



**LEARNING MANAGEMENT SERVER**

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**DATA UPDATE AND  
IMPORT TOOL USER GUIDE**

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Part No. 030007

Publication date: August 2001

Printed and reproduced in the United States of America

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## CHAPTER 1

# Introduction

**T**he Aspen Learning Management Server (LMS) Data Update and Import Tool (DUIT) lets you integrate your employee training and skills data into your Aspen database. It can convert, update, add, and remove records according to the field mappings that you specify, and either write these modifications to the Aspen database directly or create a database script that can be executed later. You can use DUIT to populate a new Aspen database during initial implementation or import additional data to an established database.

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## Feature summary

The Aspen LMS Data Update and Import Tool (DUIT) incorporates existing data about employee skills and training in the Aspen database. DUIT is also used to synchronize Aspen with other enterprise systems, such as HRIS (Human Resource Information System), ERP (Enterprise Resource Planning), and ASP (Application Service Provider) systems.

The Data Update and Import Tool has several uses:

- ◆ Handles initial population of user profile information and historical data
- ◆ Enables ongoing synchronization of data from external sources
- ◆ Includes insert, update, and delete operations

Many ease-of-use features are included:

- ◆ Requires no programming
- ◆ Presents intuitive names for tables and fields
- ◆ Provides a graphical interface for building and executing DUIT transformation sessions
- ◆ Records the current date and time as well as the name of the product that is executing the update
- ◆ Reuses executions by saving session settings in project files
- ◆ Retrieves the logical structure of any OLE DB data source (databases such as Oracle, SQL Server, Sybase, flat files, etc.) automatically
- ◆ Provides the user with continuous real-time status updates on data migration or synchronization session

DUIT provides fast performance and scalability:

- ◆ Maintains high performance by only updating the records that have changed
- ◆ Minimizes the processing impact on the database server since most work is performed on the DUIT server
- ◆ Releases connections to the source and destination database during the transformation phase of a DUIT session
- ◆ Executes long-running sessions
- ◆ Utilizes a database separate from the Aspen production system for temporary transformations
- ◆ Allows DUIT sessions to be scheduled to execute during off-hours.
- ◆ Capable of deployment across multiple servers
- ◆ Uses an advanced HTML logging system

DUIT is extensible and incorporates industry standards. Since the underlying DUIT architecture is XML-based, developers can modify the XML scripts directly. XML defines data transports between the source and destination when using DUIT.

By using the security that is native to your chosen database management system, DUIT keeps your data protected.

## Technical support

You can get technical support from the following sources:

- ◆ Telephone: (800) 388-7332
- ◆ Fax support: (716) 461-1989
- ◆ E-mail: [aspensupport@click2learn.com](mailto:aspensupport@click2learn.com)

If you are interested in taking advantage of our technical support services and software updates, contact your Aspen account representative.

## About this document

This document is written for Aspen system administrators or system integrators who are very familiar with Aspen, as well as the database software used in conjunction with Aspen (Microsoft SQL Server, or Oracle), and Microsoft Windows. For more information, see the Aspen online help files and the user guides.



## Year 2000 Statement

Aspen uses Y2K compliant versions of Microsoft SQL Server, Microsoft Data Engine (MSDE), and Oracle as its data repository. All dates are stored in the database with four digits. Aspen LMS DUIT is designed to allow the year portion of a date to be entered as either a two-digit or four-digit number depending on the end user's Windows regional settings. When entered as a two-digit number, Aspen treats numbers from "00" to "29" (inclusive) as years in the 21st century (2000 through 2029).

To further ease the entry of dates, Aspen LMS DUIT includes date fields with drop-down calendars that allow users to select a date with a mouse click.



## CHAPTER 2

# Installation

**T**his chapter describes how to install the Aspen LMS DUIT software. You will also learn how to create the temporary workspace for DUIT operations.

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12	System requirements
13	Installing Aspen LMS DUIT
13	Workspace database creation
14	Uninstalling

## System requirements

To run Aspen LMS DUIT, your computer configuration must meet or exceed the following system requirements.

### ***Recommended hardware requirements***

- ◆ IBM-compatible personal computer with an Intel Pentium 500 MHz processor or higher
- ◆ 256 MB of RAM (random access memory)
- ◆ Hard disk with at least 250 MB free space
- ◆ Mouse or another pointing device
- ◆ VGA or compatible display device

### ***Software requirements***

- ◆ Windows NT 4.0 with SP4 or higher, or Microsoft Windows 2000
- ◆ Microsoft Active Data Objects (ADO) 2.5
- ◆ Connectivity to an Aspen database server
- ◆ Microsoft Internet Explorer 5.0 or higher

# Installing Aspen LMS DUIT

## To install Aspen LMS DUIT:

- 1 Insert the Aspen disc into the CD-ROM drive.
- 2 In the DUIT setup folder, run the setup program, DuitSetup.exe.  
The DUIT Setup Welcome screen displays.
- 3 Click **Next** and follow the instructions on the following screens.

## Workspace database creation

Each installation of DUIT requires a database to use as a temporary workspace for its operations. Create this database and set up an ODBC System DSN for the computer where DUIT is installed. Before you can use DUIT to perform update or import operations, you need to select this DSN in the Options dialog box the first time you run it. Each DUIT installation should have its own workspace database; you should not have multiple installations sharing a single workspace. For implementations that require high performance, you should use a workspace database that is on a different server than your Aspen database.

For more information about specifying the workspace database, see *Setting the workspace database* in Chapter 3.

# Uninstalling

**To remove Aspen LMS DUIT from your system:**

- 1** In the Control Panel, open the **Add/Remove Programs** icon.
- 2** In the list of currently installed programs, click **Aspen LMS DUIT**.
- 3** Click **Change/Remove**.
- 4** Delete the DUIT workspace database from the server.

## CHAPTER 3

# Getting started

**T**his chapter explains how to get started with the Aspen LMS DUIT application and provides an overview of its basic functionality as well as descriptions of the user interface.

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## Aspen LMS DUIT overview

Aspen LMS DUIT manages and executes project files that you create. A project file is a collection of settings that specify an update, import, or conversion task. These settings include the source and target data connections, operations, output options, and database field mappings.

The DUIT application lets you do the following:

- ◆ Create and save new projects
- ◆ Open and edit existing projects
- ◆ Execute projects to perform the conversion or import task directly on the database
- ◆ Execute projects to write database scripts that can be run later
- ◆ Open and view project execution logs and scripts
- ◆ Delete projects and logs that are no longer needed



# Starting Aspen LMS DUIT

## To start Aspen LMS DUIT:

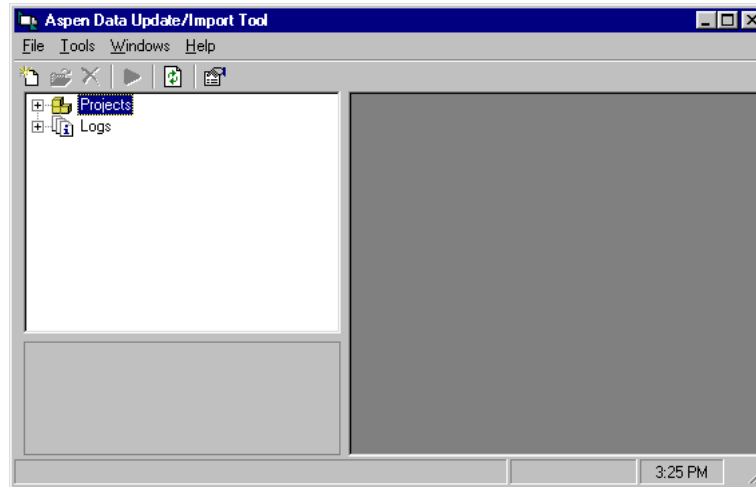
- 1 From the **Start** menu, point to **Programs**.
- 2 Point to **Aspen** and click **Aspen Data Update Import Tool**.

If password protection is turned on, the DUIT Login dialog box opens. You must type a password and then click **Login**.

The Aspen LMS Data Update/Import Tool application window opens.



**NOTE** If you run DUIT from a command line prompt, there are switches that specify how to load the application. See *Appendix A: Command line switches* for descriptions of these switches.



## Setting the workspace database

The first time you run DUIT after installation, the Configure Temporary Database message box immediately prompts you to enter the workspace database. This database must be created specifically for DUIT and be available as an ODBC system DSN on the system where DUIT is installed.

### To set the workspace database:

- 1 In the Configure Temporary Database message box, click **OK**.
- 2 The Options dialog box opens, displaying the Workspace Database tab.



- 3 Type the name of the ODBC system DSN for the workspace database in the **DSN** text box.

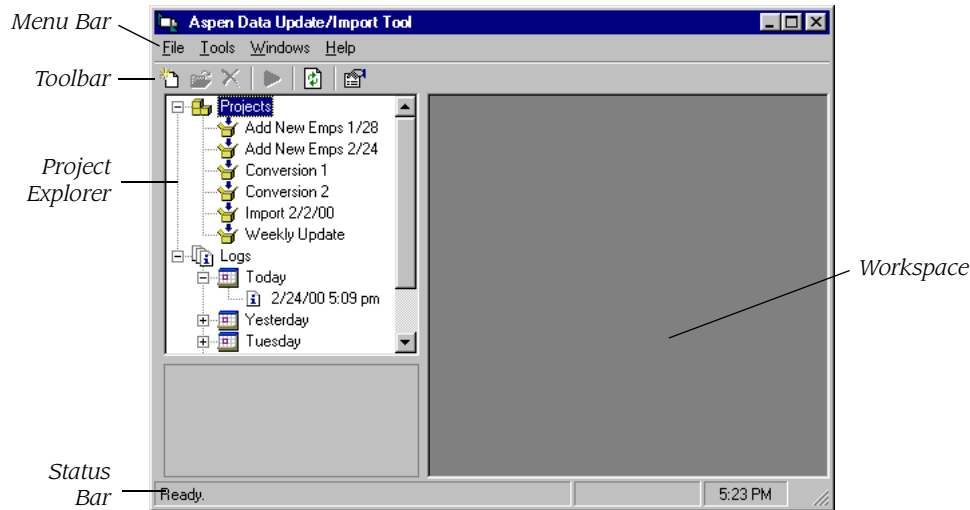
- 3 Type an account login ID for the DSN in the **User Name** text box.  
Because DUIT must create and modify tables in this database, you must use an account with sufficient privileges.
- 4 Type the password for this account in the **Password** text box.
- 5 Click **Test Connection** to check the information that you have entered.
- 6 Click **OK** to close the Options dialog box.

The other settings in the Options dialog box may be left at their default values.

## Application window overview

The Aspen LMS DUIT application window consists of the following elements.

**Figure 1** The DUIT application window



### Menu bar

The application menu bar contains all the Aspen LMS DUIT menus and commands. Most of the commands in the menus have toolbar equivalents.

## ***Toolbar***

The toolbar contains buttons with graphics that are equivalent to menu commands.

## ***Project Explorer***

The Project Explorer in the left pane of the application window displays a hierarchical list of projects and log files.

- ◆ Double-click a project or log to open it.
- ◆ Right-click an item to open its shortcut menu.
- ◆ Click the plus (+) or minus (-) sign to expand or collapse item groups in the list. Double-clicking an item group also expands or collapses it.
- ◆ Press **Delete** on your keyboard to delete a selected item.
- ◆ On the **Windows** menu, click **Refresh Project Explorer** to update the list of projects and log files.

## ***Workspace***

The workspace is the main area in the right pane of the application window where projects and logs are displayed.

## ***Status bar***

The status bar at the bottom of the application window displays helpful prompts and information as you work.

## Menu bar

The menu bar in the Aspen LMS DUIT application window contains the following menus.

### ***File menu***

- ◆ **New Project** - creates a new project and displays it in a blank Project Wizard in the workspace.
- ◆ **Open**
  - Project** - opens the selected project and displays it in a Project Wizard.
  - Locate Other Project** - displays the Open dialog box, allowing you to select and open a project file that is not in the Project Explorer (project file not in the default project folder).
- ◆ **Execute**
  - Project** - runs the selected project and displays it in the Executing window.
  - Project with Options** - runs the selected project, requiring you to enter key options in the Execute with Options dialog box.
  - Locate Other Project** - displays the Open dialog box, allowing you to select and execute a project that is not in the Project Explorer.
- ◆ **Delete Project** - deletes the selected project.
- ◆ **View Log** - opens the selected log file in the Log window.
- ◆ **Delete Log** - deletes the selected log.

- ◆ **Delete Logs** - deletes the selected log group along with all the log files it contains.
- ◆ **Delete All Logs** - deletes all log files in the Project Explorer.
- ◆ **Exit** - loses the DUIT application.

### ***Tools menu***

- ◆ **Change Password** - allows you to set, change, or remove a password for DUIT.
- ◆ **Options** - opens the Options dialog box.

### ***Windows menu***

- Refresh Project Explorer** - updates the Project Explorer.

### ***Help menu***







- ◆ **Help Topics** - opens the DUIT online help file.
- ◆ **About DUIT** - displays version and copyright information.

# Shortcuts

## Toolbar

There are buttons on the application toolbar for most of the menu commands.

### Application toolbar buttons

Button	Description
 New Project	Opens the Project Wizard in the workspace to create a new project
 Open Project or View Log	Opens the selected project or log file in the Project Wizard or Log Viewer
 Delete	Deletes the selected project or log file
 Execute	Runs the selected project
 Refresh Explorer View	Updates the contents of the Project Explorer
 Options	Sets DUIT options

## Shortcut menus

You can right-click any item in the Project Explorer to open a shortcut menu of commands that are valid actions for that item.

For example, right-clicking a project opens a shortcut menu containing the **Open**, **Execute**, **Delete**, and **Refresh** commands.



## CHAPTER 4

# Using DUIT

**T**his chapter provides instructions for working with the DUIT application and explains concepts that you should understand in order to use DUIT successfully.

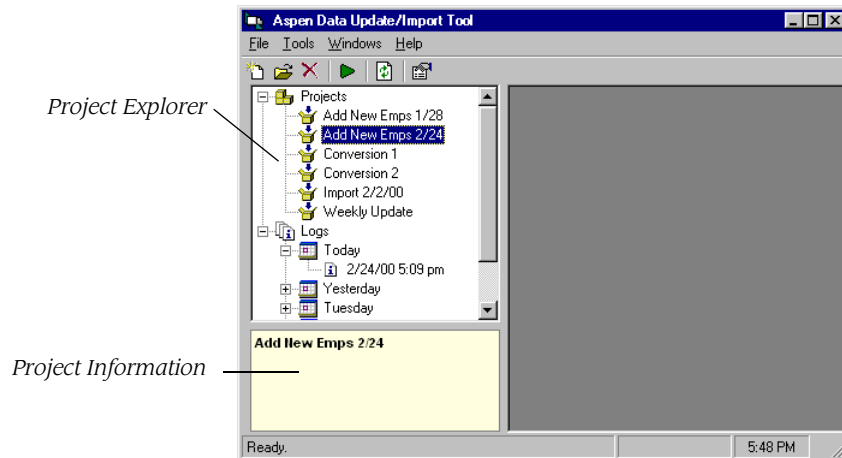
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## Working with projects


Use the Project Explorer in the left pane of the DUIT application window to manage your projects.

**Figure 1** The Project Explorer




The projects that you have created and saved are under the **Projects** icon. The bottom part of the Project Explorer contains logs from project executions. In the Projects list, click the plus (+) or minus (-) sign to expand or collapse the list.

► **To create a new project:**

On the **File** menu, click **New Project** . The Project Wizard opens and displays a blank project.

► **To open a project:**


- 1 Select a project  in the Project Explorer.
- 2 On the **File** menu, click **Open** and point to **Project**.  
The Project Wizard opens and displays the selected project.

► **To execute a project:**

- 1 Select a project in the Project Explorer.
- 2 On the **File** menu, point to **Execute** and then:
  - ◆ Click **Project** to execute the selected project according to the settings in the project file.
  - ◆ Click **Project with Options** to open the Execute with Options dialog box and specify output options that override the settings in the saved project file for this single execution of the project.
  - ◆ Click **Locate Other Project** to execute a project that is not in the default Project folder.

The Executing window appears in the workspace:

► **To delete a project:**

- 1 Select a project  in the Project Explorer.
- 2 On the **File** menu, click **Delete Project**, or press the **Delete** key on your keyboard.

# Project Wizard

Use the Project Wizard to create or edit a project. This wizard steps you through the three parts of defining a project in the Connections, Actions, and Field Mappings windows.

**Figure 2** The Project Wizard

**Project - Add New Emps 2/24**

**Connections**  
Where is your data located?

Connections | Actions | Field Mappings

Project name: Add New Emps 2/24

Source: Data Link - (recommended)

Configure... Provider=SQLOLEDB.1;Persist Security Info=False;User ID=sa;Initial Catalog=DUITSource;Data Source=habanero

Clear

Username: sa

Password: [REDACTED]

Schema owner: [REDACTED] (Oracle only)

Target: Aspen 7.0

Configure... Connecting to 'Training01'.

Clear

Username: sa

Password: [REDACTED]

Schema owner: [REDACTED] (Oracle only)

Close < Back Next > Save

## Connections

The Connections window contains the fields that allow you to specify how DUIT communicates with the source and target databases.

The settings you enter in the Project Wizard are saved in a project file. Enter a name for your project in the **Project name** field.

### **Source connection**

In the Source section, define the database that will be used as the source for DUIT operations

- ◆ **Source** Choose one of the following database connection types for the source data:

**Data Link** - OLE DB providers; the recommended setting

**ODBC Data Source** - an ODBC (Open Database Connectivity) system data source name

**Ingenium 5.0** - an Ingenium 5.0 database

**Ingenium 6.0** - an Ingenium 6.0 database

**Aspen 1.0** - an Aspen 1.0 database

- ◆ **Configure** - configures the source database connection depending on the setting in the **Source** field.
- ◆ **Clear** - clears the settings entered from the **Configure** field.
- ◆ **User Name** - if applicable, the account login ID that is used to log into the source database.
- ◆ **Password** - the password for the user name.
- ◆ **Schema Owner** - the schema owner used to log into the source database (Oracle databases only).

### ***Target connection***

In the Target section, define the database that will be used as the target for DUIT operations

- ◆ **Target** - choose **Aspen 1.0**, **Ingenium 5.0**, or **Ingenium 6.0** as the target database connection type.
- ◆ **Configure** - configures the target database connection.
- ◆ **Clear** - clears the settings entered from the **Configure** field.
- ◆ **User Name** - if applicable, the account login ID that is used to log into the target database.
- ◆ **Password** - the password for the user name.
- ◆ **Schema Owner** - the schema owner used to log into the target database (Oracle databases only).

When you are done with the Connections window, click **Next** to open the Actions window.

## Actions

DUIT uses the connections that were defined in the Connections window to read the source and target database tables. In the Actions window, select the source and target database tables. Define the database operations to perform and select how to output the results (either directly to the database or as scripts).

**Figure 3** The Actions window

**Project - Add New Emps 2/24**

**Connections**  
Where is your data located?

Connections | **Actions** | Field Mappings | Connections

Project name: Add New Emps 2/24

Source: Data Link - (recommended)

Configure... Clear  
Provider=SQLOLEDB.1;Persist Security Info=False;User ID=sa;Initial Catalog=DUIT Source;Data Source=habanero

Username: sa  
Password:   
Schema owner: (Oracle only)

Target: Aspen 1.0

Configure... Clear  
Connecting to 'Training01'!

Username: sa  
Password:   
Schema owner: (Oracle only)

Close < Back Next > Save

**Source Table** - displays a drop-down list of all available tables in the source database.

**Target Table** - displays a drop-down list of all available tables in the target database.

### ***Operations***

Under Operations, select from the following operations that may be performed on the target database.

- ◆ **Update** - updates records in the target database with data from the matching source records.
- ◆ **Add** - if there is no match for a source record in the target database, add it to the target database.
- ◆ **Delete with when records match** - deletes a record in the target database when there is a match for it in the source database. When this option is selected, the **Update** or **Add** options cannot be selected.
- ◆ **Delete with when records do not match** - deletes a record in the target database if there is no match for it in the source database.

If this option is selected along with the **Update** and **Add** options, a full synchronization of the data from the source to the target occurs for the fields selected in the Field Mappings window.

If this option is selected along with the **Update** and **Add** options, the target database is synchronized with the source for the fields selected in the Field Mappings window.



- ◆ **Import unique values only** - normalize the output. Make sure there are no redundant row entries in the table.

For example, in an operation where you are importing from a table of organization data where an employee is listed twice because of membership in two different organizations, select this option to make sure that the employee is listed only once in an output table of employees.

### ***Outputs***

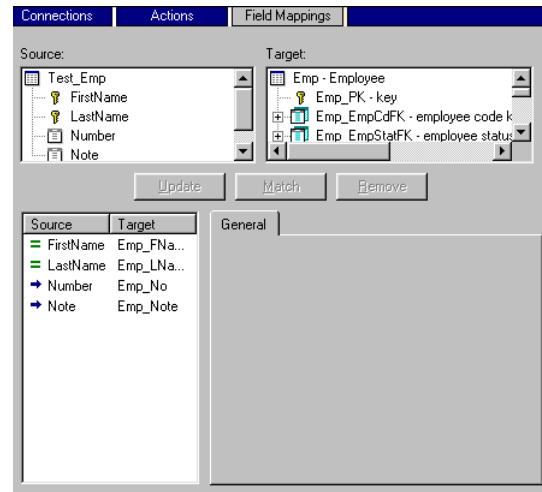
Under Outputs, select what DUIT will do with the processing results.

- ◆ **Save changes to the target database** - saves the processing results to the target database directly during project execution.
- ◆ **Create a script of changes that can be executed later** - creates a PERSIST script that can be manually run against the database at any time after project execution.

## Field Mappings

The Field Mappings window is used to define equivalent fields as mapped field pairs in the source and target databases for matching and updating.

**Figure 4** The Field Mappings window



Click a field in the **Source** list and its equivalent in the **Target** list, then click the **Update** or **Match** operation button to add them to the field mapping list in the lower left part of the window.

### ***Field lists***

- ◆ **Source** - displays available fields from the database table selected in the **Source Table** drop-down list box of the **Actions** window.
- ◆ **Target** - displays available fields from the database table selected in the **Database Table** drop-down list box.

### ***Operations***

- ◆ **Match** - use the selected source and target fields to determine if there is a matching record by comparing their values. All the compared source and target fields must match for the source and target records to match.
- ◆ **Update** - updates the value of the target field with the value of the source field when the source and target records match. When adding records from the source that do not exist in the target, this option adds the value of the source field to a new target record.
- ◆ **Remove** - removes the selected field pair from the field mapping list. You can also use the **Delete** key on your keyboard for this task.



### ***Properties***

Depending on whether a field or mapped field pair is selected, one of the following options is available:

- ◆ **Field Properties** - displays information about a selected field.
- ◆ **Field Mapping Properties** - displays information about a selected field pair in the field mapping list.

**► To map your source data to your target data:**

- 1** Select a field from the **Source** list box.
- 2** Select a field from the **Target** list box.
- 3** Select an operation:
  - ◆ Click **Match** to use this field pair to determine if there are matching records within the source and target database fields.
  - ◆ Click **Update** to update the contents of the target field with the contents of the source field.

The matching or updating field pair is added to the field mapping list. A matching field pair is preceded by an equal sign  and an updating field pair is preceded by an arrow .

**► To remove a mapped field pair:**

- 1** Select a row in the field mapping list.
- 2** Click **Remove**.

***Control buttons***

The following buttons are located at the bottom of Project Wizard.

**Close** - close the Project Wizard

**Back** - go back to the previous window

**Next** - go on to the next window


**Save** - save any changes to the current project

**Save As** - press the Ctrl key on your keyboard to change the Save button to a Save As button, which allows you to save the current project to a different project file.

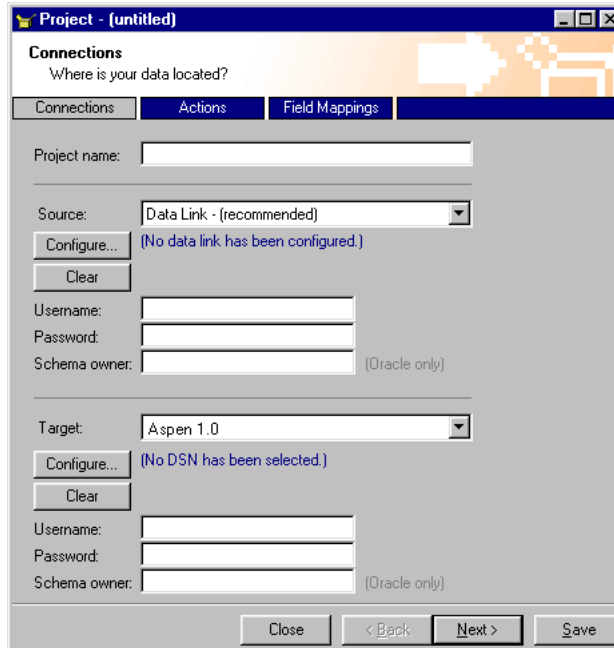
# Creating or editing a project

## ► To create or edit a project:

1 Open the Project Wizard by doing one of the following:

- ◆ On the File menu, click **New Project**  to create a new project.
- ◆ To edit an existing project, double-click a project in the Project Explorer.

The Project Wizard opens in the workspace.



The screenshot shows the 'Project - (untitled)' dialog box with the 'Connections' tab selected. The dialog is titled 'Project - (untitled)' and has a subtitle 'Where is your data located?'. It features three tabs: 'Connections', 'Actions', and 'Field Mappings'. The 'Connections' tab is active, showing fields for 'Project name:', 'Source:', 'Username:', 'Password:', 'Schema owner:', 'Target:', and another set of 'Username:', 'Password:', and 'Schema owner:' fields. The 'Source' dropdown is set to 'Data Link - (recommended)' with a 'Configure...' button and a 'Clear' button below it. The 'Target' dropdown is set to 'Aspen 1.0' with a 'Configure...' button and a 'Clear' button below it. The 'Schema owner' fields have a '(Oracle only)' label. At the bottom, there are 'Close', '< Back', 'Next >', and 'Save' buttons.

Project - (untitled)

**Connections**  
Where is your data located?

Connections Actions Field Mappings

Project name:

Source:    
Configure... (No data link has been configured.)   
Clear

Username:    
Password:    
Schema owner:  (Oracle only)

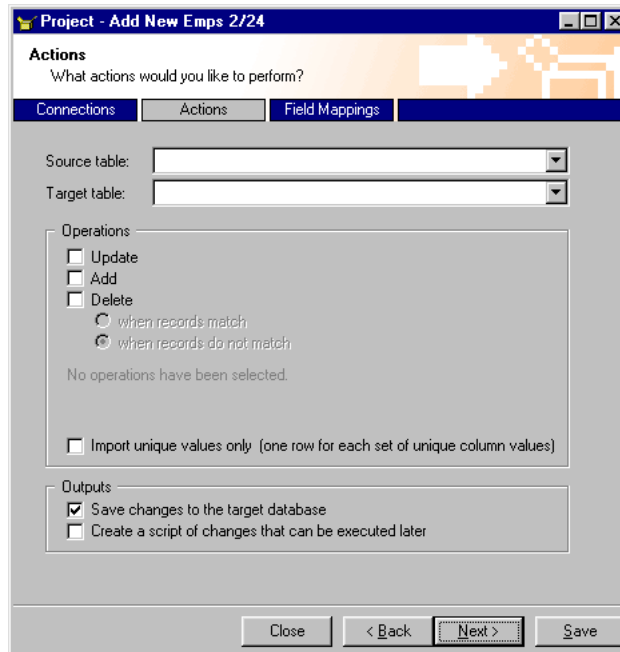
Target:    
Configure... (No DSN has been selected.)   
Clear

Username:    
Password:    
Schema owner:  (Oracle only)

Close < Back Next > Save

- 2 In the Connections window of the Project Wizard, type a name into the **Project Name** text box.
- 3 Click a data source in the **Source** drop-down list box.
- 4 Click **Configure** to set up the connection to the source database.
- 5 Enter the required data into the Data Link Properties dialog box or Select DSN dialog box and then click **OK**.
- 6 Enter the **User name**, **Password**, and, if your database is Oracle, **Schema owner** to log into the source database. These fields may be left blank if you entered the appropriate configuration information in the previous step.
- 7 In the **Target** box, you can choose to connect to an **Aspen 1.0**, **Ingenium 6.0**, or **Ingenium 5.0** database.
- 8 Click **Configure** to select the DSN (data source name) for the target database.
- 9 Enter the **User name**, **Password**, and **Schema owner** as needed to log into the target database.

- 10 Click **Next** to accept the data entered into the Connections window and continue to the Actions window.



- 11 In the Actions window, click the name of the table to read from the source database in the **Source table** drop-down list box.
- 12 Click the name of the table to modify in the target database in the **Target table** drop-down list box.

**13** Under Operations:

- ◆ Select **Update** to update matching records in the target database with data from the source database.
- ◆ Select **Add** to add records from the source that do not exist in the target.
- ◆ Select **Delete** with the **when records match** option to remove the records in the target that have a match in the source.

When this option is selected, neither of the **Update** or **Add** options apply, so they cannot be selected.

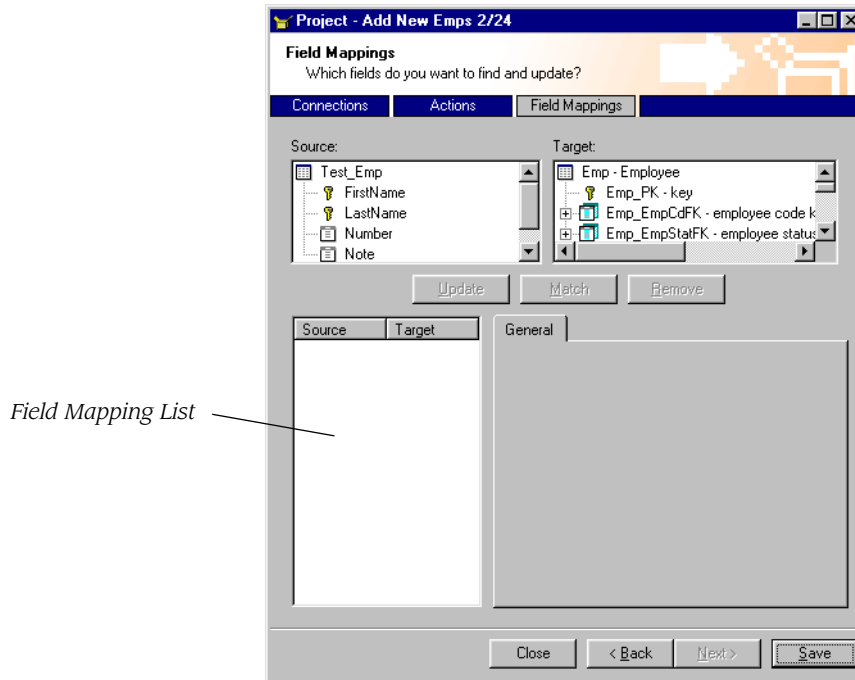
- ◆ Select **Delete** with the **when records do not match** option to remove records from the target that do not have a matching record in the source.

If this option is selected along with the **Update** and **Add** options, a full synchronization of the data from the source to the target occurs for the fields selected in the Field Mappings window.

**14** Under Outputs, you can select any combination of the following options: **Save changes to the target database**, **Create a script of changes that can be executed later**, or **Import unique values only**.

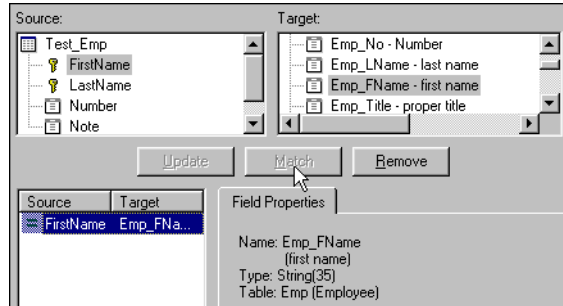


- 15 Click **Next** to accept the data entered into this window and continue to the Field Mappings window.



- 16** In the Field Mappings window, select one or more pairs of fields to compare for matching.

Specify a matching field pair by clicking a field from the source table in the **Source** list box and its corresponding field from the target table in the **Target** list box and then clicking **Match**.

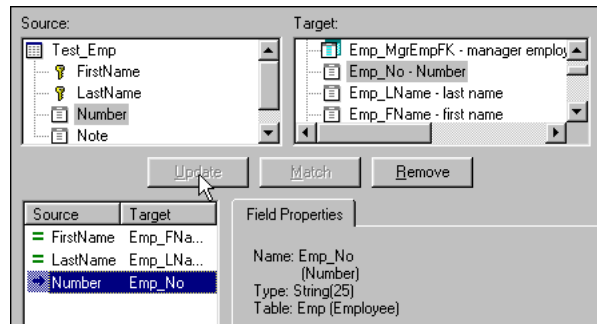


The selected pair of fields is listed in the field mapping list in the lower-left part of the window preceded by an equal sign **=**.

If the value in the source field is the same as the value in the target field, then they match. If all the field pairs listed in the field mapping match for a record in the source and target database, then the records match. The operations defined in the Actions window are performed during execution depending on whether the records match.

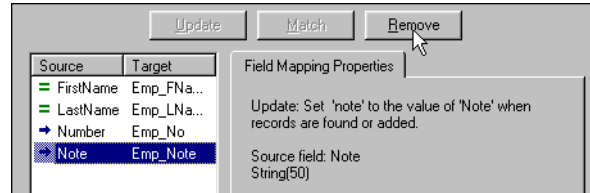
- 17** Select an updating field pair where the value in the source field is updated in the target field. This update occurs in records that match when **Update** is selected in the Actions window. It also occurs in new records that are created when **Add** is selected in the Actions window.

Click a field in the **Source** list box and its corresponding field in the **Target** list box and then click **Update**.



This updating field pair is listed in the field mapping list preceded by an arrow ➡.

- 18** To delete a field pair in the field mapping list, select it and click **Remove**.



- 19** Click **Save** to save the project.
- 20** Click **Close** to close the Project Wizard.

This project is now added to the Project Explorer and is ready to execute.

## Configuring database connections

You must set up the DUIT connection to the source and target databases in the Connections window of the Project Wizard.

After selecting the database connection type in the **Source** or **Target** drop-down list box, click **Configure** to open either the Data Link Properties or the Select DSN dialog box.

### ***Data Link properties***

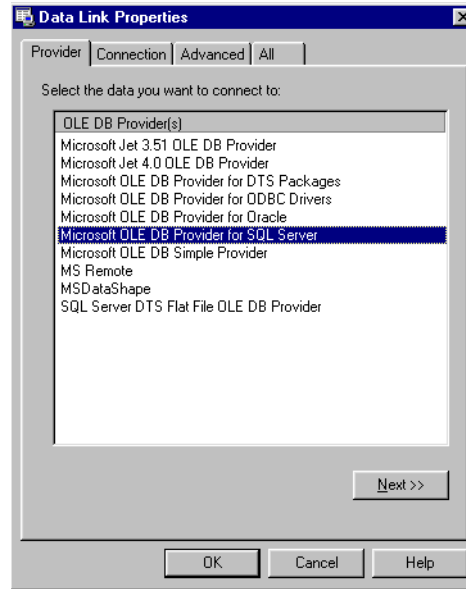
Data Link is the recommended database connection type because it uses OLE DB, which provides the fastest connection with the most database information.

#### **► To set up a data link:**

- 1** In the Connections window, select **Data Link** in the **Source** drop-down list box.
- 2** Click **Configure**.

The Data Link Properties dialog box opens.

- 3 In the Provider tab, click the OLE DB provider to use.



- 4 In the remaining tabs, enter the settings needed to connect to the source database.
- 5 Click OK.

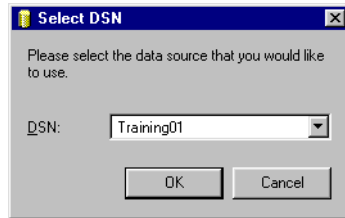
### **Select DSN**

If you select **Aspen 1.0**, **Ingenium 6.0**, **Ingenium 5.0**, or **ODBC Data Source** as the database connection type, you must select an ODBC system DSN (data source name). Before you select a DSN, you must have set up the DSN on your computer by using the ODBC Data Sources utility in the Windows Control Panel.

► **To set up a DSN to a source or target database:**

- 1** In the Connections window, select **Aspen 1.0**, **Ingenium 6.0**, **Ingenium 5.0**, or **ODBC Data Source** in the **Source** or **Target** drop-down list box.
- 2** Click **Configure**.

The Select DSN dialog box opens.



- 3** In the **DSN** drop-down list box, click the ODBC system DSN to use.
- 4** Click **OK**.

## Executing a project

### ► To execute a project:

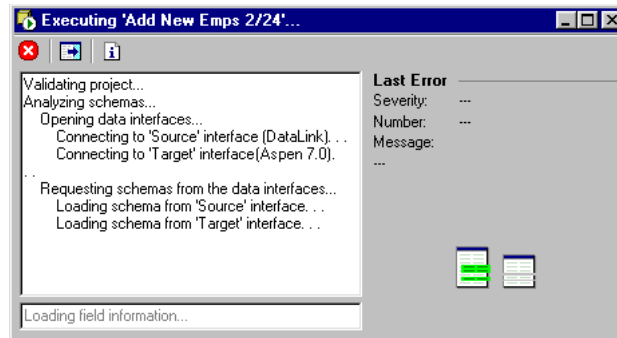
- 1 Select a project in the Project Explorer.
- 2 On the **File** menu, point to **Execute**.
  - ◆ Click **Project** to open the Executing window and run the selected project.
  - ◆ Click **Project with Options** to open the Execute with Options dialog box and change some of output options for this execution of the project only.
  - ◆ Click **Locate Other Project** to use a standard Open dialog box to find and execute a project file that is not in the default Project folder.



## Executing window




When the project starts running, the Executing window displays the status of the current operation.

**Figure 5** Executing window



A new project log is created and added to the Project Explorer.

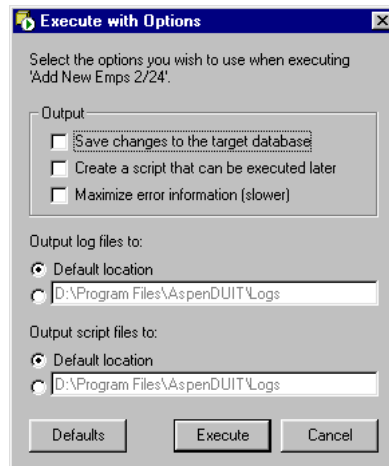
## Executing window toolbar buttons

Button	Description
 Stop	<i>Stops the execution of the current project</i>
 Show/Hide Error Status	<i>Toggles the display of the Last Error</i>
 View Log	<i>Opens the Log Viewer displaying the project log file</i>

## Execute with Options dialog box

The Execute with Options dialog box lets you change some of the output options for execution of a project without affecting the saved settings in the project file. These changes only apply to the current execution.

**Figure 6** Execute with Options dialog box



The following options are available:

- ◆ Under Output, select **Save changes to the target database** to write the results of the DUIT processing directly to the target database.

- ◆ Select **Create a script that can be executed later** to write a PERSIST script that can be executed on the target database at a later time.
- ◆ Select **Maximize error information** to write all debugging information to the log file.
- ◆ Select **Output log files to** and/or **Output script files to** add to folders other than the default location by selecting the option to type in a drive and path.



The default location for the log and script files is specified in the File Locations tab of the Options dialog box.

When you are finished selecting options in this dialog box, you can:


- ◆ Click **Execute** to run the project with these settings.
- ◆ Click **Defaults** to undo all of your changes.
- ◆ Click **Cancel** to close this dialog box and return to the application window without executing the project.

## Working with log files

Every time a project executes, a log file is written. The log file records the processes and errors that occur when a project executes. The log file is usually found in the Log folder that is specified in the File Locations tab of the Options dialog box unless another location is entered in the Execute with Options dialog box. The level of detail recorded in the log depends on the setting in the Debugging tab of the Options dialog box.

The log files are managed in the Project Explorer under the **Logs**  icon. They are arranged chronologically in log groups  according to creation date and time. There are log groups for Today, Yesterday, other days of the week, This month, etc. Click the plus (+) or minus (-) sign to expand or collapse the log groups.


### ► To open a log file:

**1** Select a log  in the Project Explorer.



**2** On the **File** menu, click **View Log**:

The log file is displayed in the Log Viewer.

### ► To delete a log file:

**1** Select a log  in the Project Explorer.


**2** On the **File** menu, click **Delete Log**.

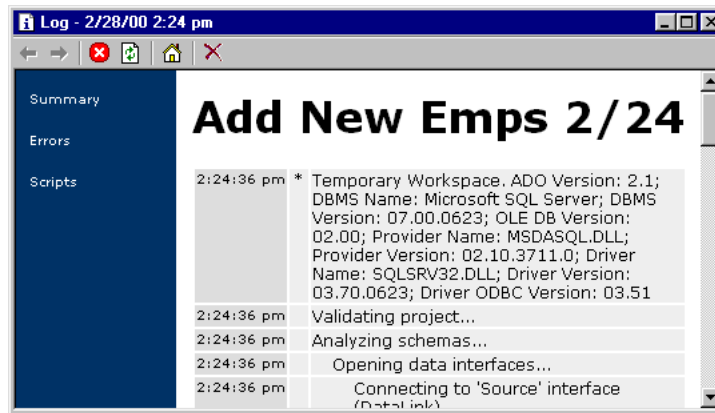
You can delete multiple log files by selecting a log group  or all log files  and then selecting **Delete Logs** or **Delete All Logs** from the **File** menu.

## Viewing a log file

You can display log files in the Log Viewer.

► **To use the Log Viewer:**

- 1 Select a log  in the Project Explorer.
- 2 On the File menu, click **View Log**.









The Log Viewer opens, displaying the Summary page of the log file. The Summary page lists information about the processes that occurred during the execution of the project.

- 3 To view information about any errors that occurred, click **Errors** in the navigation bar of the Log Viewer.
- 4 Click **Scripts** to view any scripts that were generated by the project.

5 Click **Summary** to display the summary page.

### Log Viewer toolbar buttons

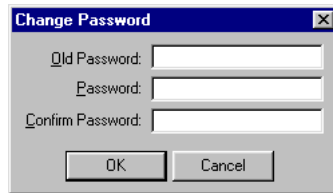
Button	Description
 <i>Back</i>	Displays the previous page
 <i>Forward</i>	Displays the next page
 <i>Stop</i>	Stops reading the current page
 <i>Refresh</i>	Updates the current page
 <i>Home</i>	Returns to the Summary page
 <i>Delete</i>	Deletes this log file

# Password protection

You can protect Aspen LMS DUIT by requiring the entry of a password in order to load the application. By default, DUIT does not require a password.

► **To add or change a password for DUIT:**

- 1 On the **Tools** menu, click **Change Password**.



- 2 If a password is currently set, type it in the **Old Password** text box; otherwise leave it blank.
- 3 Type a password in the **Password** text box.
- 4 Enter the password in the **Confirm Password** text box.  
Leave the **Password** and **Confirm Password** text boxes blank to remove password protection.
- 5 Click **OK**.

## Setting options

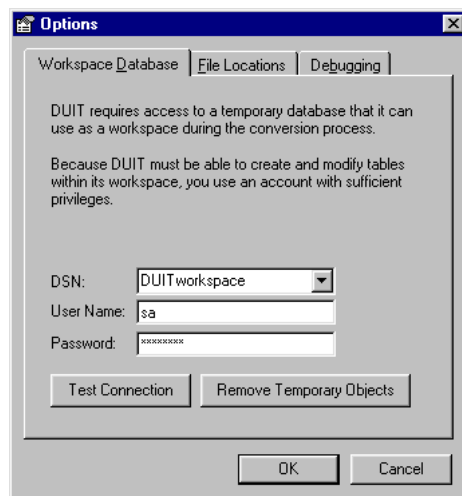
To open the Options dialog box, on the **Tools** menu click **Options**.

The Aspen LMS DUIT options can be viewed and edited in the Options dialog box, which contains the three tabs described below.

### ***Workspace Database tab***

The workspace database is created on the Aspen server specifically for DUIT to use during processing.

**Figure 7** Workspace Database tab of the Options dialog box





The Workspace Database tab contains the following items that specify how to connect to the workspace database:

- ◆ **DSN** - the ODBC System DSN (Data Source Name) of the workspace database.
- ◆ **User Name** - the account login ID that DUIT uses to log into the workspace database. This user must have sufficient permissions to add and remove database tables.
- ◆ **Password** - the password for the user name.

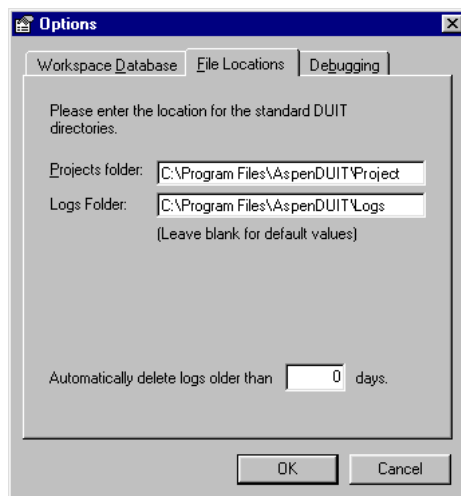
There are two additional controls at the bottom of the tab.

- ◆ Click **Test Connection** to check the information that you have entered.
- ◆ Click **Remove Temporary Objects** to clean up any data and tables that may be left behind if DUIT abnormally terminates.

## ***File Locations tab***

The File Locations tab allows you to change the folder where DUIT stores project, log, and script files.

**Figure 8** File Locations tab of the Options dialog box



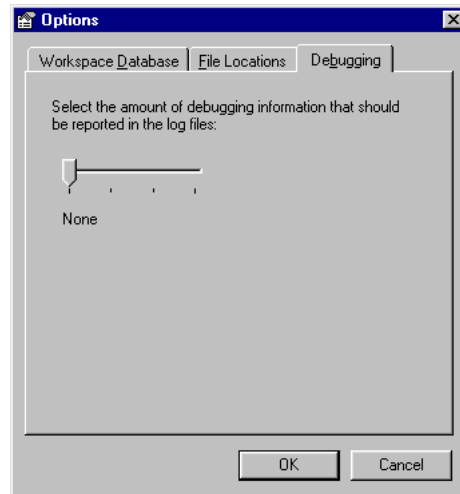
By default, the DUIT Project and Log folders are located in the Aspen LMS DUIT application folder.

- ◆ **Project Folder** - default location where project files are saved.
- ◆ **Log Folder** - default location where log and script files are saved.
- ◆ **Automatically delete logs older than <#> days** - deletes all log files after the number of days entered in this text box.

## Debugging tab

Use the Debugging tab to select the amount of detail you would like recorded in the log files.

**Figure 9** Debugging tab of the Options dialog box



Drag the slider control to choose between **none**, **basic**, **advanced**, and **all**. The default position is **none**. The higher the debugging level setting, the larger the size of the log files.

## Exiting

To close the Aspen LMS DUIT application, on the **File** menu click **Exit**.



APPENDIX A

Command line switches

The Aspen LMS DUIT application, IngDUIt.exe, can be run from a command line using the following format and switches:

```
Drive:\path\ingduit [drive:\path\project file] [/execute]
[/logdir=drive:\path\log directory] [/projectdir=drive:\path\
project directory] [/scriptdir=drive:\path\script directory] [/
noui] [/nowelcome] [/password=password] [/autoexit [=true |
false]]
[/options]
```

Command line switch

Switch	Description
<i>no switches</i>	Loads the Aspen LMS DUIT application
<i>[drive:\path\project file]</i>	Full path to the DUIT project file to open
<i>[/execute]</i>	Automatically executes the project file specified
<i>[/script-dir=drive:\path\script directory]\</i>	Full path to the default directory for DUIT to write script files

Switch	Description
[/noui]	Execute a project without displaying the user interface
[/nowelcome]	Run DUIT without displaying the Welcome screen
[/password= <i>password</i> ]	Enter the password for a DUIT installation with password protection
[/autoexit [=true   false]]	If this switch is true, automatically exit DUIT after project file execution, otherwise it stays loaded  Default is true if the /execute switch is specified
[/options]	Display the DUIT Options dialog box

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