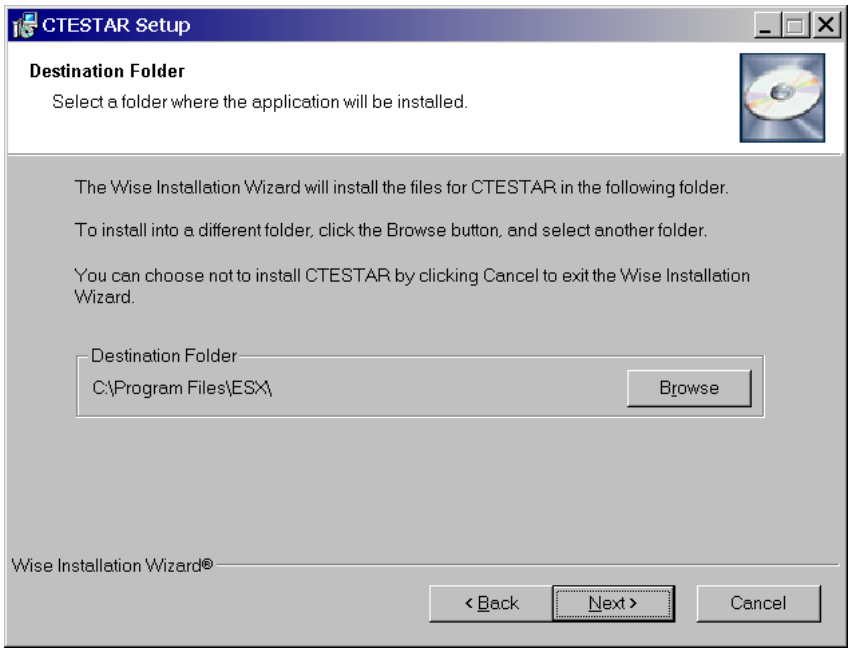

Figure 16

Unless there is some conflict with the default sub-directory, accept it and click the *Next>* button. If you click the *Next>* button, the screen in Figure 18 will appear. If you click the *Browse* button, the following screen (Figure 17) will appear.

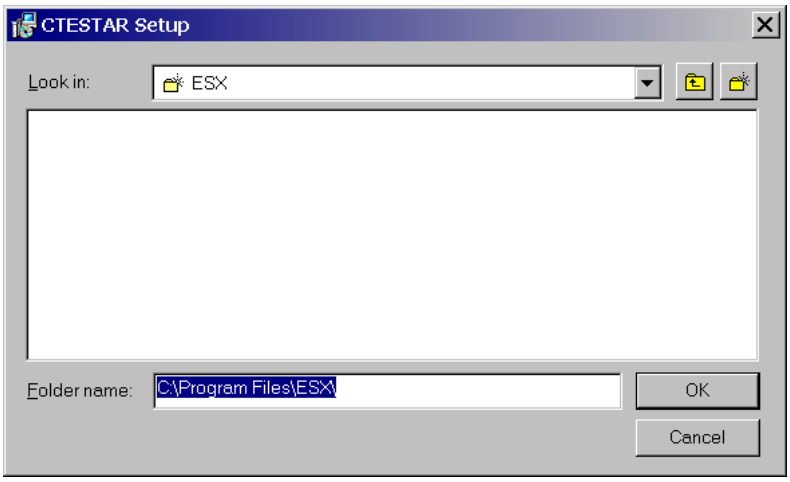

Figure 17

If you clicked the *Browse* button on the screen in Figure 16, the prior screen (Figure 17) appeared. Browse to and/or create the appropriate directory. When you click the *OK* button, the following screen will appear (Figure 18).

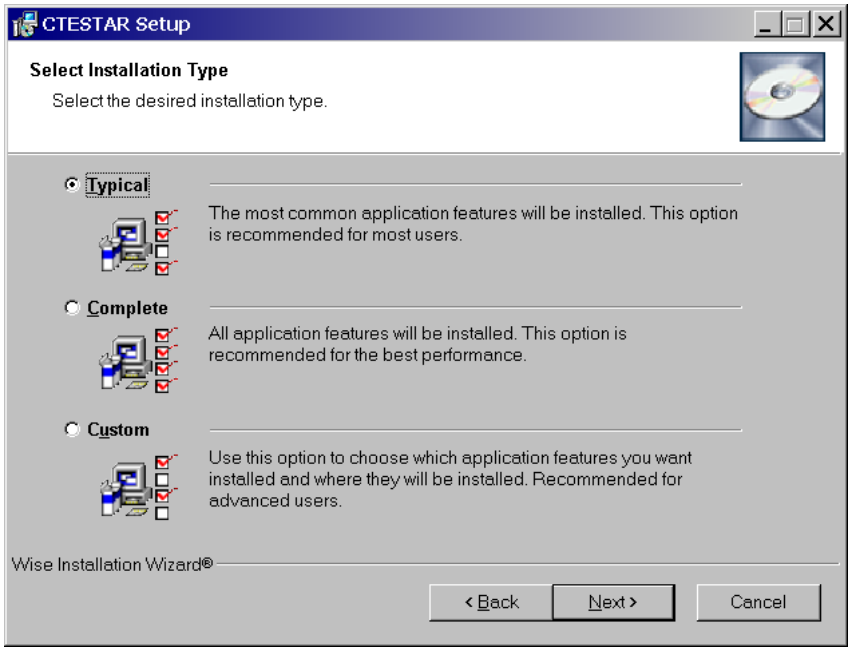

Figure 18

The installed components for each type of install are defined in the following table. The custom installation supports user selection of individual components.

Component	Typical	Complete	Custom
CTESTAR® for Windows	Yes	Yes	Selection
Crystal Reports Runtime	Yes	Yes	Selection
Task Lists	Yes	Yes	Selection
CTESTAR® for Palm OS	Yes	Yes	Selection
CTESTAR® Data Warehouse		Yes	Selection
Demo Data		Yes	Selection

Note that if *CTESTAR® for Palm OS* is to be installed, the Palm HotSync application must have been previously installed, and the user should have already HotSync'd at least once. If this has not been done, the installation will fail and the rollback will be executed. You will then need to repeat the installation.

The ESXINSTPALMAPP property determines whether the Palm files will be configured. By setting it to zero, the Palm files will be installed, however, their configuration will not be executed and the install will succeed. This is useful if you want to install the files on a server which does not have the Palm software installed, however, before any workstation can use these files, it must register them with the Palm HotSync Manager. Installation without configuration can be executed via the following command line:

```
msiexec /i d:\CTESTARDemo.msi ESXINSTPALMAPP=0
```

Replace the path to the MSI file with the path appropriate for your environment.

Palm configuration to register the conduit, notifier, and set the application for download can then be accomplished with the following command:

```
\Program Files\ESX\CTESTAR\Palm\IPA -Install
```

Where necessary, substitute the appropriate path to the Palm sub-directory.

If you select the *Typical* or *Complete* installation type, the program will proceed to the screen in Figure 22. If you select the *Custom* installation type, the following dialog will be presented (Figure 19).

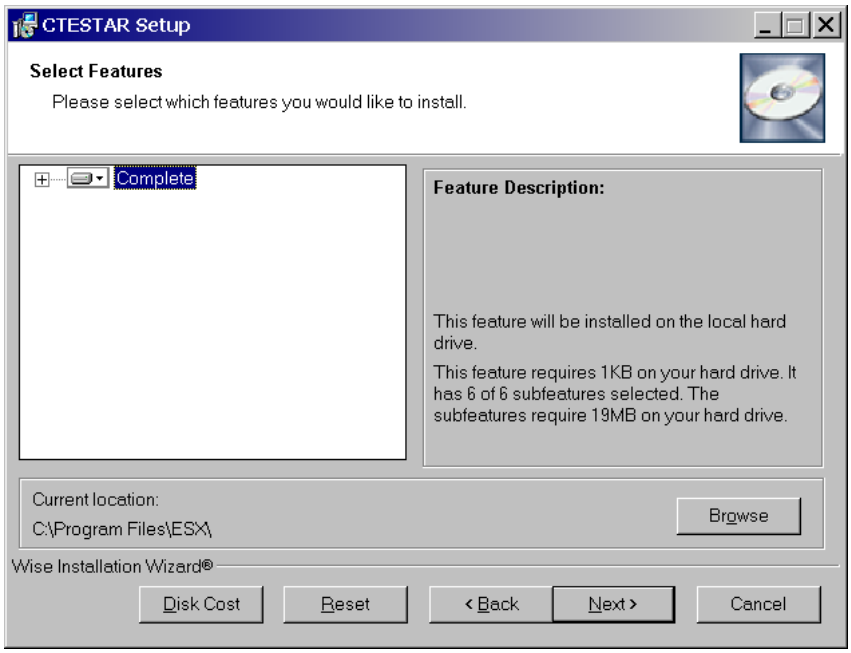

Figure 19

Once the prior dialog appears (Figure 19), click the '+' (plus sign) next to *Complete* to expand the feature set. Click on the appropriate item and select from the pull down box to select/deselect any necessary items. Items displayed with a red 'X' will not be installed. Avoid the *Feature will be installed when required* option. The following screen (Figure 20) depicts the configuration of the *Demo Data* feature.

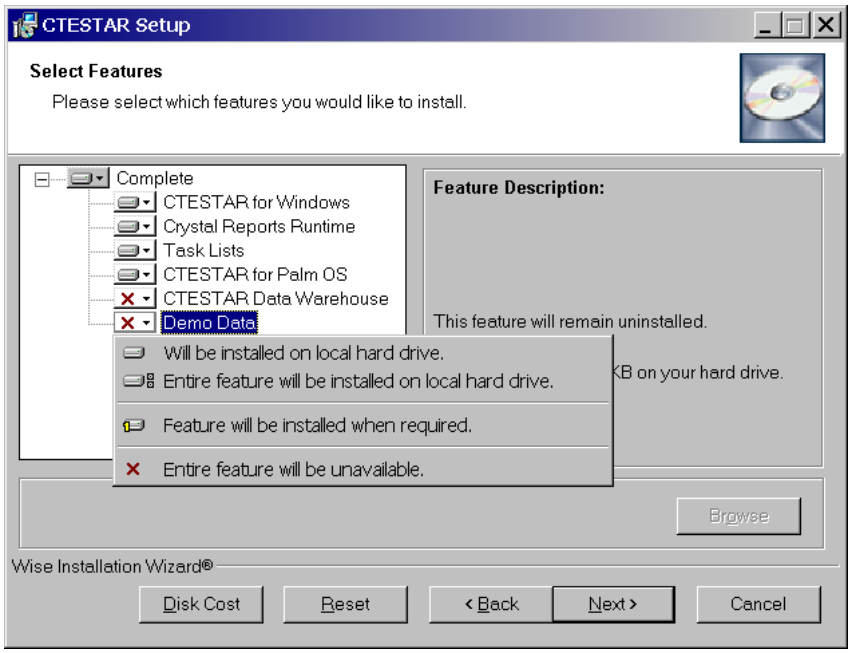

Figure 20

The following screen (Figure 21) depicts an installation where the all of the *CTESTAR*® features except the Data Warehouse and the Demo Data will be installed. It should be noted that this is equivalent to the *Typical* installation.

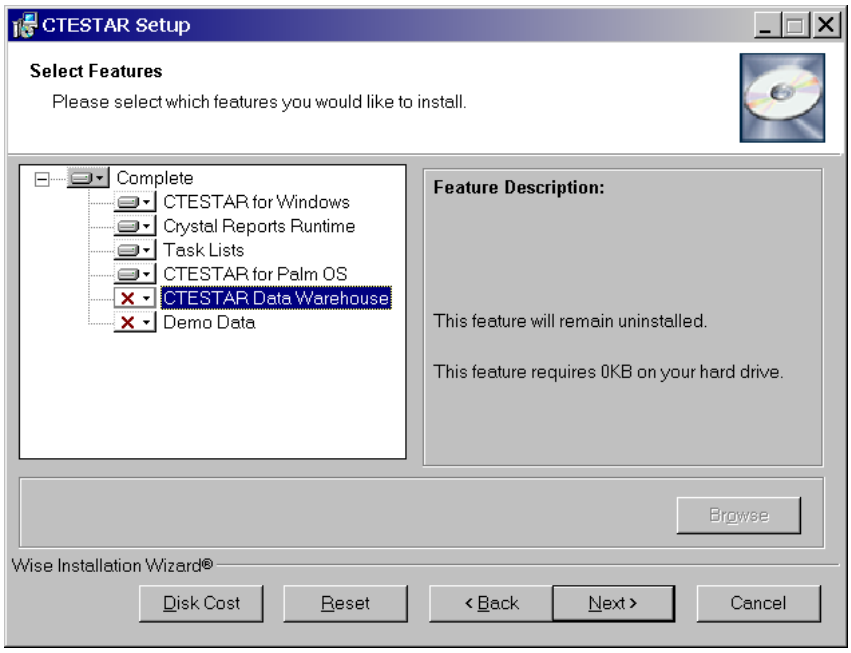

Figure 21

After selecting the features, click the *Next*> button, and the following screen will be displayed (Figure 22). This is your last chance to correct any configuration parameters before beginning the installation. To go back and fix any configuration problems, click the <*Back* button. To proceed, click the *Next*> button.

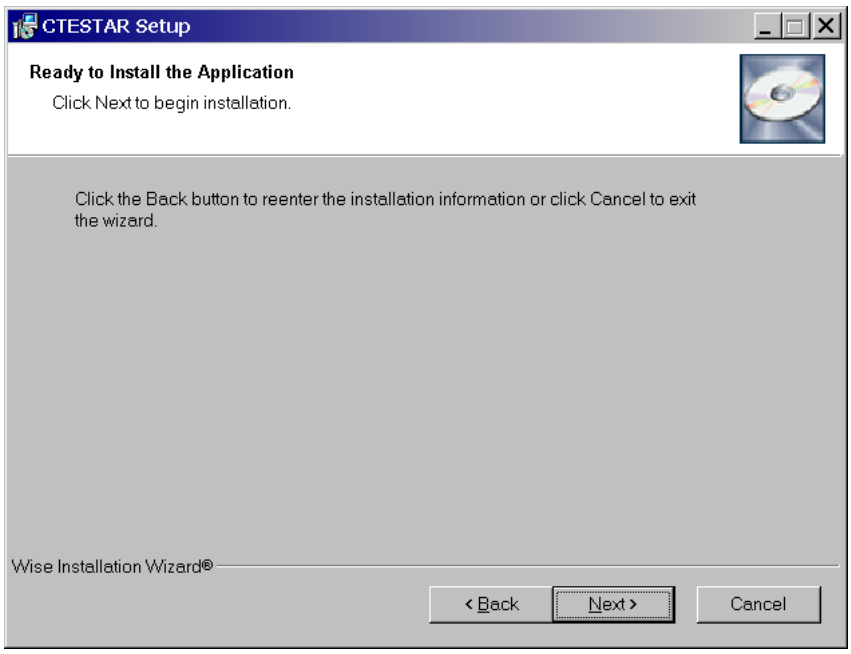

Figure 22

When you click the *Next*> button in the screen of Figure 22, the installation will begin and a sequence of dialogs will be presented. The next (Figure 23) illustrates the file copy process.

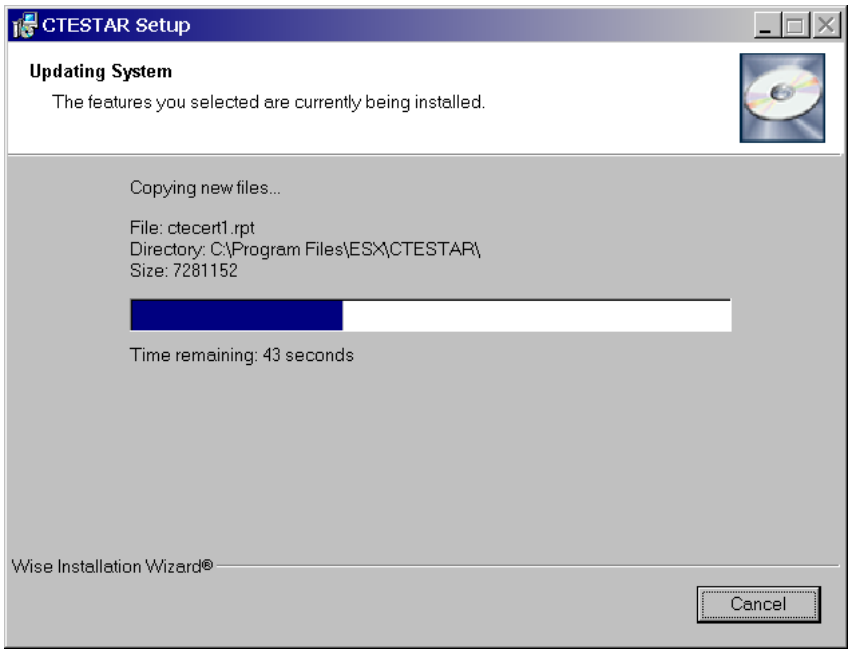

Figure 23

The next screen (Figure 24) will be presented if you have chosen to install the Palm OS components. Any Palm configuration problems will show up here. If you have not selected the Palm OS feature, the next screen will be that of Figure 26.

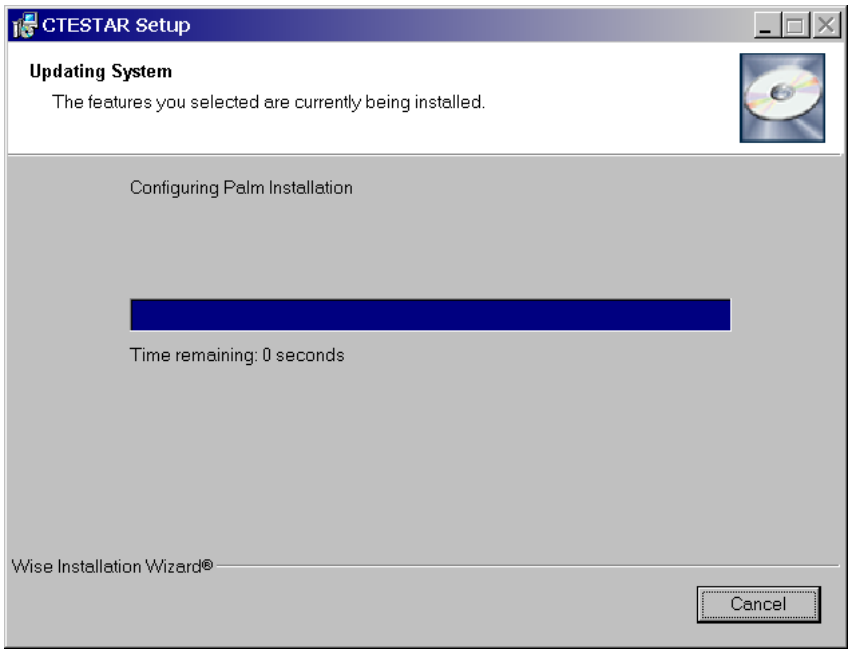

Figure 24

If more than one Palm HotSync user is configured, the following dialog (Figure 25) will be presented. Select the user that the *CTESTAR® for Palm OS* feature should be installed for, and click *OK*. If only one Palm HotSync user is configured, the program will proceed directly to the screen of Figure 26.

Figure 25

Once the correct Palm OS HotSync user has been selected, and you click the *OK* button, the following dialog (Figure 26) will appear.

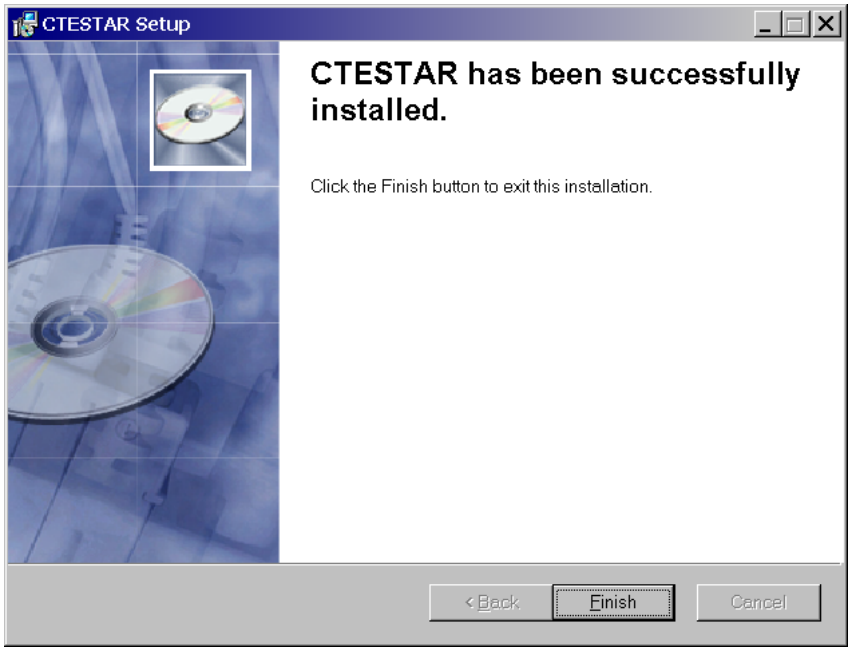

Figure 26

The prior screen (Figure 26) indicates that the installation has been completed successfully.

MSI Error Dialogs

If the installation process encounters an error, a sequence of dialogs will be presented. This particular sequence indicates what happens when the *CTESTAR® for Palm OS* feature is installed, but the Palm HotSync Manager software has not been previously installed. The following dialog (Figure 27) will appear after the dialog in the prior Figure 24.

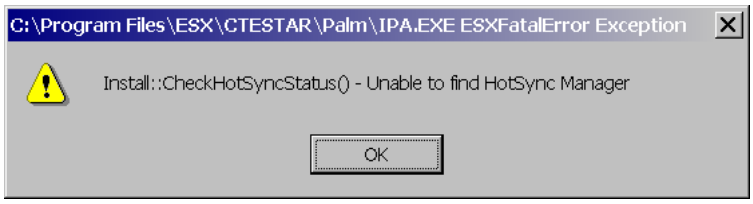

Figure 27

Once the dialog of Figure 27 is acknowledged via clicking the *OK* button, the MSI installer will present the following dialog (Figure 28).

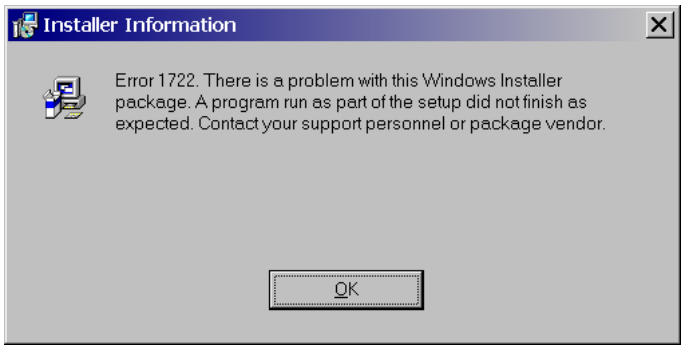

Figure 28

Once the dialog of Figure 28 is acknowledged via clicking it's *OK* button, the following dialog (Figure 29) will appear, and the rollback will begin. The rollback will undo everything that the installation has done up to this point.

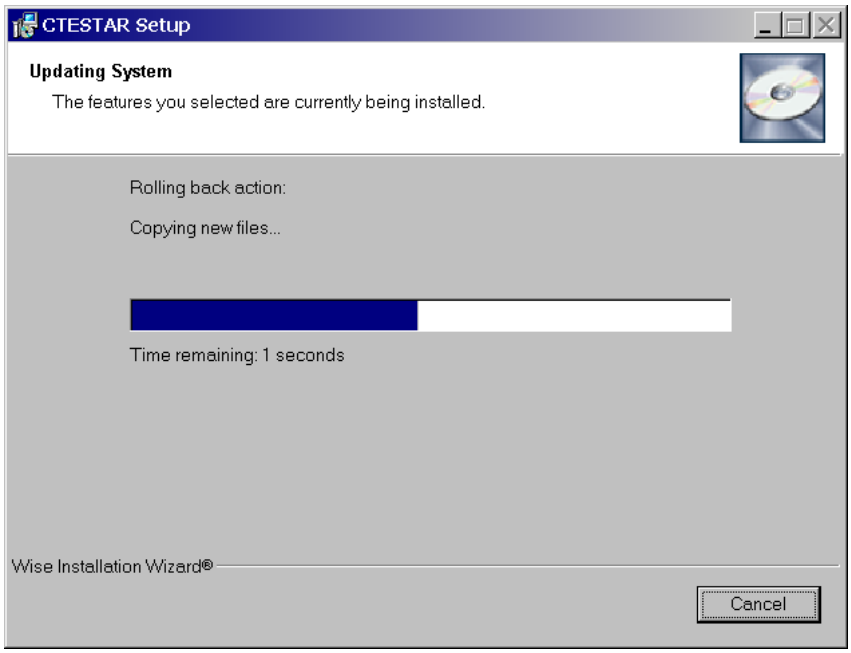

Figure 29

When the rollback completes, the following dialog (Figure 30) will be displayed.

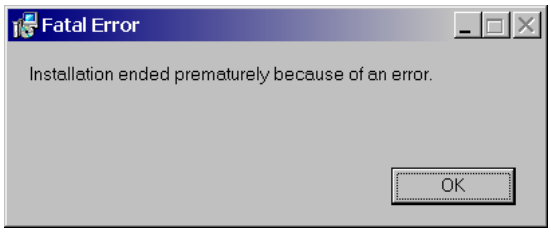

Figure 30

Clicking the *OK* button in this final dialog (Figure 30) will complete the rollback and the failed installation. At this point correct the problem that generated the error, and repeat the installation.

When installing on Microsoft Windows 95, or Windows 98, you may see one of the following error dialogs: Figure 31, Figure 32, or Figure 33. If so, click the *Ignore* button. *CTESTAR*® should still function properly.

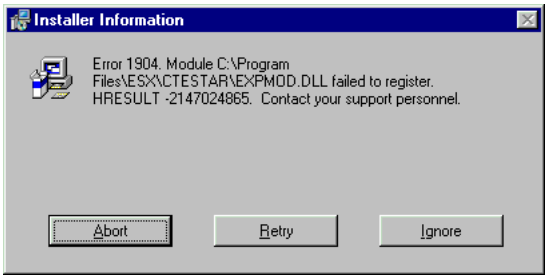

Figure 31

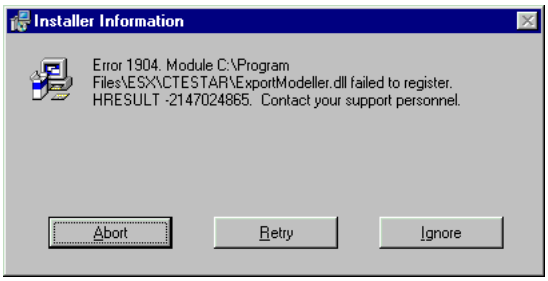

Figure 32

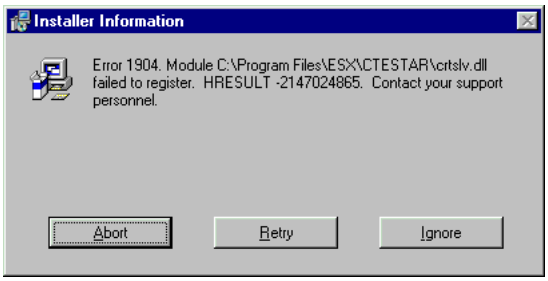

Figure 33

MSI Un-Installation Sequence

The easiest way to begin the un-installation sequence is from the Add/Remove Programs dialog illustrated below (Figure 34).

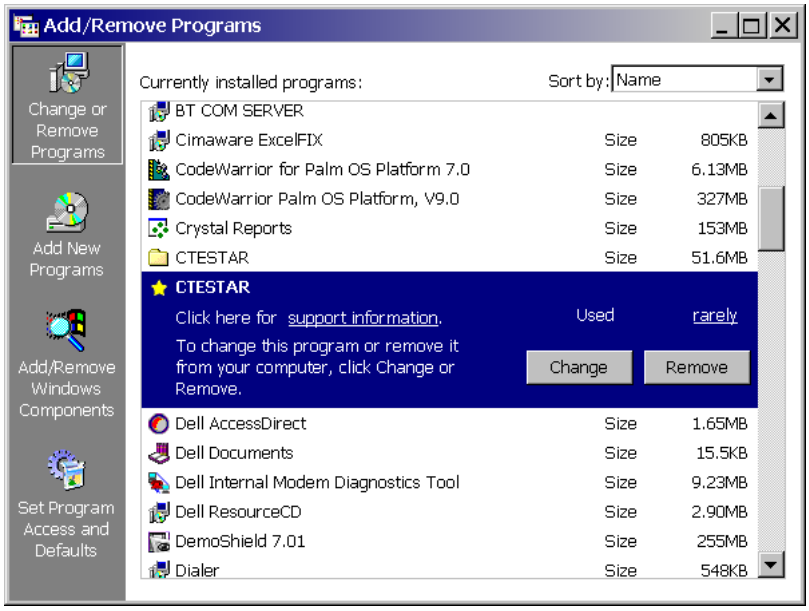

Figure 34

After clicking the *Remove* button, the following dialog appears (Figure 37).

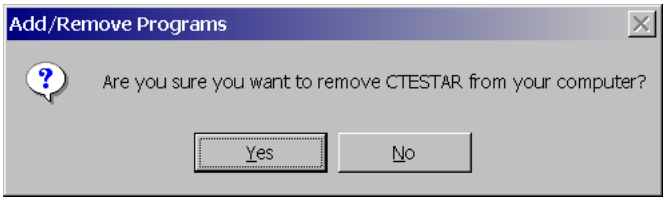

Figure 35

Once you affirm that you want to remove *CTESTAR*® from your computer by clicking the *Yes* button, the following dialog appears (Figure 36).

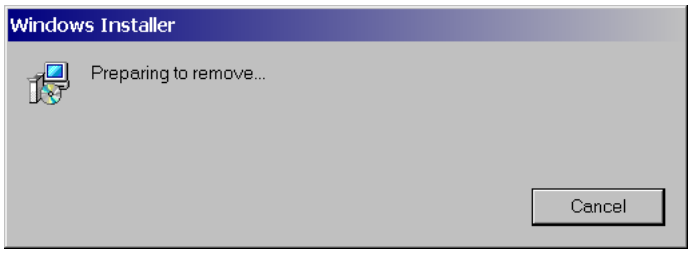

Figure 36

The following dialog (Figure 37) will appear automatically as the MSI installation package determines which files, registry entries, and programs to remove.

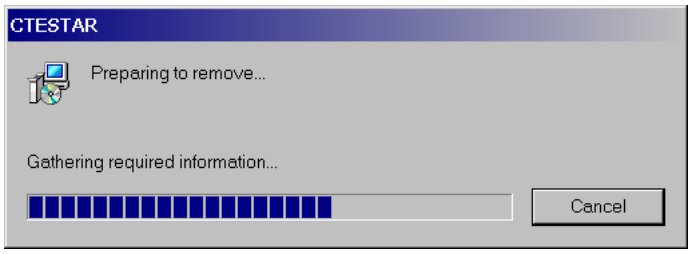

Figure 37

As the actual application components are removed, the following dialog will be displayed (Figure 38).

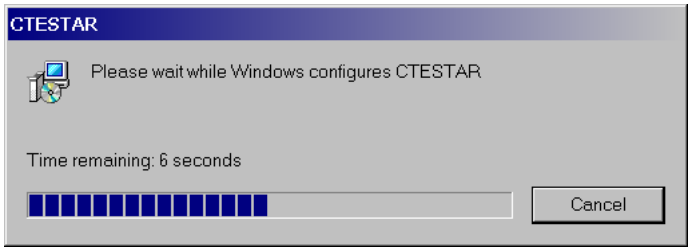

Figure 38

When the last dialog (Figure 38) disappears, the un-installation is complete.

Chapter 4

Creating a New Course

Creating a new course database within CTESTAR® for Windows or Importing a supplied course file

The steps required for you to create a new course file depend on the files which have been provided to you. You may be provided a CTEIS download file, CTESTAR® course files, or possibly, no files. Each of these possibilities will be discussed below.

If you have been provided with a CTEIS download file, you must create course databases corresponding to each of your courses. After creating these course databases, you must import the students into each course. The students are imported from the CTEIS download. After importing the students, you can then import and edit the task list for each course.

If you are provided with CTESTAR® course files, you need to import the CTESTAR® course onto your workstation. Some staff member has already taken the time to create the database, and add the students to it. You may still need to import and edit the task list for each course, however, you will not need to import the students from the CTEIS download file.

As a last resort, you may have been provided with no files. In this case, you must create the course databases, and manually add the students to the courses, before you import and edit the task list for each course. Alternatively, the data may have been loaded on to your workstation already. If the data has already been loaded, you can proceed to editing your task list.

Ideally, your support staff will tell you which data they have provided. If not, you must examine the media they have provided. If you have been provided with a CTEIS download, your media will include a file named *CTEIS.TXT*. This file will contain all of your students for all of your courses. To use this file, you must import the data for a specific course number. If you do not see this file, look for files with the *.CTE* file name extension. These are CTESTAR® course databases. If these files have been

provided to you, one should have been provided for each of your courses. These files can be imported to your workstation. If the files supplied to you are neither of these two options, and no files have been already supplied on your workstation, contact your support staff.

If you teach multiple sections of the same course, ie. more than one class with the same task list, the best strategy is to create a file for one of the courses. Once you have finalized this course's task list through importing, adding, and deleting, you can then import the task list to each of the other courses that use the same task list. After you have begun to assess students within these courses, this strategy is not viable. Once you have begun to assess students, you will need to make any subsequent task list changes to each of the courses affected individually. **Therefore, it is important that you finalize your task list before you begin to assess your students.** Teachers that teach different sections of a common course should create a common task list to share among themselves exporting it to/from diskette. Students that need to be transferred to another course section can only be done so if the course task lists are identical. This is why teachers should share a common task list.

Important

Starting the CTESTAR® Program

When the CTESTAR® program was installed on your computer, a desktop short-cut was created. This shortcut should appear as follows:

Figure 39

To start CTESTAR®, just double-click this icon. Alternatively, if you have deleted this icon, you may start the program from the start menu as illustrated below:

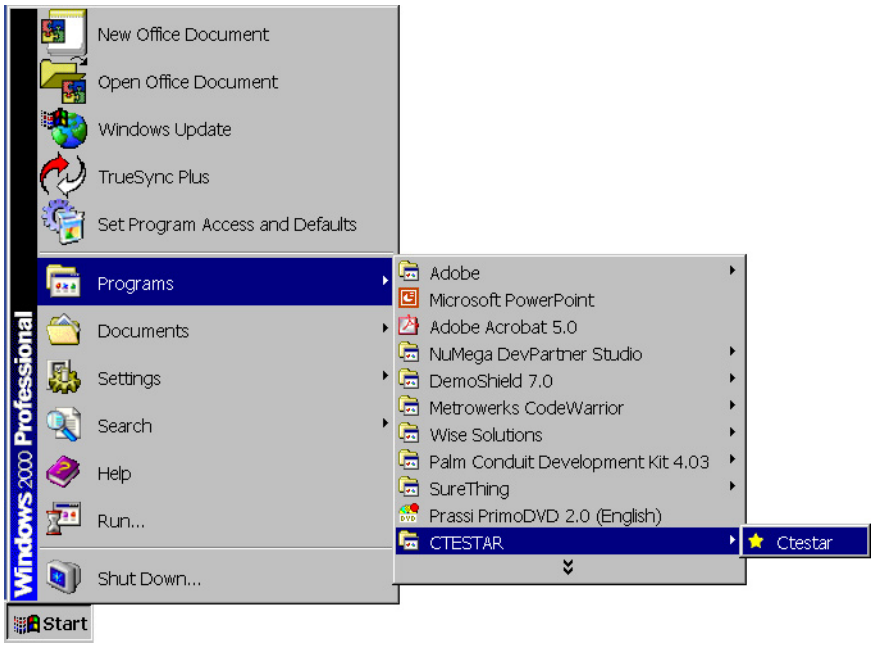

Figure 40

Once you have started CTESTAR®, the following screen should appear.

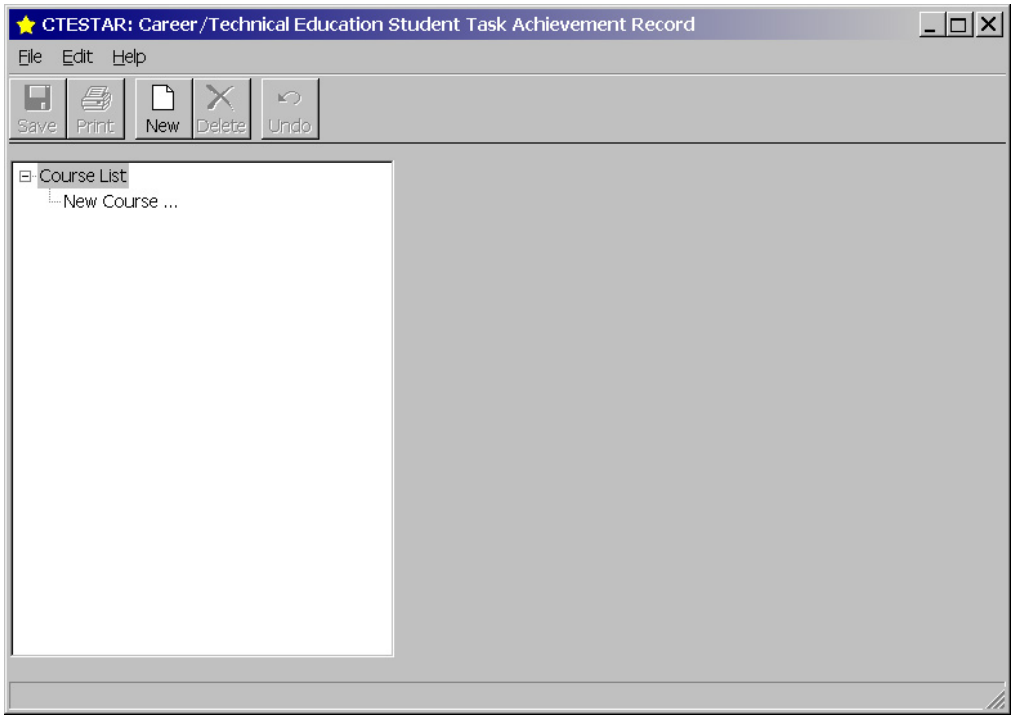

Figure 41

This screen shows that no courses are selected, and that none have been created.

Creating a New Course

To create a new course, confirm that you have started CTESTAR®. The previously illustrated screen should appear (Figure 41). If you have already created or imported some courses, they will appear. Otherwise, the screen should appear exactly as previously shown. The left hand pane contains a "tree-view". Anytime you see a small "+" (plus) next to an item, clicking the plus will reveal more items nested beneath the plus. Similarly clicking a "-" (minus) will collapse the items contained within the item. Items may also be nested. When you expand one item, it may reveal additional items that can be expanded. This is like an outline where you can control the expansion of individual items. All of the items contained within an item are connected via lines. Think of these as branches. The items revealed are leaves. Every time that you click a plus, you reveal more branches and leaves. When you click a minus, you conceal the leaves and branches, but they are still there. By clicking the pluses and minuses, you can control how much information is displayed in the tree view.

To create a new course, click the *New Course ...* item within the Course List. If the course list is not expanded, you must first click the plus next to it to reveal the *New Course ...* item as shown above. When you click the *New Course ...* item, the following screen will appear:

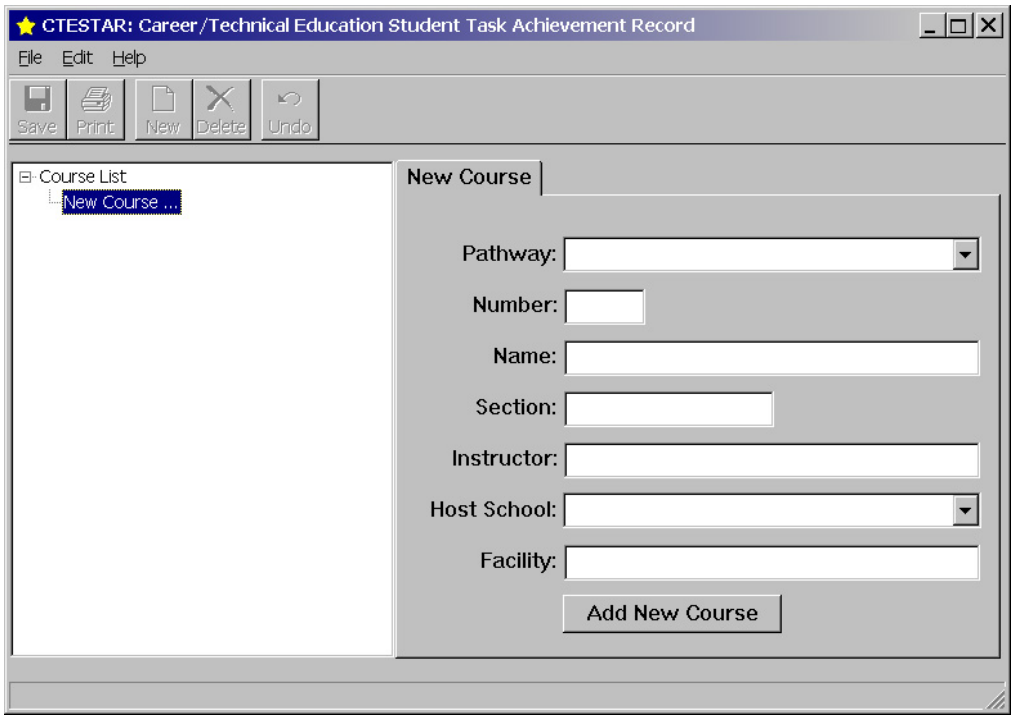

Figure 42

From this illustration (Figure 42), you can see that the *New Course ...* item remains high-lighted in the selection tree-view on the left of the screen, and a data entry screen appears on the right side of the screen. In general, all data entry in CTESTAR® is done in this right-hand window.

To create a new course once the data entry screen has been displayed, enter all of the course data and click the *Add New Course* button. The most important field is the course number. This must be the unique number that is assigned to your course. The length of this field has been tailored to match the numbers used in your district. You should also select one of six pathways from the pull-down list. To view these pathways, click the downward facing triangle at the end of the pathway field. The following illustration (Figure 43) depicts part of the pathway list after this triangle has been clicked with the mouse.

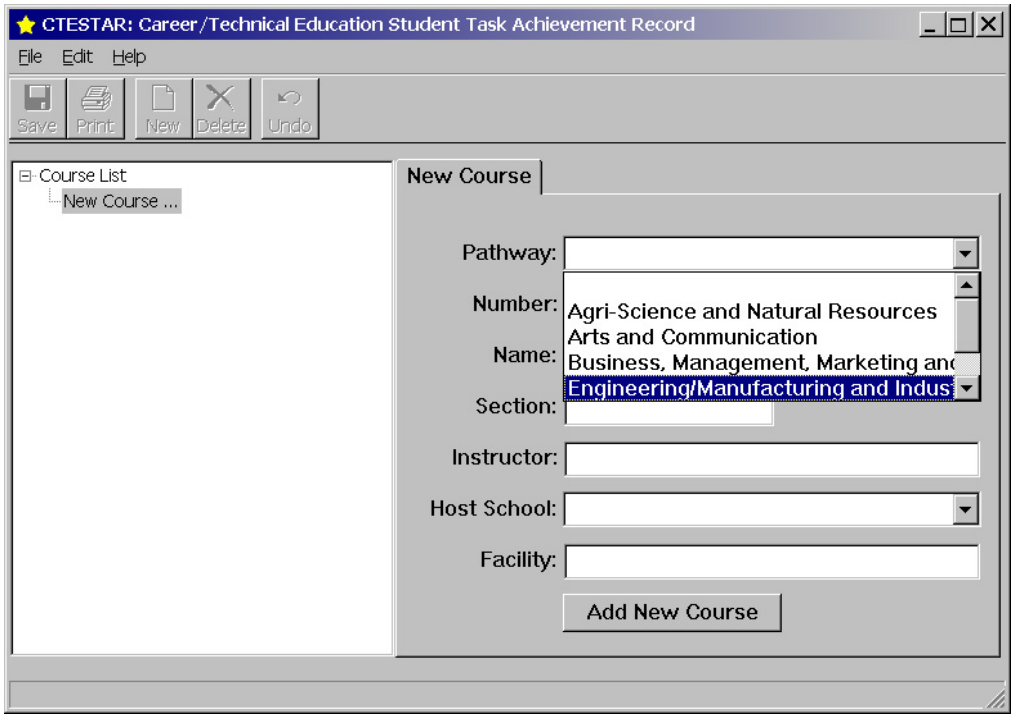

Figure 43

Once you have selected one of the pathways, by sliding the mouse cursor over it, and clicking with the left mouse button, proceed to enter the rest of the data. The following screen illustrates the data entered for a fictional welding course. Note that the facility field is optional. If the facility is identical to the host school, leave the facility field empty.

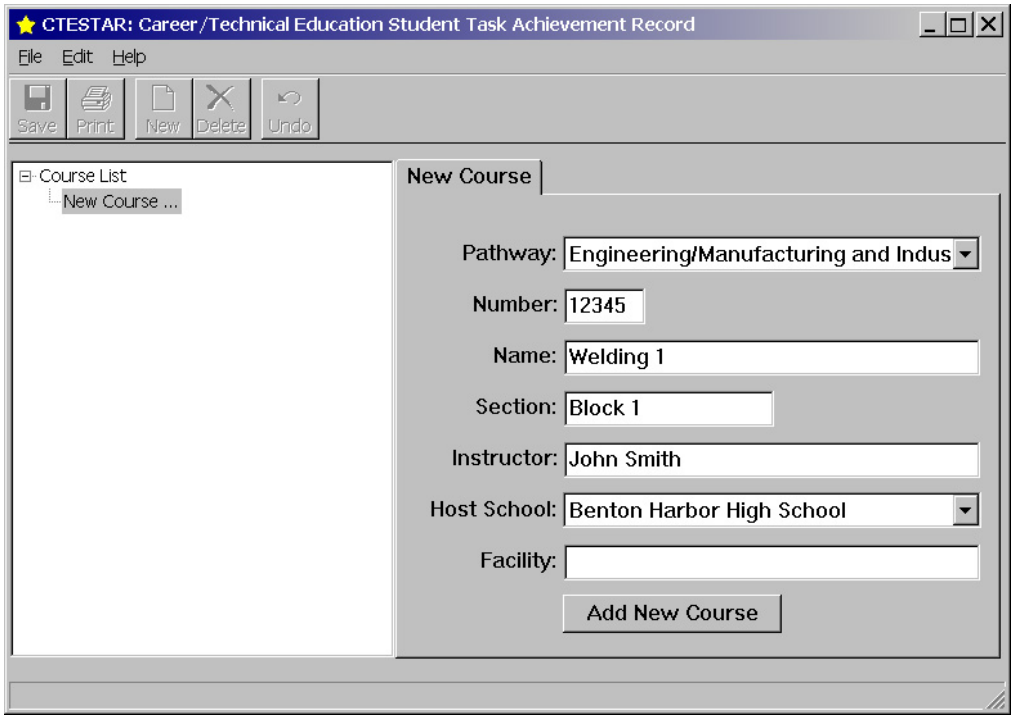

Figure 44

Double check the data that you have entered–especially the course number. Most of this data will appear on the Student Achievement Certificate, so check your spelling and punctuation carefully. Once you are satisfied that all of this information is correct, click the *Add New Course* button, and the new course will be created. The following screen should appear (Figure 45).

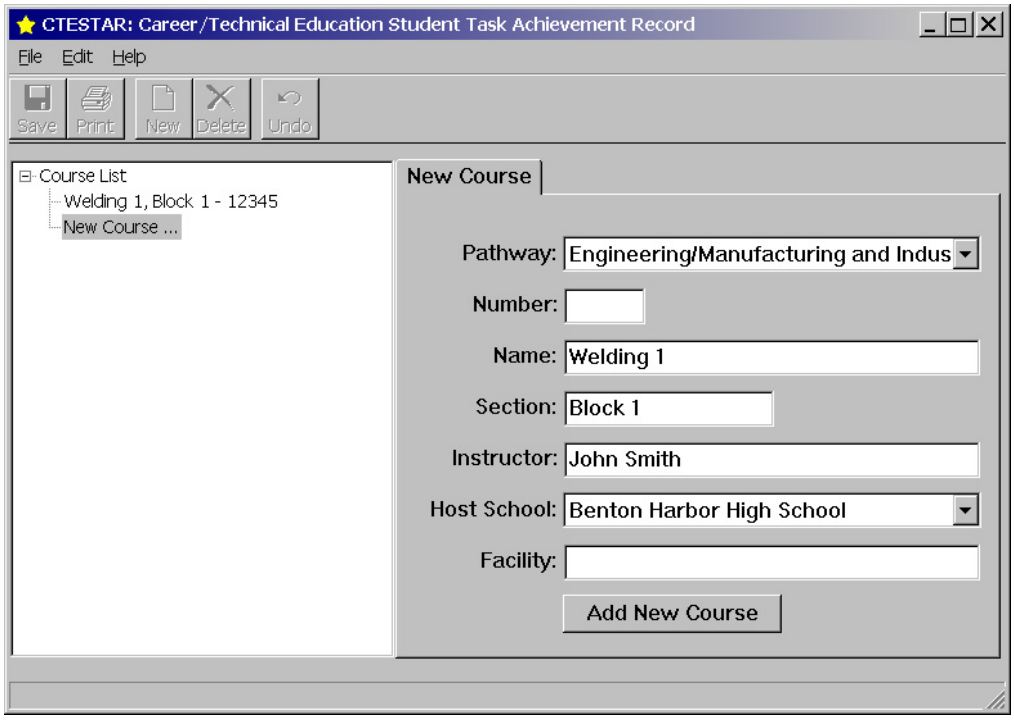

Figure 45

Note in the above dialog (Figure 45), that the new course has been created, and is displayed in the left-hand tree-view. Of the data entry fields, only the course number has been cleared. This makes it easy to create sub-sequent sections of the same course by simply entering a new course number, possibly editing the section field, and clicking the *Add New Course* button again. In this case, a second section of the same course will be created with course number 12346. After doing so, the screen appears as follows (Figure 46):

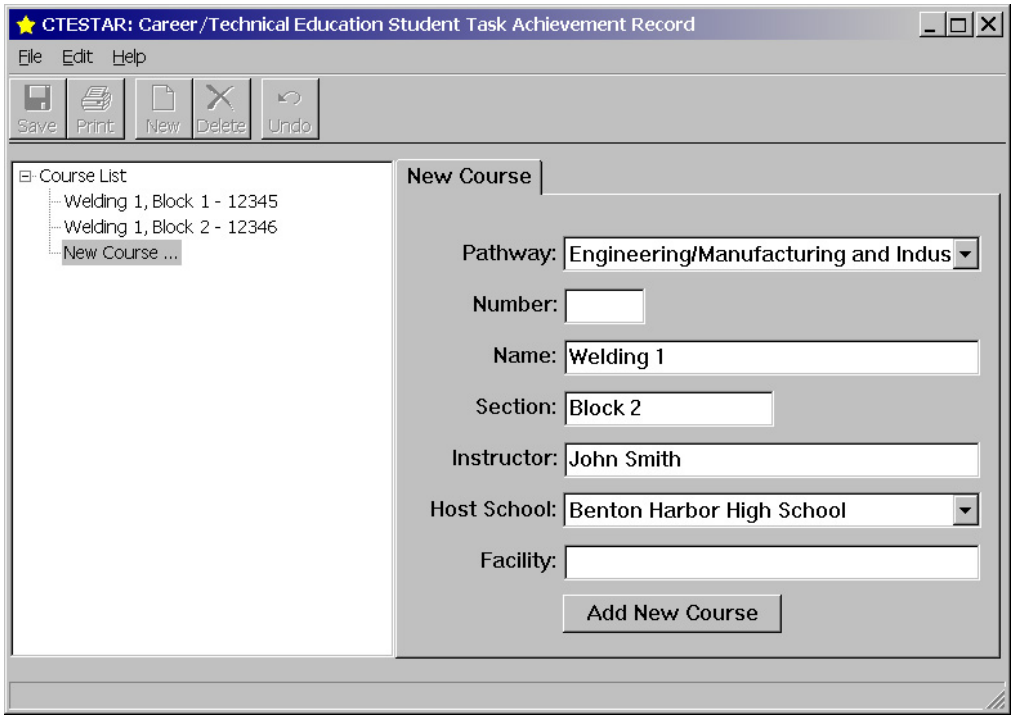

Figure 46

The preceding process can be repeated as often as is necessary to create all of the required course files.

If you specify a bad course number, a dialog such as the following may appear:

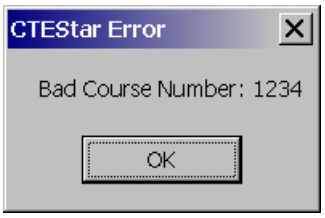

Figure 47

If such a dialog appears, click the *OK* button, correct the course number, and click the *Add New Course* button again. In this case, the error message has been displayed because the course number is only four digits long, and this district requires five-digit course numbers. Remember, the length of the course number depends on your district, and should be consistent with other reports and programs you may use.

Selecting a Course

Selecting a course is necessary before editing, importing, viewing, or printing any course specific data. To select a course, first insure that you have started CTESTAR®. If you have difficulty starting CTESTAR®, refer to the preceding section, *Starting CTESTAR®*. When you initially start CTESTAR®, and have courses available for selection, the screen will appear as follows (Figure 48). (Note, your screen will reflect the actual courses that you have imported or created, not these fictional ones.)

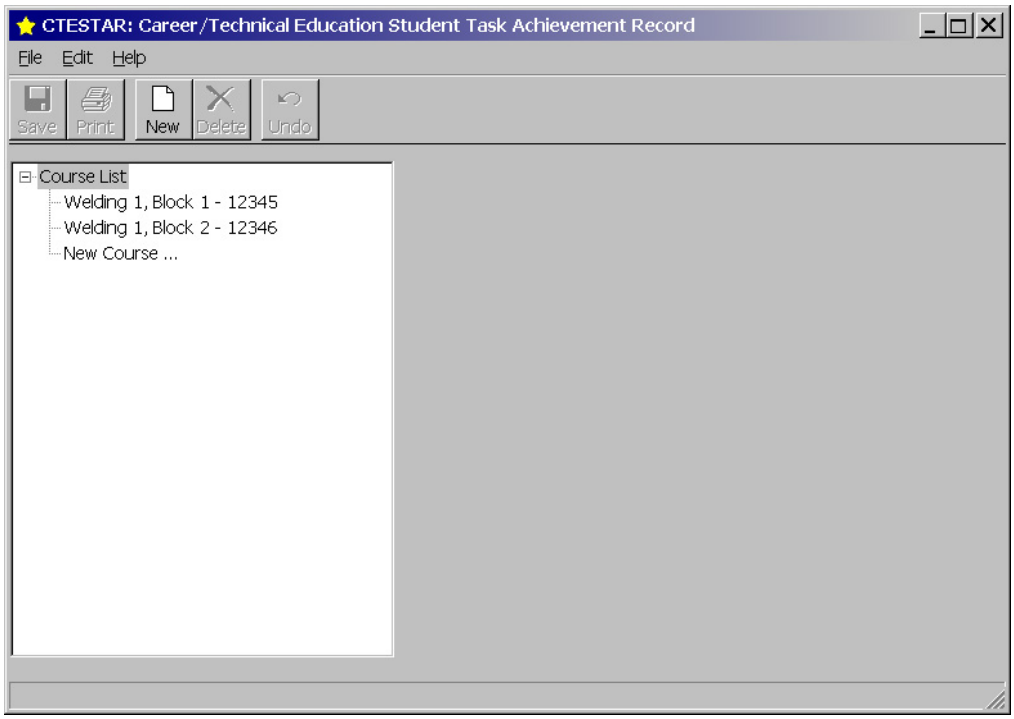

Figure 48

This screen reflects the two courses that were created in the prior section. Initially the *Course List* item is highlighted. To select one of your available courses, single click the course name/description with the left mouse button. When you do this, the course name/description will be highlighted, and the title bar will be changed to reflect the name/description of the selected course. The following screen illustrates the CTESTAR® program after course *Welding 1, Block 1 – 12345* has been selected. Observe how the title bar changes to indicate which course is selected.

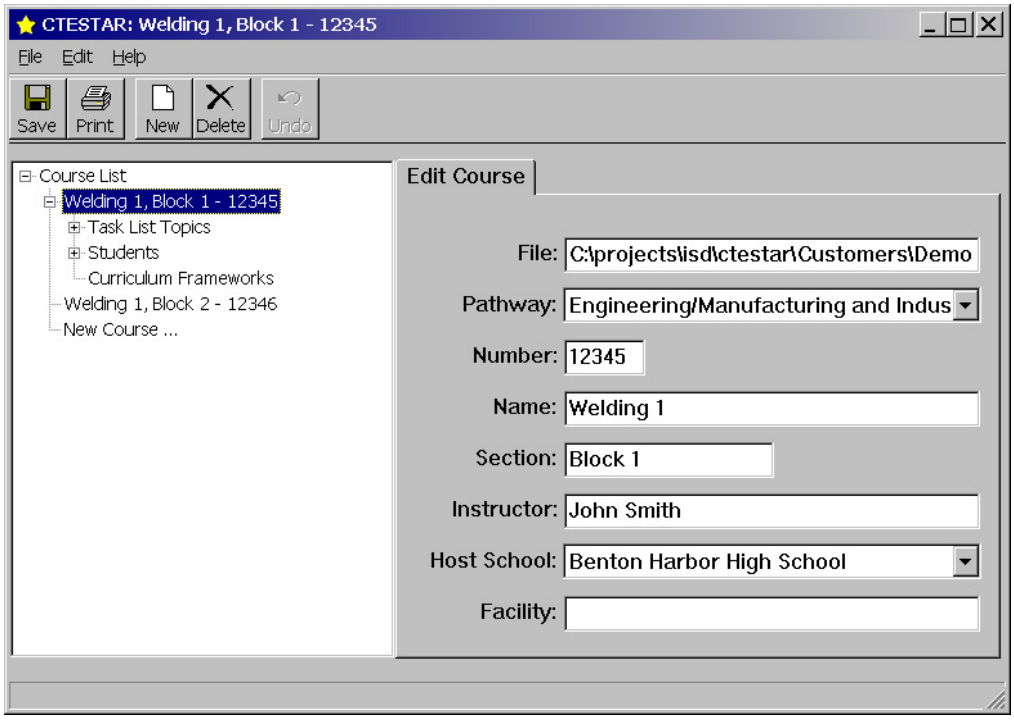

Figure 49

Most of the data on the right hand data entry pane of the dialog box should appear familiar. It is the data that was entered when the course was created. To change any of these fields, simply click in the field with the left mouse button, and use the *Insert*, *Delete*, *Backspace*, *Left-Arrow*, and *Right-Arrow* keys to edit the data. The additional field displayed on this screen is the file name where the course data is stored. This field can not be edited, and is automatically generated based upon the course number. If you change the course number, this file name will be automatically changed, however, the new number must be a legal number that is not already in use. (If you need to swap the numbers of two files, one of them must be changed to a distinct intermediate third temporary value first.)

When a course is selected, three additional sub-categories are displayed: *Tasks List Topics*, *Students*, and *Curriculum Frameworks*. By clicking on the plus next to any of these headings, sub-headings are revealed. The following screen (Figure 50) illustrates the expansion of the *Students* heading. As no students have been added to this class yet, only the *New Student ...* sub-heading is available.

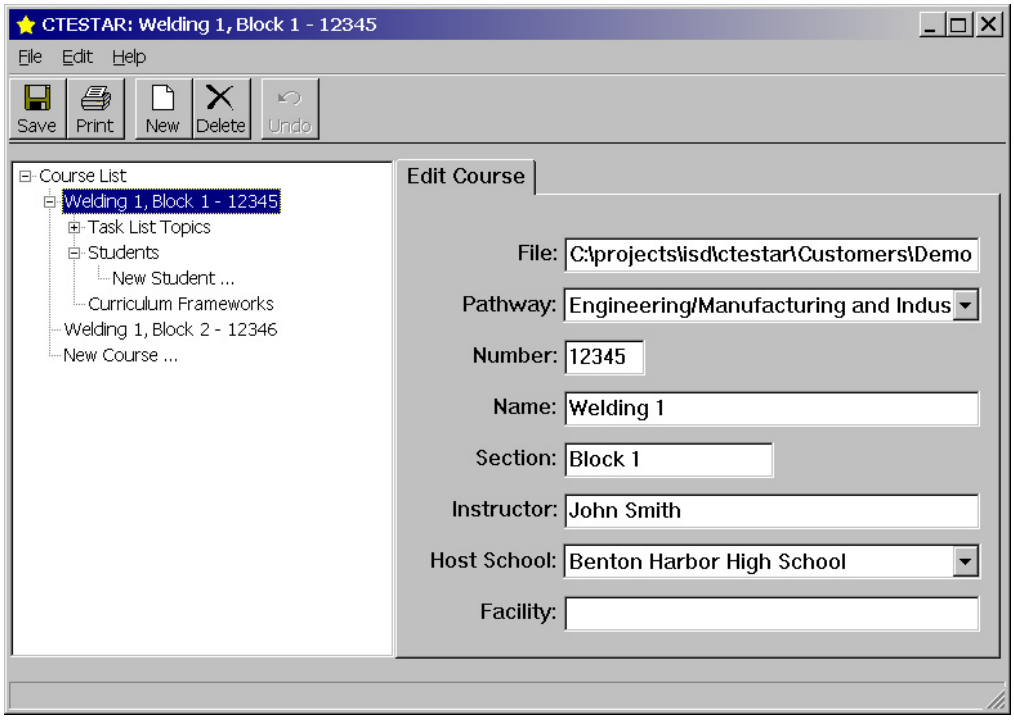

Figure 50

To select a different course, simply click on the course name in the left-hand tree-view window. You may need to scroll the tree-view if the desired course is out of view. Use the vertical scroll bars to make the course visible. If the tree-view is to narrow to display all of the required information, a horizontal scroll bar will also be available. The following screen (Figure 51) illustrates a more complex configuration with a vertical scroll bar.

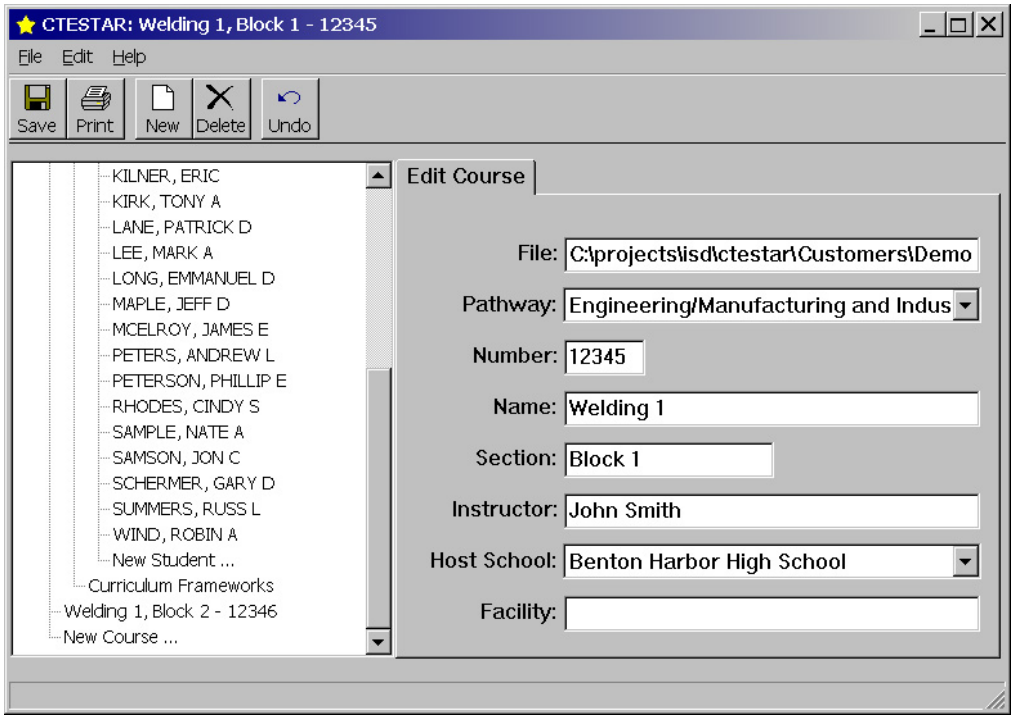

Figure 51

Importing from the CTEIS Download

To import a list of students into a course, you must first start the CTESTAR® program, and select a course. If you have difficulty launching CTESTAR®, refer to the prior section, *Starting CTESTAR®*. To create and select a course, refer to the prior sections *Creating a New Course*, and *Selecting a Course*. *CTESTAR®* will only import students into the currently selected course. Furthermore, the course number/name must also be selected in the left-hand tree-view window. After you have selected a course, execute the *Import CTEIS Students* command from the *Import* sub-menu of the main *File* menu. The following screen (Figure 52) illustrates the path to this menu command.

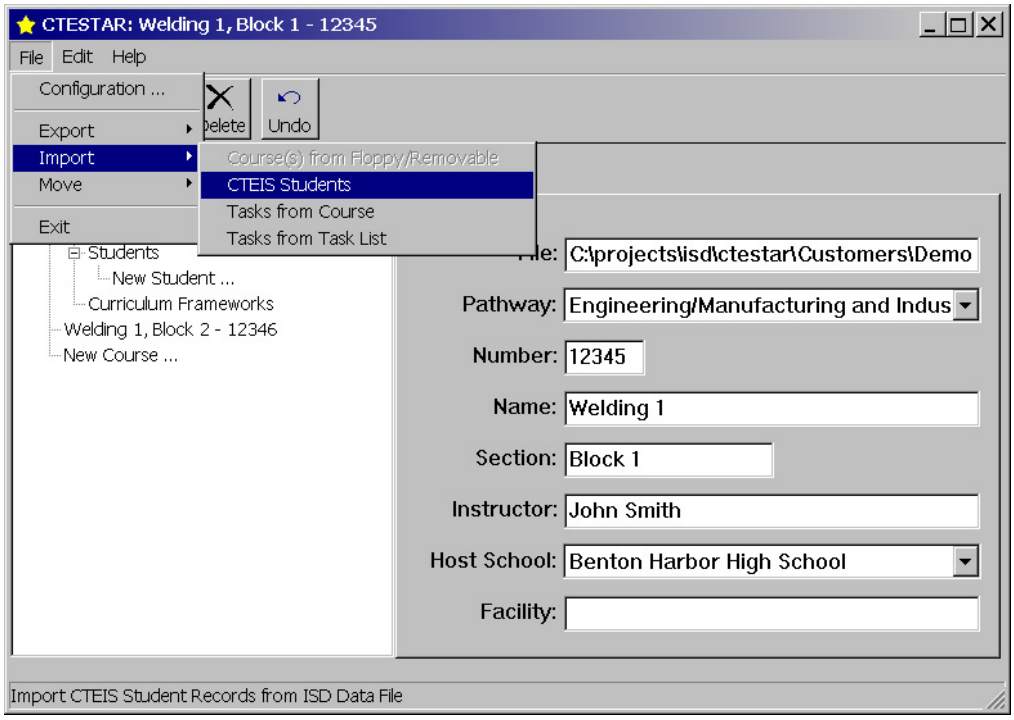

Figure 52

If you have not selected a course and highlighted the course number/name in the tree-view, this command will not be available. You must select the course first. When you select this menu option, the following dialog will appear (Figure 54).

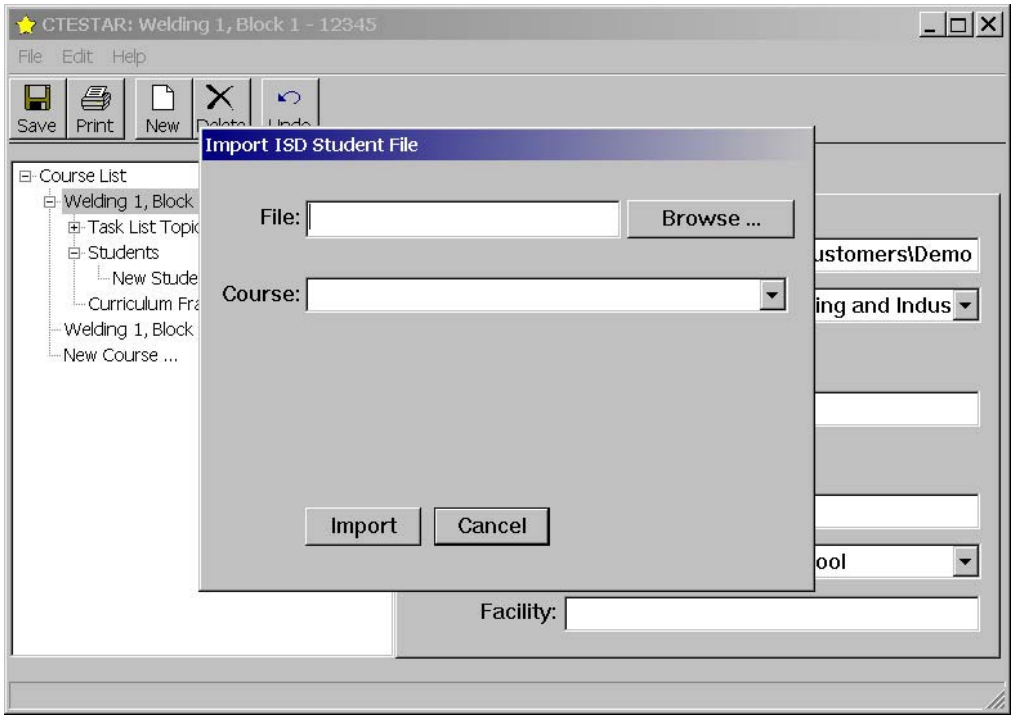

Figure 53

From this dialog, click the *Browse ...* button to select the CTEIS download file. When you click the *Browse ...* button, a dialog similar to the following appears.

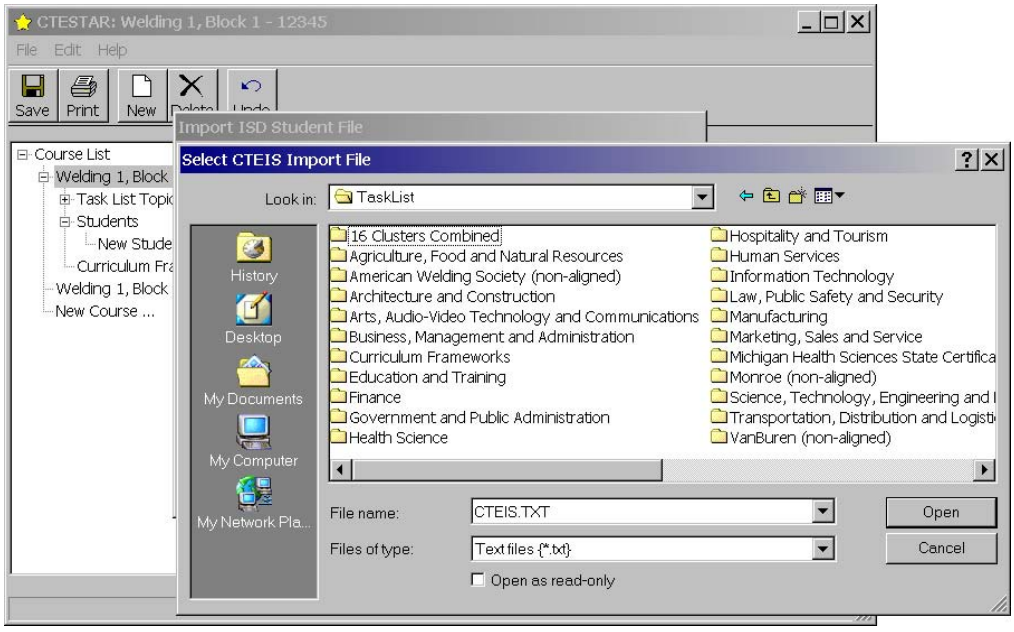

Figure 54

From this window, browse to your CTEIS.TXT file. If the file was supplied on diskette, and you have inserted the diskette into drive A:, browse and select the file as shown in the following screen (Figure 55).

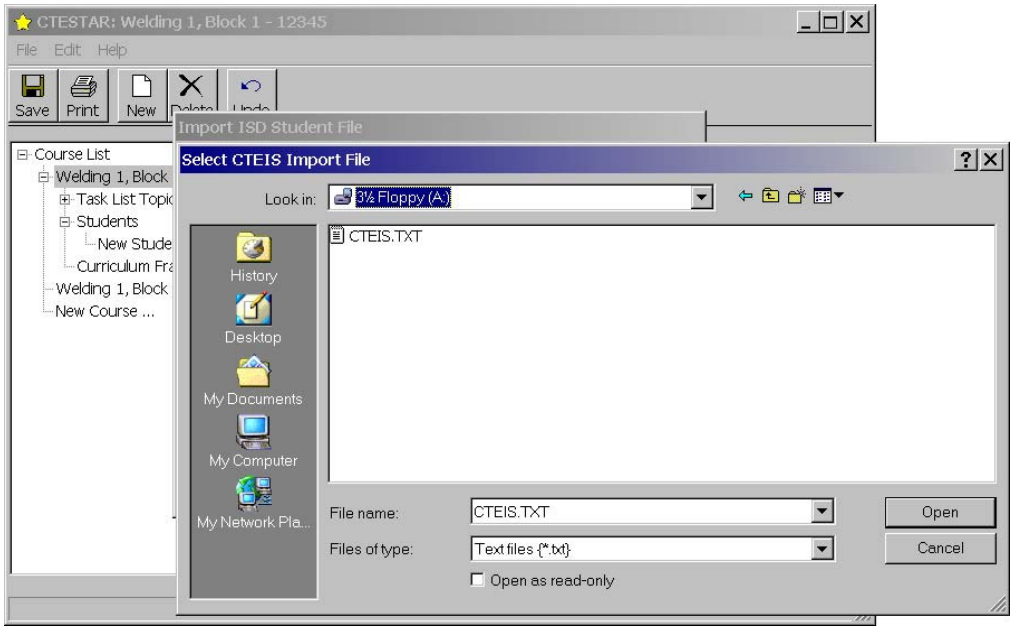

Figure 55

After you have browsed to and selected the file, click the *Open* button. When you click the *Open* button, *CTESTAR*® scans the file and builds a list of course names and numbers from the file. If there are any problems with the file, you will be notified at this point. If CTESTAR® notifies you of errors while reading your download file, contact your system administrator.

When the CTESTAR® program has completely scanned the file, the import dialog will be updated to reflect the location of the download file, and the courses found therein. Select the correct course from the course drop down list. The results for this example course are shown below (Figure 56).

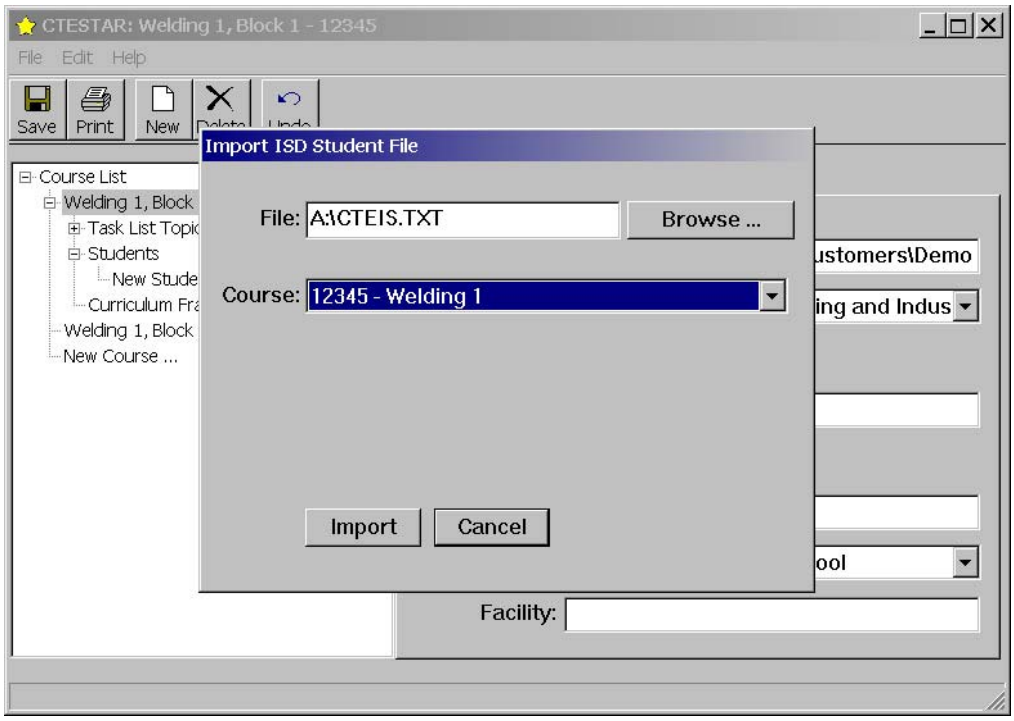

Figure 56

To begin importing students from the selected course, click the *Import* button. When the program has completed importing the students for the selected download course into the currently selected CTESTAR® course, the *Import ISD Student File* dialog will disappear. To review the students, click the plus next to *Students* in the selection tree-view. The students should be listed in alphabetic order. It is important to note that when students are imported, they are added to the students in the course. If you have made a mistake and imported the wrong students, you will either need to delete the incorrect students one by one, delete the entire course and start again, or click the *Undo* button. It is also important to remember that each student must be assigned a unique student id number. When importing students, if a student with the same number already exists in the course, the new student will be ignored. When a student is ignored for this reason, a dialog will be displayed notifying you of the duplicate student number. If this occurs, dismiss the dialog, and contact your system administrator to determine why you have duplicate student id numbers in your data.

Manually Adding and Deleting Students

Throughout the year, it may be necessary to manually add or delete students to or from a course. Your data download may only be available at the beginning of the year. If a student transfers into your course mid-year, you will need to manually add the student. If a student transfers out of your course, you may want to delete the student.

If you delete a student, insure that you print any required reports first. After a student has been deleted, their assessment data is no longer available. Alternatively, you may move a student to a different course, as long as both the original and the new courses have identical task lists.

Add a New Student

To manually add a student, insure that you have selected the course to which the student will be added. Expand the *Students* heading in the selection tree-view. After expanding the *Students* heading, a *New Student ...* item should be revealed. If you already have students in the course, you may need to vertically scroll the tree-view to select it. The *New Student ...* item will always appear at the end of the list of existing students. Single click the *New Student ...* heading with the left mouse button. The following screen should appear (Figure 57).

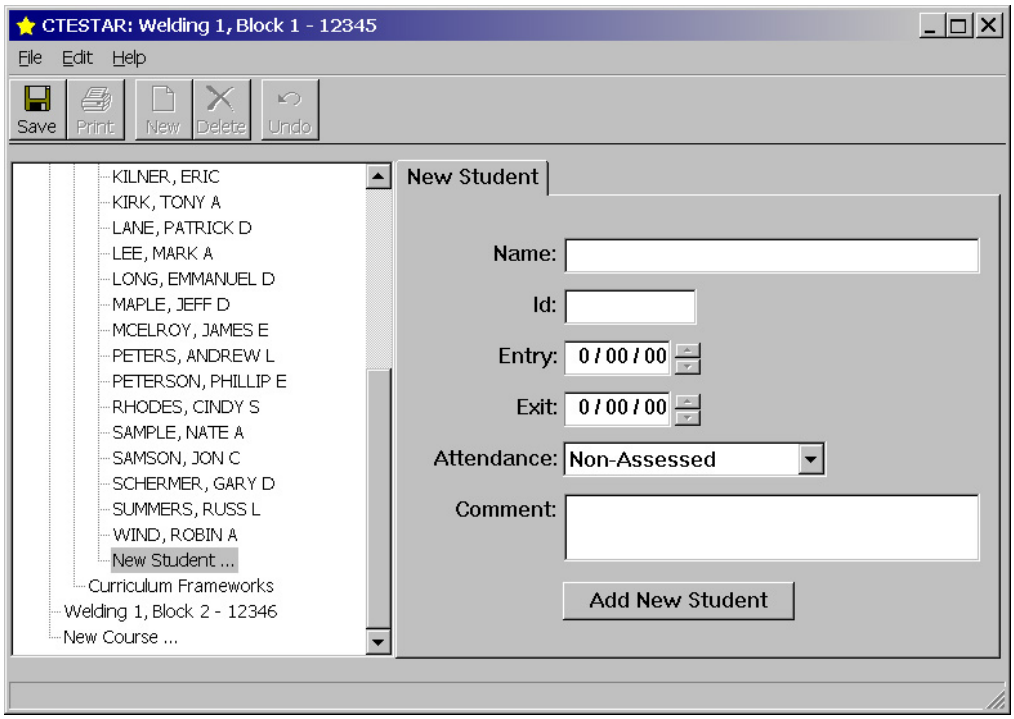

Figure 57

In the right-hand data entry window, enter the data for the new student. Note that each student must have a unique id number. The length of the *Id* has been tailored to your district, and should match other reports and programs that you use. The name should be entered in a specific format. The format is last name, followed by a comma, then a space, followed by the first name. If a middle initial is available, follow the pattern shown below. If there are any name suffixes, such as "Jr.", add another comma to the end of the first name, add a space, and then add the suffix. The following table illustrates the correct way to enter a few sample names.

Name	Correct Entry into CTESTAR®
John Smith	Smith, John
John Q. Smith	Smith, John Q.
John Smith Jr.	Smith, John, Jr.
John Q. Smith Jr.	Smith, John Q., Jr.

The *Id* field should contain the student id number assigned by your ISD or district. A unique number must be entered. If you attempt to add a student with an id equal to that of a student already in the course, *CTESTAR®* will inform you of the duplicate id. To add such a student, you must edit the id until it is unique.

The *Entry* and *Exit* fields denote the program entry and exit dates. As these dates will print on the certificate, be sure to enter the correct dates. The format is the traditional month/day/year format common in North America. *CTESTAR®* will prevent you from entering illegal dates. To move between the date components, use either the tab key, or the mouse. To use the mouse, left click in the field that you wish to modify.

The *Attendance* field is used to assess each student's attendance. The options are excellent, good, fair, and poor. You should enter a value based upon your school district's attendance policies. You may choose to leave this value at the default *Non-Assessed* value until the end of the school year. Viewing the *Non-Assessed* value will remind you that you need to review the student's attendance, and enter the appropriate value before printing any reports. In any case, this field will print on the student's certificate and Student Task Achievement Report, so you should enter a value before the certificate and student task achievement reports are printed. A sample record, ready to be added, is shown below (Figure 58). This entry assumes that the attendance field will be edited later.

The *Comment* field is for entry of comments unique to each individual student. This field is not printed on any of the reports, and can be used for any purpose, such as storing an alternative college student id, if your courses are taught in conjunction with a local college. If you have no data to enter in to the *Comment* field, leave it blank.

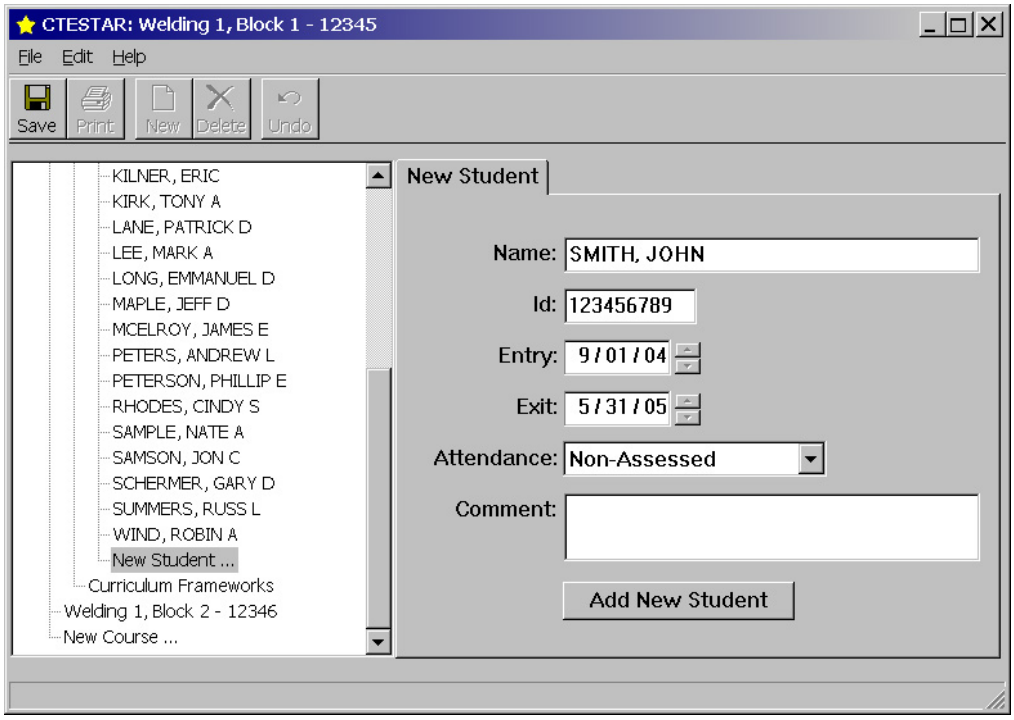

Figure 58

To add the student to the course, click the *Add New Student* button. The student list will immediately update to include the new student. The list is resorted automatically, as is shown in the following screen (Figure 59). The student named *John Smith* has been added between the students *Gary D. Schermer* and *Russ L. Summers*.

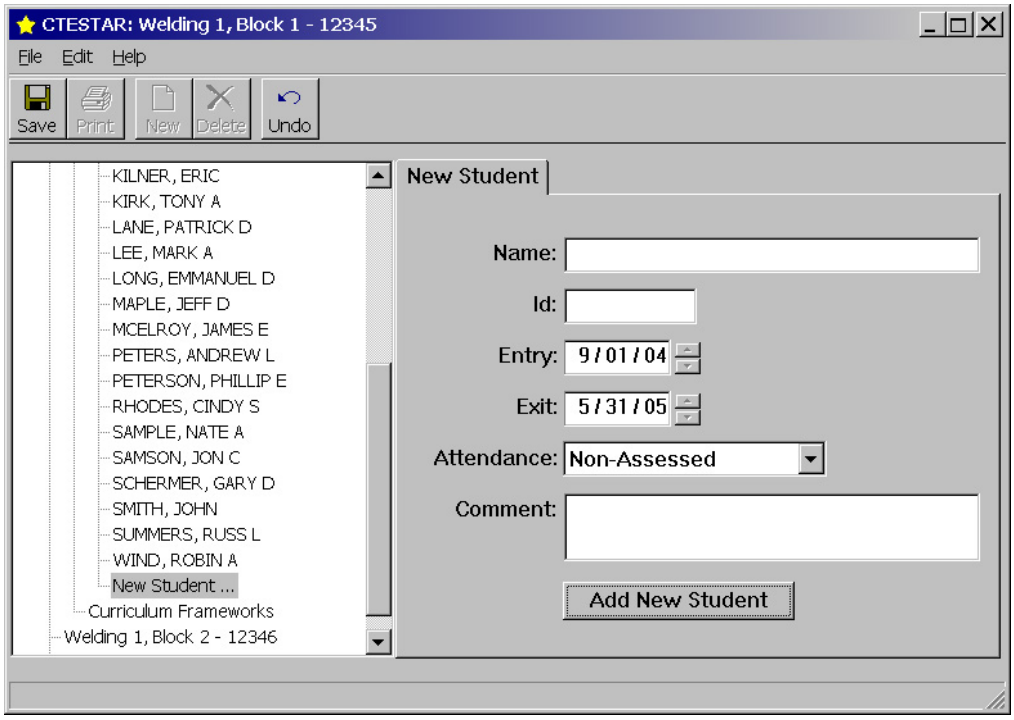

Figure 59

After adding the student, the name and id are erased. When entering a list of students, the last *Entry* and *Exit* dates are preserved. This minimizes the data entry burden when you add a number of students which all share the same entry and exit dates. When you add a new student to a course already containing tasks, the new student's assessments for all of the tasks are initialized to zero (Not Covered).

Deleting an Existing Student

To delete a student, click on the student name in the left-hand selection tree-view. When you select a student, the right-hand data entry pane will show either the student's assessment data, or their demographic data (name, id, entry date, exit date, attendance, and comment). To toggle between the two views, click the tabs at the top of the data entry screen. When the *Edit Student* tab is selected, the *Delete* button (fourth from the left) is enabled. To delete a student, insure that the *Edit Student* tab has been clicked so that the demographic data is displayed, and click the *Delete* button. When a student is deleted, all of their assessment and demographic data is irretrievably lost. If you delete the wrong student, you may immediately "undo" the operation, however, once a different course has been selected, the operation cannot be undone.

The following screen (Figure 60) shows a student selected, along with their assessment data. In this case, no task items have actually been assessed–they are all zero. The *Delete* button is not enabled.

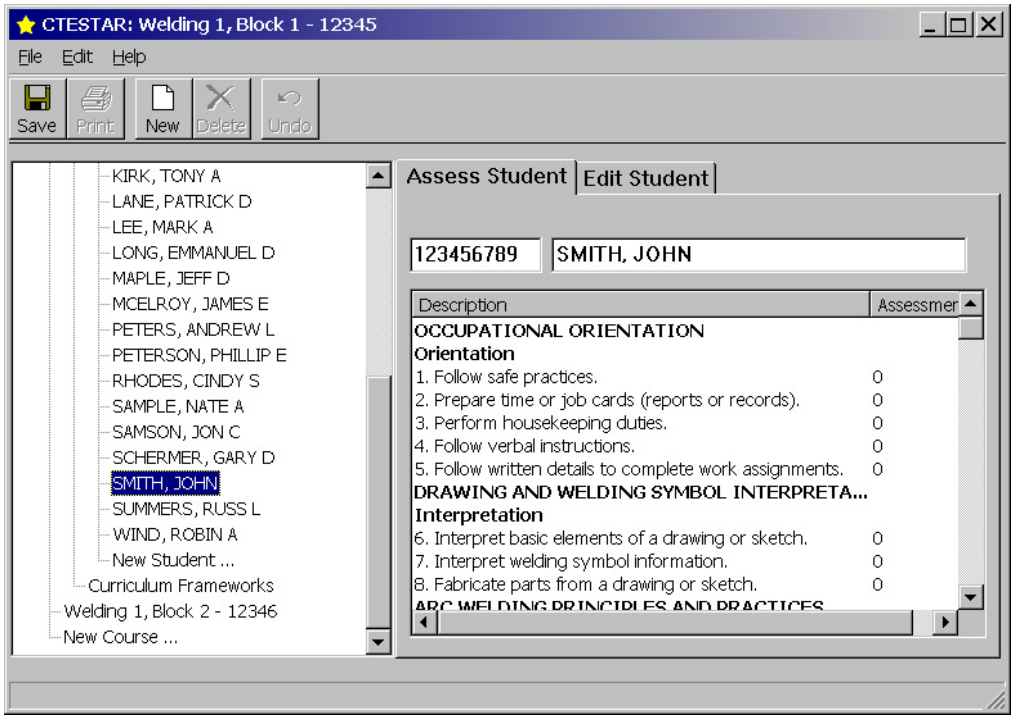

Figure 60

The following screen (Figure 61) shows a student ready for deletion. Note that the *Edit Student* tab has been selected, and the *Delete* button is enabled.

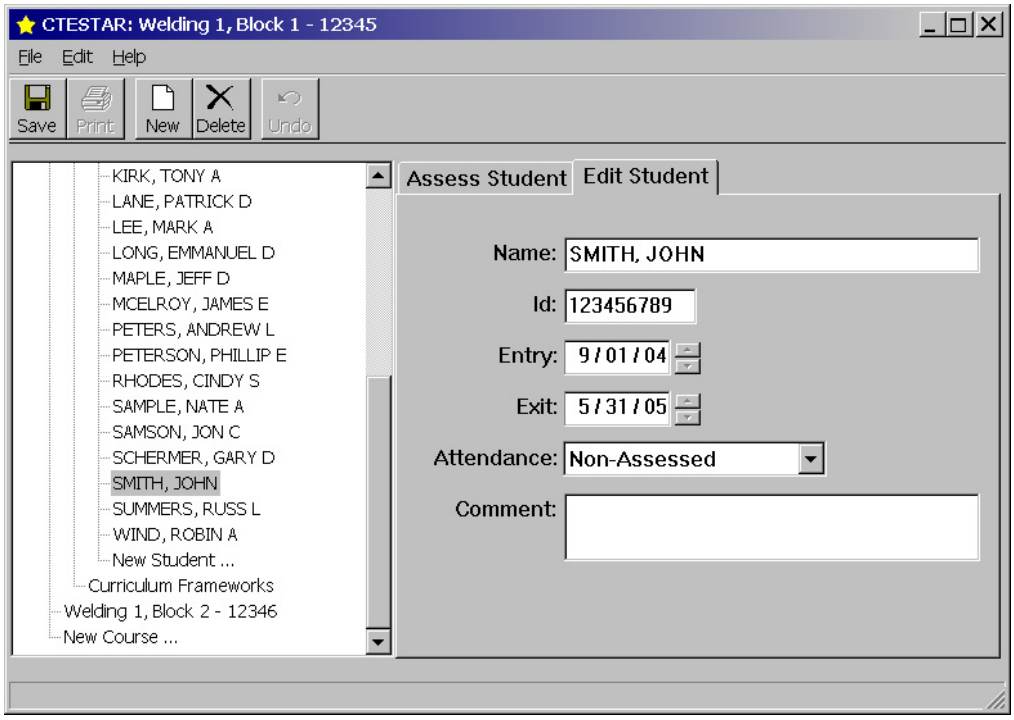

Figure 61

When the student is deleted, the tree-view in the left-hand window collapses removing the student name from the list and all assessment data from the database. If you accidentally delete the wrong student, click the *Undo* button to restore the student along with their assessments. (Once the course has been closed, the ability to "undo" the deletion is gone, so you must "undo" the deletion before you select a different course or close the program.)

Importing a CTESTAR® Task List from the Master Task List Database

As when importing from the CTEIS download, the first steps are to start *CTESTAR®*, and select the correct course. If you teach more than one section of the same course, the best strategy is to select one course. Import the task list into that course. Perform any task list edits that may be required. Once you are satisfied that the task list is accurate, it should then be imported into all of the other course sections. Updating the data in this way will minimize the effort required to edit the data. If you and another teacher teach the same course, you may want to share your task list once you have verified its accuracy. Remember, to promote students between two courses and preserve the student's assessment data, the courses must share the same task list

To import from the master task list database, once you have selected the course, execute the *Tasks from Task List* menu command found on the *Import* sub-menu of the *File* menu command. The following screen (Figure 62) illustrates the path to this command.

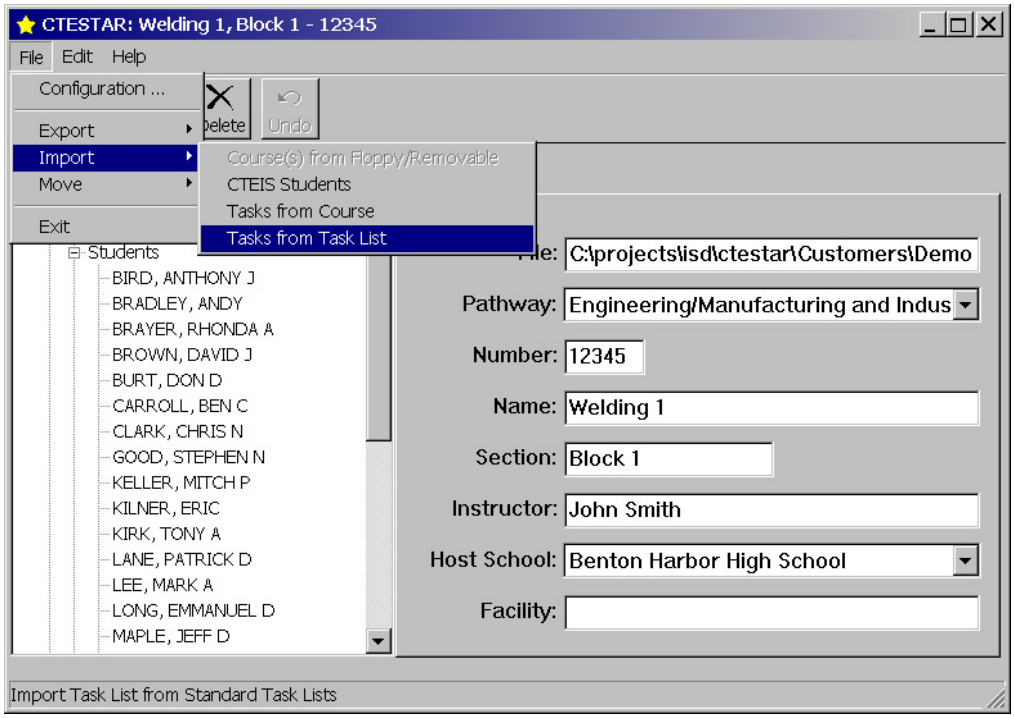

Figure 62

When you execute this command, a dialog similar to the following (Figure 63) is displayed.

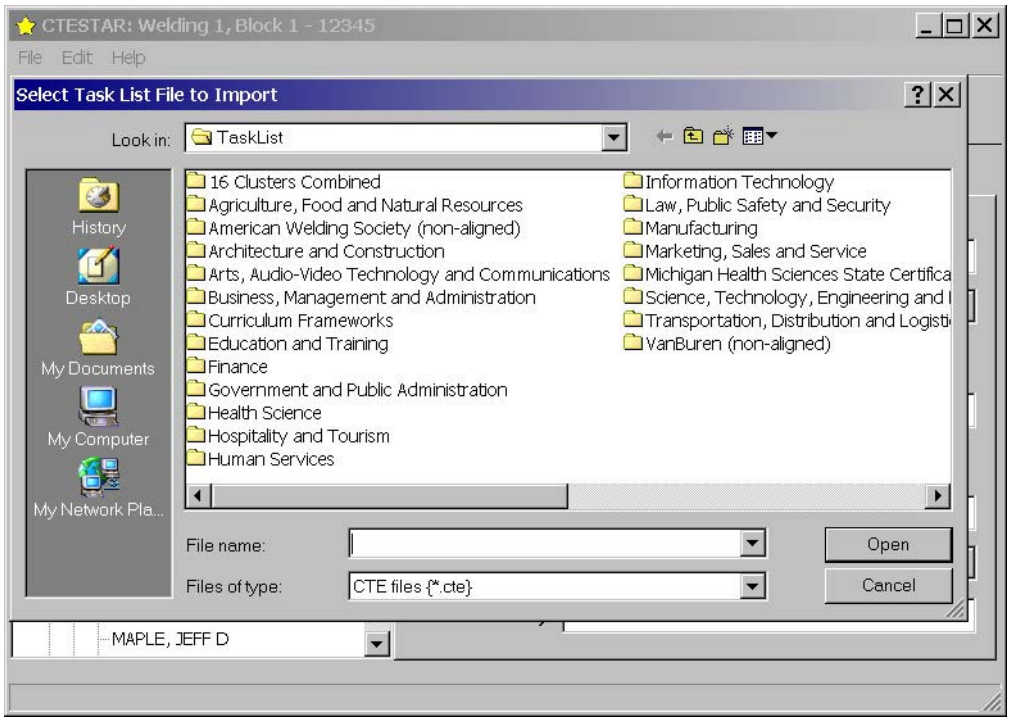

Figure 63

The *Select Task List to Import* dialog defaults to the Task List database folder. Within this folder are a number of sub-folders representing the National Career Cluster task lists, as well as optional additional task lists.

The sixteen national cluster task lists are organized by cluster in separate folders for each cluster. The Michigan Health Sciences tasks are in their own folder, as are any additional task lists. The "16 Clusters Combined" folder contains a second copy of all of the national task lists combined into a single folder. (This makes it easier to review the available national task lists.) Double click a folder, such as "Michigan Health Sciences State Certificates" and you are presented with a dialog like the following (Figure 64).

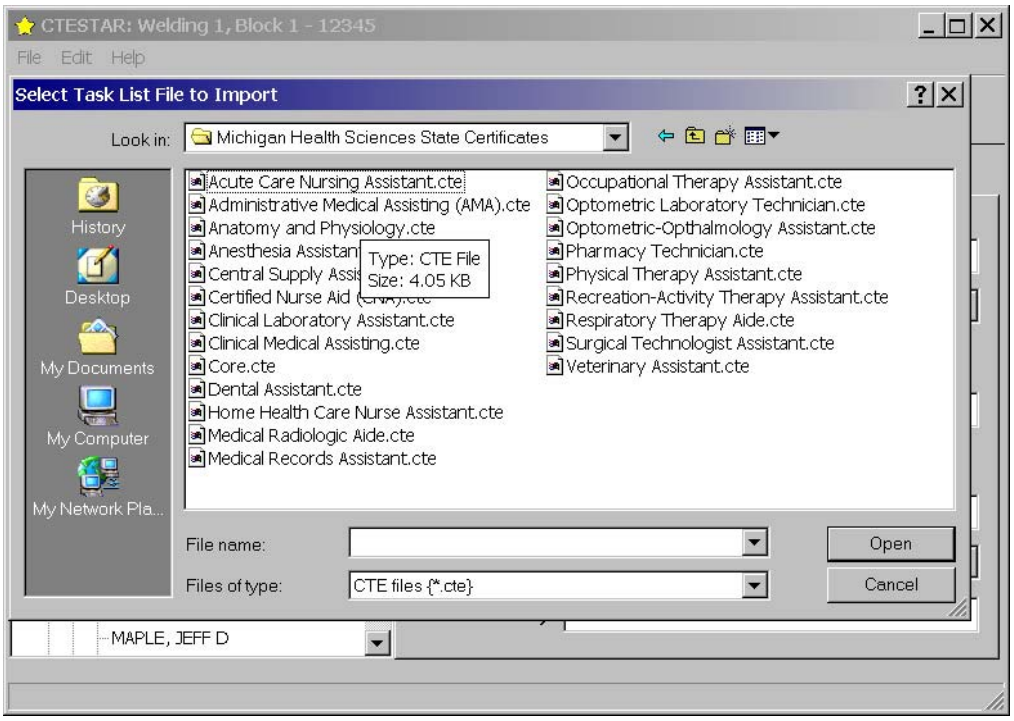

Figure 64

Select the task list that you want to import by browsing to it. When you select it, the file name will then appear in the *File name* field. Click the *Open* button, and the task list will be imported. Click the *Cancel* button if you decide that you do not want to import a new task list. If you have not installed the task list database, or if you have not selected a course, this command will not be available. If you import the wrong task list, click the *Undo* button before switching to a different course or closing the program.

You may import tasks from more than one list into a course, however, you are responsible for deleting any duplicates and sorting the tasks into a meaningful order.

When you import a new task list, the imported tasks are added to those already in the course database. The new tasks are added at the end of the list. To re-order the tasks, see the following section entitled *Manually Adding, Deleting, and Sorting Tasks*. To view the tasks that you have just imported, click the plus next to *Task List Topics* in the left-hand tree-view. The tree-view will then display all of the task Topics. To view the Performance Elements within a topic, click the plus next to the desired topic. To view the Measurement Criteria within a Performance Element, expand the Performance Element similarly. The following screen (Figure 65) illustrates the display of the tasks imported into the example course after the *Tasks List Topics* heading, "ARC WELDING PRINCIPLES" Topic, and "Shielded Metal Arc Welding" Performance Element have been expanded.

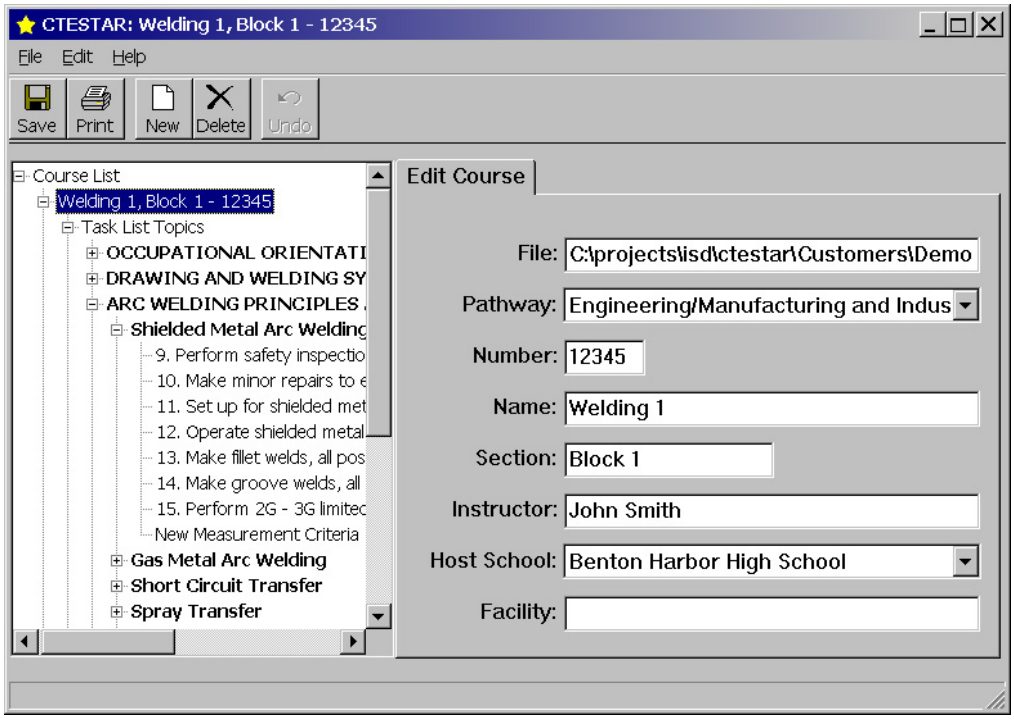

Figure 65

To view the contents of more items, expand them by clicking the plus signs next to them. More than one item may be expanded at the same time, however, as more headings are expanded, it may be necessary to scroll the tree-view to view their contents. To collapse a previously expanded topic or performance element, click the minus next to the item.

Importing a CTESTAR® Task List from Another Course

As when importing any of the other databases, the first steps to importing a task list from another course are to start the CTESTAR® program, and select the course that you want to import the tasks into. This is considered the "destination" course. You will then use the *Tasks from Course* option of the *Import* sub-menu of the *File* menu command to import the task list. The following screen (Figure 66) illustrates the path to this menu command.

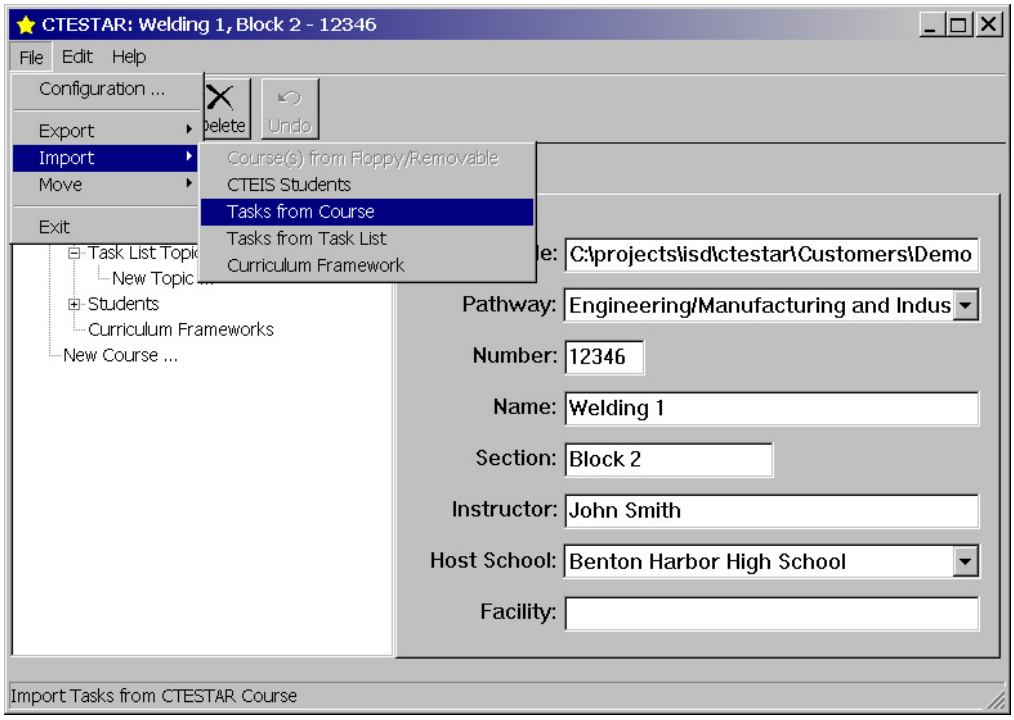

Figure 66

If you have not selected a course, this command will not be available. Note that in the example, sample course 12346 has been selected. It is the "destination" course. To demonstrate this command, the task list from course 12345 will be imported. It is the "source" course. When you select this menu option, the following dialog (Figure 67) will appear.

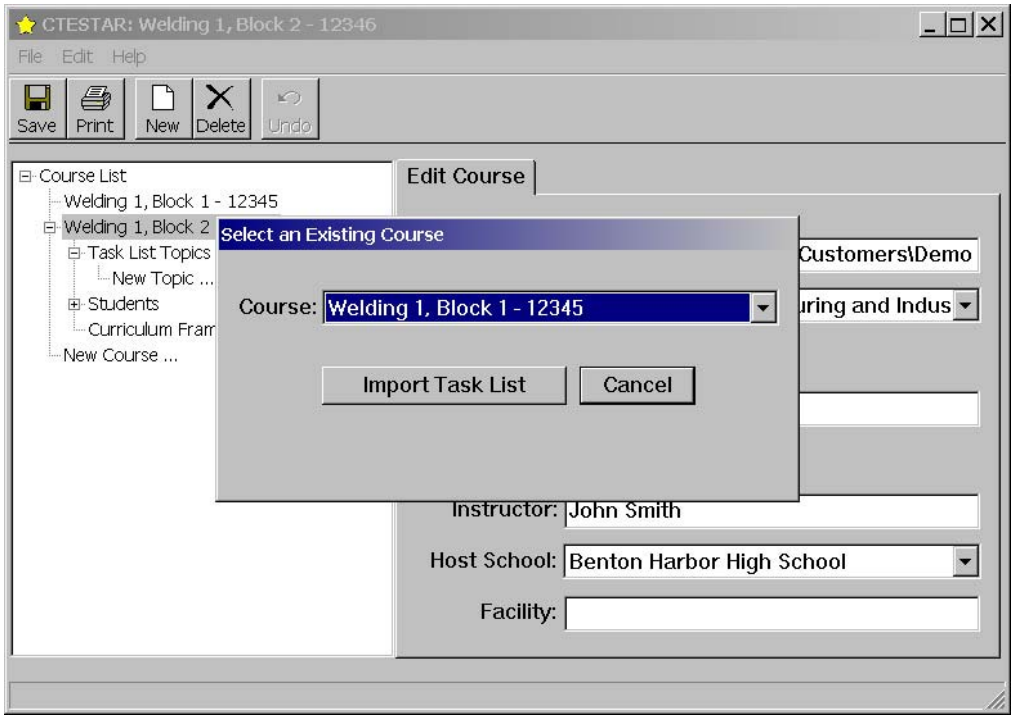

Figure 67

When the *Select an Existing Course* dialog appears, select the appropriate "source" course (the course that you want to copy the tasks from) in the *Course* field of this dialog. Click the *Import Task List* button to import the tasks. In the example illustrated above the "source" course is course 12345. The "destination" course, as seen in the title bar, is course 12346. When you import the task list from another course, all of the tasks from the "source" course are added to those in the "destination" course. If you have already added students to the "destination" course, their assessments for the newly imported tasks will be initialized to zero (Not Covered). Student assessments in the "source" course are ignored.

As has been previously discussed, you may find it useful to import the task list from another course when you teach more than one course that shares the same task list. Once you have edited the task list to suit the first course, you can then use it as the "source" course, and import it into the second "destination" course, and any other courses that also use it. In this way, you only need to edit the task list once. Students may only be moved between courses with identical task lists.

Chapter

5

Editing a Task List

Editing an existing task list, or creating a new task list

After you have imported the tasks from the master task list database, it may be necessary to manually edit the task list. If you teach additional topics that should be listed on the *Student Task Achievement Report*, you can add topics, performance elements, or measurement criteria to the task list. If the item to be added fits within one of the topics or performance elements already available, you may directly add it to that item. If not, you can create a new topic and/or performance element, and then add your measurement criterion within the new performance element.

If the task list was designed for a course that covers more material than yours does, you may want to delete some of the measurement criteria. You may even want to delete an entire topic or performance element–along with all of the items that are contained within it. You may also need to revise the wording of an existing topic, performance element, or measurement criteria. After revising your task list, you may also choose to change the order of the items within the list. This chapter explains how to add, delete, revise, and sort, all of the elements of a task list.

Creating a New Task List

Usually, one of the task lists included in the task list database is a suitable starting point for a new course. In such a case, you can import the task list as explained in the prior chapter, *Creating a New Course*, and then revise it. In the event that no suitable starting point is found, you can create an entirely new task list. This process is similar to revising a task list, with the exception that all items must be initially added. You must first create and select the course that the task list is for. You can then skip the task list import steps. You then add topics, performance elements, and measurement criteria as detailed below. All of the commands work identically. The only difference from the examples is that the initial task list will be empty.

Task List Components

A task list is composed of three types of items: Topics, Performance Elements, and Measurement Criteria. This terminology has been adopted from the National Career Cluster standards and benchmarks published at http://www.careerclusters.org.

Topic. A Topic is the most general heading category within a task list. Topics are not assessable. Example topics include: Academic Foundations, Communications, and Safety. Many of the topics in the National Career Cluster task lists are common to all task lists. A topic may only contain performance elements.

Performance Element. A Performance Element is an organizational heading within a topic. Performance Elements may only be contained by topics. The performance elements within a topic will generally be tailored to the pathway and/or cluster. They are more specific than the topics, and consequently are not broad across all clusters. Performance elements may only contain measurement criteria. For a task list to be aligned with the national standards, it generally must contain all of the topics and performance elements of the national standards, although, the measurement criteria may vary.

Measurement Criterion. A Measurement Criterion is an item to be assessed. Measurement Criteria may only be contained by performance elements. The measurement criteria for a pathway or cluster are generally specific to that subject area. Often there are many different ways to measure a student's proficiency within a performance element. The measurement criteria are the criteria that are actually used.

CTESTAR® organizes these task list elements like an outline. Topics are the top level of the outline. Within topics are contained performance elements, and within performance elements are contained measurement criteria. If your task list does not have all three of these elements, you must insert placeholders. CTESTAR® requires all three components in every task list.

The outline of these task list items is displayed as a Microsoft Windows "tree-view". The following screens depict this tree-view. Whenever you see an element with a plus sign ("+") next to its description, you may click the plus with the mouse to reveal additional contained items. To help you keep the items organized in your mind, lines are used to connect the items in the list to those items that contain them. You can browse the outline expanding items as you go. If an item contains many items, you may need to scroll vertically to see them all. When all of the items within an item are displayed, a minus sign ("-") is displayed next to the name. To collapse the outline, concealing the items beneath such a heading, click the minus. The minus will change to a plus, and the headings will be hidden. Although hidden, the items are still present. Clicking the plus again will reveal them. Hiding the contents of other items permits you to focus on the items you need to edit or assess.

Adding Items to a Task List

Adding a New Topic

To add a new topic to an existing course, first select the course. Then expand the *Tasks List Topics* heading immediately beneath the course name. If necessary, scroll the tree-view vertically to expose the *New Topic ...* item. When you click the *New Topic ...* item, the following screen (Figure 68) will appear.

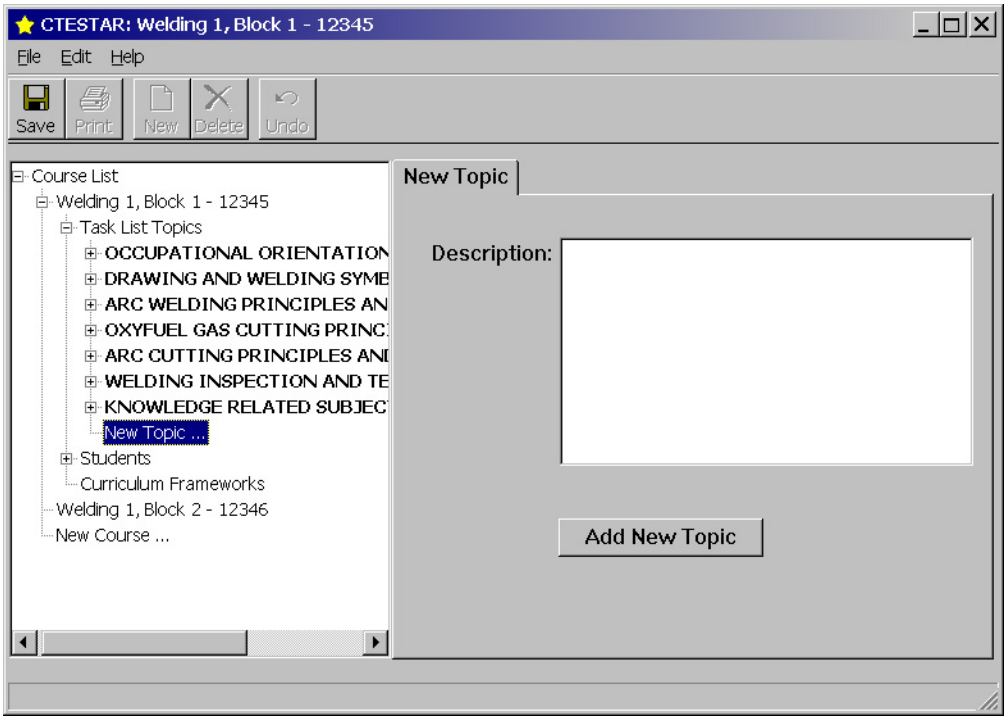

Figure 68

Type the topic text into the *Description* field on the right-hand side of the screen. The maximum number of characters in your topic is approximately 250. You may use the *Insert*, *Delete*, *Backspace*, *Up-Arrow*, *Down-Arrow*, *Left-Arrow*, and *Right-Arrow* characters to edit the topic. When you are satisfied with the text, click the *Add New Topic* button. The topic will be added at the end of the list of topics. To move the topic up in the list, see the following section titled *Changing the Order of Items within the Task List*. The following screen (Figure 69) shows the "Sample Topic" text entered into the *Description* field, before the *Add New Topic* button has been clicked.

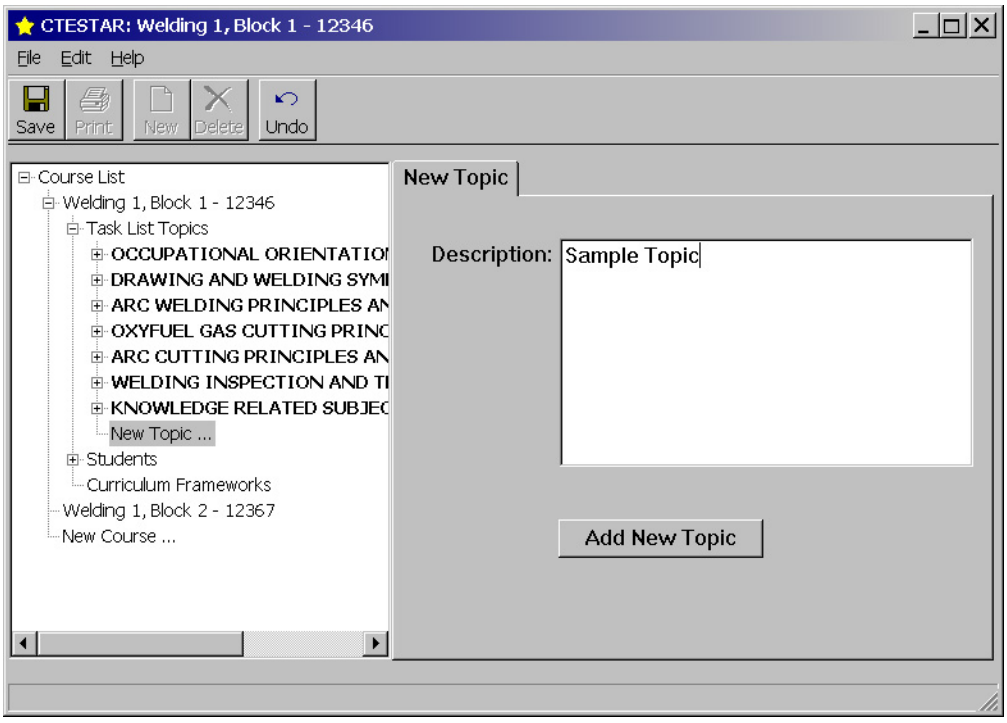

Figure 69

The following screen (Figure 70) shows the results of adding a new sample topic to the previously illustrated sample task list by clicking the *Add New Topic* button.

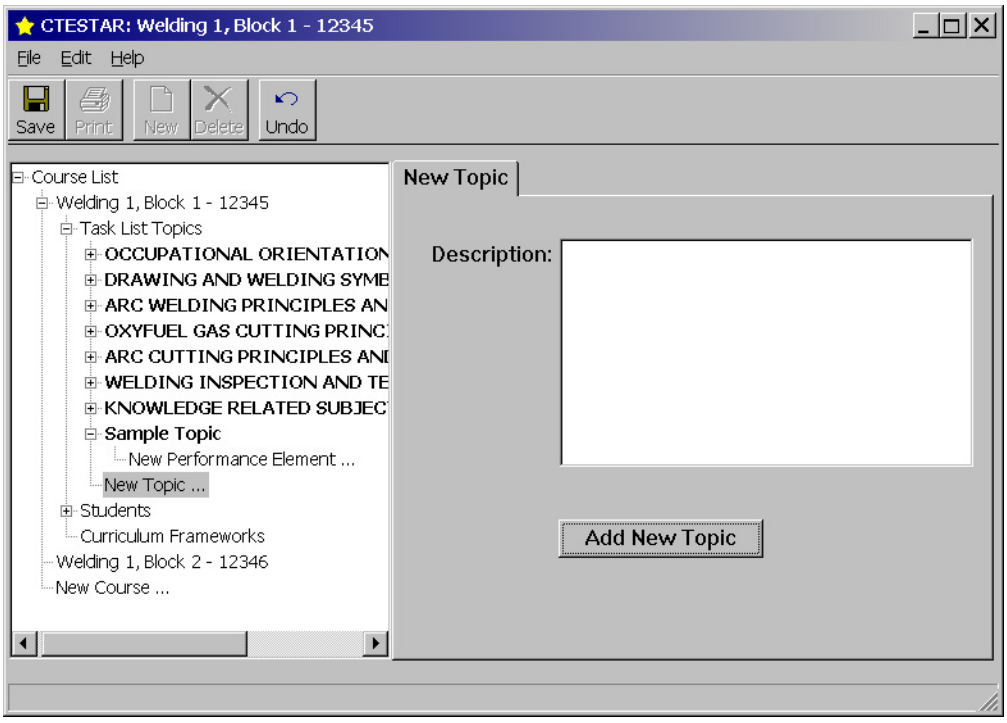

Figure 70

Note that the newly added topic automatically contains one item, the *New Performance Element ...* option. This item is used to add performance elements to this topic.

Adding a New Performance Element

To add a new Performance Element to an existing topic, first select the course, then expand the *Tasks List Topics* heading immediately beneath the course name. If necessary, scroll the tree-view vertically to expose the parent topic. If necessary, scroll vertically within the topic to expose the *New Performance Element* item. Click the *New Performance Element ...* item. When you click the *New Performance Element ...* item, the following screen (Figure 71) will appear.

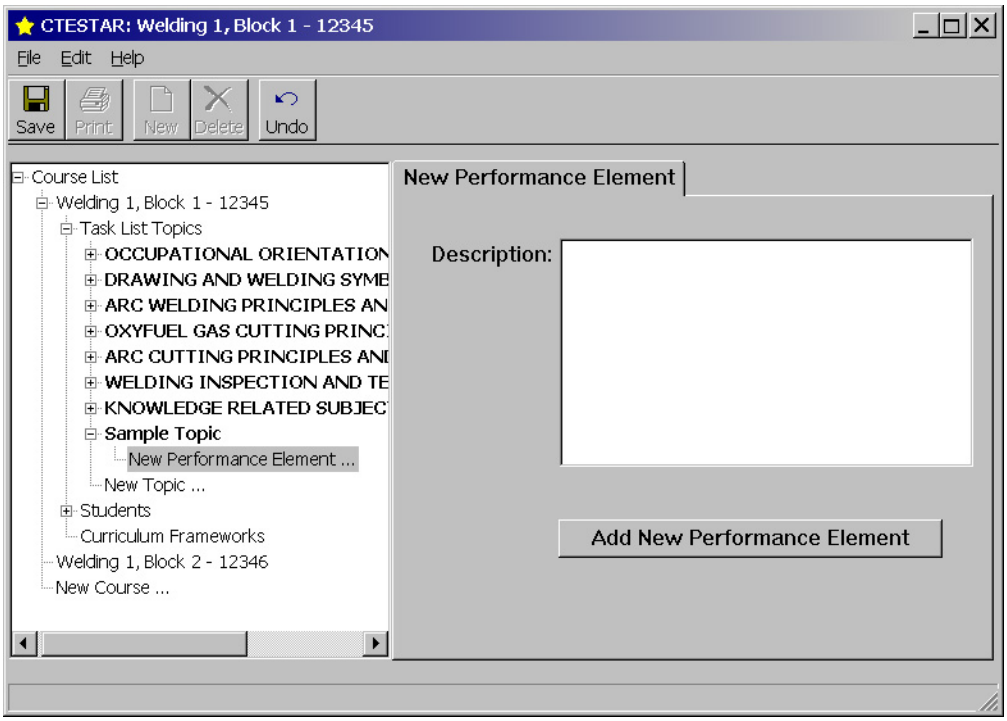

Figure 71

Type the performance element text into the *Description* field on the right-hand side of the screen. The maximum number of characters in your performance element is approximately 250. You may use the *Insert*, *Delete*, *Backspace*, *Up-Arrow*, *Down-Arrow*, *Left-Arrow*, and *Right-Arrow* characters to edit the performance element. When you are satisfied with the text, click the *Add New Performance Element* button. The new performance element will be added at the end of the topic containing the *New Performance Element* item that you selected. To move the performance element up in the task list, see the following section titled *Changing the Order of Items within the Task List*. The following screen (Figure 72) shows the results of adding a new sample performance element to the previously illustrated sample task list within the sample topic.

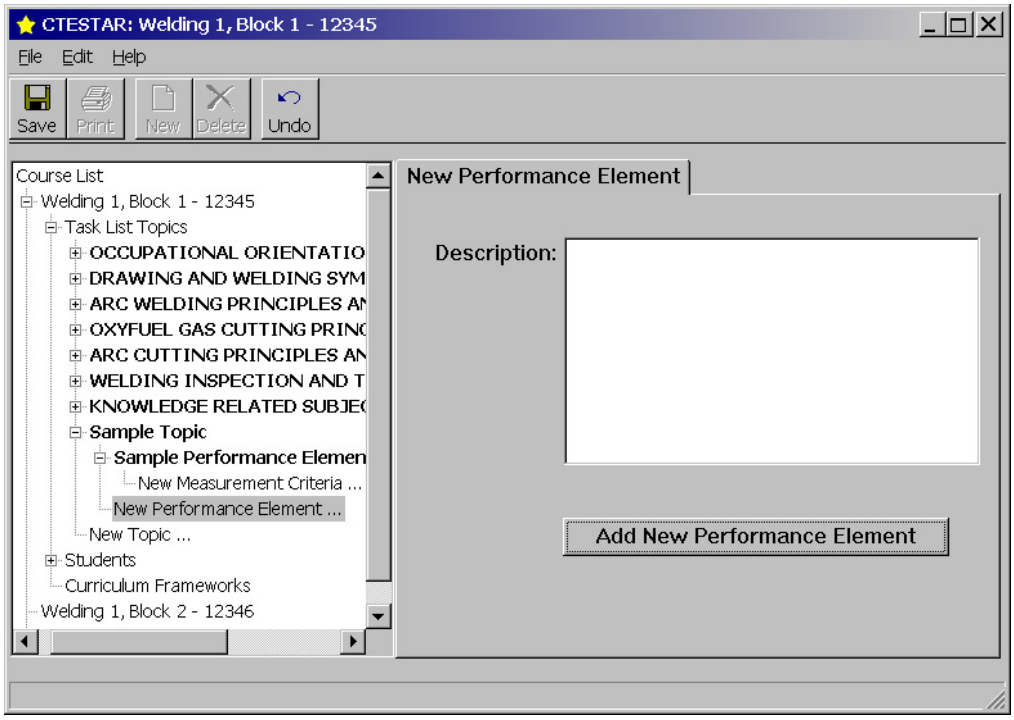

Figure 72

Note that the newly added performance element automatically contains one item, the *New Measurement Criteria ...* option. This item is used to add a measurement criterion to this performance element.

Adding a New Measurement Criteria

To add a new Measurement Criteria to an existing performance element, first select the course, then expand the *Tasks List Topics* heading immediately beneath the course name. If necessary, scroll the tree-view vertically to expose the parent topic of the performance element. If necessary, scroll vertically within the topic to expose the parent performance element. Expand the performance element by clicking the plus next to its description, and if necessary, scroll vertically within the performance element to expose the *New Measurement Criteria* item. Click the *New Measurement Criteria ...* item. When you click the *New Measurement Criteria ...* item, the following screen (Figure 73) will appear.

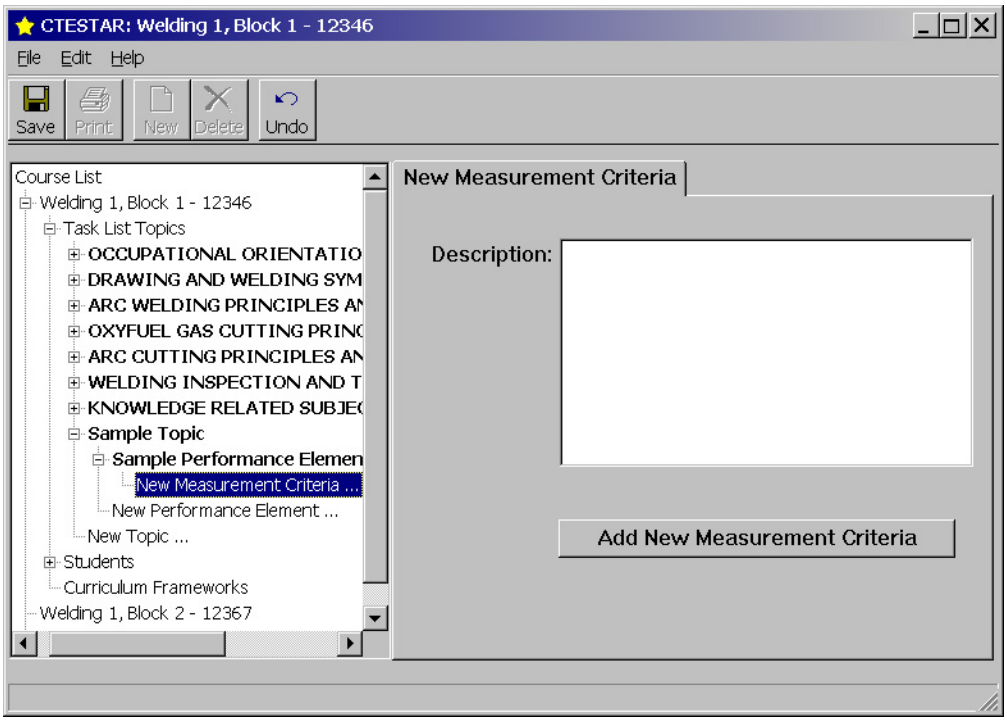

Figure 73

Type the measurement criterion text into the *Description* field on the right-hand side of the screen. The maximum number of characters in your measurement criterion is approximately 250. You may use the *Insert*, *Delete*, *Backspace*, *Up-Arrow*, *Down-Arrow*, *Left-Arrow*, and *Right-Arrow* characters to edit the measurement criterion. When you are satisfied with the text, click the *Add New Measurement Criteria* button. The new measurement criterion will be added at the end of the performance element containing the *New Measurement Criteria* item. To move the measurement criterion up in the list, see the following section titled *Changing the Order of Items within the Task List*. The following screen (Figure 74) shows the results of adding a new sample measurement criterion to the previously illustrated sample task list within the sample performance element and topic.

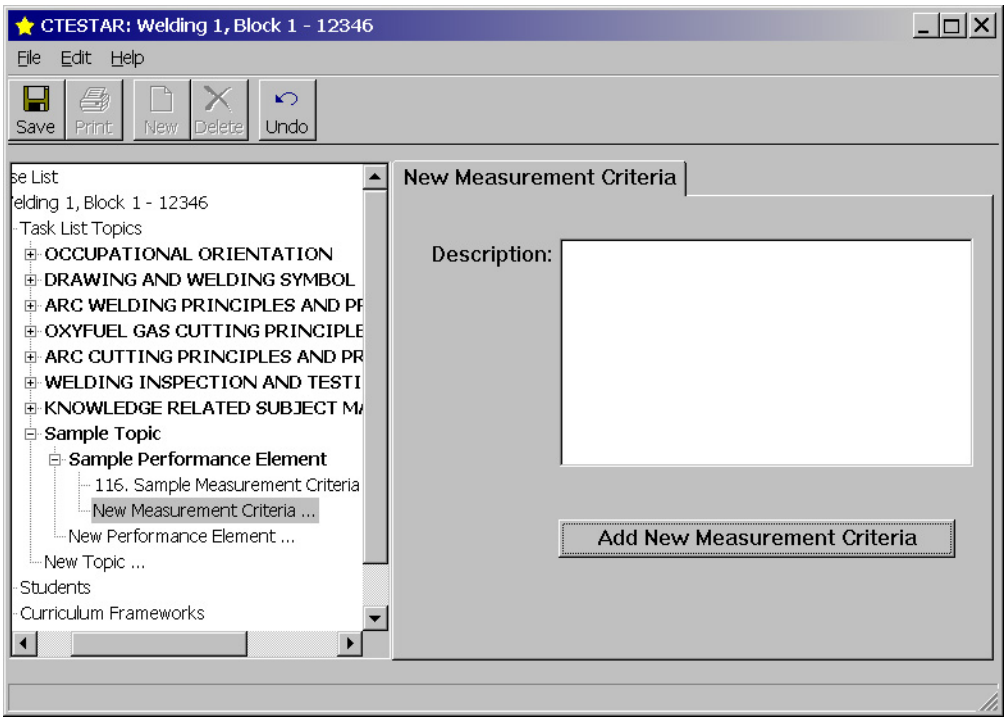

Figure 74

Notice in the above example that after the new measurement criterion was added, it was automatically assigned a number. The assessments for this newly added measurement criterion are initialized to zero (Not Covered), for all students in the course. In the example, this criterion was assigned the number "116". CTESTAR® automatically numbers the measurement criterion in the order they appear in the list. Any tasks following in the list are also renumbered. As you move items around in the task list, their numbers will change, however, student assessments will be preserved.

Although ideally the task list should be finalized before you begin to assess students, it is important to note that the student assessments remain with the task item they were assessed against. If you assess the measurement criterion "Sample Measurement Criteria" as number 116, and then insert a new task which becomes number 116, the student assessments assigned to "Sample Measurement Criteria" stay with that criterion even though it has been renumbered.

Revising Task List Items

To revise a task list topic, performance element, or measurement criterion, you must first browse to it in the tree-view displayed on the left-hand side of the screen. As has been previously discussed, you will need to expand various elements of the list to find the element you want to revise. When you have expanded enough items to expose the item's description, click the item to select it.

Revising a Topic

In the following example (Figure 75), the *Task List Topics* heading has been expanded to reveal the list of topics. The topic *Sample Topic* has been selected, and the right-hand side of the screen has been updated with the topic's data.

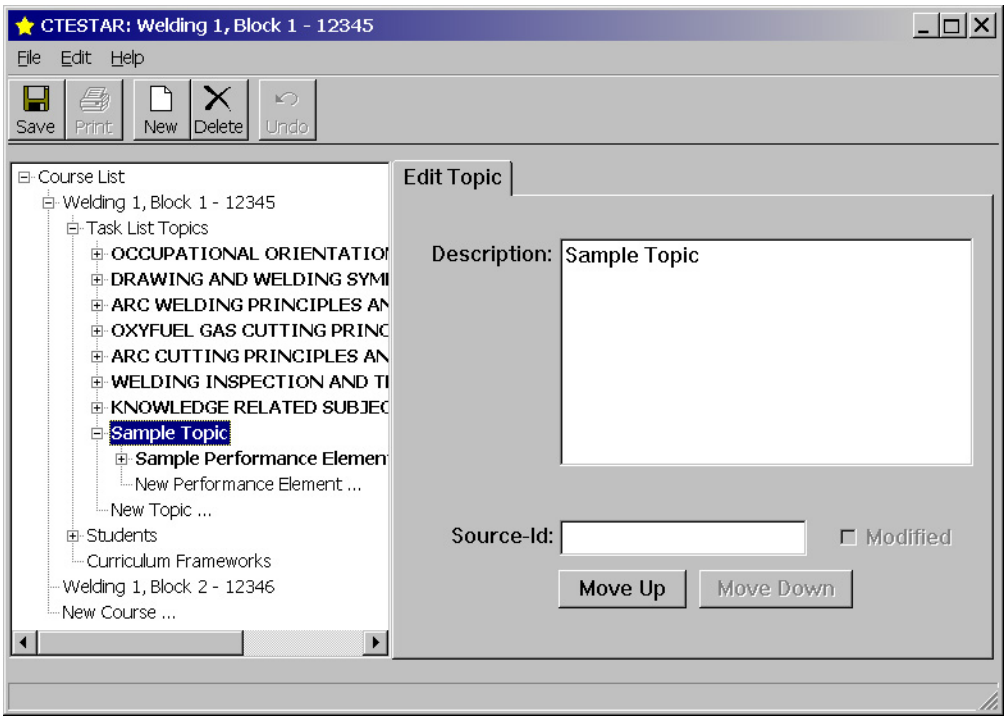

Figure 75

To change the description of the topic, edit the *Description* field. You may use the *Insert*, *Delete*, *Backspace*, *Up-Arrow*, *Down-Arrow*, *Left-Arrow*, and *Right-Arrow* keys to edit the text. When you click on another item in the tree-view, the data will be automatically updated, and the description displayed in the tree-view will also be updated. The *Source-Id* field may not be edited. It identifies the source of the original task list. The *Modified* check-box also indicates whether the original item has been modified. As this item was manually added, the *Source-Id* and *Modified* flag are both empty. The following screen (Figure 76) illustrates the sample task list after the above topic has been revised and it's only performance element has been selected.

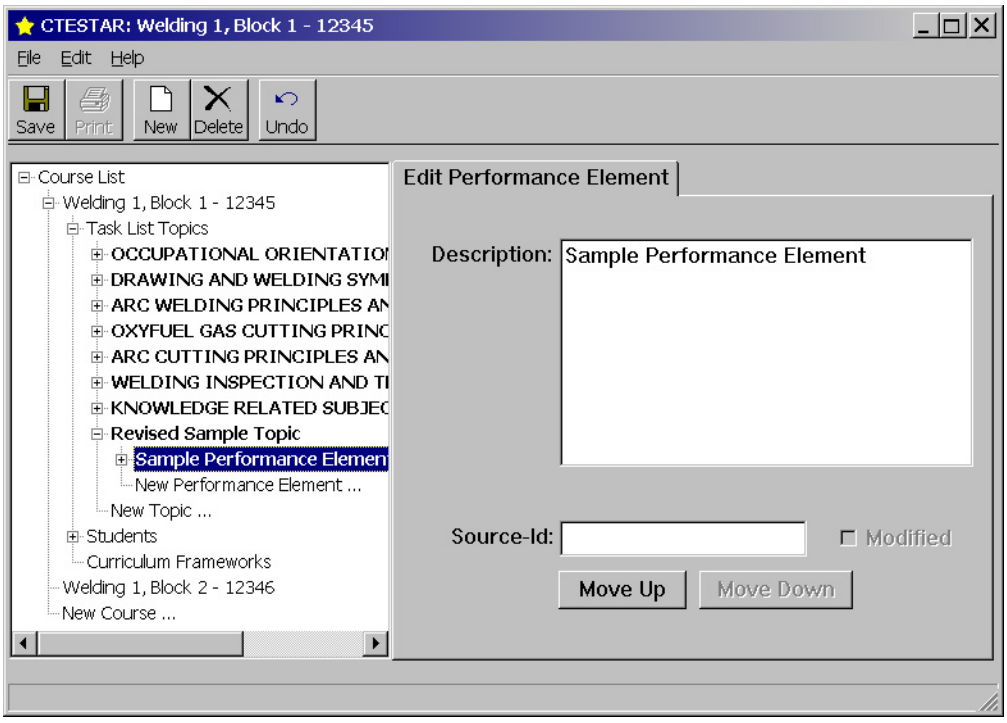

Figure 76

Note in the above example (Figure 76), the "Sample Performance Element" item has been selected in the tree-view, and the description of the original topic has been changed from "Sample Topic" to "Revised Sample Topic".

Revising a Performance Element

Revising a performance element is similar to revising a topic. Browse to, and select, the performance element instead of the topic. A similar edit screen will be displayed. When you are done revising the text, select another item. The above example (Figure 76) illustrates the *Edit Performance Element* screen.

Revising a Measurement Criterion

To revise a measurement criterion, begin by browsing to and selecting the item in the tree-view. If a list of students with assessments is displayed on the right-hand side of the screen, click the *Edit Meas. Criteria* tab. To edit the description text, click in the field labeled *Description*. Then use the *Insert*, *Delete*, *Backspace*, *Up-Arrow*, *Down-Arrow*, *Left-Arrow*, and *Right-Arrow* keys to edit the text. When you click another item in the tree-view, the data will be automatically updated, and the description displayed in the tree-view will also be updated. Editing a measurement criterion description does not affect any of the student assessments that may have already been entered for this item. The following item (Figure 77) illustrates the *Edit Meas. Criteria* screen.

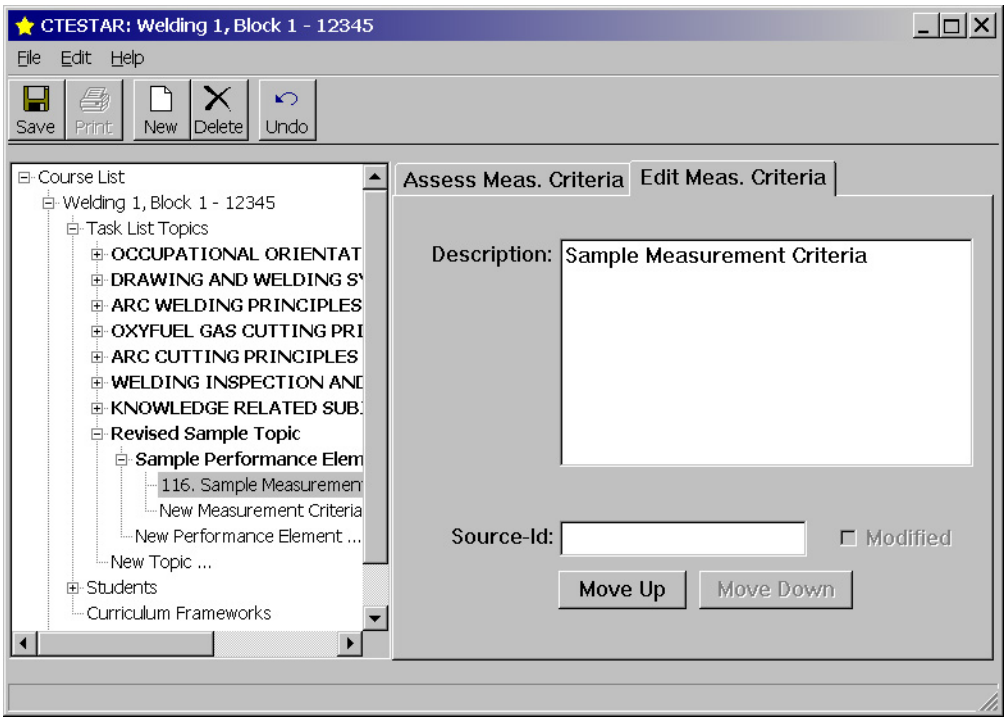

Figure 77

The following screen (Figure 78) depicts a list of student assessments. In this screen the *Assess Meas. Criteria* tab has been selected. Note that the measurement criterion may not be edited from the following screen.

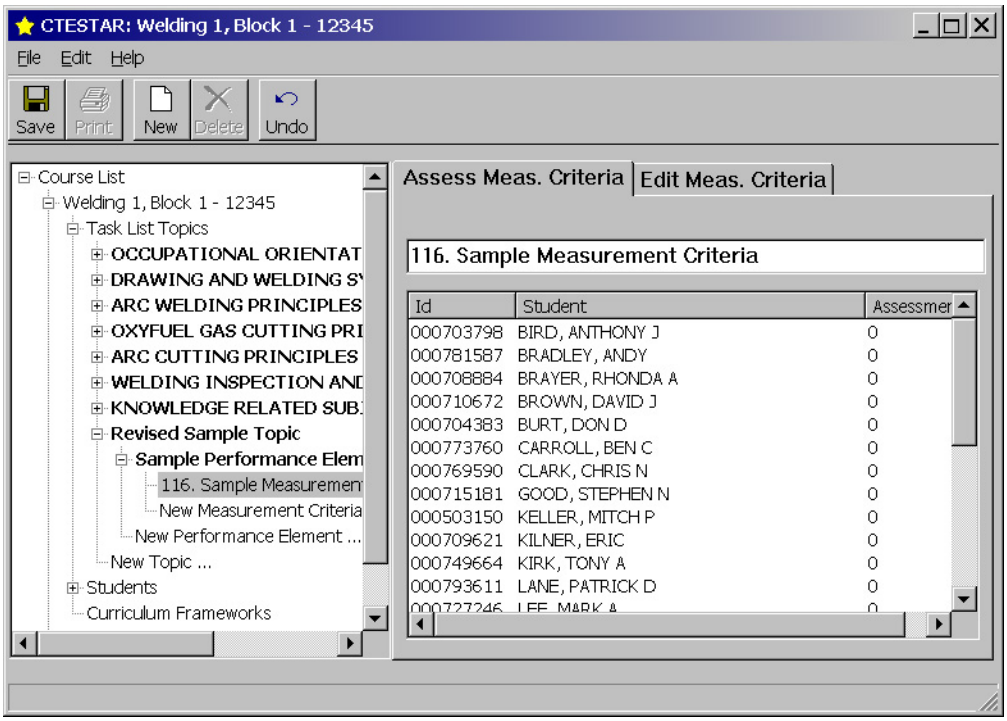

Figure 78

Deleting Task List Items

Deleting topics, performance elements, and measurement criteria is similar to revising them. Whenever the appropriate edit screen is displayed, the *Delete* button at the top of the screen is enabled. As with revising measurement criteria, the *Edit Meas. Criteria* tab must be selected to delete a measurement criterion.

Deleting a Topic or Performance Element and All Contained Items

To delete a topic or performance element, first select the item in the tree-view by clicking it with the left mouse button. When the item is selected, the *Delete* button will be enabled. To delete the heading, click the *Delete* button (fourth from the left near the top of the screen). When you click the *Delete* button, the item and all items that it contains will be deleted–along with their corresponding assessments. Be very careful! Do not delete the topic or performance element unless you are also willing to discard all of the assessment data for all of the measurement criteria that it contains. (If you delete the wrong item, clicking the *Undo* button immediately will restore the item and all subordinate items and associated student assessments.) After you click the *Delete* button, the tree-view will collapse, and the deleted item will be removed from the tree-view, and the course database. The following screen (Figure 79) illustrates the sample task list before deletion of the performance element titled “Sample Performance Element”.

Important

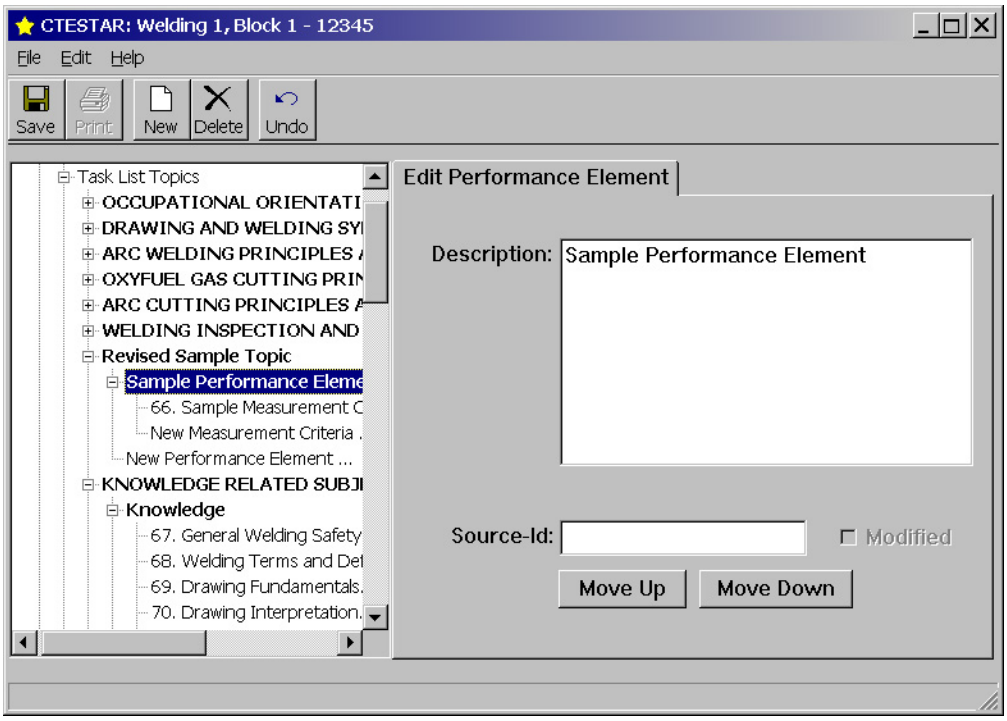

Figure 79

The following screen (Figure 80) illustrates the same task list after the performance element titled "Sample Performance Element" has been deleted by clicking the *Delete* button.

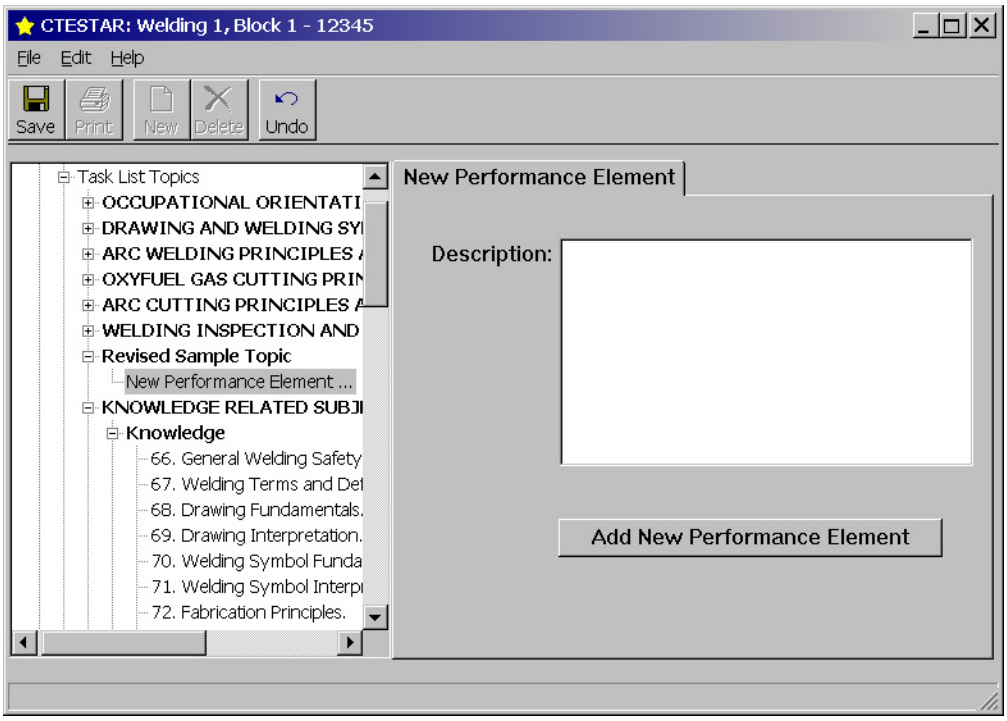

Figure 80

Note that after the item was deleted, the measurement criterion titled "General Welding Safety" and all following criteria were renumbered. This is because the measurement criterion titled "Sample Measurement Criteria" was deleted when the performance element titled "Sample Performance Element" was deleted. As is the case when measurement criteria are inserted, measurement criteria are renumbered when a measurement criterion is deleted. However, the assessments for the measurement criterion titled "General Welding Safety", and all other renumbered measurement criteria in the task list, remain unaltered. Only the assessments for the deleted measurement criteria are removed from the course database. Because this command is very powerful, and has the potential to delete considerable data, be very careful when using it.

Deleting a Measuremet Criterion within a Performance Element

To delete a measurement criterion from within a performance element, first select the item in the tree-view by clicking it with the left mouse button, and then insure that the *Edit Meas. Criteria* tab is selected. If a list of students with assessments is displayed in the right-hand side of the screen, re-check the *Edit Meas. Criteria* tab. If the *Edit Meas. Criteria* tab is not selected, click it with the left mouse button. When the *Description* field is displayed, the *Delete* button will also be enabled. To delete the measurement criterion, click the *Delete* button (fourth from the left near the top of the screen). When you click the *Delete* button, the measurement criterion and all corresponding assessments will be deleted. Be very

Important

careful! Do not delete the measurement criterion unless you are also willing to discard all of the assessment data for the item. (If you delete the wrong task, clicking the *Undo* button immediately will restore the item and all student assessments for the item.) After you click the *Delete* button, the tree-view will collapse, and the deleted item will be removed from the tree-view, and the course database. The following screen (Figure 81) illustrates the sample task list before deletion of the "Sample Measurement Criteria" measurement criterion.

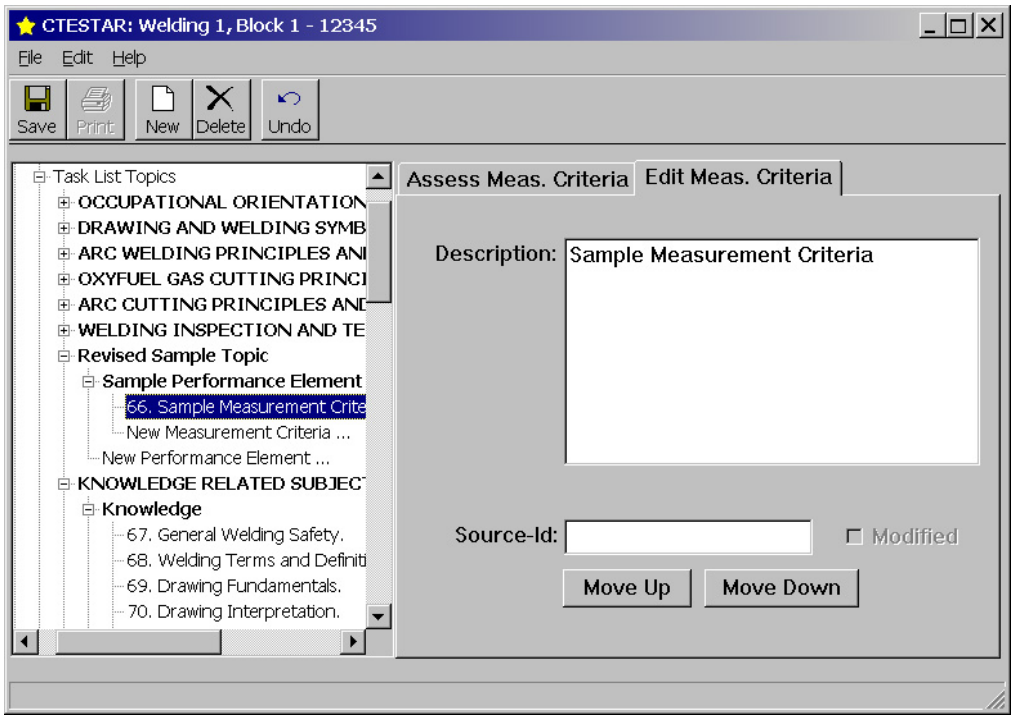

Figure 81

The following screen (Figure 82) illustrates the same task list after the *Delete* button has been clicked.

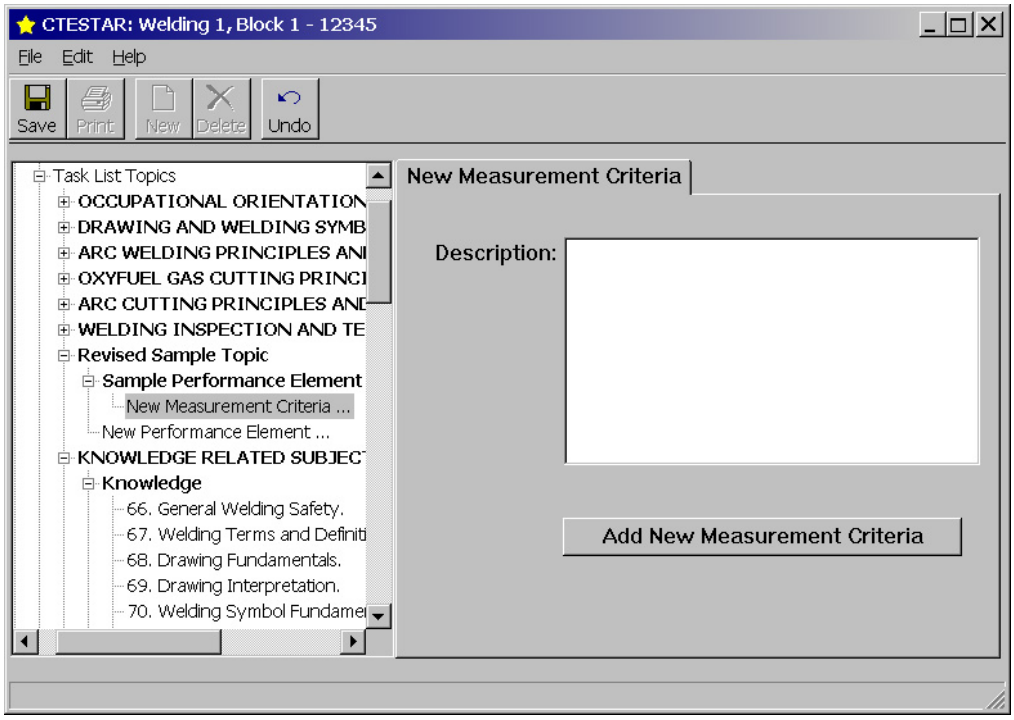

Figure 82

Note that after the measurement criterion was deleted, the measurement criterion "General Welding Safety" was renumbered. All following measurement criteria are also renumbered, even though their numbers are not visible in this screen. As is the case when measurement criteria are inserted, measurement criteria are renumbered when a measurement criterion is deleted. However, the assessments for the "General Welding Safety" measurement criterion, and all other renumbered measurement criteria in the task list, remain unaltered. Only the assessments for the deleted item are removed from the course database.

Changing the Order of Task List Items

To change the order of task list topics, performance elements, and measurement criteria, use the *Move Up* and *Move Down* buttons on their respective edit screens. As with revision, this means that the first step is to browse to and select the item to be moved in the tree-view. Then use the buttons enabled on the right-hand side of the screen. It should be noted that when moving topics or performance elements, all of the contained items move with the moved item. As with deletion and insertion, renumbering of measurement criteria is automatic, and preserves assessment data.

Changing the Order of Topics within the Task List

You may find it necessary to revise the order of the topics, performance elements, or criteria within a task list. Perhaps you have just added a topic to the task list and want

to move it near the top. Possibly you have merged multiple task lists together, and want to reorder the topics, or merge the performance elements of two identically named topics. To move an item, first select the item in the left-hand tree-view. When you do this, a screen similar to the following (Figure 83) should appear.

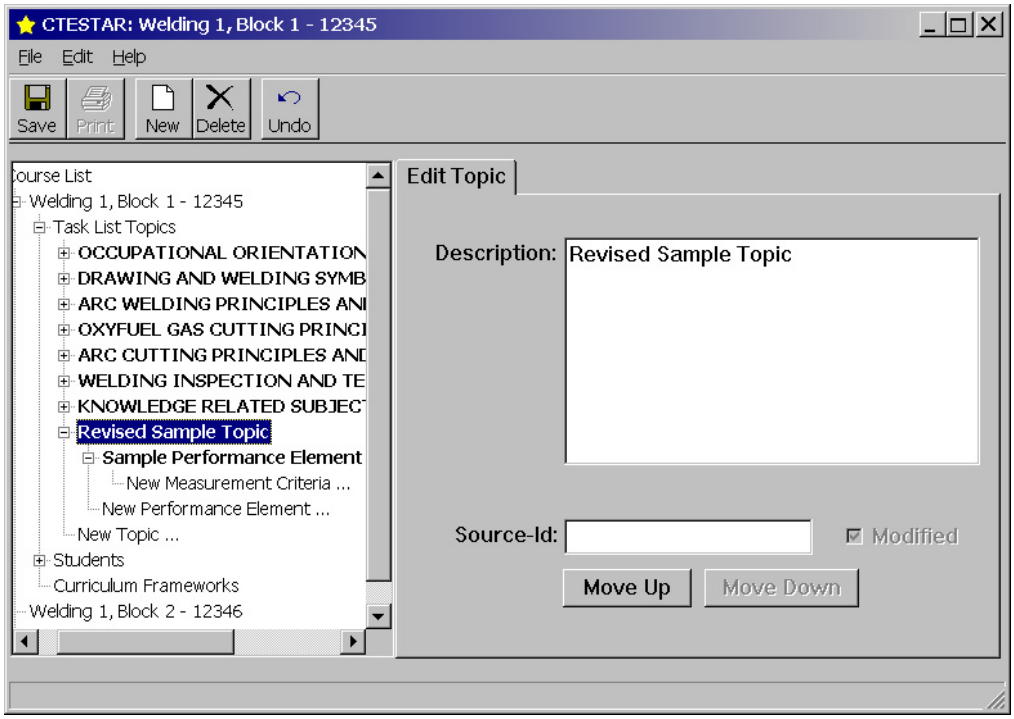

Figure 83

Notice that the topic text is displayed, as well as two buttons. The *Move Up* button is used to move the topic up in the list. Each time it is clicked, the topic moves up one position. In this example, the *Move Down* button is disabled. This is because the topic is already at the end of the task list. It is not possible to move this item down any further. The use of the *Move Down* button is similar to that of the *Move Up* button. Each time you click the *Move Down* button, the topic is moved down below the following topic. Similarly, if this sample topic were moved to the top of the list, the *Move Up* button would be disabled, as the *Move Down* button is disabled at the bottom of the list. The following screen (Figure 84) illustrates moving the "Revised Sample Topic" up by clicking the *Move Up* button once.

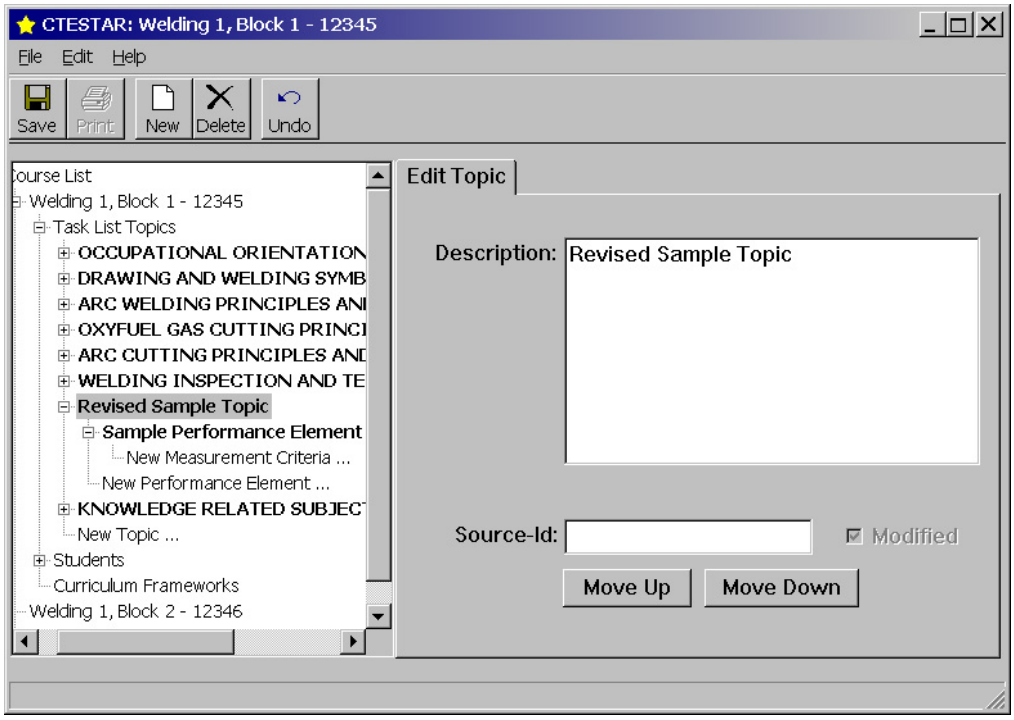

Figure 84

Notice that as this topic is no longer the last in the list, the *Move Down* button has been automatically enabled. The *Move Up* and *Move Down* buttons may be used with a newly added item, or with an existing item. If the topic or performance element contains items, they are moved also.

Changing the Order of Performance Elements and Measurement Criteria within an Item

You may find it necessary to revise the order of the performance elements within a topic, the order of measurement criteria within a performance element, move a performance element to a different topic, or move a measurement criterion to a different performance element. To move such an item, first select the item in the left-hand tree-view. If the item to be moved is a measurement criterion, insure that the *Edit Meas. Criteria* tab is selected. Then, use the *Move Up* and *Move Down* buttons. When you do this, a screen similar to the following (Figure 85) will be displayed.

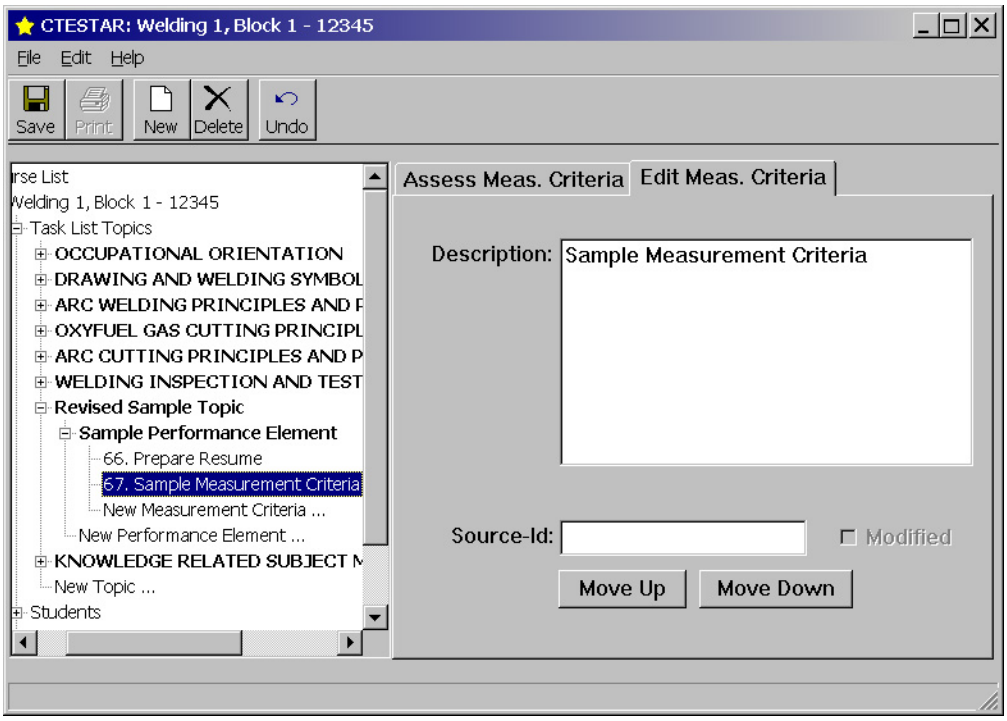

Figure 85

If a list of students and assessments is displayed in the right-hand data window, instead of the above edit page, insure that the *Edit Meas. Criteria* tab is selected. If not, click it once with the left mouse button.

When the correct screen is displayed, you will note that the item text is displayed, along with two buttons. The *Move Up* button is used to move the task item up in the list of task items. The *Move Down* button is used to move the task down in this list of items. If this is the first item within a topic or performance element, moving the item up will move it to the prior item. If this is the last item within a topic or performance element, moving it down will move it to the next item. If the current item cannot be moved up, the *Move Up* button will be disabled. Similarly, if the current item cannot be moved down any further, the *Move Down* button will be disabled. Each time you click the *Move Up* or *Move Down* button, the task item is moved one position until you reach either the top or bottom of the list. The following screen (Figure 86) illustrates moving the "Sample Measurement Criteria" measurement criterion up by clicking the *Move Up* button once.

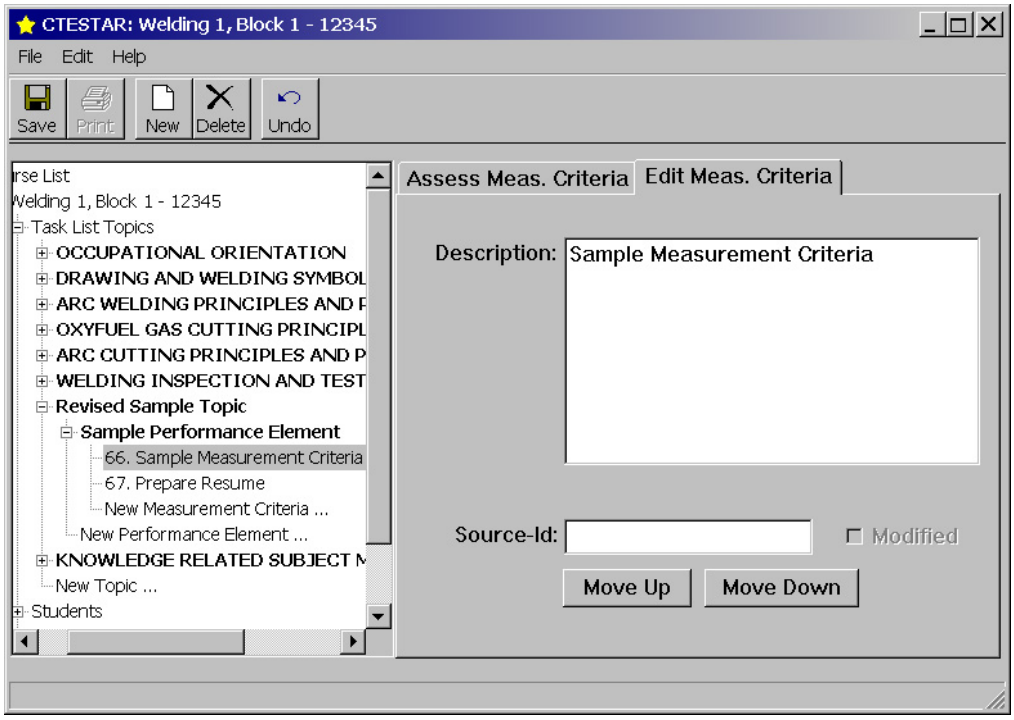

Figure 86

The *Move Up* and *Move Down* buttons may be used with a newly added item, or with an existing item. Further notice that the measurement criterion is renumbered when it is moved. As when adding measurement criteria, it is important to note that the assessments for a measurement criterion stay with the item as it is moved up and down in the list. Ideally the task list is finalized before you begin to assess students. However, if it is not, you can freely move task list items and be assured that the assessment will track the items. Clicking the *Move Up* button a second time will move the measurement criterion to the prior performance element as in the following screen (Figure 87).

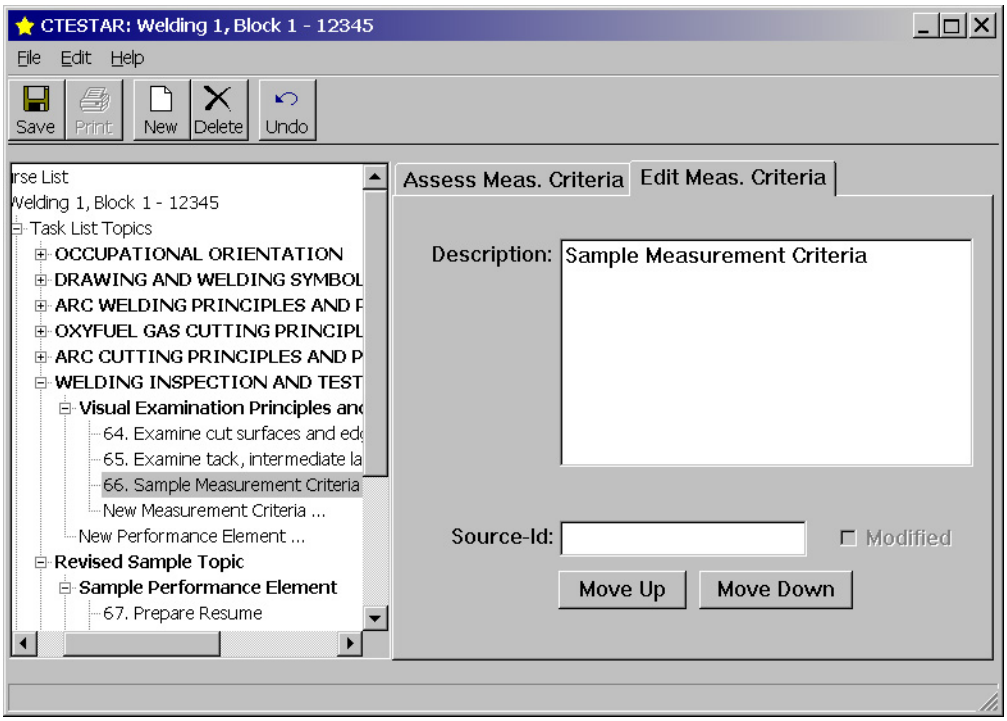
CTESTAR: Welding 1, Block 1 - 12345
File Edit Help
Save Print New Delete Undo
rse List
Welding 1, Block 1 - 12345
Task List Topics
OCCUPATIONAL ORIENTATION
DRAWING AND WELDING SYMBOL
ARC WELDING PRINCIPLES AND P
OXYFUEL GAS CUTTING PRINCIPL
ARC CUTTING PRINCIPLES AND P
WELDING INSPECTION AND TEST
Visual Examination Principles and
64. Examine cut surfaces and edg
65. Examine tack, intermediate la
66. Sample Measurement Criteria
New Measurement Criteria ...
New Performance Element ...
Revised Sample Topic
Sample Performance Element
67. Prepare Resume
Assess Meas. Criteria
Edit Meas. Criteria
Description:
Sample Measurement Criteria
Source-Id:
Modified
Move Up
Move Down

Figure 87

Chapter

6

Assessing Students

Assessing a Task Across Students, and Assessing a Student Across Tasks

After you have created each course, built tasks lists for each course, and assigned students to each course, you are ready to begin assessing the students in each course. If you have installed *CTESTAR® for Palm OS*, you may begin assessing directly on the Palm. Chapters 7 and 8 document transferring data to the Palm device, and assessing students on the Palm device. This chapter documents assessing students with *CTESTAR® for Windows*. The basic steps to assessing students using the Windows version of CTESTAR® are identical to those used when assessing using the Palm version of CTESTAR®. The only difference is that the layout, organization, and implementation of the screens is necessarily different.

Assessment Criteria

All task assessments in CTESTAR® are numerical. The numbers range from zero through four, and correspond to the following proficiencies.

Assessment Value	Interpretation
0	Not Covered
1	Aware of Task
2	Completes With Help
3	Completes Without Help
4	Can Demonstrate to Others

These proficiencies do not correspond to the grades 'A' through 'F', but rather, are designed to reflect the student's mastery of individual tasks. A legend documents these interpretations on all reports that display them. The zero value, *Not Covered*, is printed as the hyphen '-' character rather than a zero. This is to avoid stigmatizing the student as a "zero".

All assessment values are initialized to zero when either a new student is added, or a new task is added to an existing database. CTESTAR® will prevents entry of an invalid value. Numeric data entry via the numeric keypad provides an efficient way to enter student assessment data.

Two Basic Ways to Assess

There are two basic ways to assess student proficiencies within CTESTAR®. The most common assessment method is to assess a task across all students in the class. The less common method is to assess a student across all tasks in the class. The method you choose depends on your teaching style.

If you envision a teacher's grade book, there are typically rows for each student, and columns for each task. When you assess a task across all students, you pick a column, and enter assessments for each student. When you assess a student across all tasks, you pick a row, and enter assessments for each task. That is the only difference. One entry method is horizontal, the other method is vertical. These are just two different ways of entering the same data. Data entered via one method is visible in the other method.

Assessing a Task Across Students

The steps to assessing a task across all students begin by selecting the course. Once the course has been selected, expand the *Task List Topics* item. After expanding the *Task List Topics* item, expand the topic that contains the performance element of the measurement criterion you wish to assess. After expanding the performance element of the measurement criterion, select the measurement criterion by clicking in the task list tree-view. In the following example, we will assess the measurement criterion titled "Follow verbal instructions". This measurement criterion is part of the "Orientation" performance element of the "OCCUPATIONAL ORIENTATION" topic. Both the topic and performance element have been expanded. The results for our sample course are as follows (Figure 88).

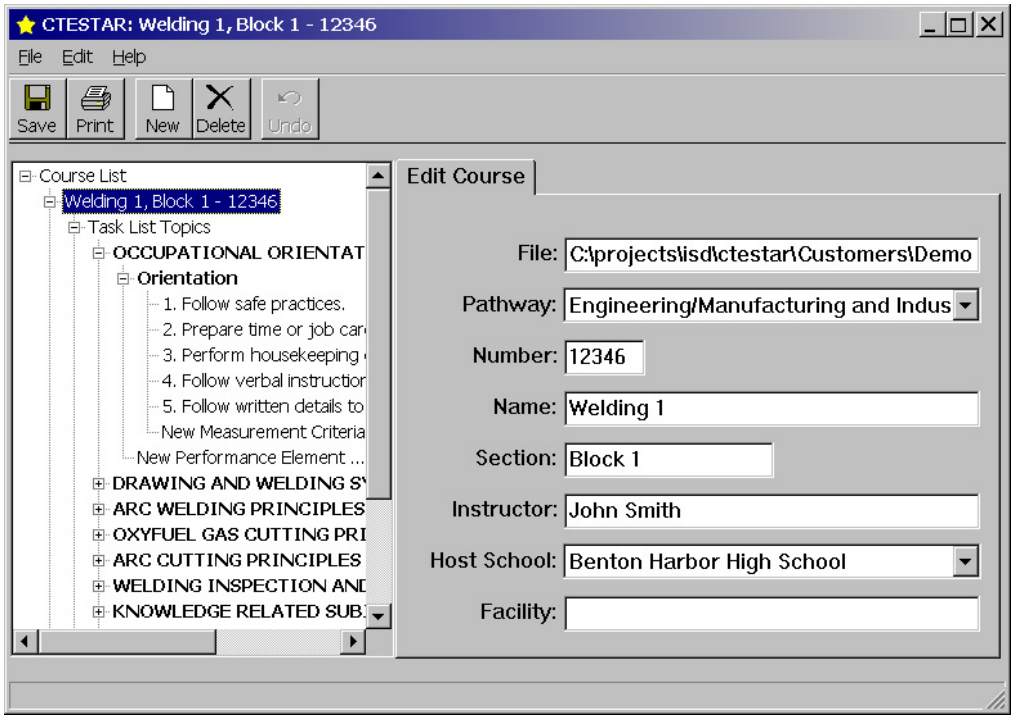

Figure 88

More than one topic and/or performance element may be expanded at a time, however, only one measurement criterion may be assessed at a time with this assessment method. To assess the measurement criterion titled "Follow verbal instructions", click it with the left mouse button. A screen similar to the following (Figure 89) should appear.

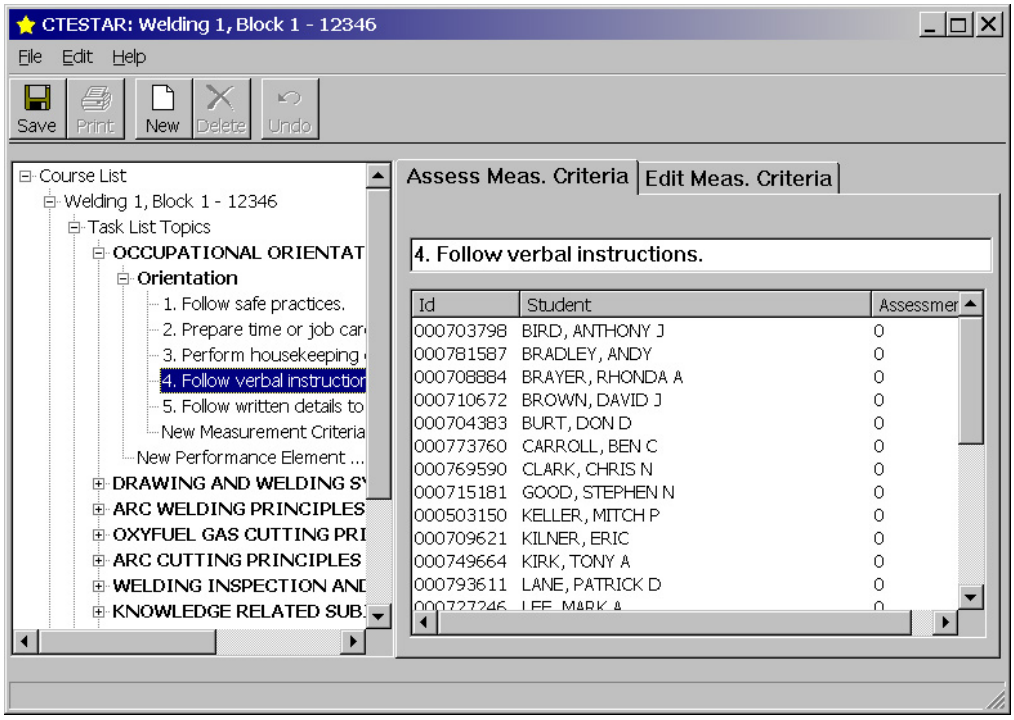

Figure 89

If the "Edit Meas. Criteria" tab is selected, the *Description* field, *Move Up*, and *Move Down* buttons will appear. Insure that the "Assess Meas. Criteria" tab is selected. The following screen (Figure 90) illustrates the wrong screen with the "Edit Meas. Criteria" tab selected.

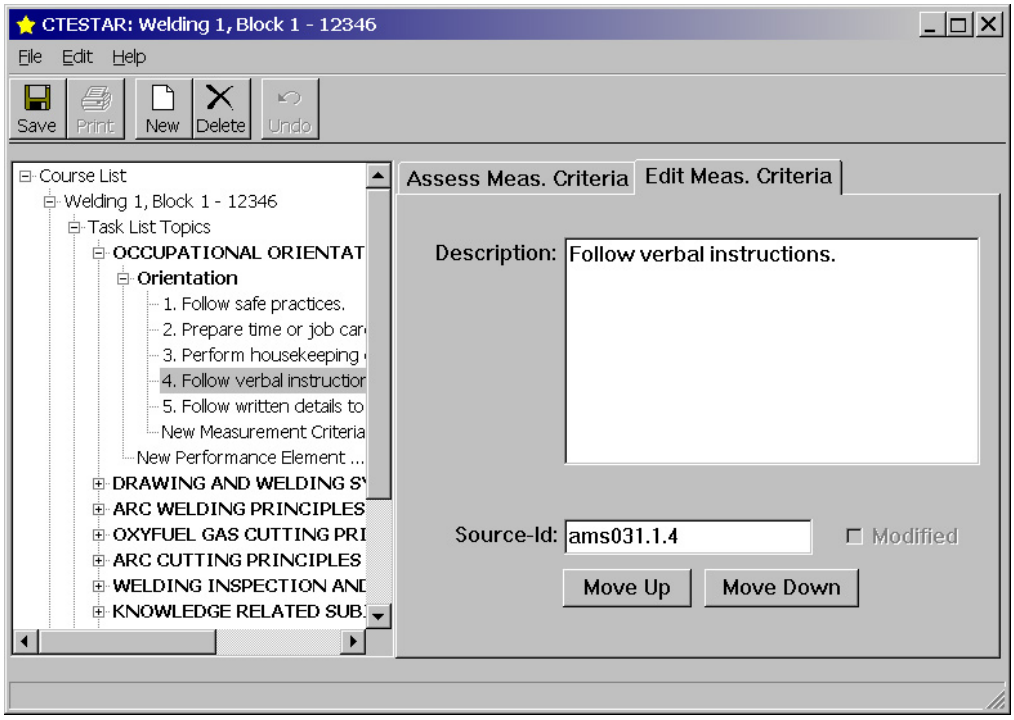

Figure 90

Once you have the correct screen displayed as shown in Figure 89 above, verify that the correct measurement criterion is displayed in the field above the student list. Then click one of the student names. The student's name will highlight. Enter the student's proficiency for the selected assessment. The following (Figure 91) shows the assessment screen after student "Anthony J. Bird" has been selected.

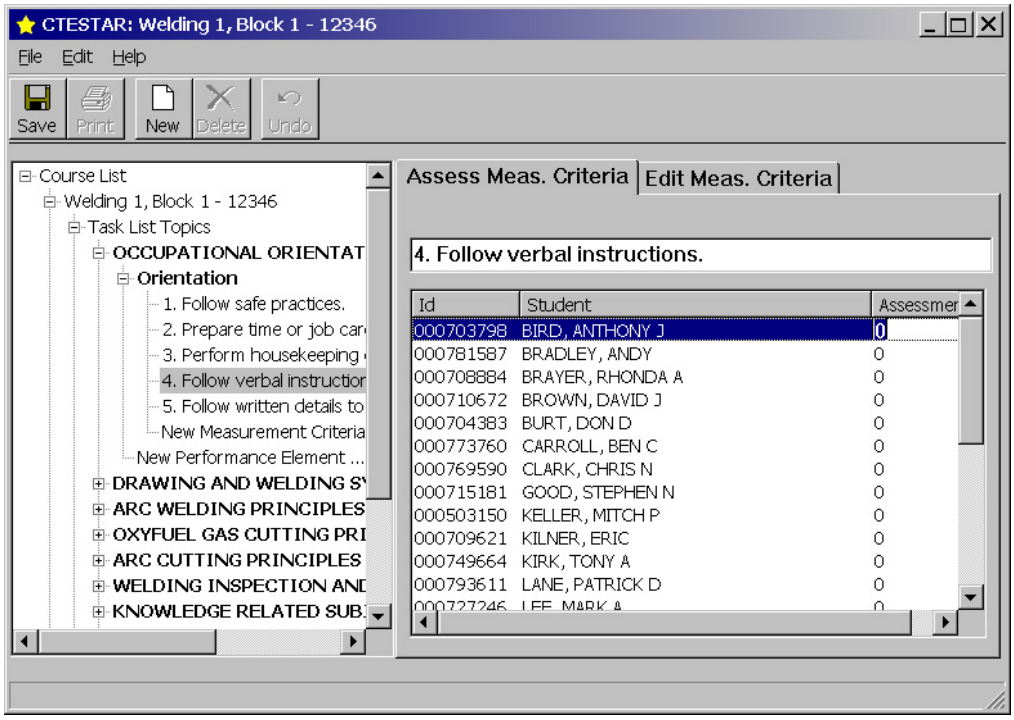

Figure 91

After entering a proficiency, hit the *Down Arrow* key, and the next student will be selected. The following screen (Figure 92) was captured after the proficiency of four was entered for Anthony, and the *Down Arrow* key was hit once.

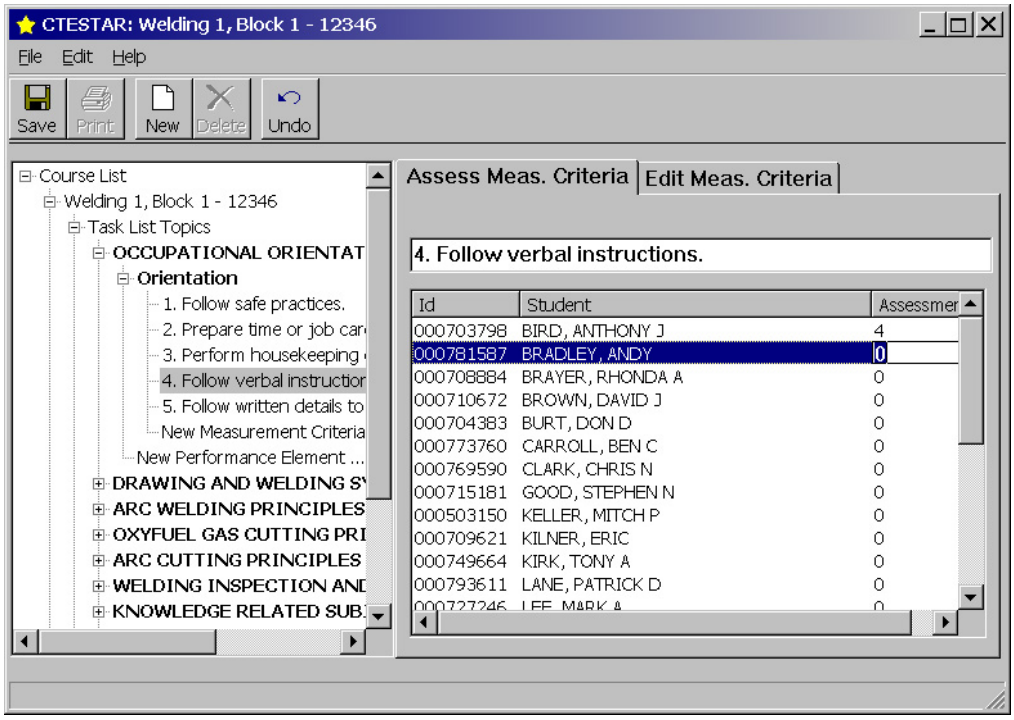

Figure 92

CTESTAR® is now ready to accept the proficiency for Andy at this point. You may use the *Up Arrow*, *Down Arrow*, *Page Up*, *Page Down*, *Home*, and *End* keys to move up and down through the student list. You need not begin with the first student in the list. You can use the scroll bar and click on any student in the course with the left mouse button. If you click on a different measurement criterion in the tree-view, the assessments for the prior measurement criterion will be saved (to memory, not to disk), and the assessments for the new measurement criterion will be displayed. In the following example (Figure 93), the measurement criterion titled "Interpret basic elements of a drawing or sketch." within the performance element titled "Interpretation" of the "DRAWING AND WELDING SYMBOL INTERPRETATION" topic has been selected.

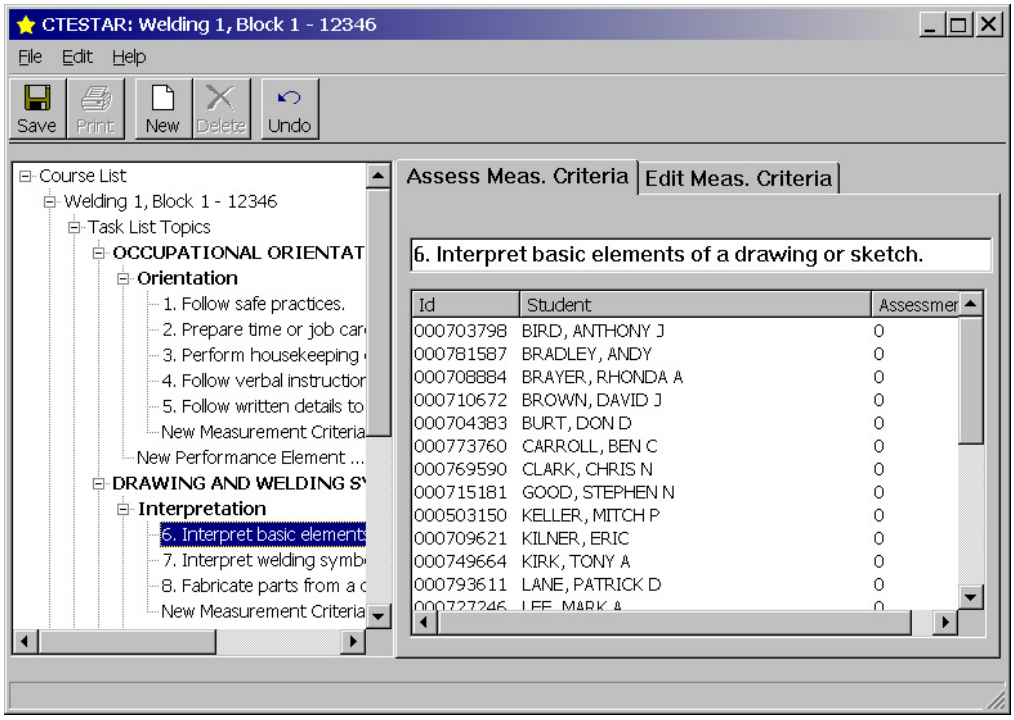

Figure 93

When you click the *Save* button, select a different course, or exit CTESTAR®, the current assessment data will be written out to the course database. Any time that you want to insure that your data has been saved to your hard disk, click the *Save* button.

Assessing a Student Across Tasks

The steps to assessing a student across all tasks begin by selecting the course. Once the course has been selected, expand the *Students* item. After expanding the *Students* item, scroll the tree-view until the desired student name is visible. In the following example, we will assess the student named “Chris N. Clark”. The results of expanding the *Students* item for our sample course are as follows(Figure 94).

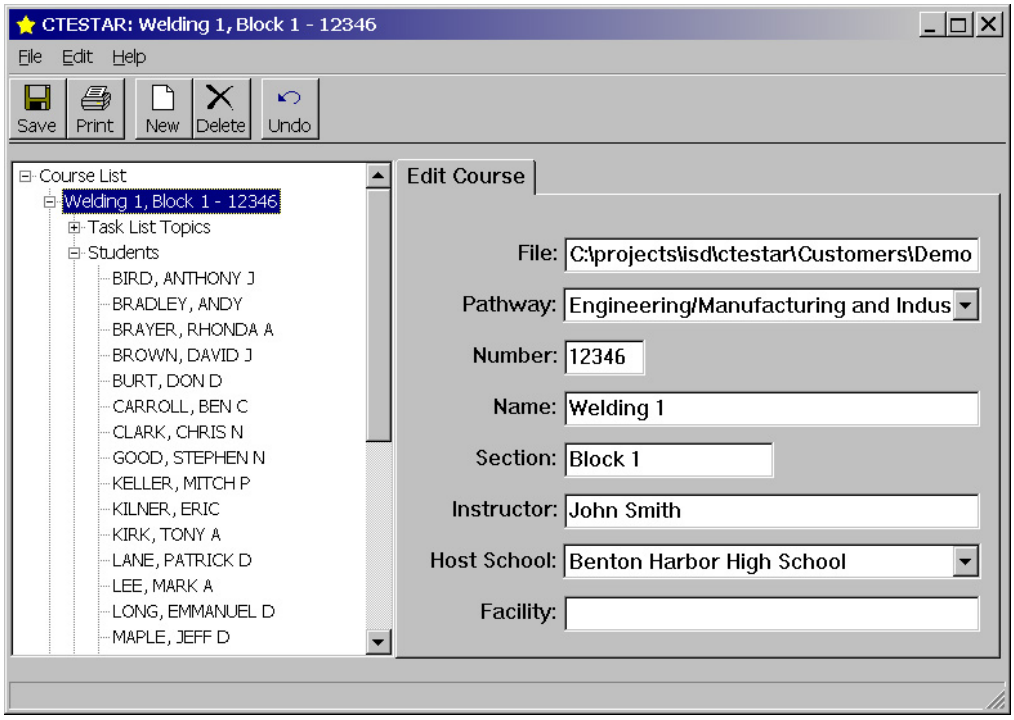

Figure 94

To assess Chris, click his name with the left mouse button. The following screen (Figure 95) should appear.

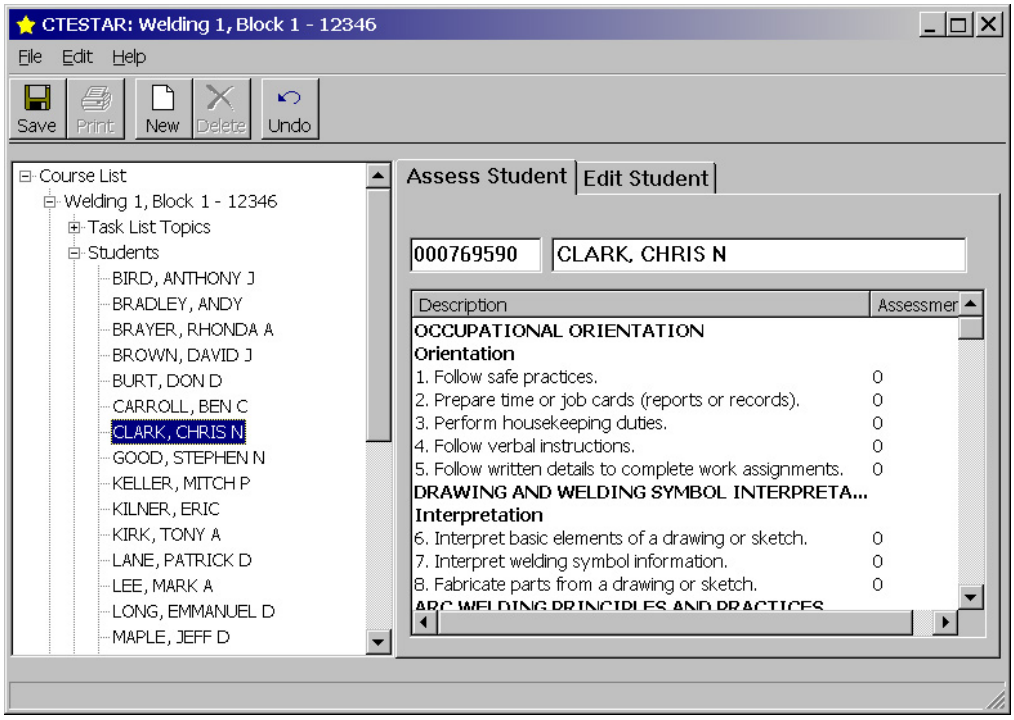

Figure 95

If the student demographic data (*Name*, *Id*, *Entry*, *Exit*, *Attendance*, and *Comment*) appears, insure that the *Assess Student* tab is selected. The following screen (Figure 96) illustrates the wrong screen with the *Edit Student* tab selected.

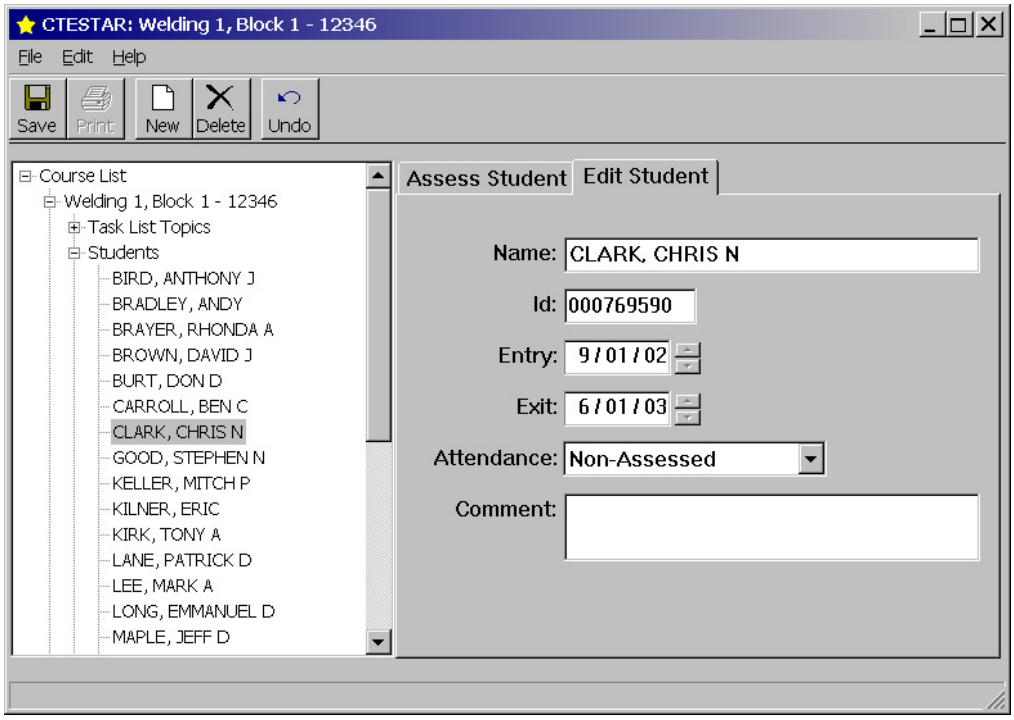

Figure 96

Once you have the correct screen displayed as shown in Figure 95 above, verify that the correct student data is displayed above the task list. Then click one of the items. The description will highlight. Enter the student's proficiency for the selected measurement criterion. CTESTAR® prevents assessment of topics and performance elements. The following figure (Figure 97) shows the assessment screen after the measurement criterion titled "Follow verbal instructions" has been selected.

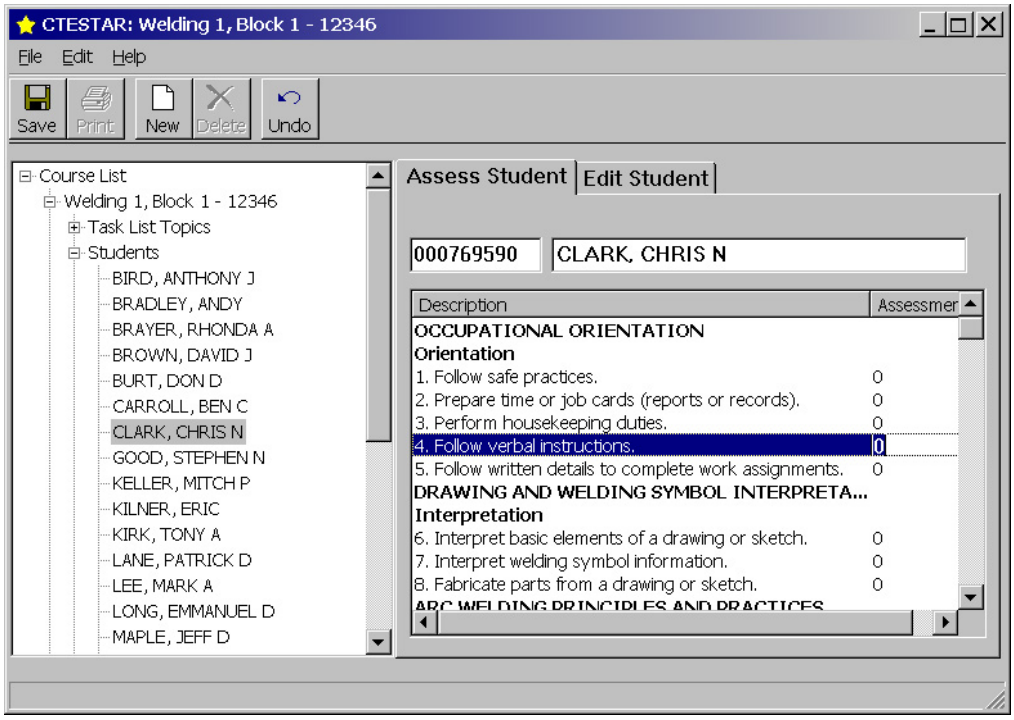

Figure 97

After entering a proficiency, hit the *Down Arrow* key, and the next item will be selected. The following screen (Figure 98) was captured after the proficiency of four was entered for Chris, and the *Down Arrow* key was hit twice.

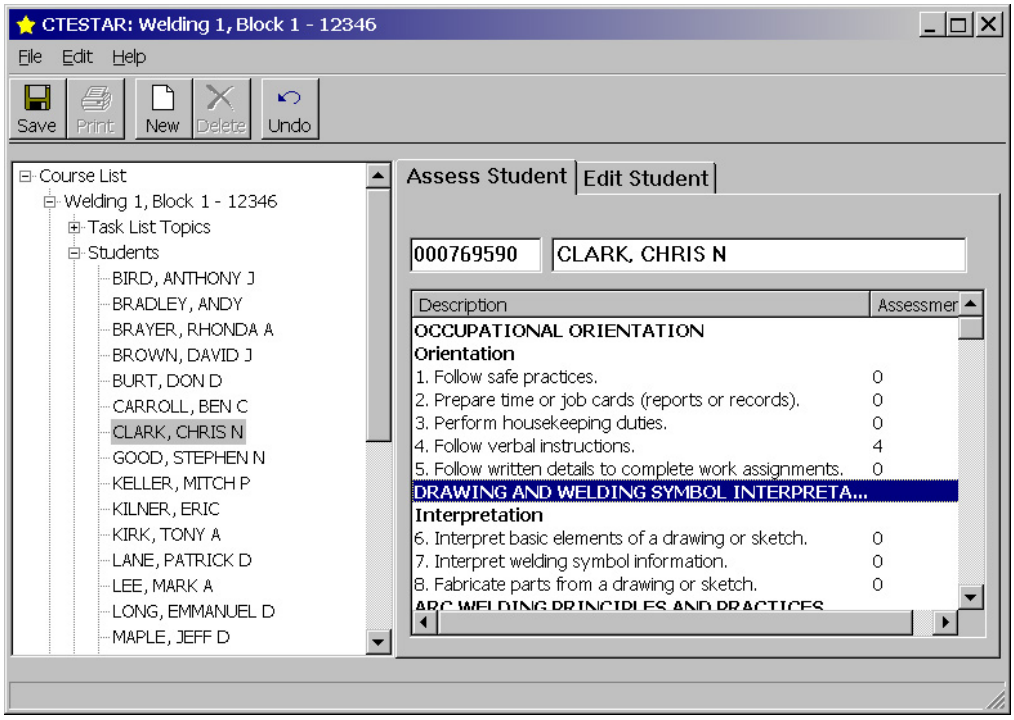

Figure 98

The topic titled "DRAWING AND WELDING SYMBOL INTERPRETATION" is selected. Since topics are not assessable, no number is displayed in the "Assessment" column, and no data entry is possible. To move down to the task titled "Interpret basic elements of a drawing or sketch", hit the *Down Arrow* key twice. You may use the *Up Arrow*, *Down Arrow*, *Page Up*, *Page Down*, *Home*, and *End* keys to move up and down through the task list. You need not begin with the first task in the list. You can use the scroll bar and click on any task in the course with the left mouse button. If you click on a different student in the tree-view, the assessments for the prior student will be saved (to memory, not to disk), and the assessments for the new student will be displayed. In the following example (Figure 99), the student named "Anthony J. Bird" has been selected.

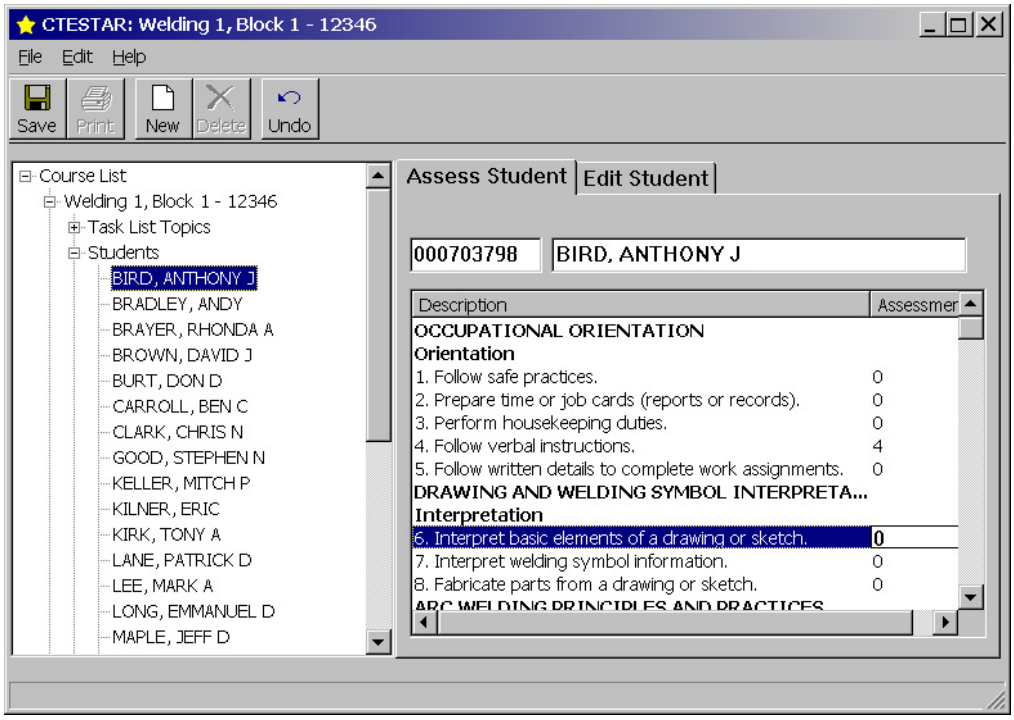

Figure 99

When CTESTAR® switched to new student, it automatically highlighted the same item that was last highlighted for the prior student.

As when assessing a task across students, when you click the *Save* button, select a different course, or exit CTESTAR®, the current assessment data will be written out to the course database. Any time that you want to insure that your data has been saved to your hard disk, click the *Save* button.

Chapter

7

Printing Reports

Generating Standard CTESTAR® Reports

CTESTAR® generates the following six basic reports: the Task List Report, the Progress Report, the Certificate Report, the Task Achievement Report, the Task Assessment by Competency Summary Report, and the Curriculum Cross-Walk Report. These reports will be discussed in this chapter, along with the procedure for generating these reports to the screen, and printing them to paper. Samples for all of these reports are found in Appendix A.

Report Generation

To generate any of these six reports, begin by starting CTESTAR® and selecting a course. Whenever a course is selected, the *Print* button (second from the left near the top of the screen,) is enabled. When you click the *Print* button, the following screen (Figure 100) will be displayed.

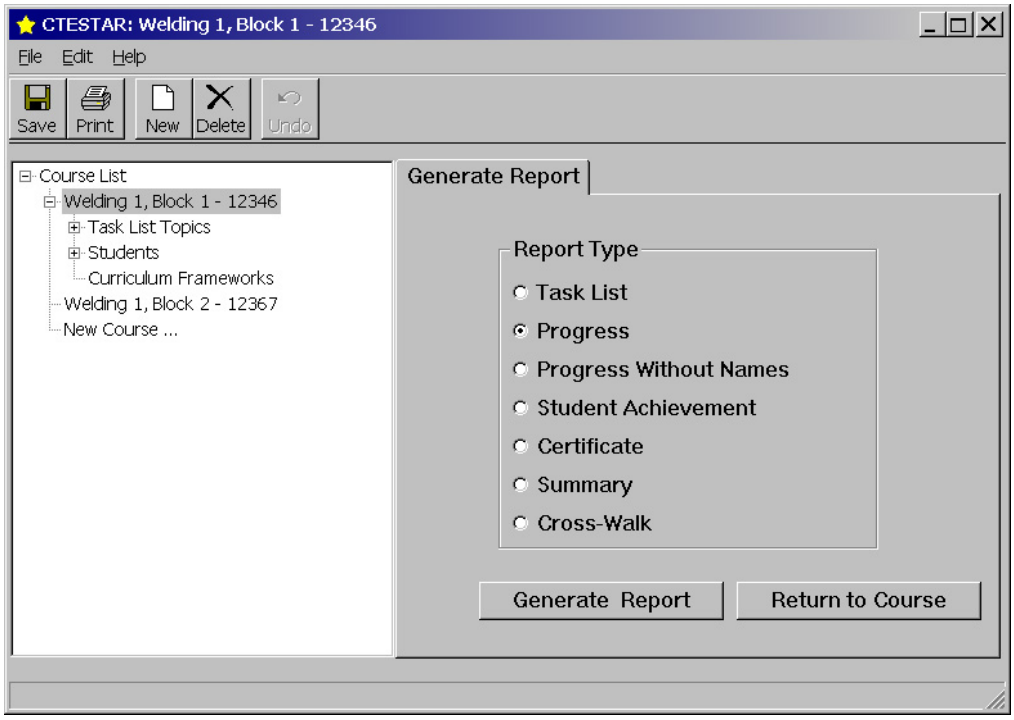

Figure 100

From this screen, select the appropriate report by clicking the "radio" button that is to the left of its name. The selected report is indicated by the circle with the filled in black "dot". (If you changed the Windows color scheme, the color may not be black.) In the following example (Figure 101), the *Student Certificate* report has been selected.

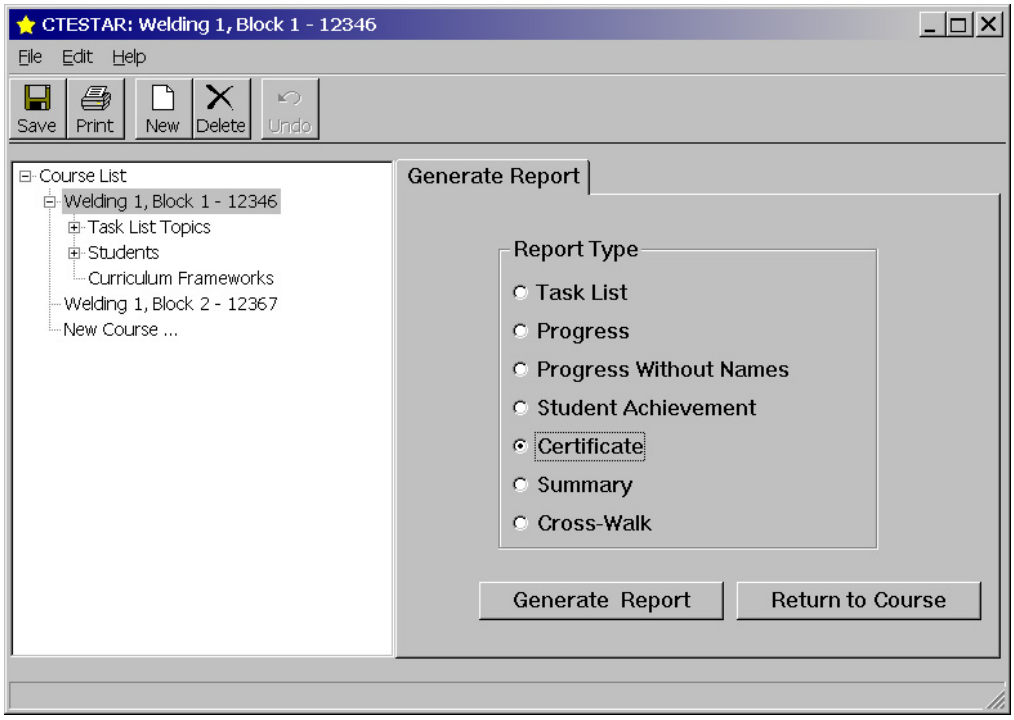

Figure 101

To generate this report, click the *Generate Report* button. To return to the course properties without generating any reports, click the *Return to Course* button. When the *Generate Report* button is clicked, a dialog similar to the following (Figure 102) will be displayed. Depending upon the speed of your computer, number of students in your course, and available memory, this dialog may take a few minutes to generate. If you don't see this dialog, check the Windows task bar to insure that the dialog is not obscured by the main program dialog.

Figure 102

You may review this report on the screen, or you may print it.

Report Review

To review the report on the screen, refer to the following on screen control reference (Figure 103).

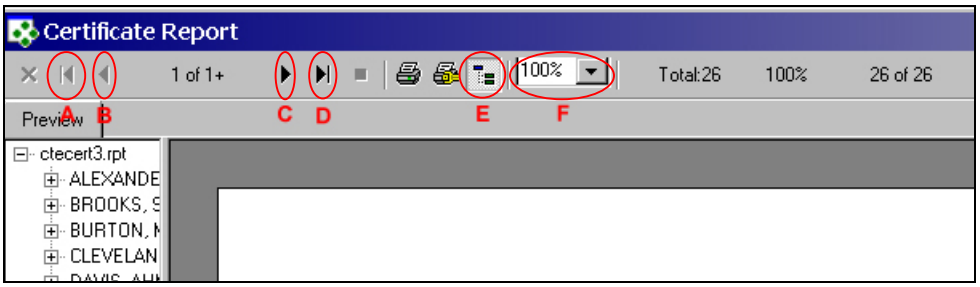

Figure 103

In the above example, the icon buttons are as follows.

Annotation	Function
A	Go To First Page
B	Go To Previous Page
C	Go To Next Page
D	Go To Last Page
E	Toggle Group Tree
F	Magnification Factor

When you click one of the "Go To Page" buttons, the report will advance or backup to that page. Clicking the "Toggle Group Tree" button will enable or disable the "Group Tree" screen at the left of the preview window. In this case, the "Group Tree" lists each student in the report. By clicking on a student's name with the left mouse button, the report will go to the first report page for the selected student. If the "Group Tree" is currently displayed, clicking the toggle will disable it. If the "Group Tree" is not displayed, clicking the toggle will display it. The "Magnification Factor" button controls the zoom factor. Select "Whole Page" to preview the entire report page. Select "Page Width" set the magnification to a size that fills up the full width of the preview window. Note that you can also resize the window with the resize handle in the lower right hand corner of the screen. The resize handle appears as follows (Figure 104).

Figure 104

Resizing the window to fill the screen will make it easer to see detail. If the full report page is not visible, use the horizontal and vertical scroll bars to view different portions of it.

Report Print

Before printing the report, click the *Print Setup* button. The *Print Setup* button appears as follows (Figure 105).

Figure 105

Note that there is a similar button that does not include the yellow wrench. Clicking the *Print Setup* button will produce the following dialog (Figure 106).

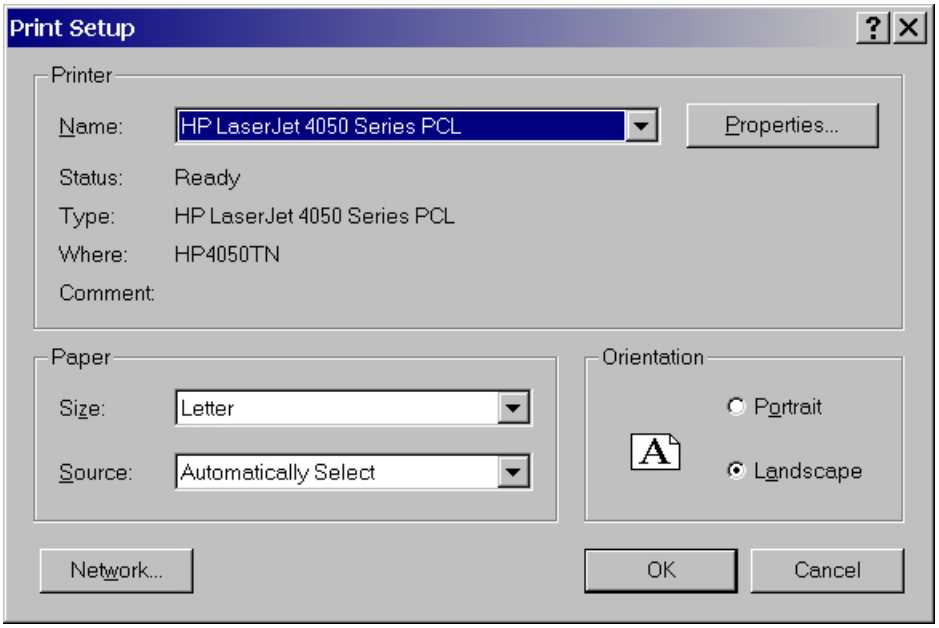

Figure 106

From this *Print Setup* dialog, you can determine which printer the report will print on, and through the *Properties* button, the printer configuration options. The destination printer is configured in the *Printer / Name* field. Unless your system administrator directs you otherwise, leave the *Paper* and *Orientation* fields as the program initializes them. For use of the *Properties* pages, consult your Windows or printer documentation. When you have configured the printer settings, click the *OK* button. The *Print Setup* dialog will be dismissed. You may see the report reformat itself. This is to accommodate the print parameters of your selected printer.

After you have confirmed the printer setup with the *Print Setup* dialog, click the *Print* button. The *Print* button appears as follows (Figure 107).

Figure 107

Notice that the *Print Setup* button includes a yellow wrench, the *Print* button does not include the wrench. When you click the *Print* button, the following *Print* dialog (Figure 108) will appear.

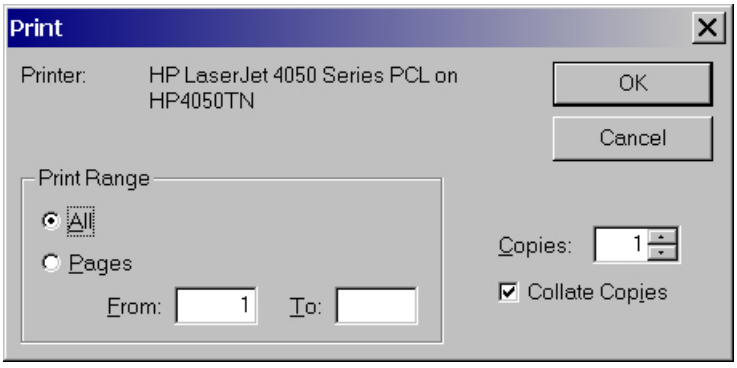

Figure 108

From this dialog, you determine which report pages will be printed, and how many copies will be printed. When you click the OK button, the pages will print. To dismiss the *Print* dialog without printing a report, click the *Cancel* button.

Task List Report

For a sample of the Task List Report, refer to Appendix A. Sample First and Continuing pages of the Task List Report are supplied. The purpose of this report is to list the Headings and Tasks assigned for the course. This report may be used to review the task list when editing it at the beginning of the year. It may also be used as a syllabus. Handing this report out to each student at the beginning of the year serves as a reference of the topics that will be covered throughout the course.

Progress Report

For a sample of the Progress Report, refer to Appendix A. From the sample, observe that a row is assigned to each student. Tasks are assigned columns. The task number is displayed at the head of the column. The student's proficiencies are in the resulting grid. The last two digits of the student id are displayed. In this way, students with identical names can hopefully distinguish their respective records. If the number of tasks requires more columns, additional pages with successive columns of information are generated. If more rows are required, additional pages with successive rows of information are also generated. An option to generate this report without student names, but with student id number also exists.

Task Achievement Report

The first and following page of the Task Achievement for a fictional students is included in Appendix A. This report is generated for each student in the course. The report heading includes both student and course data. The body of the report lists each task heading and description, along with the student's proficiency at each task. A legend documenting the assessment criteria is included in the footer to the report.

As this report can grow quite large, it is important to use the "Group Tree to navigate to sub-reports for individual students. By observing the page numbers displayed in the heading of the report preview window, it is possible to reprint reports for specific students using the *Pages* option of the *Print* dialog, and filling in the appropriate *From* and *To* fields. As an example, observe from clicking the student "Davis, Ahmad" that the first page of his STAR begins on page 85. (There are 546 total pages in the report.)

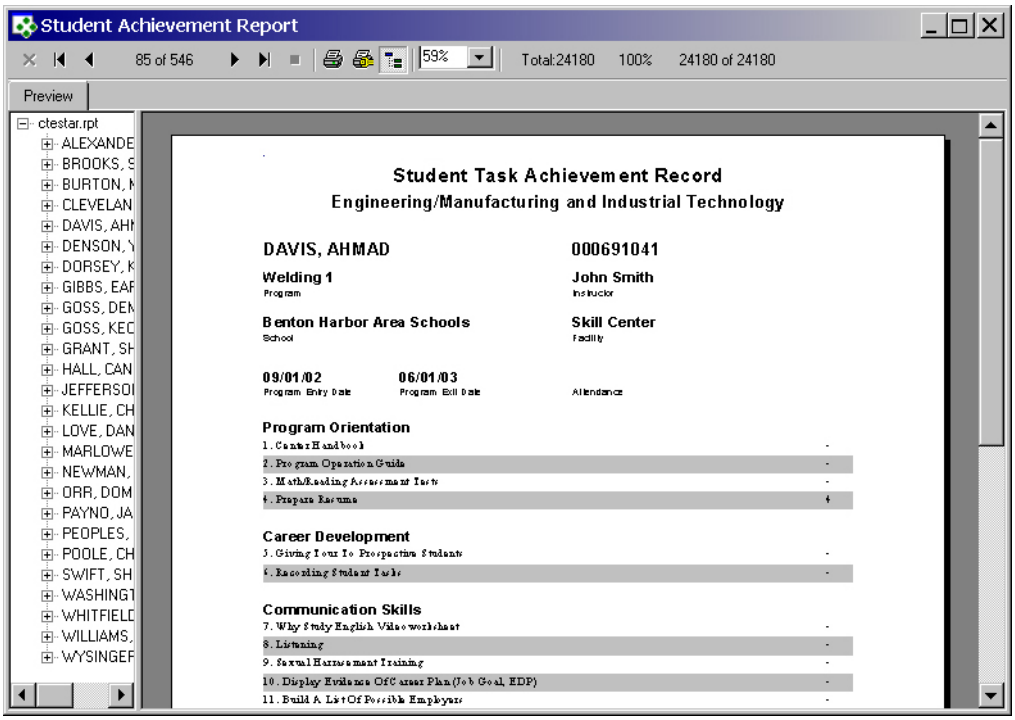

Figure 109

By clicking on "Denson, Yolanda", we see that her report begins on page 106 of the report.

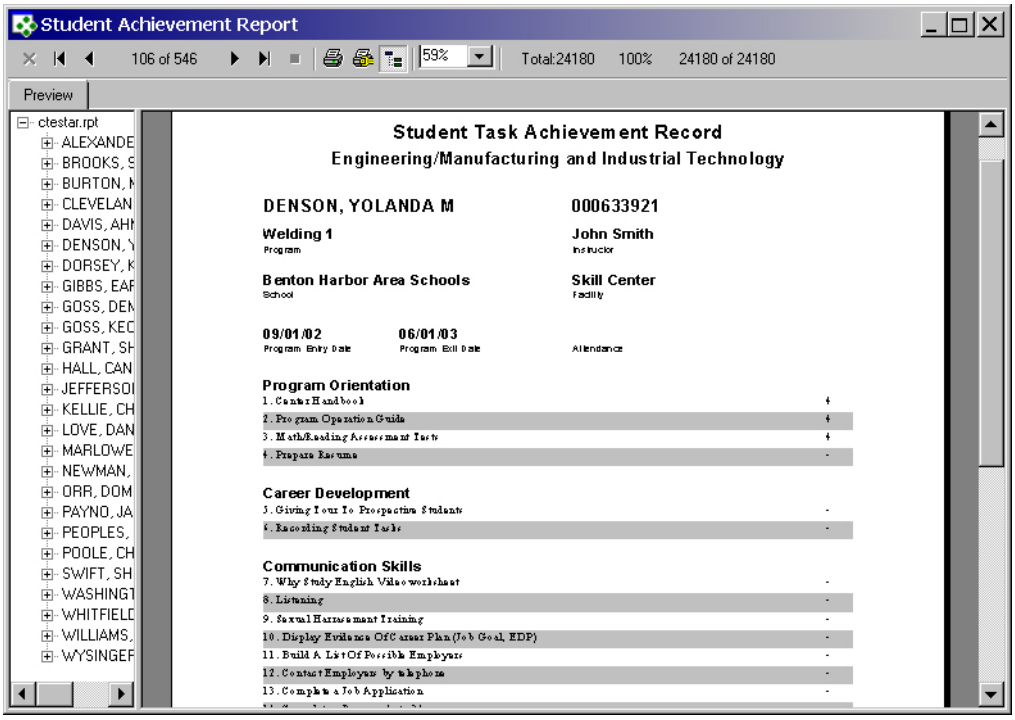

Figure 110

In the print dialog, we then select the pages option, and specify from 85 to 105 as illustrated below (Figure 111).

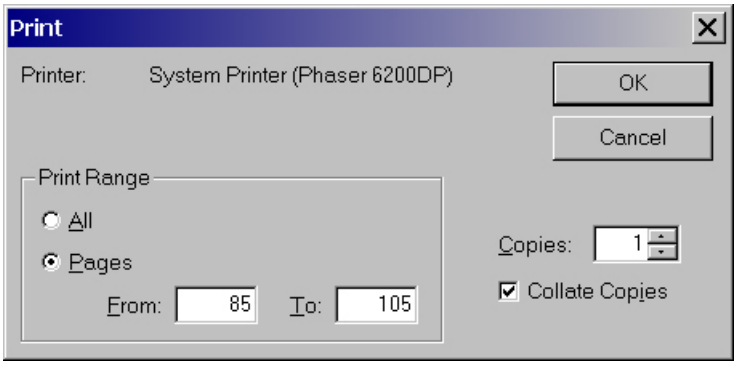

Figure 111

Clicking the *OK* button prints the report for the student named "Ahmad Davis". The *From* field denotes the first page printed, and the *To* denotes the last page printed.

Certificate Report

A sample page from the Certificate Report is included in Appendix A. The "watermark" printed behind the student name and course data is based upon the course *Pathway* field. If this field is not correctly set, the watermark will not be correctly displayed. This report may be printed on plain paper, or alternatively, on certificate paper manufactured by the Ampad Corporation (http://www.ampad.com). It has been designed to work with Item #35526, Blue Certificate format. This paper is available from Staples.

For an example of printing an individual certificate, refer to the above section on the *Task Achievement Report*.

Summary Report

A sample of the Summary Report is included in Appendix A. This report may be generated for each course. In the summary report, a row is defined for each of the five possible proficiencies (four proficiencies plus "Not Covered"). A column is defined for each task item. Blank columns delineate heading separations. The number of students with a given proficiency for an individual task are tallied at the intersection of each row and column.

Curriculum Cross-Walk Report

A sample of the Curriculum Cross-Walk Report is included in Appendix A. This report may be generated if you enter curriculum cross-walk data for a course. Each referenced Curriculum Framework component is listed, along with any task criterion that reference it.

Chapter

8

Synchronizing Course Data

HotSyncing with CTESTAR® for Palm OS

When you installed the CTESTAR® for Palm OS component of CTESTAR®, additional program components were installed to support direct HotSync'ing of your course data to your Palm device. These components dictate that version 4.0.1 or later of the Palm desktop be installed on the computer that will be used for synchronization with your Palm. If you have not already done so, insure that your software is upgraded before you attempt to synchronize CTESTAR® data with your desktop.

Verify CTESTAR® Transfer to Your Handheld

When you install CTESTAR® for Palm OS, the program is queued for download. The first time that you hotsync with your Palm device after installation, the CTESTAR® program should have been transferred to your handheld. Verify that the CTESTAR® program has been downloaded to your handheld. The handheld program icon is similar to the CTESTAR® for Windows icon, and is as follows (Figure 112).

Figure 112

If you can not find the CTESTAR® program on your handheld, make sure that you have hotsync'ed with the desktop CTESTAR® was installed on, and that you executed the install. If necessary, re-install the CTESTAR® for Palm OS component.

Synchronize Course Data

After you have successfully transferred the CTESTAR® program to your handheld, you are ready to transfer course data. Whenever the Palm HotSync Manager program finds

the CTESTAR® program on your handheld, it will automatically synchronize the course data on your workstation with the data on your handheld. Since the Palm application only supports assessment, the master task list database will not be transferred. However, all of the tasks and students in each course will be transferred. On the first transfer, the HotSync Manager will copy the existing data to the handheld. On all subsequent synchronizations, the program will reconcile both databases so that they are identical.

Although it is not recommended, you may enter assessment data on the handheld and on the desktop. Whenever you modify an assessment value, CTESTAR® sets a flag that indicates that the value has been modified. The desktop program sets a flag in the desktop database, and the handheld program set a flag in the handheld database. When the desktop data is reconciled with the handheld data, these flags are inspected. If the value on the desktop has been modified, but the value on the handheld has not, the value on the desktop replaces the value on the handheld. If the value on the handheld has been modified, but the value on the desktop has not, the value on the handheld replaces the value on the desktop. If neither value has been modified, the values are not changed–they are already equal. The difficulty is when the value on the desktop has been changed, and the value on the handheld has also been changed.

When the values on both the handheld and the desktop have been changed, the program has no way to determine which value should be retained. If they have both been modified to the same value, there is no problem. However, if for example, the desktop was modified from one to two, and the handheld was modified from one to three, which is the proper value? This is the danger that results from careless modification on both the desktop and the workstation. In designing CTESTAR®, the decision was made that desktop modifications over-ride handheld modifications! If you choose to assess on both platforms, this is important to remember.

The last step in synchronizing the data files is to clear all of the modification flags. The flags on the desktop are cleared, and the flags on the handheld are also cleared. The assessment values have also been reconciled. At this point, both databases are identical. Consequently, after a hotsync, you can then assess any task on either platform, as long as you don't assess that same task on the other platform before the next hotsync. In this way, the program prepares for the next time the data is to be synchronized, at which time the process begins all over again by examining the modification flags.

It should be noted that there is a modification flag for each assessment value for each student. If you are careful, you should have no problems as long as you never assess the same task for the same student to different values on different platforms between hotsync's.

One last potential hotsync problem must be avoided. If you have CTESTAR® installed on more than one desktop, and synchronize your handheld with multiple desktops,

problems can arise. For this reason, CTESTAR® does not support synchronization with multiple desktops. It is important to remember that you can synchronize your handheld with multiple desktops–you just shouldn't synchronize CTESTAR® data with multiple desktops. Avoid installing CTESTAR® on the computer in your classroom, your computer at home, and your handheld. Similarly avoid synchronizing your CTESTAR® data with multiple handheld computers. If you must install CTESTAR® on multiple computers, heed the advice of the next section regarding *HotSync Configuration*.

When you attempt to synchronize CTESTAR® data with more than one desktop, it becomes very difficult for CTESTAR® to determine which values have been modified most recently. When you synchronize with the first computer, the modification flags on both the computer and the handheld will be cleared. When you then synchronize with the second computer, the reconciliation algorithms are compromised because the modification flags on the handheld are no longer accurate with respect to the data stored on the second computer. They indicate that no data has been modified on the handheld, and this is true when compared to the data now on the first computer. However, this is not true with respect to the data stored on the second computer. Needless to say, the situation can become very complex.

If you must synchronize with more than one desktop or handheld, use the HotSync "Custom" option to manually manage the customization process as explained in the next section. If you suspect that the synchronization process has been compromised, review the file named 'XHotSync.log'. This file will be found in the CTESTAR® directory of the directory where your user configuration data is stored. The full path to this directory is based upon the directory where you installed your Palm desktop software. On a standard install, this file would typically be found in 'C:\Palm\Gregg\CTESTAR', where you replace 'Gregg' with your Palm user name. Alternatively, you can use the Windows search program to find the file. The file will log any problems that are found when synchronizing your CTESTAR® course data–including double modify records, and attempts to synchronize with more than one desktop. The file is viewable as a normal text file with Microsoft WordPad, or Microsoft Word.

HotSync Configuration

The Palm HotSync manager maintains an icon in the Window system tray. This icon appears as follows (Figure 113).

Figure 113

When you click on this icon with the left mouse button, a menu similar to the following (Figure 114) will appear.

Figure 114

The menu allows you customize many aspects of the synchronization process. For our purposes, the import option is "Custom...". When you click the "Custom..." option, a dialog similar to the following (Figure 115) will appear.

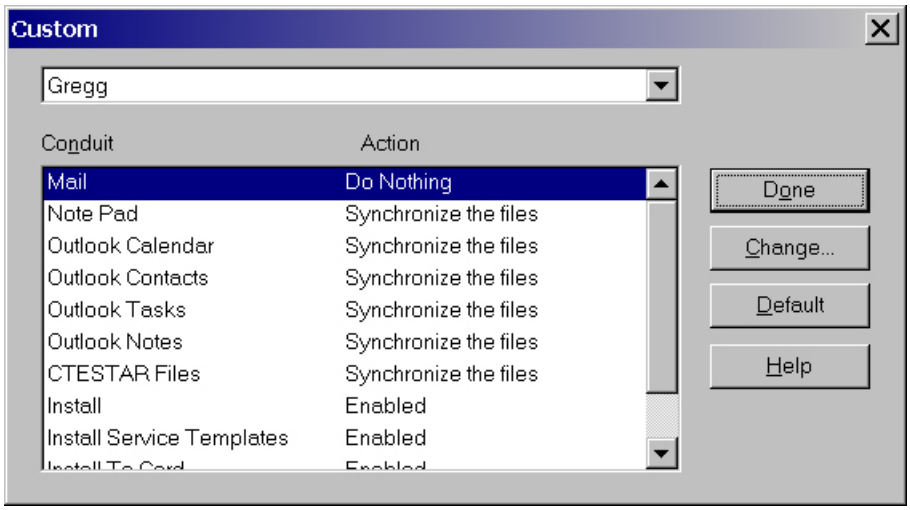

Figure 115

Find the "Conduit" labeled "CTESTAR Files", highlight it by clicking it with the left mouse button once. ("Conduit" is the Palm name for the software that reconciles desktop and handheld data files.) After you have highlighted the CTESTAR® conduit, click the *Change...* button. A dialog similar to the following dialog (Figure 116) will be displayed.

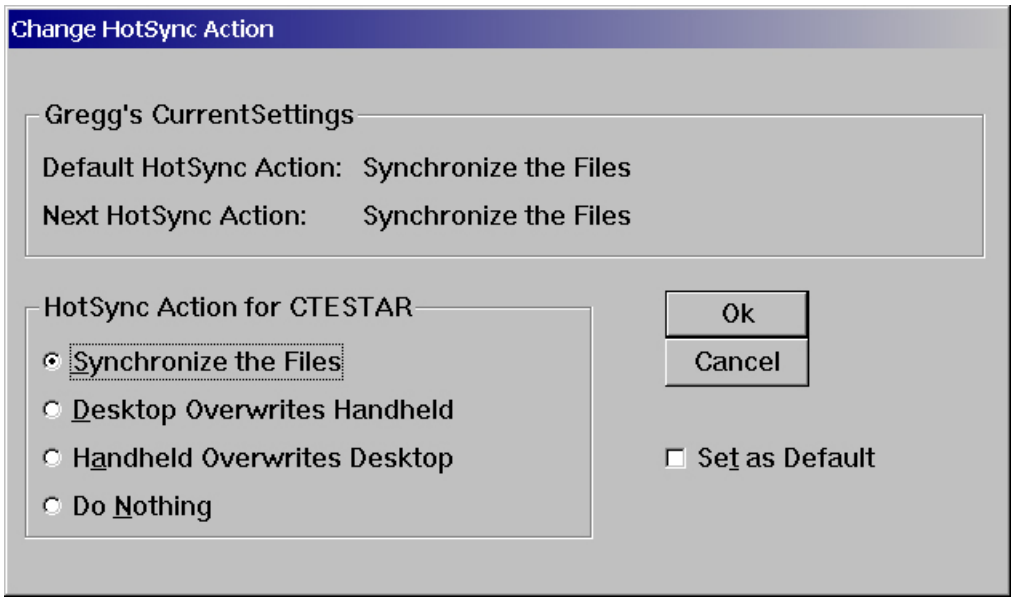

Figure 116

The dialog displayed on your desktop should identify your "user profile". From this dialog you can configure the actions that will be taken by the CTESTAR® conduit. If you click the "Set as Default" checkbox, the default will be changed for all subsequent hotsync's. If you leave the "Set as Default" checkbox clear, the configuration will only affect the next hotsync.

Once you are satisfied with your configuration, click the *Ok* button to dismiss the *Change HotSync Action* dialog box. Your new configuration will be displayed in the *Custom* dialog. Click the *Done* button in the *Custom* dialog to dismiss it. Your configuration changes will be set for the next hotsync between the handheld and this desktop for the specified user profile. The following sections explain the differences between the four synchronization options.

Synchronize the Files

The "Synchronize the Files" option is the action described in the prior section titled *Synchronize Course Data*. This option reconciles the handheld data with the desktop data on a value by value basis. This should be the normal default when synchronizing your handheld with your desktop.

Desktop Overwrites Handheld

When the option "Desktop Overwrites Handheld" is specified, the conduit ignores the assessments found on the handheld, and "overwrites" the data on the handheld with the data from the desktop. If for some reason the data on your handheld has been lost, and you must restore your entire handheld from a backup, use this option to overwrite the restored backup data (assuming the desktop data is the most current).

Handheld Overwrite Desktop

When the option "Handheld Overwrites Desktop" is specified, the conduit ignores the assessments found on the desktop, and "overwrites" the data on the desktop with data from the handheld. If you have been modifying data on both the handheld and the desktop, and become uncertain as to the accuracy of the desktop data, you can use this option to overwrite all of the desktop data with the handheld data.

Do Nothing

When the "Do Nothing" option is specified, the conduit does not modify and CTESTAR® data. The desktop data will remain as is. The handheld data will remain as is. No assessment values will be reconciled. No modification flags will be cleared. Use this option if you must synchronize your handheld with more than one desktop that has CTESTAR® installed on it.

Synchronization Summary

The following table summarizes the CTESTAR® synchronization process.

Transaction	Desktop Overwrites Handheld	Handheld Overwrites Desktop	Synchronize Files	Do Nothing
Desktop Database created	Database Copied to Handheld from Desktop	Database Deleted from Desktop	Database Copied to Handheld from Desktop	No Change on Desktop No Change on Handheld
Desktop Database deleted	Database deleted from Handheld	Database Copied to Desktop from Handheld	Database deleted from Handheld	No Change on Desktop No Change on Handheld
Desktop Database renamed	Database renamed on Handheld	Desktop Database Renamed to Match Handheld	Database on Handheld Renamed	No Change on Desktop No Change on Handheld
Desktop Task Added	Handheld Data Overwritten by Desktop Data	Desktop Data Overwritten by Handheld Data	Task Added to Handheld Database, Assessment Data Copied from Desktop	No Change on Desktop No Change on Handheld
Desktop Task Deleted	Handheld Data Overwritten by Desktop Data	Desktop Data Overwritten by Handheld Data	Task Deleted from Handheld Database, Assessment Data on Handheld Deleted	No Change on Desktop No Change on Handheld
Desktop Task Description Edited	Handheld Data Overwritten by Desktop Data	Desktop Data Overwritten by Handheld Data	Task Description on Handheld copied from Desktop, Assessment Data Remains Unchanged	No Change on Desktop No Change on Handheld
Desktop Task Order Changed	Handheld Data Overwritten by Desktop Data	Desktop Data Overwritten by Handheld Data	Task Order Changed on Desktop Handheld	No Change on Desktop No Change on Handheld
Desktop Student Added	Handheld Data Overwritten by Desktop Data	Desktop Data Overwritten by Handheld Data	Student Added to Handheld Database, with Assessment Data Copied from Desktop	No Change on Desktop No Change on Handheld
Desktop Student Deleted	Handheld Data Overwritten by Desktop Data	Desktop Data Overwritten by Handheld Data	Student Deleted from Handheld Database, Assessment Data Deleted	No Change on Desktop No Change on Handheld

Transaction	Desktop Overwrites Handheld	Handheld Overwrites Desktop	Synchronize Files	Do Nothing
Desktop Student Name/Id Edited	Handheld Data Overwritten by Desktop Data	Desktop Data Overwritten by Handheld Data	Student Name/Id on Handheld Updated Copied from Desktop, Assessment Data Remains Unchanged	No Change on Desktop No Change on Handheld
Desktop Assessment Changed, Handheld Assessment Unchanged	Handheld Data Overwritten by Desktop Data	Desktop Data Overwritten by Handheld Data	Handheld Assessment Data Copied from Desktop	No Change on Desktop No Change on Handheld
Desktop Assessment Unchanged, Handheld Assessment Changed	Handheld Data Overwritten by Desktop Data	Desktop Data Overwritten by Handheld Data	Desktop Assessment Data Copied from Handheld	No Change on Desktop No Change on Handheld
Desktop Assessment Changed, Handheld Assessment Changed	Handheld Data Overwritten by Desktop Data	Desktop Data Overwritten by Handheld Data	Desktop Assessment Data Overwrites Handheld Assessment Data	No Change on Desktop No Change on Handheld
Desktop Assessment Unchanged, Handheld Assessment Unchanged	Handheld Data Overwritten by Desktop Data	Desktop Data Overwritten by Handheld Data	Desktop Assessment Data Unchanged Handheld Assessment Data Unchanged	No Change on Desktop No Change on Handheld

In the above table, it should be noted that database transactions affect the entire database, where as assessment transactions only affect the individual records involved

Chapter

9

Assessing Students on a Handheld

Assessing a Task Across Students, and Assessing a Student Across Tasks on a Palm OS Handheld

After you have successfully synchronized your handheld with your desktop, and transferred the CTESTAR® for Palm OS program and data to your handheld, you are ready to begin assessing tasks and students on your handheld. If you are unsure whether the CTESTAR® program has been transferred to your handheld, refer to the prior chapter *Synchronizing Course Data*. Note that the Palm OS refers to each screen of data as a "form". Consequently, that term will be used in the following discussions.

Launching CTESTAR®

To confirm that course data has been downloaded, "launch" the CTESTAR® program on your handheld. When you start CTESTAR®, a form similar to the following should appear (Figure 117).

Figure 117

If you see a form like the following one (Figure 118), your course data has not been correctly synchronized with your desktop. Review the prior chapter titled *Synchronizing Course Data*.

Figure 118

If you see the above form (Figure 118), click the *OK* button. The program will return to the program launch form of the handheld. Review the prior chapter to determine why your data was not synchronized to your handheld.

Form Components

It is important to identify a number of the most important controls on the CTESTAR® for Palm OS forms. Although the buttons are important, they are easily identified. The following diagram (Figure 119) highlights the most common non-button form components.

Figure 119

The following table names each of these form components.

Component	Description
A	Form Title
B	Course Selection Pull-Down
C	Data Area
D	Scroll Button
E	Student/Task Selector

Each of these form components will be briefly described.

Form Title

The form title identifies the form. Each unique data entry form has a unique name. In this example form, the title is "Select Task", and the data area lists a number of tasks. This field will be updated to the name of the currently active form.

Course Selection Pull-Down

The course selection pull-down is used to select the course. As will be seen, when you tap the downward pointing triangle, a list of courses will be displayed. When you select a different course, the current course is closed, the new course data is displayed, and the course number is updated to reflect that of the newly selected course. The number displayed is always that of the currently selected course. When you start the program, it defaults to the last course selected. If the last course was deleted, or if this is the first time that you have executed the program, it will default to the first course.

Data Area

The data area contains the most important form data. In this form, the data contains a list of tasks. On a different form, this area might contain a list of students. If all of the data does not fit in the area, scroll buttons are used to scroll the data up or down. Tapping an item in this area with the stylus will select and highlight it.

Scroll Button

The scroll buttons are used to scroll, or move through, the data in the Data Area. In this example, only a "down" button is depicted, although a similar "up" button near the top of the Data Area might also be displayed. Tap the button with the stylus and the Data Area will move up for an "up" button, or down for a "down" button.

Student/Task Selector

The student/task selector is used to switch to a different form. The "T" is highlighted to indicate that you are assessing tasks, and are expected to select a task. If you tap the "S", the "S" will highlight, the "T" will un-highlight, and the "Select Student" form will be displayed.

Two Basic Ways to Assess

As in CTESTAR® for Windows, there are two basic ways to assess student proficiencies with CTESTAR® for Palm OS. The most common method is to assess a task across all students in the class. The less common method is to assess a student across all tasks in the class. The method you choose depends on your teaching style.

If you envision a teacher's grade book, there are typically rows for each student, and columns for each task. When you assess a task across all students, you pick a column, and enter assessments for each student in the course. When you assess a student across all tasks, you pick a row, and enter assessments for each task in the course. One entry

method is horizontal, the other method is vertical. These are just two different ways of entering the same data. Data entered via one method is visible in the other method.

Course Selection

The first step for either assessment method is to select the proper course. Use the course selection pull-down to select a course. To do this, begin by tapping the down arrow (downward facing triangle,) with the stylus. When you do this, a form similar to the following (Figure 120) will appear.

Figure 120

In this example, four courses are available. If you do not see data for all of your courses, check the lower right corner of the pop-up window for a scroll button. If you still can't find all of your courses, consult the prior chapter on synchronization to

determine the source of the problem. To select a new course, tap the course number with the stylus. When you do this, the current data will be saved, the new course data will be loaded, and the pull-down will update to reflect the name of the newly selected course.

Assessing a Task Across Students

After you have selected the proper course, insure the Student/Task selector indicates "T" for task. The form title should be "Select Task". If the form title is "Select Student", the "S" is highlighted. To correct this situation, tap the "T". If the form title is "Assess Task", or "Assess Student", you are on the assessment form. Tap the *Select* button to return to the "Select" form, then check the Student/Task selector.

When you have the correct form displayed, a list of tasks will be displayed. Use the scroll buttons to find the task that you want to assess. Tap the "down" scroll button to advance to later tasks in the course, tap the "up" scroll button to backup to prior tasks in the course. When the task is on the form, tap it with the stylus. In the following example (Figure 121), the task titled "Prepare Resume" has been selected.

Figure 121

When you have selected the task, as above, tap the *Assess* button. When you tap the *Assess* button, the *Assess Task* form will be displayed as shown below (Figure 122).

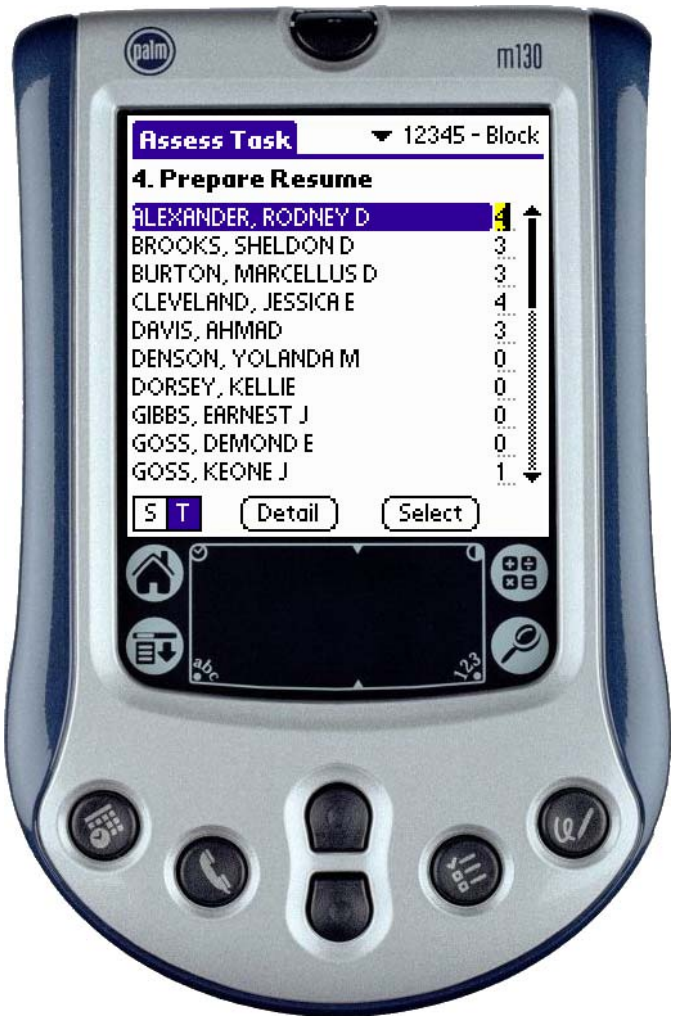

Figure 122

On the *Assess Task* form, confirm that the correct task is displayed above the student's names. To assess a student, tap the student's name. When the student is selected, it will be highlighted as in the prior figure. (In the example, Alexander is selected.) Write the numeric value in the numeric side of the "graffiti" area (right side). To assess a different student, tap their name. If all of your students do not fit on the form, a scroll bar will be enabled to the right of the assessment values. Use this to scroll through students on the *Assess Task* form. To select a different task, tap the *Select* button, and the program will return to the *Select Task* form. From this form, you can repeat the process for a new task.

Note that although you may select a task heading on the *Select Task* form, you may not assess them. If you inadvertently click the *Assess* button with a heading selected, the button will flash, however the program will not display the *Assess Task* form. You must

select a task before the *Assess Task* form will display. If you select a new course from the *Assess Task* form, you will be automatically returned to the *Select Task* form.

Assessing a Student Across Tasks

To assess an individual student across all tasks in a course, tap the *Student/Task* selector on the *Select Task* form so that the "S" is highlighted. The *Select Task* form will change to the *Select Student* form, with a list of students displayed. If necessary, scroll to the desired student, and tap the student's name. In the following example (Figure 123), the student "Ahmad Davis" has been selected.

Figure 123

When you have confirmed that the correct student was selected, tap the *Assess* button. The *Assess Student* form will be displayed as shown below (Figure 124).

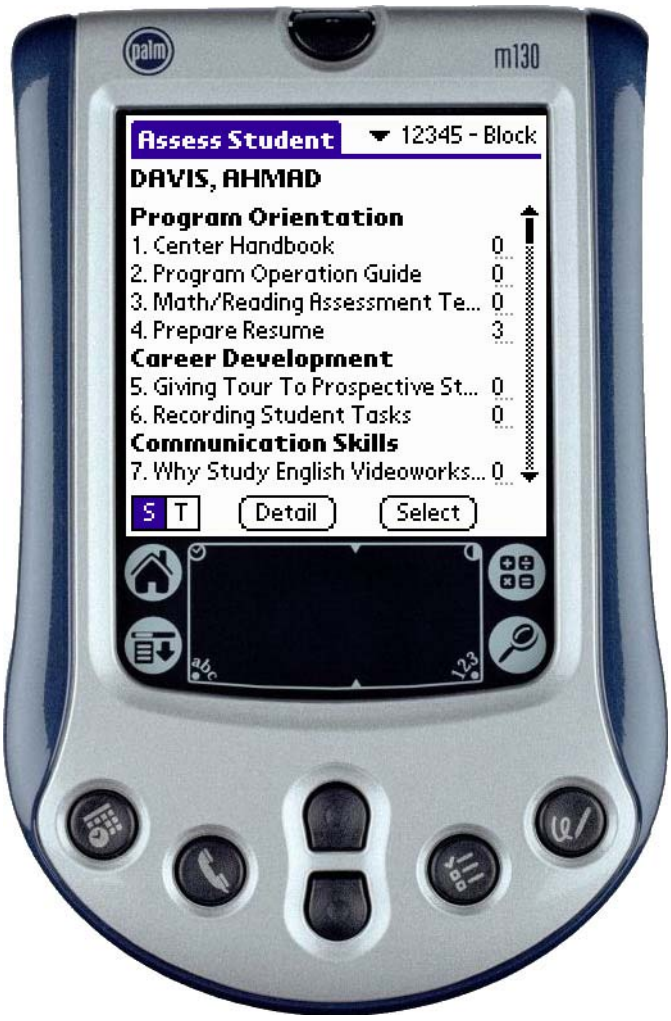

Figure 124

On the *Assess Student* form, the selected student's name is displayed at the top of the form. Any student proficiencies already assessed will be displayed on the right-hand column of the form. To assess a measurement criterion, tap the description, and write the value in the numeric side of the "graffiti" area (right side). To assess a different measurement criterion, similarly tap and write. This process may be repeated indefinitely. Use the scroll bar on the right-hand side of the form to scroll through the entire task list. The following example (Figure 125) illustrates the sample class after the "Math/Reading Assessment Test" has been assessed.

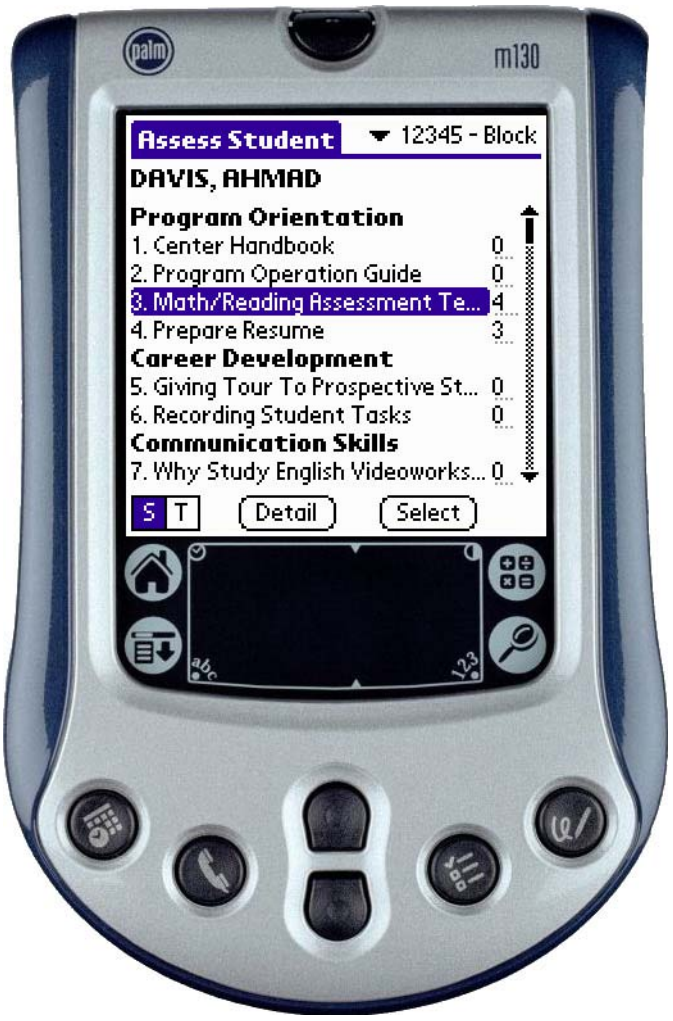

Figure 125

To assess a different student, return to the *Select Student* form by tapping the *Select* button, and repeating the process. Note that *CTESTAR® for Palm OS* prevents you from assessing topics and performance elements. It will not permit you to select them on the *Assess Student* form.

Exiting the Program

To exit the *CTESTAR® for Palm OS* program, return to either the *Select Task* or *Select Student* form, and click the *Home* button. Any of the other standard Palm OS buttons that switch to a different application may also be used.

Chapter

10

Curriculum Cross-Walk

Cross-Walking a Task List Against a Curriculum Framework

To demonstrate that your tasks lists are consistent with a curriculum framework, CTESTAR® supports "cross-walking" your task list against a curriculum framework. Three curriculum frameworks have been included: The Michigan Curriculum Framework of 1996; The Michigan Technology Framework of 2004, and The Michigan Career and Employability Skills of 2001. No provisions have been made for editing curriculum frameworks. If you need a different curriculum framework, please contact Enthusiastic Software.

Importing a Curriculum Framework

Importing a curriculum framework into an existing course is similar to importing a task list, however, a different menu command is used. Use the *Curriculum Framework* menu command found on the *Import* sub-menu of the *File* command. The following screen (Figure 126) illustrates the path to this command.

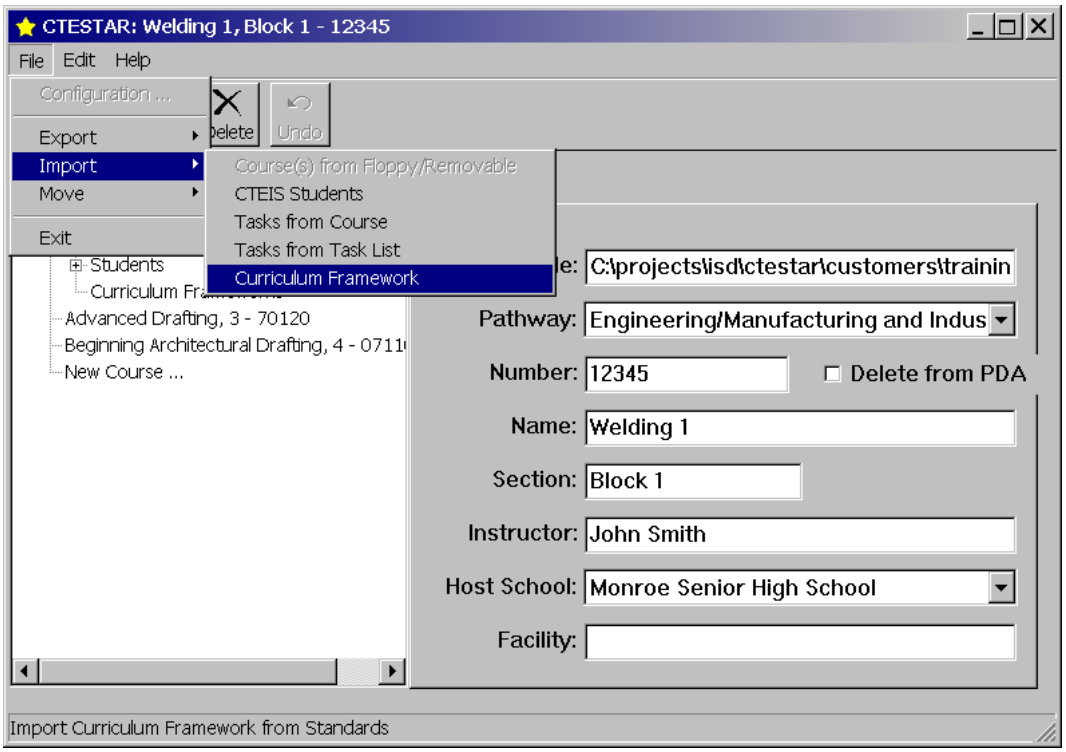

Figure 126

When you execute this command, a dialog similar to the following (Figure 127) is displayed.

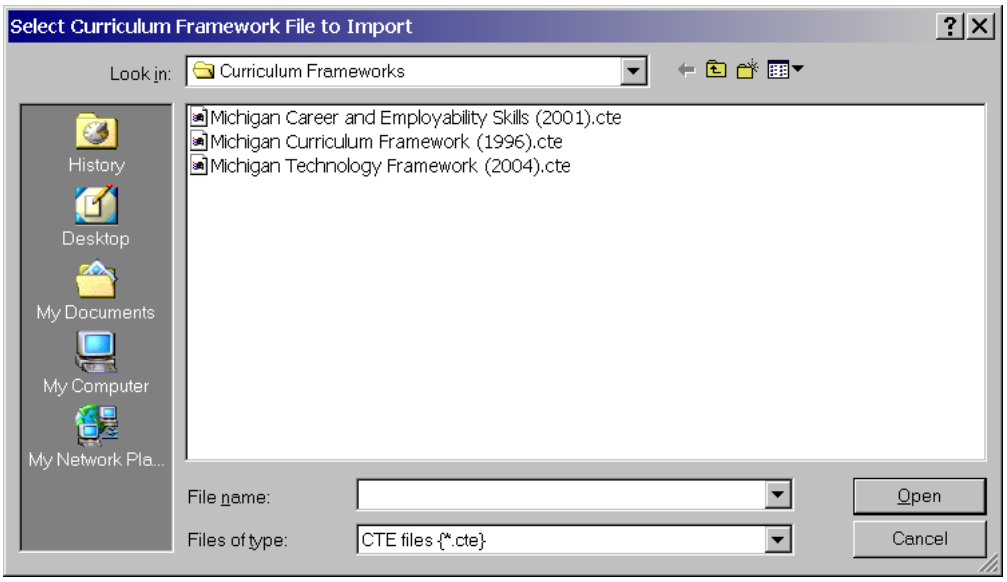

Figure 127

To import one of the frameworks, select it and then click the *Open* button. The framework will be imported, and the course tree-view will be updated. A "plus" will be displayed next to the "Curriculum Frameworks" label. To import additional frameworks, repeat these steps selecting a different framework file each time.

Once you have imported all of the necessary frameworks you may cross-walk the items. The option that you choose depends upon your educational style. If it is easier for you to pick a measurement criterion, and think about which parts of the framework it addresses, choose the *Cross-Walking a Measurement Criterion* option. If you find it easier to pick a curriculum framework element, and identify the tasks that address that element, follow the *Cross-Walking a Curriculum Framework Item* procedure. As both procedures edit the same data, you may freely mix these two procedures to enter the data in a way that is easiest for you.

Cross-Walking a Measurement Criterion

To cross-walk a measurement criterion, begin by selecting the measurement criterion in the left-hand tree-view window. Once you have selected the measurement criterion that you want to cross-walk, select the *Cross Walk* tab on the right-hand side of the screen. The following screen (Figure 128) illustrates a correctly selected measurement criterion ready for cross-walking. Note that the currently selected measurement criterion text is displayed above the cross-walk entry screen.

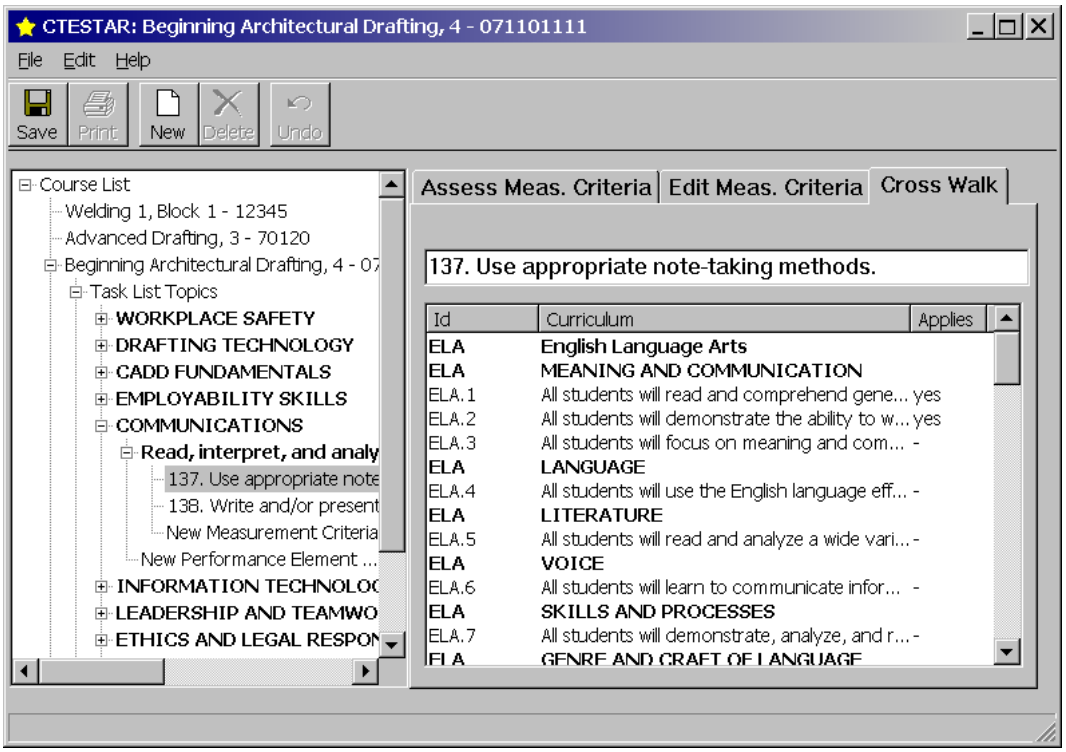

Figure 128

To cross-walk this item, click on the "–" in the *Applies* column to indicate that this measurement criterion addresses the indicated framework element. The following screen (Figure 129) illustrates this entry process.

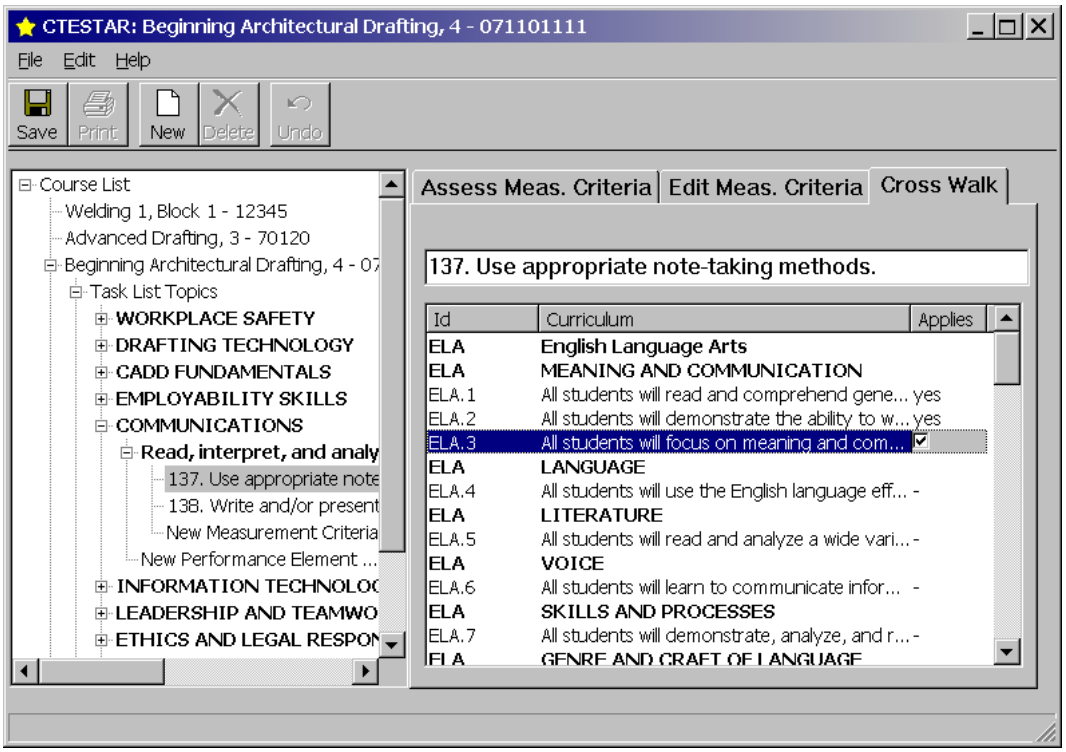

Figure 129

When you select a different curriculum framework element, the "check box" changes to *Yes* if the item was checked or "—" if the item was not checked. When the cross-walk report is generated, checked framework elements will list the associated measurement criteria beneath them to indicate that the measurement criterion addresses the indicated curriculum framework element.

Cross-Walking a Curriculum Framework Item

To cross-walk a curriculum framework item, begin be selecting the item in the left-hand tree-view window. Once you have selected the framework element to be cross-walked, select the *Cross Walk* tab on the right-hand side of the screen. The following screen (Figure 130) illustrates a correctly selected curriculum framework item ready for cross-walking. Note that the currently selected framework element text is displayed above the cross-walk entry screen.

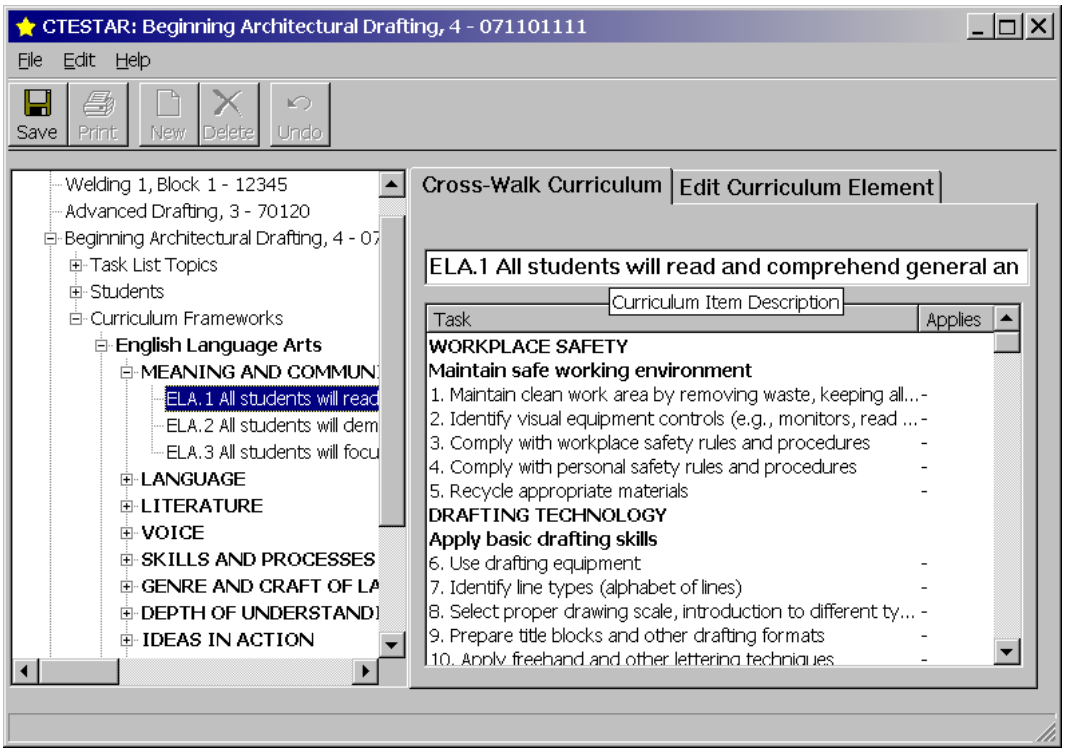

Figure 130

To cross-walk this item, click on the "–" in the *Applies* column to indicate that this curriculum framework element is addressed by the indicated measurement criterion. The following screen (Figure 131) illustrates this entry process.

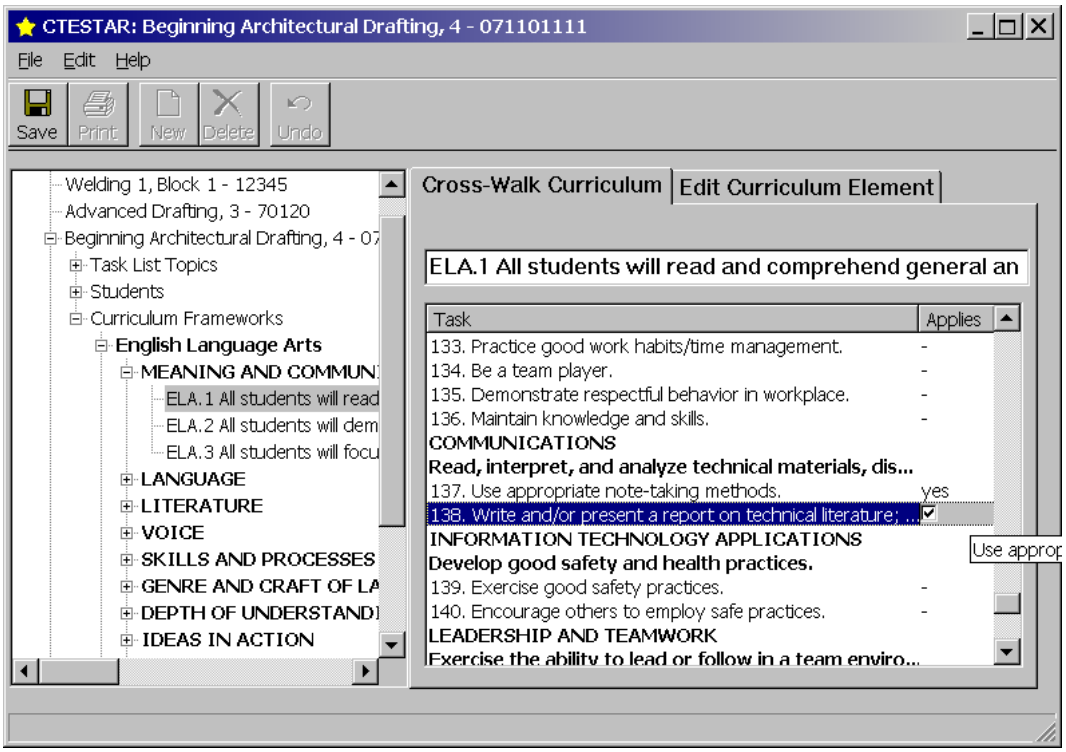

Figure 131

When you select a different measurement criterion, the "check box" changes to *Yes* if the item was checked or "—" if the item was not checked. When the cross-walk report is generated, check measurement criteria are listed beneath the curriculum framework element to indicate that the measurement criterion addresses the associated curriculum framework element.

Chapter

11

CTESTAR® Data Warehouse

Working with the CTESTAR® Data Warehouse application

The CTESTAR® Data Warehouse application is designed to be installed on one central computer. Ideally, it will be installed by the CTE Director or a member of their staff. The warehouse provides a repository for all student assessments at the end of each academic year. It is also designed to assist in the preparation of teacher data diskettes at the beginning of the year. It may also be used to transfer students between courses in between semesters. It provides the ability to separate the data between different academic years, and to search through the data for a student's assessments. An additional command is also implemented to generate PDF versions of the End-Of-Year reports. These PDF files may then be burned to a CD for archival storage purposes. The data warehouse does not synchronize with a handheld PDA.

Important

The End-Of-Year report generation is not supported on Microsoft Windows 95, or Microsoft Windows 98. If you intend to use this functionality, avoid installing the warehouse application on these versions of Microsoft Windows.

Installing the Data Warehouse

If you intend to archive the system reports at the end of the year, you should install the CTESTAR® Data Warehouse application on a computer with at least one of the following operating systems installed Windows ME, Windows 2000, or Windows XP. Later versions of Microsoft Windows should work, however, Windows 95 and Windows 98 will not. This computer should also be capable of burning CD's, or have some other type of long term data storage. If you do not know whether your computer meets these requirements, consult your system administrator to be used in archiving your data.

The data warehouse installation is similar to that of the Windows workstation application. You should avoid installing both applications on your computer at the same time, as they store data in different sub-directories. You want to avoid confusion regarding which data set you are working with. As with the workstation version of CTESTAR®, version 9 or later of Crystal Reports is required to generate and view the reports. The task lists should also be installed so that you can initialize the teacher diskettes. When you are presented with the *Select Components* dialog during installation, you should select the components as illustrated below (Figure 132).

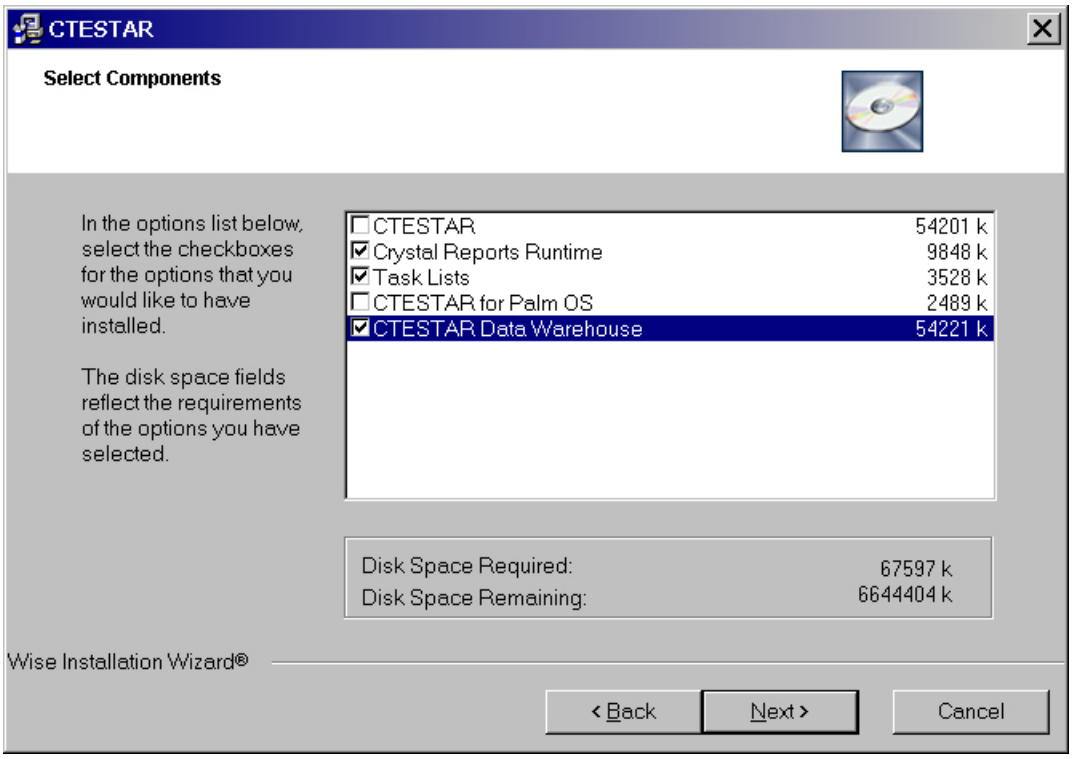

Figure 132

When you have successfully installed and executed the warehouse application, the following screen (Figure 133) should be displayed.

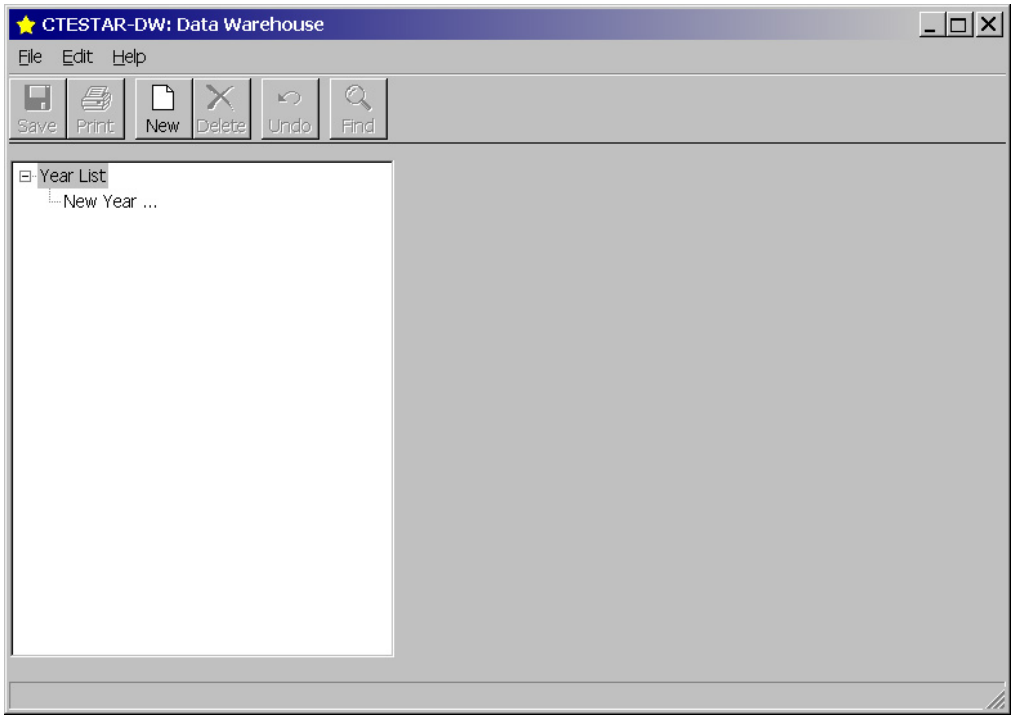

Figure 133

Note that warehouse displays “CTESTAR-DW” on the title bar, that the top-level of the hierarchy, or outline, is “Year List”, and that an additional “Find” button is conditionally available next to the *Undo* button.

Academic Years

Before creating any courses, you must create an academic year. Each course you create with the warehouse application must be created within an academic year. To create a new academic year, click the *New Year ...* item displayed in the left-hand window pane. When you do so, the following screen (Figure 134) will be displayed

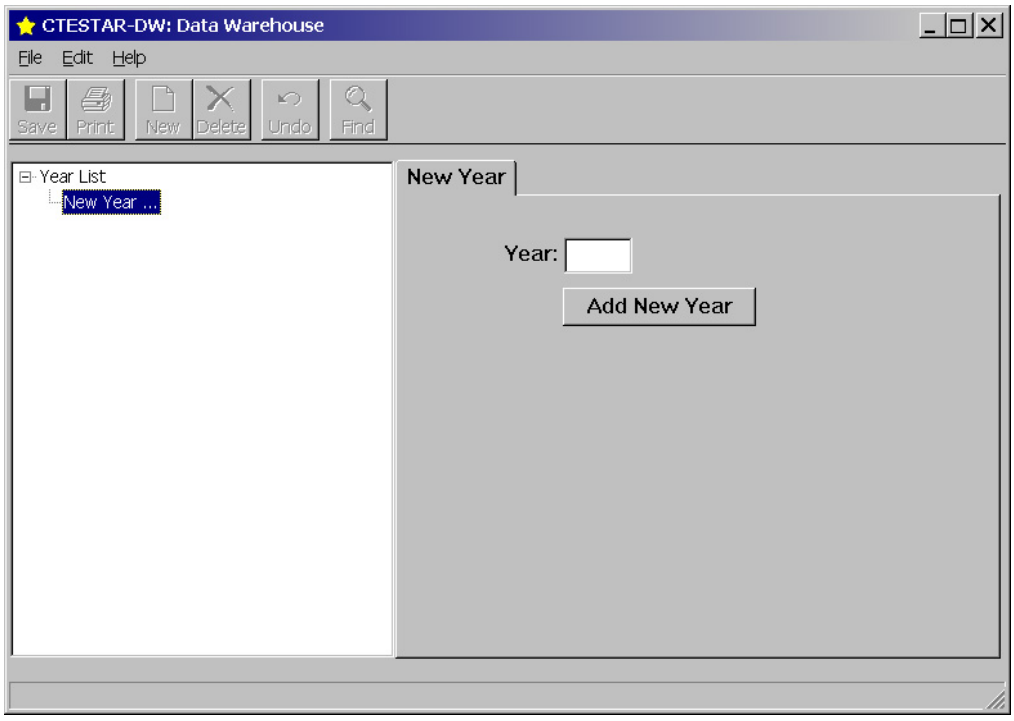

Figure 134

In the *Year* field, enter the four-digit number of the first year in the academic year. For the academic year of "2003-2004" enter 2003. Then click the *Add New Year* button. Before you click the *Add New Year* button, the screen should appear as follows (Figure 135).

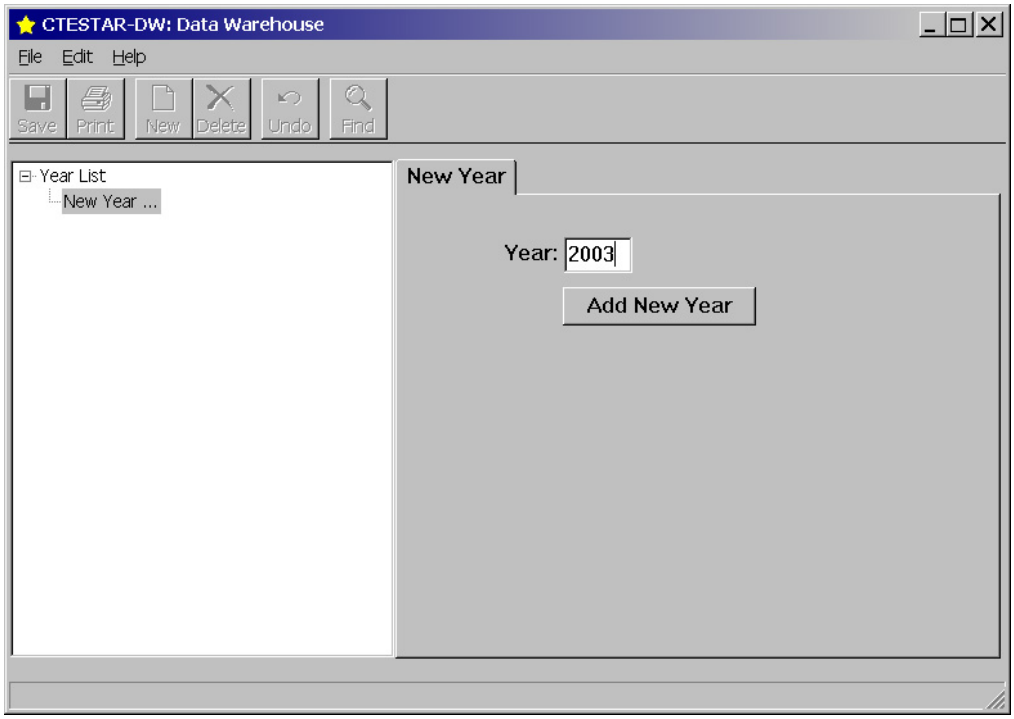

Figure 135

After you click the *Add New Year* button, the screen should appear as follows (Figure 136).

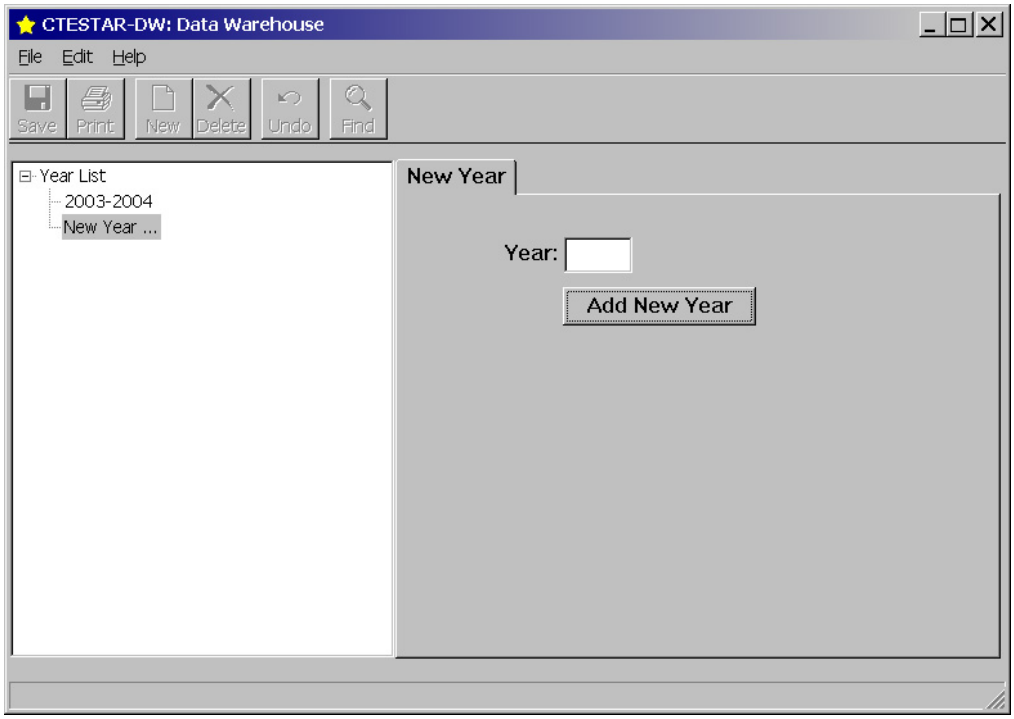

Figure 136

Note that the warehouse application automatically adds the following year, in this case 2004, to the description of the academic year displayed in the left hand selection pane. When you select the newly created academic year, the screen changes to as follows (Figure 137).

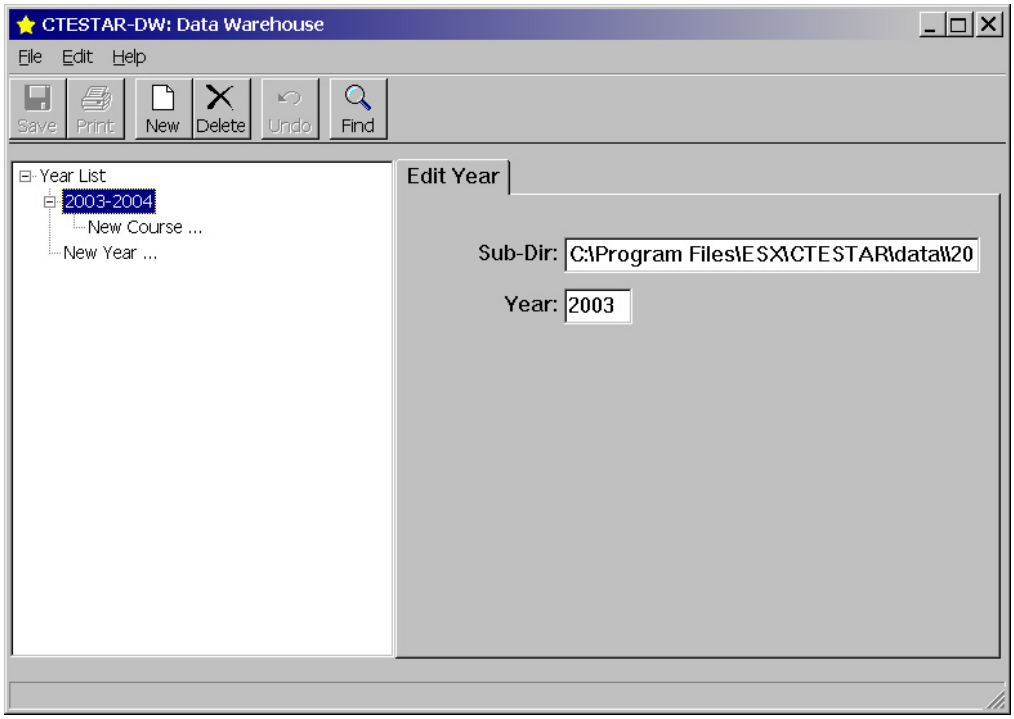

Figure 137

To create a course within an academic year, click the *New Course ...* item subordinate to the academic year. Each course must be created within an academic year. You should create a new academic year within CTESTAR® at the beginning of each academic year. (To transfer a task list from one year to the next, you can export the course to floppy from the prior year, select the new year, and import the classes from the floppy.)

After you have accumulated a number of years of data within CTESTAR®, the screen may appear as follows (Figure 138).

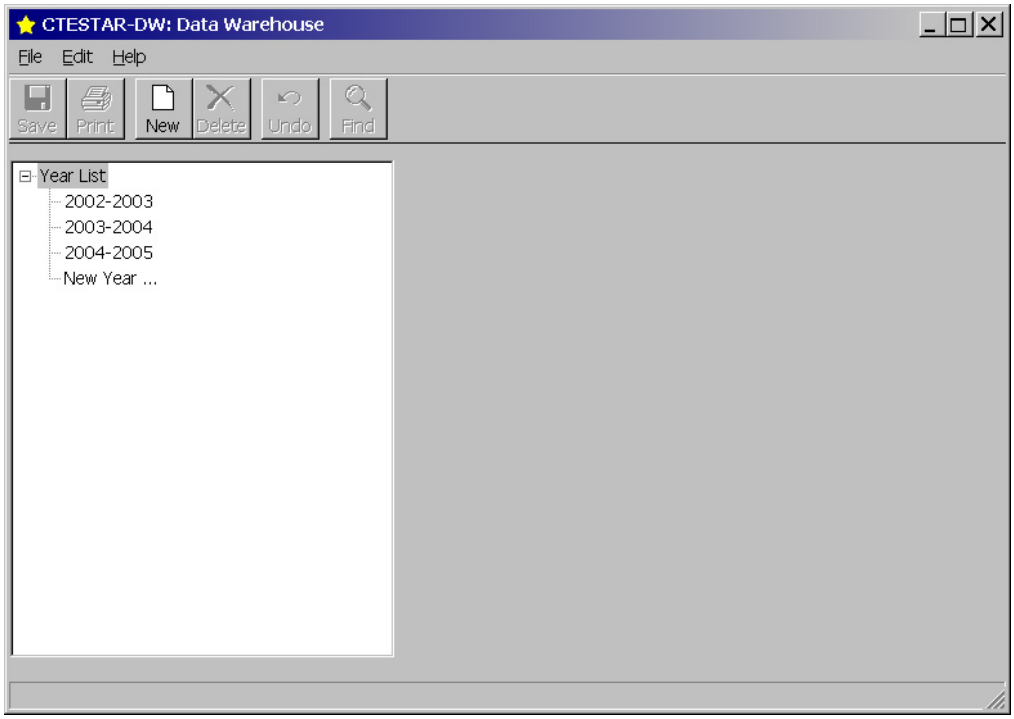

Figure 138

The courses within a year will appear as follows (Figure 139).

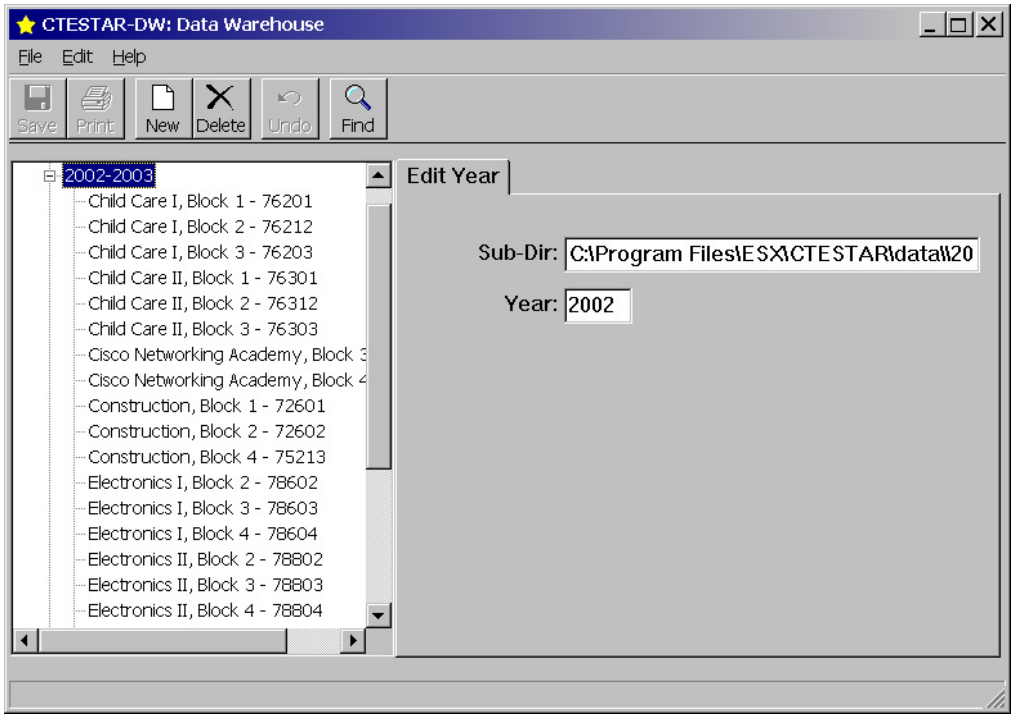

Figure 139

Once the year has been created, follow the procedures outlined in Chapter 4 for creating, editing, and deleting courses. The only change is the addition of the academic year in the left-hand selection window pane.

Export Differences

The *File \ Export \ Course(s) to Floppy/Removable* command within the CTESTAR® Data Warehouse application differs from that of the workstation application. This command is found in the following menu hierarchy (Figure 140). It is only available when an academic year is selected.

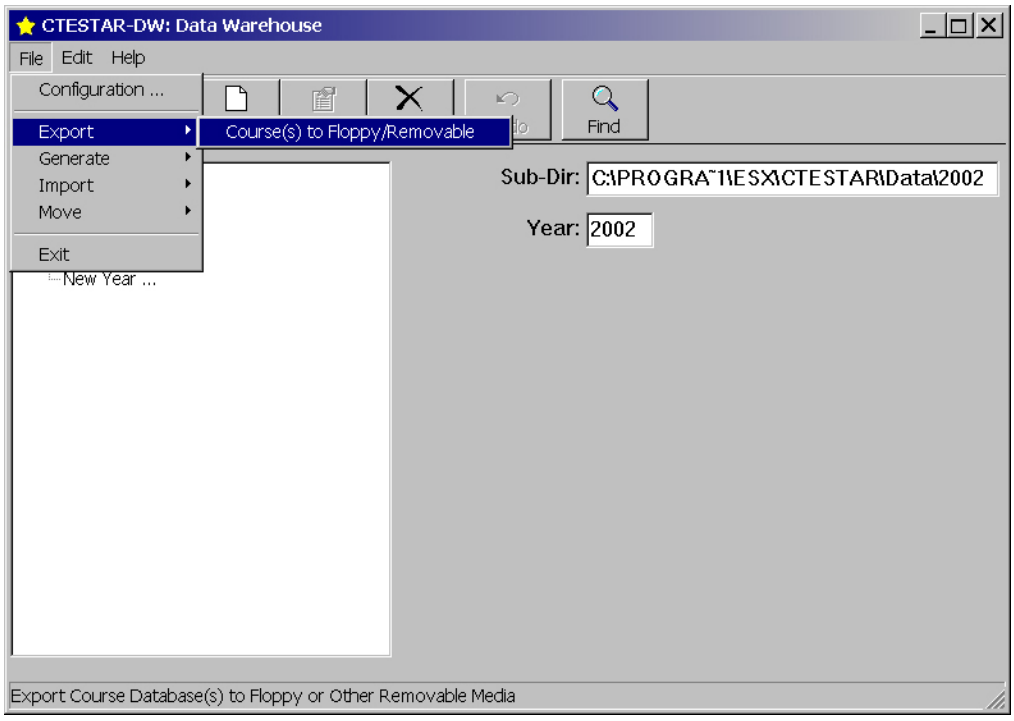

Figure 140

When you execute this command, a dialog similar to the following appears (Figure 141).

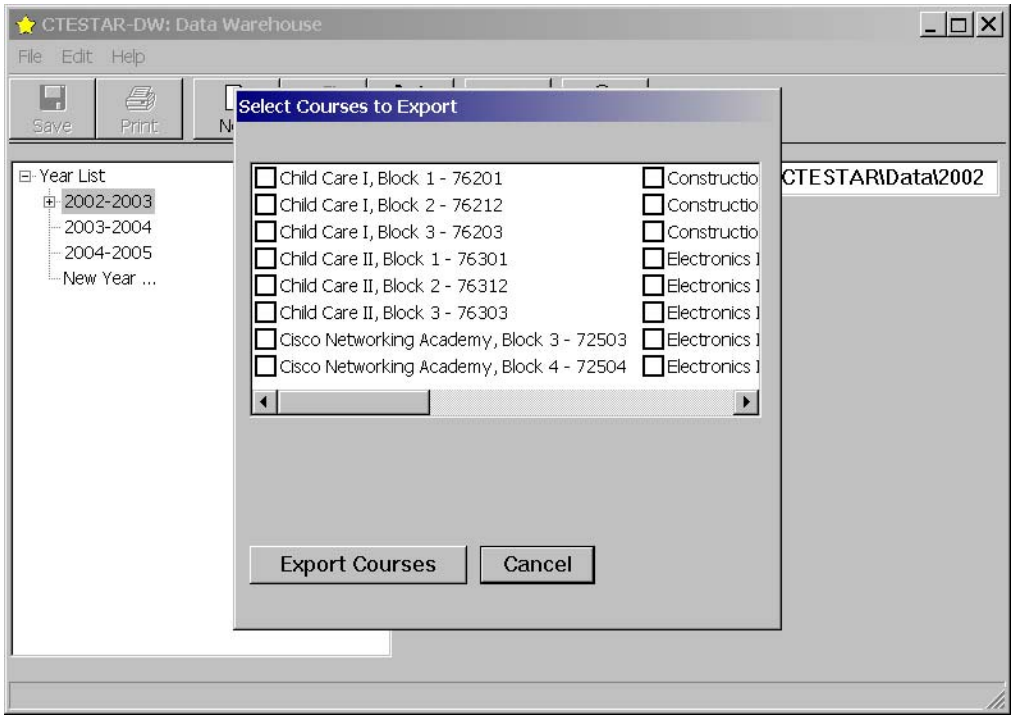

Figure 141

By selecting the courses that you want to export, you can export only the courses that a specific teacher needs. An administrator would typically do this at the beginning of the year after creating all courses, and importing their student lists. In the following example (Figure 142), only the "Child Care" courses have been selected for export.

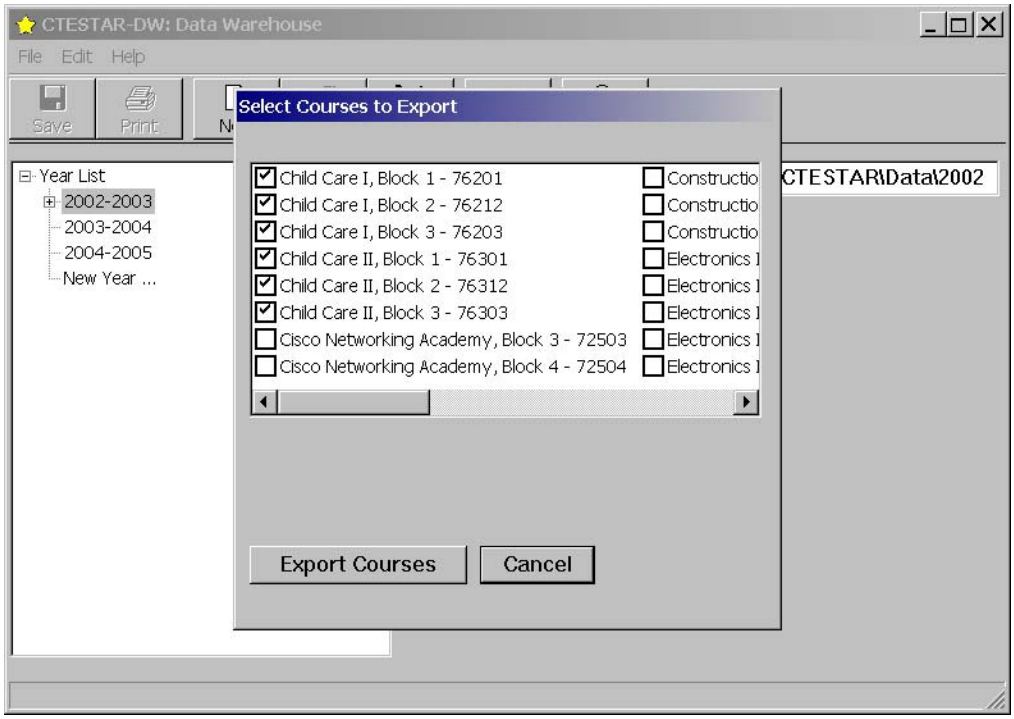

Figure 142

When you click the *Export Courses* button, you are prompted to select the destination as in the following dialog (Figure 143).

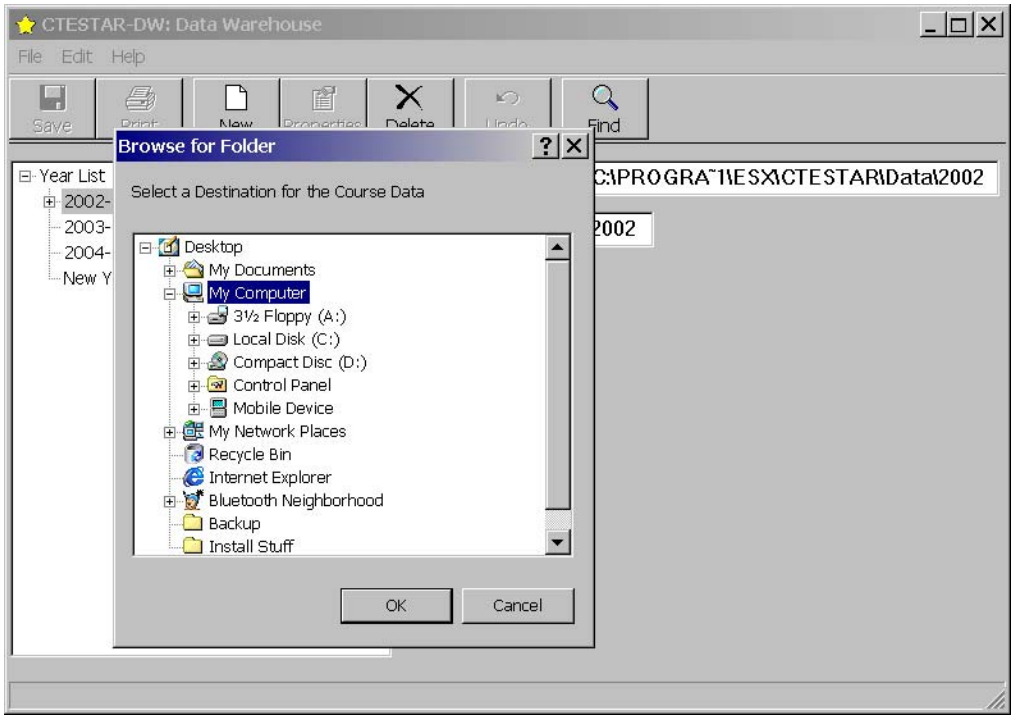

Figure 143

Insert a blank diskette into drive A:, and select the "3 ½ Floppy (A:)" item. The CTESTAR® Data Warehouse application will then write the data to the floppy after you click the *OK* button.

When exporting data from the workstation application, all courses on a workstation are automatically exported.

Appendix

A

Sample Reports

Sample CTESTAR® for Windows Report Pages

The following pages illustrate sample report pages for each of the standard CTESTAR® reports. The reports are indicative of the format and data included in each report, and depict typical sample data. Most reports will contain more pages of additional students and/or tasks.

Course Task List, First Page

CTESTAR™ Course Task List

Pathway
Engineering/Manufacturing and Industrial Technology

Course
Beginning Architectural Drafting

Instructor
Mr. John Smith

Number
012007110

Section
4

Host School
Monroe High School

WORKPLACE SAFETY

Maintain safe working environment

1. Maintain clean work area by removing waste, keeping alleyways clear, cleaning tools, and preventing spills
2. Identify visual equipment controls (e.g., monitors, read outs)
3. Comply with workplace safety rules and procedures
4. Comply with personal safety rules and procedures
5. Recycle appropriate materials

DRAFTING TECHNOLOGY

Apply basic drafting skills

6. Use drafting equipment
7. Identify line types (alphabet of lines)
8. Select proper drawing scale, introduction to different types
9. Prepare title blocks and other drafting formats
10. Apply freehand and other lettering techniques
11. Prepare multi-view drawings
12. Prepare multi-view sketches
13. Prepare orthographic views
14. Measure angles
15. Draw horizontal, vertical, angular, parallel, and perpendicular lines
16. Construct tangent lines (to arcs) and tangent arcs (to arcs)
17. Bisect angles and arcs
18. Bisect lines
19. Divide lines
20. Construct three-point circle
21. Construct regular hexagon, and octagon
22. Reproduce a drawing
23. Prepare single-view drawings
24. Prepare working drawings
25. Interpret notes and dimensions
26. Draw arcs, and circles.
27. Transfer measurements
28. Identify current ANSI symbols/standards

Apply intermediate drafting skills

29. Prepare isometric and oblique sketches
30. Prepare sectional views
31. Prepare auxiliary views
32. Prepare views of drilled and tapped holes, counterbores, countersinks
33. Identify a bill of materials

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Course Task List, Following Pages

CTESTAR™ Course Task List

Beginning Architectural Drafting, 4 **012007110**

34. Describe purpose of auxiliary and sectional views
35. Dimension drawings per current ANSI standards

Apply advanced drafting skills

36. Prepare pictorial drawings
37. Interpret various drawings

Interpret basic prints

38. Visualize object from drawing
39. Interpret orthographic projections
40. Interpret isometric views
41. Interpret sectional views
42. Interpret detail and assembly drawings
43. Interpret dimensions
44. Interpret screw thread specifications

Convert dimensions and tolerances

45. Convert dimensions and tolerances from English units to metric units
46. Convert dimensions and tolerances from metric units to English units

Apply revision control process

47. Apply drawing balloons
48. Apply documentation (including project filing, back-up material, tracking process)
49. Apply change control block

Demonstrate dimensioning techniques

50. Construct arrowheads
51. Add labels/notes to drawing
52. Dimension arcs
53. Dimension angles
54. Dimension curves
55. Dimension rounded-end shapes
56. Dimension cylindrical objects
57. Dimension features on circular center line

Apply geometric dimensioning and tolerancing

58. Interpret decimal tolerance dimensions
59. Calculate clearance fit tolerances of mating parts
60. Calculate interference fit tolerances of mating parts
61. Calculate tolerances to mating parts using standard fit tables
62. Calculate transitional fit tolerances

Prepare mechanical drawings

63. Prepare assembly drawings
64. Prepare casting drawings

Prepare advanced mechanical drawings

65. Resolve problems by descriptive geometry
66. Prepare fastener drawings

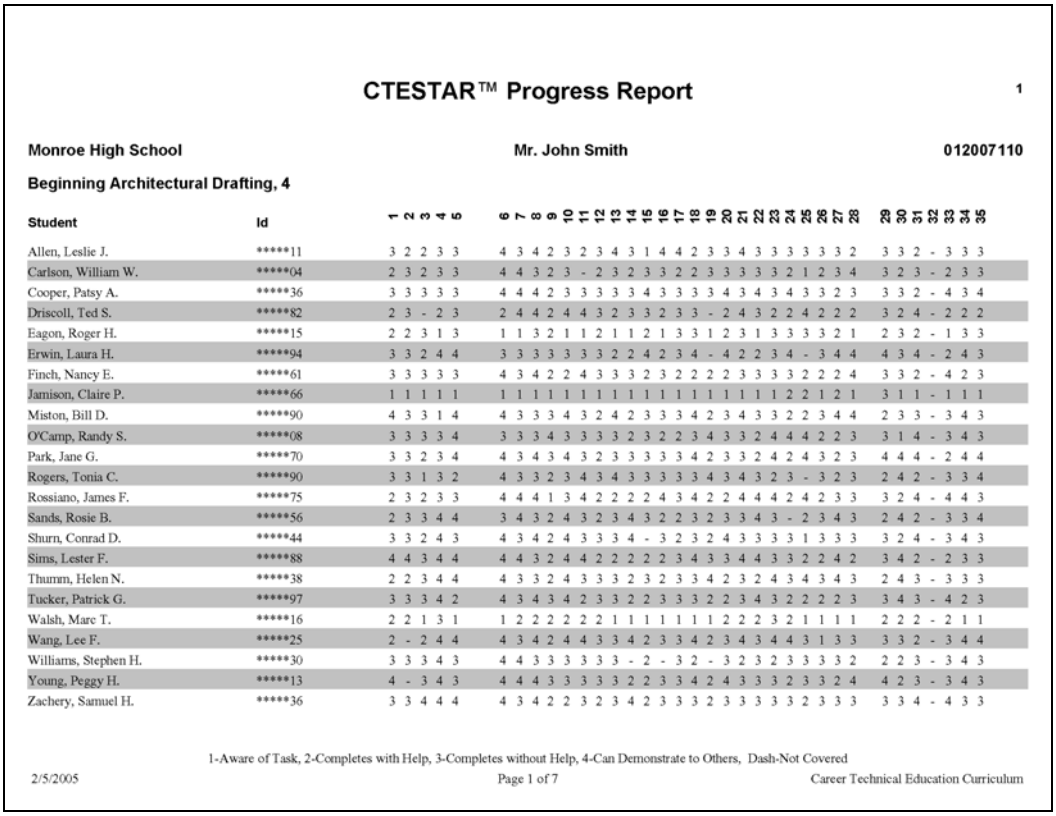
CADD FUNDAMENTALS

Demonstrate basic use of computer operating system

67. Explain rules for naming files and directories
68. Manage files
69. Copy files
70. Rename files
71. Erase files
72. Format diskettes

Operate a CADD system

Sample Course Progress Report, First Page



CTESTAR™ Progress Report 1

Monroe High School **Mr. John Smith** **012007110**

Beginning Architectural Drafting, 4

Student	Id	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Allen, Leslie J.	*****11	3	2	2	3	3	4	3	4	2	3	2	3	4	3	1	4	4	2	3	3	4	3	3	3	3	3	3	2	3	3	2	-	3	3	3
Carlson, William W.	*****04	2	3	2	3	3	4	4	3	2	3	-	2	3	2	3	3	2	2	3	3	3	3	3	2	1	2	3	4	3	2	3	-	2	3	3
Cooper, Patsy A.	*****36	3	3	3	3	3	4	4	4	2	3	3	3	3	3	4	3	3	3	3	4	3	4	3	4	3	3	2	3	3	3	2	-	4	3	4
Driscoll, Ted S.	*****82	2	3	-	2	3	2	4	4	2	4	4	3	2	3	3	2	3	3	-	2	4	3	2	2	4	2	2	2	3	2	4	-	2	2	2
Eagon, Roger H.	*****15	2	2	3	1	3	1	1	3	2	1	1	2	1	1	2	1	3	3	1	2	3	1	3	3	3	3	2	1	2	3	2	-	1	3	3
Erwin, Laura H.	*****94	3	3	2	4	4	3	3	3	3	3	3	3	2	2	4	2	3	4	-	4	2	2	3	4	-	3	4	4	4	3	4	-	2	4	3
Finch, Nancy E.	*****61	3	3	3	3	3	4	3	4	2	2	4	3	3	3	2	3	2	2	2	2	3	3	3	3	2	2	2	4	3	3	2	-	4	2	3
Jamison, Claire P.	*****66	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	2	1	3	1	1	-	1	1	1
Miston, Bill D.	*****90	4	3	3	1	4	4	3	3	3	4	3	2	4	2	3	3	3	4	2	3	4	3	3	2	2	3	4	4	2	3	3	-	3	4	3
O'Camp, Randy S.	*****08	3	3	3	3	4	3	3	3	4	3	3	3	3	2	3	2	2	3	4	3	3	2	4	4	4	2	2	3	3	1	4	-	3	4	3
Park, Jane G.	*****70	3	3	2	3	4	4	3	4	3	4	3	2	3	3	3	3	3	4	2	3	3	2	4	2	4	3	2	3	4	4	4	-	2	4	4
Rogers, Tonia C.	*****90	3	3	1	3	2	4	3	3	2	3	4	3	4	3	3	3	3	3	4	3	4	3	2	3	-	3	2	3	2	4	2	-	3	3	4
Rossiano, James F.	*****75	2	3	2	3	3	4	4	4	1	3	4	2	2	2	2	4	3	4	2	2	4	4	4	2	4	2	3	3	3	2	4	-	4	4	3
Sands, Rosie B.	*****56	2	3	3	4	4	3	4	3	2	4	3	2	3	4	3	2	2	3	2	3	3	4	3	-	2	3	4	3	2	4	2	-	3	3	4
Shurn, Conrad D.	*****44	3	3	2	4	3	4	3	4	2	4	3	3	3	4	-	3	2	3	2	4	3	3	3	3	1	3	3	3	3	2	4	-	3	4	3
Sims, Lester F.	*****88	4	4	3	4	4	4	4	3	2	4	4	2	2	2	2	2	3	4	3	3	4	4	3	3	2	2	4	2	3	4	2	-	2	3	3
Thumm, Helen N.	*****38	2	2	3	4	4	4	3	3	2	4	3	3	3	2	3	2	3	3	4	2	3	2	4	3	4	3	4	3	2	4	3	-	3	3	3
Tucker, Patrick G.	*****97	3	3	3	4	2	4	3	4	3	4	2	3	3	2	2	3	3	3	2	2	3	4	3	2	2	2	2	3	3	4	3	-	4	2	3
Walsh, Marc T.	*****16	2	2	1	3	1	1	2	2	2	2	2	2	1	1	1	1	1	1	1	2	2	2	3	2	1	1	1	1	2	2	2	-	2	1	1
Wang, Lee F.	*****25	2	-	2	4	4	4	3	4	2	4	4	3	3	4	2	3	3	4	2	3	4	3	4	4	3	1	3	3	3	3	2	-	3	4	4
Williams, Stephen H.	*****30	3	3	3	4	3	4	4	3	3	3	3	3	3	-	2	-	3	2	-	3	2	3	2	3	3	3	3	2	2	2	3	-	3	4	3
Young, Peggy H.	*****13	4	-	3	4	3	4	4	4	3	3	3	3	3	2	2	3	3	4	2	4	3	3	3	2	3	3	2	4	4	2	3	-	3	4	3
Zachery, Samuel H.	*****36	3	3	4	4	4	4	3	4	2	2	3	2	3	4	2	3	3	3	2	3	3	3	3	3	2	3	3	3	3	3	4	-	4	3	3

1-Aware of Task, 2-Completes with Help, 3-Completes without Help, 4-Can Demonstrate to Others, Dash-Not Covered

2/5/2005 Page 1 of 7 Career Technical Education Curriculum

Sample Student Certificate

Competency Certificate

Engineering/Manufacturing and Industrial Technology

This is to certify that

Leslie J. Allen

Achieved the performance levels acknowledged on the task achievement record for the program of

Beginning Architectural Drafting

Monroe High School
School

09/01/04
Program Entry Date

06/01/05
Program Exit Date

Good
Attendance

Mr. John Smith, Instructor

Director of Career and Technical Education

11

Sample Student Task Achievement Record Report, First Page

CTESTAR™ Student Task Achievement Record
Engineering/Manufacturing and Industrial Technology

Allen, Leslie J. **0733411**

Program
Beginning Architectural Drafting

Instructor
Mr. John Smith

School
Monroe High School

Program Entry Date
09/01/04

Program Exit Date
06/01/05

Attendance
Good

WORKPLACE SAFETY

Maintain safe working environment

1. Maintain clean work area by removing waste, keeping alleyways clear, cleaning tools, and preventing spills	3
2. Identify visual equipment controls (e.g., monitors, read outs)	2
3. Comply with workplace safety rules and procedures	2
4. Comply with personal safety rules and procedures	3
5. Recycle appropriate materials	3

DRAFTING TECHNOLOGY

Apply basic drafting skills

6. Use drafting equipment	4
7. Identify line types (alphabet of lines)	3
8. Select proper drawing scale, introduction to different types	4
9. Prepare title blocks and other drafting formats	2
10. Apply freehand and other lettering techniques	3
11. Prepare multi-view drawings	2
12. Prepare multi-view sketches	3
13. Prepare orthographic views	4
14. Measure angles	3
15. Draw horizontal, vertical, angular, parallel, and perpendicular lines	1
16. Construct tangent lines (to arcs) and tangent arcs (to arcs)	4
17. Bisect angles and arcs	4
18. Bisect lines	2
19. Divide lines	3
20. Construct three-point circle	3
21. Construct regular hexagon, and octagon	4
22. Reproduce a drawing	3
23. Prepare single-view drawings	3
24. Prepare working drawings	3
25. Interpret notes and dimensions	3
26. Draw arcs, and circles.	3
27. Transfer measurements	3
28. Identify current ANSI symbols/standards	2

Apply intermediate drafting skills

29. Prepare isometric and oblique sketches	3
30. Prepare sectional views	3
31. Prepare auxiliary views	2
32. Prepare views of drilled and tapped holes, counterbores, countersinks	-
33. Identify a bill of materials	3

1-Aware of Task, 2-Completes with Help, 3-Completes without Help, 4-Can Demonstrate to Others, Dash-Not Covered

2/5/2005 Page 1 of 6

Sample Student Task Achievement Record Report, Following Pages

CTESTAR™ Student Task Achievement Record

Allen, Leslie J. **0733411**

34. Describe purpose of auxiliary and sectional views	3
35. Dimension drawings per current ANSI standards	3
Apply advanced drafting skills	
36. Prepare pictorial drawings	3
37. Interpret various drawings	3
Interpret basic prints	
38. Visualize object from drawing	3
39. Interpret orthographic projections	3
40. Interpret isometric views	3
41. Interpret sectional views	3
42. Interpret detail and assembly drawings	4
43. Interpret dimensions	3
44. Interpret screw thread specifications	4
Convert dimensions and tolerances	
45. Convert dimensions and tolerances from English units to metric units	3
46. Convert dimensions and tolerances from metric units to English units	3
Apply revision control process	
47. Apply drawing balloons	3
48. Apply documentation (including project filing, back-up material, tracking process)	4
49. Apply change control block	2
Demonstrate dimensioning techniques	
50. Construct arrowheads	3
51. Add labels/notes to drawing	1
52. Dimension arcs	3
53. Dimension angles	4
54. Dimension curves	3
55. Dimension rounded-end shapes	2
56. Dimension cylindrical objects	4
57. Dimension features on circular center line	4
Apply geometric dimensioning and tolerancing	
58. Interpret decimal tolerance dimensions	2
59. Calculate clearance fit tolerances of mating parts	3
60. Calculate interference fit tolerances of mating parts	3
61. Calculate tolerances to mating parts using standard fit tables	3
62. Calculate transitional fit tolerances	3
Prepare mechanical drawings	
63. Prepare assembly drawings	3
64. Prepare casting drawings	3
Prepare advanced mechanical drawings	
65. Resolve problems by descriptive geometry	3
66. Prepare fastener drawings	3

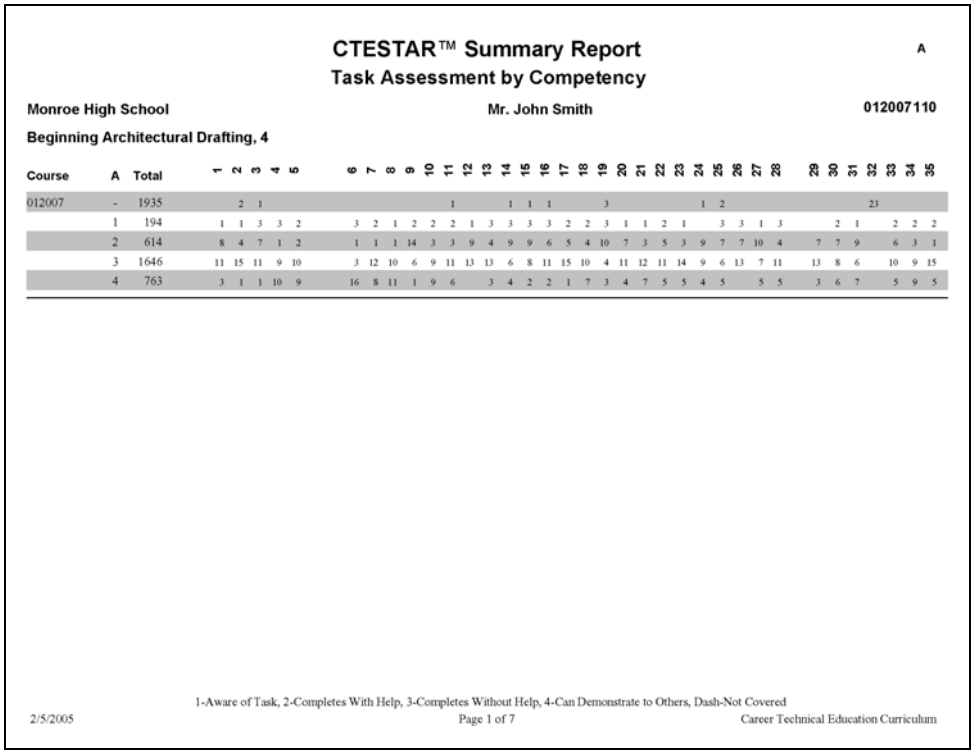
CADD FUNDAMENTALS

Demonstrate basic use of computer operating system	
67. Explain rules for naming files and directories	4
68. Manage files	3
69. Copy files	3
70. Rename files	4
71. Erase files	3
72. Format diskettes	2
Operate a CADD system	

1-Aware of Task, 2-Completes with Help, 3-Completes without Help, 4-Can Demonstrate to Others, Dash-Not Covered

2/5/2005 Page 2 of 6

Sample Summary Report Page



CTESTAR™ Summary Report A

Task Assessment by Competency

Monroe High School **Mr. John Smith** **012007110**

Beginning Architectural Drafting, 4

Course	A	Total	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
012007	-	1935		2	1								1			1	1	1			3					1	2							23			
	1	194	1	1	3	3	2	3	2	1	2	2	2	1	3	3	3	3	2	2	3	1	1	2	1		3	3	1	3		2	1		2	2	2
	2	614	8	4	7	1	2	1	1	1	14	3	3	9	4	9	9	6	5	4	10	7	3	5	3	9	7	7	10	4	7	7	9		6	3	1
	3	1646	11	15	11	9	10	3	12	10	6	9	11	13	13	6	8	11	15	10	4	11	12	11	14	9	6	13	7	11	13	8	6		10	9	15
	4	763	3	1	1	10	9	16	8	11	1	9	6		3	4	2	2	1	7	3	4	7	5	5	4	5		5	5	3	6	7		5	9	5

1-Aware of Task, 2-Completes With Help, 3-Completes Without Help, 4-Can Demonstrate to Others, Dash-Not Covered

2/5/2005 Page 1 of 7 Career Technical Education Curriculum

Sample Cross-Walk Report

CTESTAR™ Course Curriculum Cross-Walk

Pathway
Business, Management, Marketing and Technology

Course
Computer Applications

Instructor
Joan Abel

Number
62312

Section
Second Hour

Host School
Lakeshore High School

CES

CES **CAREER AND EMPLOYABILITY SKILLS**

CES.1 **APPLIED ACADEMIC SKILLS**

CES.1.1 Read from a technical manual, and write a clear and logical report explaining the information using standard business English (including correct spelling, grammar and punctuation). Give a verbal report explaining what the manual says.

CES.1.2 Read a case study and identify the details about the situation, define technical terms, jargon, or words with multiple meanings based on context, and summarize the conclusion. Relate the results of the study to a similar situation in a verbal or written report.

CES.1.3 Take a verbal and written position on a topic and use correct grammar to defend it.

CES.1.4 Approach practical and workplace problems using a variety of mathematical techniques (e.g. figuring discounts or calculating perimeter and area). Problems include making conversions between the metric system and non-English systems of measurement, mixed units (such as hours and minutes), and can require several steps to finding a solution.

CES.1.5 Research how math is used in the workplace and make a presentation detailing the process.

CES.1.6 Use correct grammar to communicate verbally.

8 Use business and computer terminology correctly.

CES.1.7 Listen to a presentation and record important information. Report back identifying central themes and use key points to explain how the message applies to a similar situation.

CES.1.8 Apply technology to workplace or career situations. Include research and a written paper.

CES.2 **CAREER PLANNING**

CES.2.1 Understand and organize career information and labor market trends from a variety of sources (e.g., MOIS, computer data banks, the internet, interviewing experts and potential employers, mentorships, internships).

19 Compare career information with personal interests.

CES.2.2 Explain the advantages and disadvantages of working for self and working for others, and being an employee of a large or small organization.

CES.2.3 Analyze information and preferences resulting from work-based opportunities such as job shadowing, mentorships, work experiences, apprenticeships, and/or occupational coursework.

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CTESTAR™ Course Curriculum Cross-Walk

Computer Applications, Second Hour **62312**

CES.10.9		Identify avenues for conducting a job search, (e.g. networking, employment agencies, internet, Michigan Works!, etc.).
	16	Identify personal interests and aptitudes.
	17	Identify job requirements and characteristics for a career of interest.
	18	Compare personal interests and aptitudes with job requirements and characteristics.
	19	Compare career information with personal interests.

English Language Arts

ELA **English Language Arts**

ELA.1		All students will read and comprehend general and technical material.
	3	Know and apply sofware copyright and privacy rights.
	4	Know and apply appropriate computer ethics.
	7	Read and follow step-by-step directions.
ELA.2		All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions.
	9	Communicate main ideas and supporting facts.
	10	Use correct spelling, punctuation, and capitalization.
	11	Use correct grammar and sentence structure.
	25	Develop a personal resume for specific job opening.
	26	Write letter of application for specific job opening.
	27	Complete job application forms provided by employer.
	28	Write a personal statement for portfolio use.
	31	Incorporate use of spell check, Thesaurus, and/or grammar check features.
	40	Identify and use proofreaders' marks to indicate all errors in format.
	41	Identify and use proofreaders' marks to indicate all errors in content.
	42	Identify and use proofreaders' marks to indicate all errors in spelling and grammar.
	44	Can prepare and format a spreadsheet.
	45	Enter labels, values and formulas into spreadsheet cells.
	46	Format labels and values.
	47	Analyze information contained in a spreadsheet.
	52	Define relationships of tables.
ELA.3		All students will focus on meaning and communication as they listen, speak, view, read, and write in personal, social, occupational, and civic contexts.
	7	Read and follow step-by-step directions.
	8	Use business and computer terminology correctly.
	9	Communicate main ideas and supporting facts.
	10	Use correct spelling, punctuation, and capitalization.
	11	Use correct grammar and sentence structure.
	25	Develop a personal resume for specific job opening.
	26	Write letter of application for specific job opening.
	27	Complete job application forms provided by employer.
	28	Write a personal statement for portfolio use.

ELA **LANGUAGE**

ELA.4		All students will use the English language effectively.

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Appendix

B

Included Task Lists

Standard Task Lists Included with CTESTAR® for Windows

Included Task Lists

The following task lists are included in the master task list database.

Folder	Task List
16 Clusters Combined	Administration and Administrative Support
16 Clusters Combined	Administrative & Information Support
16 Clusters Combined	Agribusiness Systems
16 Clusters Combined	Animal Systems
16 Clusters Combined	Audio and Video Technologies
16 Clusters Combined	Banking & Related Services
16 Clusters Combined	Biotechnology Research and Development
16 Clusters Combined	Business Analysis
16 Clusters Combined	Business Financial Management & Accounting
16 Clusters Combined	Business Financial Management
16 Clusters Combined	Buying and Merchandising
16 Clusters Combined	Construction
16 Clusters Combined	Consumer Services
16 Clusters Combined	Correction Services
16 Clusters Combined	Counseling & Mental Health Services
16 Clusters Combined	Design-Pre-Construction
16 Clusters Combined	Diagnostic Services
16 Clusters Combined	Distribution and Logistics
16 Clusters Combined	E-Marketing
16 Clusters Combined	Early Childhood Development & Services
16 Clusters Combined	Emergency & Fire Management Services
16 Clusters Combined	Engineering and Technology

Folder	Task List
16 Clusters Combined	Environmental Service Systems
16 Clusters Combined	Facility and Mobile Equipment Maintenance
16 Clusters Combined	Family & Community Services
16 Clusters Combined	Financial & Investment Planning
16 Clusters Combined	Food Products and Processing Systems
16 Clusters Combined	Foreign Service
16 Clusters Combined	Governance
16 Clusters Combined	Health Infomatics
16 Clusters Combined	Health, Safety and Environmental Assurance
16 Clusters Combined	Health, Safety and Environmental Management
16 Clusters Combined	Human Resources
16 Clusters Combined	Information Support and Services
16 Clusters Combined	Insurance Services
16 Clusters Combined	Interactive Media
16 Clusters Combined	Journalism and Broadcasting
16 Clusters Combined	Law Enforcement Services
16 Clusters Combined	Legal Services
16 Clusters Combined	Lodging
16 Clusters Combined	Logistics & Inventory Control
16 Clusters Combined	Logistics Planning and Management Services
16 Clusters Combined	Maintenance, Installation & Repair
16 Clusters Combined	Maintenance-Operations
16 Clusters Combined	Management and Entrepreneurship
16 Clusters Combined	Management
16 Clusters Combined	Manufacturing Production Process Development
16 Clusters Combined	Marketing & Communications
16 Clusters Combined	Marketing Communications and Promotion
16 Clusters Combined	Marketing Information Management and Research
16 Clusters Combined	National Security
16 Clusters Combined	Natural Resources Systems
16 Clusters Combined	Network Systems
16 Clusters Combined	Performing Arts
16 Clusters Combined	Personal Care Services
16 Clusters Combined	Planning
16 Clusters Combined	Plant Systems
16 Clusters Combined	Power, Structural & Technical Systems
16 Clusters Combined	Printing Technologies
16 Clusters Combined	Production
16 Clusters Combined	Professional Sales and Marketing
16 Clusters Combined	Professional Support Services
16 Clusters Combined	Programming and Software Development

Folder	Task List
16 Clusters Combined	Public Management and Administration
16 Clusters Combined	Quality Assurance
16 Clusters Combined	Recreation, Amusements & Attractions
16 Clusters Combined	Regulation
16 Clusters Combined	Restaurants and Food & Beverage Services
16 Clusters Combined	Revenue and Taxation
16 Clusters Combined	Sales and Service
16 Clusters Combined	Science and Mathematics
16 Clusters Combined	Security & Protective Services
16 Clusters Combined	Standard
16 Clusters Combined	Support Services
16 Clusters Combined	Teaching-Training
16 Clusters Combined	Telecommunications Technologies
16 Clusters Combined	Therapeutic Services
16 Clusters Combined	Transportation Operations
16 Clusters Combined	Transportation Systems-Infrastructure Planning, Management and Regulations
16 Clusters Combined	Travel & Tourism
16 Clusters Combined	Visual Arts
16 Clusters Combined	Warehousing and Distribution Center Operations
Agriculture, Food and Natural Resources	Agribusiness Systems
Agriculture, Food and Natural Resources	Animal Systems
Agriculture, Food and Natural Resources	Environmental Service Systems
Agriculture, Food and Natural Resources	Food Products and Processing Systems
Agriculture, Food and Natural Resources	Natural Resources Systems
Agriculture, Food and Natural Resources	Plant Systems
Agriculture, Food and Natural Resources	Power, Structural & Technical Systems
Architecture and Construction	Construction
Architecture and Construction	Design-Pre-Construction
Architecture and Construction	Maintenance-Operations
Arts, Audio-Video Technology and Communications	Audio and Video Technologies
Arts, Audio-Video	Journalism and Broadcasting

Folder	Task List
Technology and Communications	
Arts, Audio-Video Technology and Communications	Performing Arts
Arts, Audio-Video Technology and Communications	Printing Technologies
Arts, Audio-Video Technology and Communications	Telecommunications Technologies
Arts, Audio-Video Technology and Communications	Visual Arts
Business, Management and Administration	Administrative & Information Support
Business, Management and Administration	Business Analysis
Business, Management and Administration	Business Financial Management & Accounting
Business, Management and Administration	Human Resources
Business, Management and Administration	Management
Business, Management and Administration	Marketing & Communications
Education and Training	Administration and Administrative Support
Education and Training	Professional Support Services
Education and Training	Teaching-Training
Finance	Banking & Related Services
Finance	Business Financial Management
Finance	Financial & Investment Planning
Finance	Insurance Services
Government and Public Administration	Foreign Service
Government and Public Administration	Governance
Government and Public Administration	National Security
Government and Public Administration	Planning
Government and Public Administration	Public Management and Administration
Government and Public	Regulation

Folder	Task List
Administration	
Government and Public Administration	Revenue and Taxation
Health Science	Biotechnology Research and Development
Health Science	Diagnostic Services
Health Science	Health Infomatics
Health Science	Support Services
Health Science	Therapeutic Services
Hospitality and Tourism	Lodging
Hospitality and Tourism	Recreation, Amusements & Attractions
Hospitality and Tourism	Restaurants and Food & Beverage Services
Hospitality and Tourism	Travel & Tourism
Human Services	Consumer Services
Human Services	Counseling & Mental Health Services
Human Services	Early Childhood Development & Services
Human Services	Family & Community Services
Human Services	Personal Care Services
Information Technology	Information Support and Services
Information Technology	Interactive Media
Information Technology	Network Systems
Information Technology	Programming and Software Development
Law, Public Safety and Security	Correction Services
Law, Public Safety and Security	Emergency & Fire Management Services
Law, Public Safety and Security	Law Enforcement Services
Law, Public Safety and Security	Legal Services
Law, Public Safety and Security	Security & Protective Services
Manufacturing	Health, Safety and Environmental Assurance
Manufacturing	Logistics & Inventory Control
Manufacturing	Maintenance, Installation & Repair
Manufacturing	Manufacturing Production Process Development
Manufacturing	Production
Manufacturing	Quality Assurance

Folder	Task List
Marketing, Sales and Service	Buying and Merchandising
Marketing, Sales and Service	Distribution and Logistics
Marketing, Sales and Service	E-Marketing
Marketing, Sales and Service	Management and Entrepreneurship
Marketing, Sales and Service	Marketing Communications and Promotion
Marketing, Sales and Service	Marketing Information Management and Research
Marketing, Sales and Service	Professional Sales and Marketing
Michigan Health Sciences State Certificates	ACUTE CARE NURSING ASSISTANT
Michigan Health Sciences State Certificates	ADMINISTRATIVE MEDICAL ASSISTING (AMA)
Michigan Health Sciences State Certificates	ANATOMY AND PHYSIOLOGY
Michigan Health Sciences State Certificates	ANESTHESIA ASSISTANT
Michigan Health Sciences State Certificates	CENTRAL SUPPLY ASSISTANT
Michigan Health Sciences State Certificates	CERTIFIED NURSE AID (CNA)
Michigan Health Sciences State Certificates	CLINICAL LABORATORY ASSISTANT
Michigan Health Sciences State Certificates	CLINICAL MEDICAL ASSISTING
Michigan Health Sciences State Certificates	Cluster
Michigan Health Sciences State Certificates	DENTAL ASSISTANT
Michigan Health Sciences State Certificates	HOME HEALTH CARE NURSE ASSISTANT
Michigan Health Sciences State Certificates	MEDICAL RADIOLOGIC AIDE
Michigan Health Sciences State Certificates	MEDICAL RECORDS ASSISTANT
Michigan Health Sciences State Certificates	OCCUPATIONAL THERAPY ASSISTANT
Michigan Health Sciences State Certificates	OPTOMETRIC LABORATORY TECHNICIAN
Michigan Health Sciences State Certificates	OPTOMETRIC-OPHTHALMOLOGY ASSISTANT
Michigan Health Sciences State Certificates	PHARMACY TECHNICIAN

Folder	Task List
Michigan Health Sciences State Certificates	PHYSICAL THERAPY ASSISTANT
Michigan Health Sciences State Certificates	RECREATION-ACTIVITY THERAPY ASSISTANT
Michigan Health Sciences State Certificates	RESPIRATORY THERAPY AIDE (Draft)
Michigan Health Sciences State Certificates	SURGICAL TECHNOLOGIST ASSISTANT
Michigan Health Sciences State Certificates	VETERINARY ASSISTANT
Science, Technology, Engineering and Mathematics	Engineering and Technology
Science, Technology, Engineering and Mathematics	Science and Mathematics
Transportation, Distribution and Logistics	Facility and Mobile Equipment Maintenance
Transportation, Distribution and Logistics	Health, Safety and Environmental Management
Transportation, Distribution and Logistics	Logistics Planning and Management Services
Transportation, Distribution and Logistics	Sales and Service
Transportation, Distribution and Logistics	Transportation Operations
Transportation, Distribution and Logistics	Transportation Systems-Infrastructure Planning, Management and Regulations
Transportation, Distribution and Logistics	Warehousing and Distribution Center Operations

Appendix

C

MSI Install Properties

Implemented CTESTAR® MSI Install Properties

Properties

If you choose to utilize the included MSI-based install, the following configurable properties are supported.

Property	Interpretation
ESXPATHTODATA	This property is used to determine the default path to user created files. Typically this will point to a mapped drive or folder. The special value '~' (a single tilde) is used to indicate that the data should be stored on the local computer in the user's application data directory (typically *\Documents and Settings\logon-id\Application Data\ESX\CTESTAR* on Windows 2000).
ESXPATHTOREPORTFILE	This property is used to determine the default path to generated PDF report files. Typically this will be empty, in which case the files will be generated to the desktop folder (usually *\Documents and Settings\logon-id\Desktop*). The special value '~' (a single tilde) is used to indicate that the data should be stored on the local computer in the user's desktop folder, otherwise, a folder name should be specified.
ESXINSTPALMAPP	This property determines whether the MSI install executes the *Palm\IPA.EXE* application when installing *CTESTAR® for Palm OS*, or when executing a rollback. If the value is *0*, the *Palm\IPA.EXE* application will not be executed, otherwise it will be executed with an

	argument of "-Install" for installations, or "-Uninstall" for rollbacks. This application interacts with the Palm Desktop and sets the *CTESTAR.prc* for download to the palm, as well as registering the CTESTAR® conduit and a notifier.
ESXTASKNUMBERING	Determines the default task numbering scheme. Refer to the administration manual for more information on this property.

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