

1.Installing Mun-Ease 2018^(SQLServer)

1.1 MUN-EASE 2018 - SQL SERVER OR EDB?

Mun-Ease 2018 can use either the SQL Server database or the Elevate Database Engine (EDB). Both versions have the same features. The SQL Server version is a good choice if your I.T. staff already supports other SQL Server applications and is familiar with the SQL Server architecture.

On the other hand, the EDB is simpler to install and maintain and is slightly faster. Thus the EDB is probably a good choice if your organization has limited or no technical staff.

Your initial decision on this matter is not critical. There is no downside to initially selecting one database and then subsequently deciding at a later point to switch to the other. We provide a utility that allows you to move data back and forth between the EDB and SQL Server. The conversion process takes just a few minutes and is very easy.

The steps for installing the SQL Server version of Mun-Ease are documented in the following pages while instructions for installing the EDB version are described in Chapter 2.

1.2 DOWNLOAD THE INSTALLATION PROGRAM

Users can download the installation program from the www.mun-ease.com web site. The “setup” executable is approximately 300 megabytes. It will take a few minutes to download. Go to the <http://www.mun-ease.com/download.html> web page. Mun-Ease displays the following web page:

2018 Release

	64-Bit Version	32-Bit Version
Elevate Database (EDB) <u>Installation Instructions</u>	Download 64-bit EDB 2018 Complete Version (for new 2018 users) <u>Right-click to save the installation program to the user's desktop.</u> Run the program. You must enter a password to install the new release. The password can be obtained by emailing us at support@mun-ease.com or by calling us at 949-248-5788.	Download 32-bit EDB Server 2018 Complete Version (for new 2018 users) <u>Right click to save the installation program to the user's desktop.</u> Run the program. You must enter a password to install the new release. The password was e-mailed to the primary contact of your organization. The password also can be obtained by emailing us at support@mun-ease.com or by calling us at 949-248-5788.
SQL Server Database <u>Installation Instructions</u>	Download 64-bit SQL Server 2018 Complete Version (for new 2018 users) <u>Right-click to save the installation program to the user's desktop.</u> Run the program.	Download 32-bit SQL Server 2018 Complete Version (for new 2018 users) <u>Right-click to save the installation program to the user's desktop.</u> Run the program.

Figure 1-1: The Downloads page on the Mun-Ease website (www.mun-ease.com/download.html)

Right-click on the appropriate version of Mun-Ease and save the executable file to the user's desktop. For example, if you were to right-click on the 32-bit SQL Server version, the link would be saved as **Setup2018v18"xx"40Sql32.EXE** on your desktop.

We include separate installation instructions for the EDB version and SQL Server version. They can be downloaded or viewed by clicking on the [Installation Instructions](#) link. Both the EDB and SQL Server instructions include information that specific either the 32-bit or 64-bit installations. That information is described in the following pages.



Figure 1-2: Password for 2018 Version

1.3 ENTER THE PASSWORD FOR THE 2018 VERSION

We sent an e-mail in September 2018 to (a) our current customers, (b) prospects, and (c) customers who use an older version of Mun-Ease. The e-mail contained an attachment that contained our September 2018 newsletter. We also sent a separate e-mail to the primary contact of our current customers. That e-mail contains the password to install the 2018 version.

If you did not receive an e-mail from us, please call or e-mail and we will promptly send you the password.

You can also call us at 949-248-5788 or e-mail us at support@mun-ease.com if you have any questions about the installation.

1.4 MUN-EASE 2018 - 64-BIT OR 32-BIT VERSION?

If you are installing Mun-Ease on a 64-bit computer AND use the 64-bit version of Microsoft Office, then install the 64-bit version of Mun-Ease. Otherwise, you must install the 32-bit version of Mun-Ease. (Microsoft does not allow a computer to contain both 64-bit drivers and 32-bit drivers on the same machine).

To be candid, we previously assumed that there would be a quicker transition to native 64-bit architecture. After all, Microsoft first released 64-bit versions of their Office software in 2010. To our surprise though, the most current version of Office (Office 365) is almost always installed as a 32-bit application thereby requiring Office 365 users to install the 32-bit version of Mun-Ease.

Why is there reluctance by Microsoft to convert to a 64-bit architecture? The stock answer is that there are many third-party add-in tools to Microsoft Office that will be made obsolete if the user installs 64-bit drivers on an existing computer. (Note though that the steps to install the 64-bit version are very similar to the 32-bit installation and vice versa.)

1.5 MINIMUM SYSTEM REQUIREMENTS

Each release of Mun-Ease is developed for a set of hardware/software specifications that we think a typical user might have. While this may seem obvious to you, we mention this fact for one very important reason. We find that Mun-Ease (and almost every other Windows application) runs much faster with additional memory. Thus we recommend that your computer have at least 2 gigabytes of memory. Because of significant costs reductions in the cost of memory, almost all computers easily meet this requirement.

Background:

The SQL Server version of Mun-Ease requires slightly more memory than the EDB version of Mun-Ease. The additional memory is used to create temporary in-memory database tables on the client. These in-memory database tables are used in two circumstances: (a) when Mun-Ease displays data grids for browsing and entering data, and (b) when Mun-Ease performs recursive calculations.

1.6 INSTALLING MUN-EASE IN SIX EASY STEPS

Background: All of the software that you need to run Mun-Ease is included on the CD. Shown below are the six steps to install Mun-Ease 2018. Note that some steps are optional.

<i>User Profile</i> <i>Installation Steps</i>	<i>New User –No prior versions of Mun-Ease ever installed.</i>	<i>User upgrading from Mun-Ease 2015 to Mun-Ease 2018 for the first time.</i>	<i>Existing Mun-Ease 2018 user applying an interim update.</i>
Step 1: Install Mun-Ease 2018.	Required	Required	Required Users can use the fast update option.
Step 2: Install SQL Server Express on the server.	Optional Required only if the user does not have SQL Server database installed on the server and the jet engine installed on the client.	Optional Required only if the user does not have SQL Server database installed on the server.	Not Required
Step 3: Register your database with SQL Server and assign user rights and permissions. (You register your database by restoring the backup database files that we supply on the Mun-Ease 2018 CD.)	Required	Optional Required only if the user previously used the EDB database and is converting to SQL Server for the first time.	Not Required
Step 4: Run the Microsoft Data Link (UDL) wizard. (The data link wizard defines the connection attributes for each database.)	Required	Optional Required only if the user previously used the EDB database and is converting to SQL Server for the first time.	Not Required
Step 5: Conversions: If you are using a database other than SQL Server, run the conversion program to convert the prior database to SQL Server format.	Not Required	Optional Required only if the user previously used the EDB database and is converting to SQL Server for the first time.	Not Required
Step 6: Hardware key driver installation. Program hardware key for the 2018 version.	Required Not Required	Not Required Not Required	Not Required Not Required

We strongly recommend that the installer disable *user account control* (UAC) before installing the 2018 version of Mun-Ease. The UAC can be disabled by clicking on the *user accounts* icon within the Control Panel. Click on the *turn user account control* icon and uncheck the UAC check box.

Questions and Answers

Question I am reinstalling Mun-Ease on a user's PC. Should I uninstall Mun-Ease before reinstalling a new version?

Answer No. Do not uninstall a previous version of Mun-Ease because you could also remove the user's database. Instead, just install the new version over the old version. Mun-Ease will not overwrite the user's data. The installation program will also remove outdated files from the user's computer.

Question Should I install the 2018 version in the same folders that I used for the 2012 and 2015 versions?

Answer In previous versions, the installer could specify that the user's personal folder to be either:

C:\Users\Public\AppData\Prescient Software\Mun-Ease

or

C:\Users\<WinSignOn>\Prescient Software\Mun-Ease

(where <WinSignOn> is the user's Windows sign-on.

We no longer provide an option for the installer use the "public" folder (option #1). Why? In the years since we first released Mun-Ease, Microsoft has been increasingly concerned about security and privacy issues. Thus they do not recommend the "public" folder. Also the "appdata" subfolder can be problematic unless the user has administrative rights. In many instances, data in the appdata folder is hidden from the user's view.

Thus we now recommend the second option for the user's personal folder. If you are changing the personal folder, you may need to copy files and data from the old "public" folder to the new folder.

1.7 INSTALLER NEEDS ADMINISTRATIVE RIGHTS

The installation program creates new folders on both the user's PC and the network server (if the database is installed there). It also updates the Windows Registry and files in the Windows folder.

Mun-Ease should be installed under the sign-on of the user who will be using the software; otherwise the user will not be able to see his icons.

The person installing Mun-Ease will need administrative rights to both the user PC and the network server. (Initiate the installation program with the "run as administrator" option.)

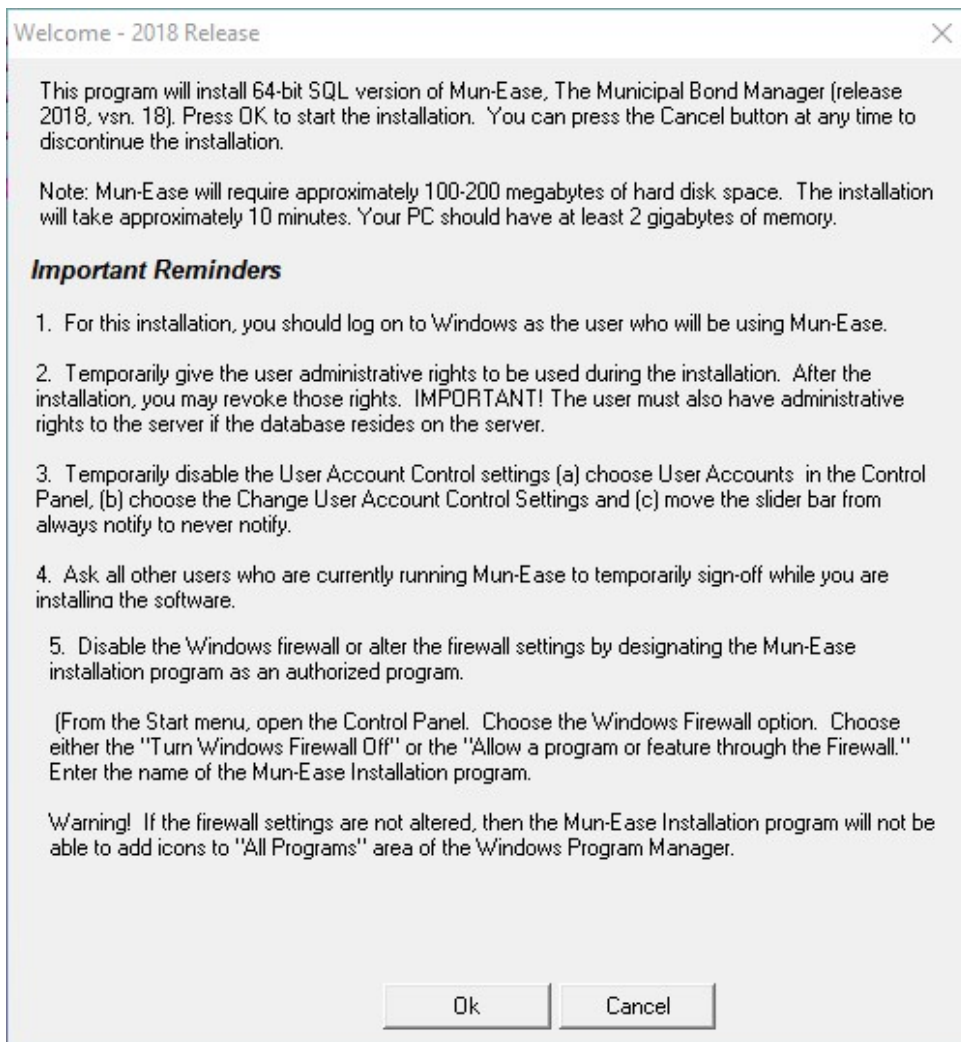


Figure 1-3: Welcome Screen

1.8 MUN-EASE 2018 INSTALLATION

The next few pages will outline the installation steps. We recommend that you spend a few minutes to read this section before installing Mun-Ease. Doing so will ensure that the installation goes quickly and without problems.

Steps:

- 1) Close all programs and applications.
- 2) Download the Setup2018v18"xx"Sql32.exe or Setup2018v18"xx"SQL64 .exe from the www.mun-ease.com/download.html page to your desktop.
- 3) Right-click on the Start menu, and choose the *open windows explorer* menu option. Choose either the 64-bit setup program or the 32-bit setup program.
- 4) Mun-Ease displays the Welcome screen. The Welcome screen reminds you that you should be logged on as the user who will be running Mun-Ease and that the user should have administrative rights.

Hints:

- 1) Users of the Enterprise version of Mun-Ease should install Mun-Ease on each user's computer.
- 2) User Account Control message

The installation program displays the following message from the Microsoft User Account Control:

User Account Control:

Do you want to allow this app from an unknown publisher to make changes to your device.

Setup2018SQL64.Exe.

Publisher: Unknown. Yes No

Enter Yes.

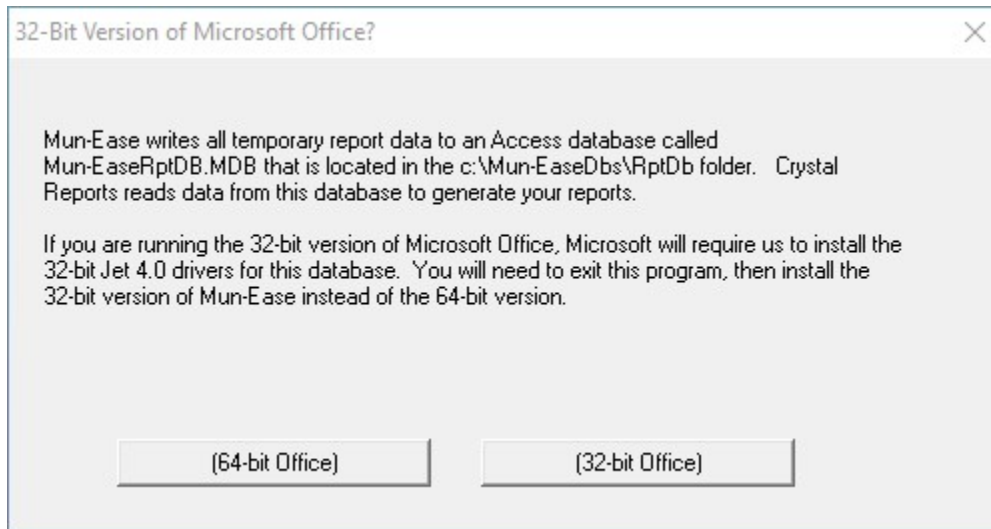


Figure 1-4: What version of Microsoft Office are you running?

If you have chosen to install the 64-bit version of Microsoft Office, you must install the 64-bit version of Mun-Ease. Conversely, if you have chosen to install the 32-bit version of Microsoft Office, you must install the 32-bit version of Mun-Ease.

1.9 STEP 1: INSTALLING THE 2018 RELEASE OF MUN-EASE

*(Tip: If you are upgrading Mun-Ease from an earlier version, do **NOT** **uninstall** the old version before installing the 2018 release. (If you uninstall Mun-Ease, you can potentially remove all of the data that you created with the older release.)*

A window appears with the Mun-Ease license agreement. Click ok if you agree to the terms.

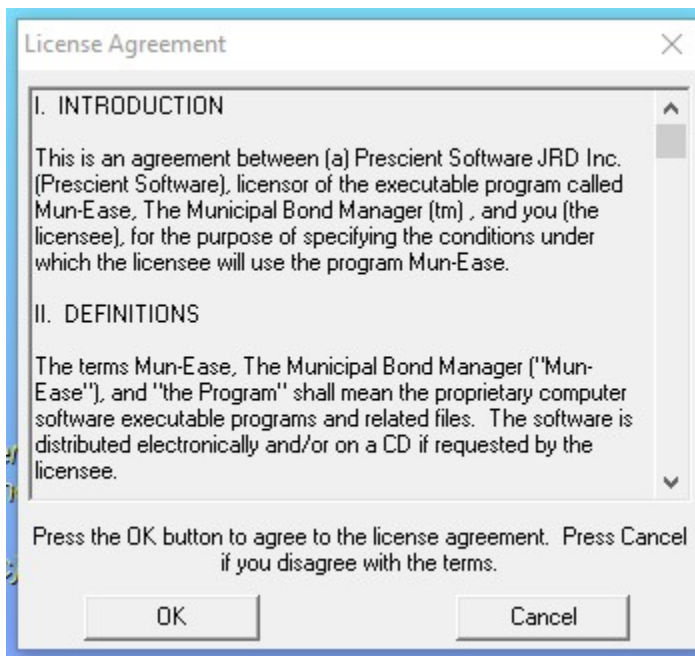


Figure 1-5 License Agreement Acknowledgements

Read the license agreement. If you agree with these terms, click *OK*.

1.9.1 THE WINDOWS REGISTRY AND THE INSTALLATION PROGRAM

The installation program reads the Windows Registry on the user's computer to determine if Mun-Ease was previously installed on the user's computer. In most instances, Mun-Ease will be installed in the folders previously chosen. (Note though that prior installation options will not be used if user's personal folder includes "Public" or "AppData" in the path name.

Mun-Ease now displays the following message:

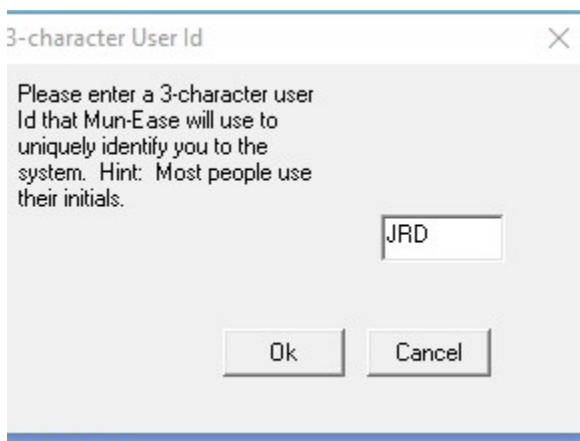


Figure 1-6: 3-Character User ID

Enter a three-character user ID which Mun-Ease will register as its first user. Most users select their initials for the user ID. The User ID is extremely important in a multi-user environment. Mun-Ease ensures that one user does not overwrite the work of another user by monitoring activities of each user. Thus the User ID must be unique.

Click **OK**. The *personal directory* dialog box appears.

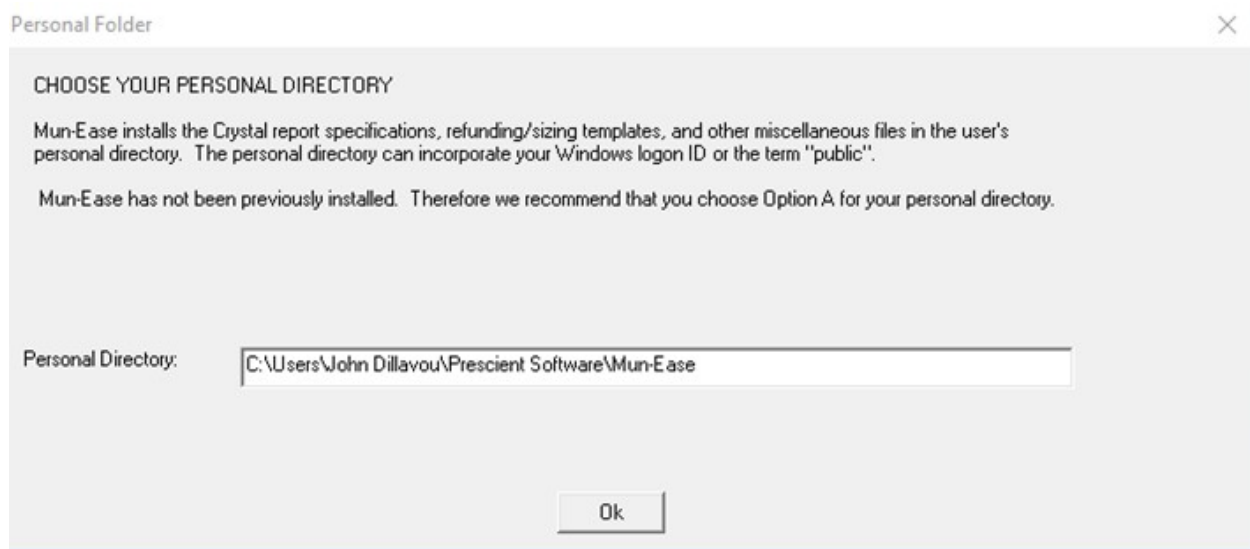


Figure 1-7: Personal Directory

The Mun-Ease installation program then displays a window containing the default folder location for the user's personal directory:

```
c:\users\<WinSignOn>\prescient software\mun-ease
```

where <WinSignOn> is the user's Windows logon ID.

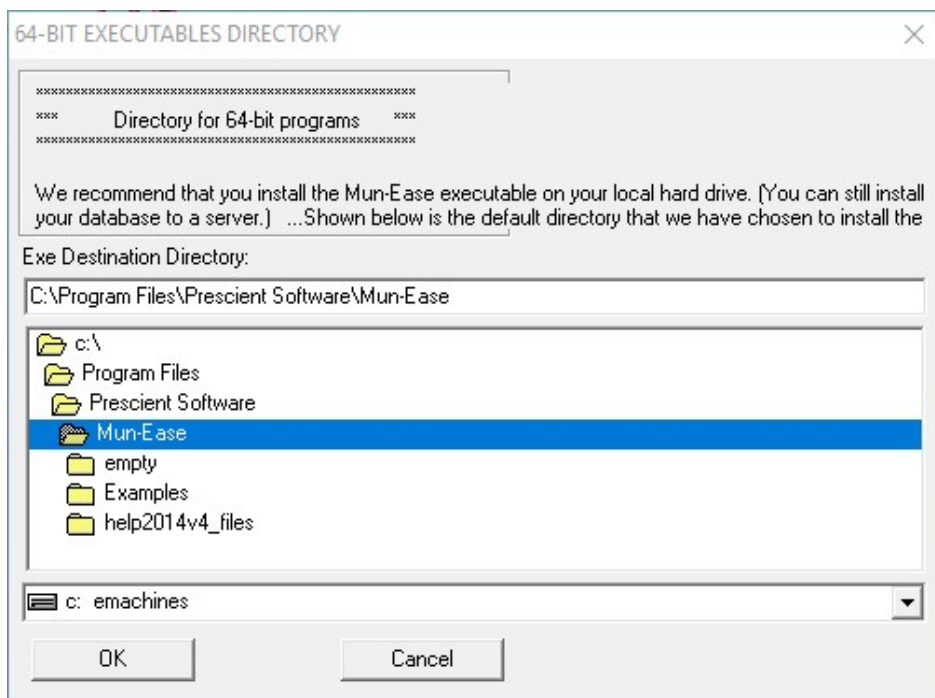


Figure 1-8: Folder Location for 64-Bit Executables

Users who have chosen to install the 64-bit version of Mun-Ease must choose a folder for the main executable. Ordinarily, this folder is C:\Program Files\Prescient Software\Mun-Ease.

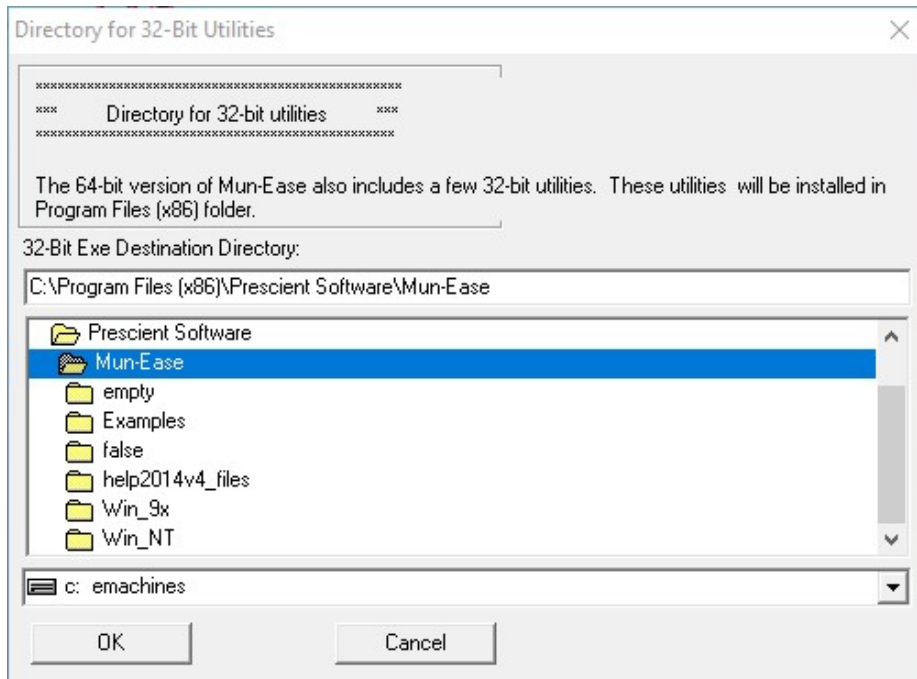


Figure 1-9: Directory for 32-bit utilities

32-Bit Utilities

The 64-bit version of Mun-Ease also contains a few 32-bit utilities (e. g., the EDB/Sql Server conversion routine). Enter the file folder where the 32-bit programs will reside. The Mun-Ease installation program suggests a default directory of **C:\Program Files (x86)\Prescient Software\Mun-Ease**.

Suggestion: Generally we recommend that you install the executable files on your local hard drive. Note that installing your executables on a local drive does not restrict you from placing your database on a server.

After you click Ok, Mun-Ease displays a window where you define the folder location for the user's personal data.

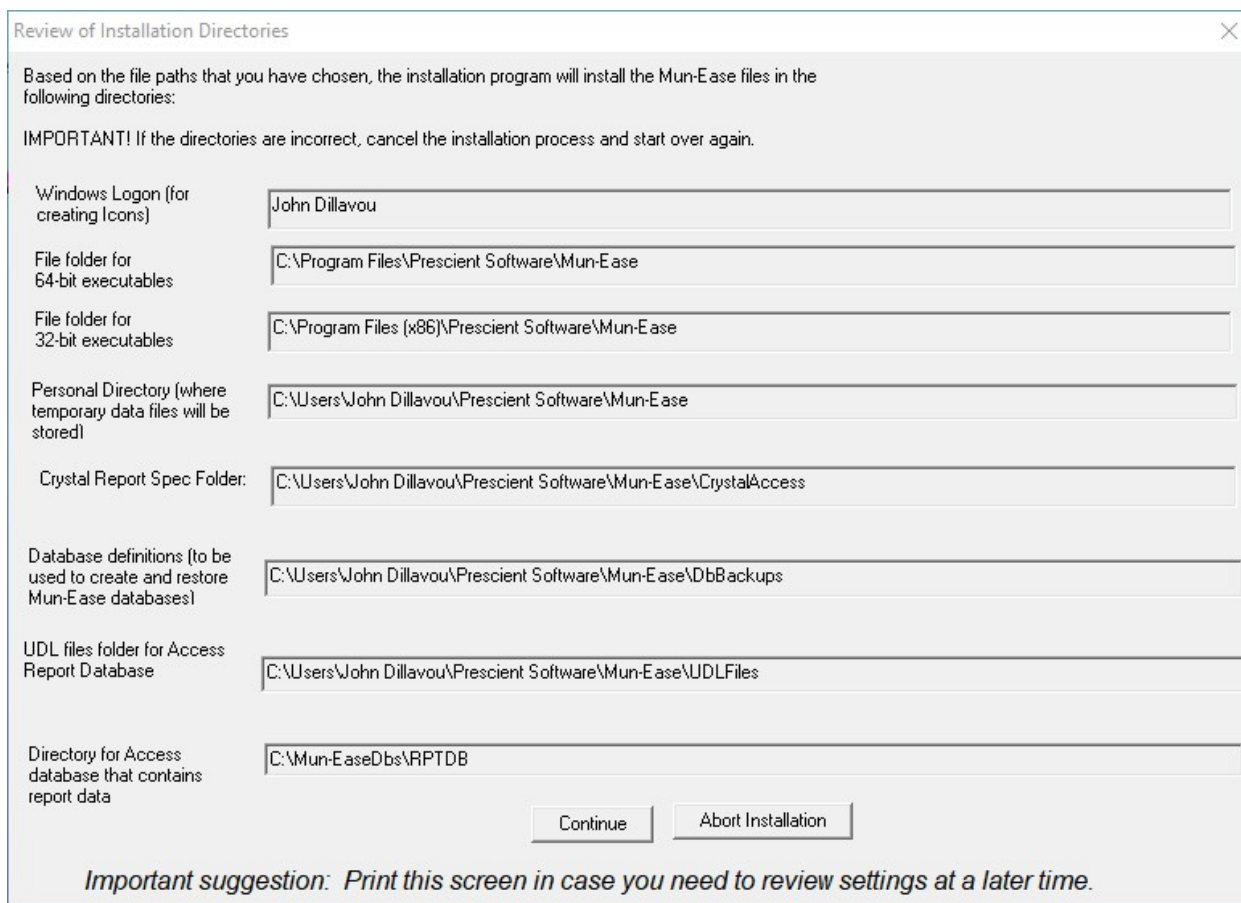


Figure 1-10 Summary of Folder Locations

Mun-Ease now displays the folders that you have chosen to install the software. It is important that you review the chosen folders to ensure that they are correct. If you have made a mistake, press the Cancel button to abort the installation. Otherwise, press the OK button and the installation will start. Note that the Access Report database is always installed in the **C:\Mun-EaseDbs** folder.

Database connections in the 2018 release of Mun-Ease are defined through data link (.UDL) files. The standard release of Mun-Ease includes four databases: *Mun-EaseMainDb*, *Mun-EaseExamplesDb*, *Mun-EaseEmptyDb*, and *Mun-EaseRptDb*. Each database has its own data link file.

Users can switch between databases by clicking on the *chg db* speed button below the main menu and choosing a new data link file. The new data link file will contain the connections to the new desired database. Connection information to the Mun-Ease databases will be defined in a later step through the Microsoft Datalink Wizard (See Section 1.13 on page 29).

After you press the OK button, the following message appears:

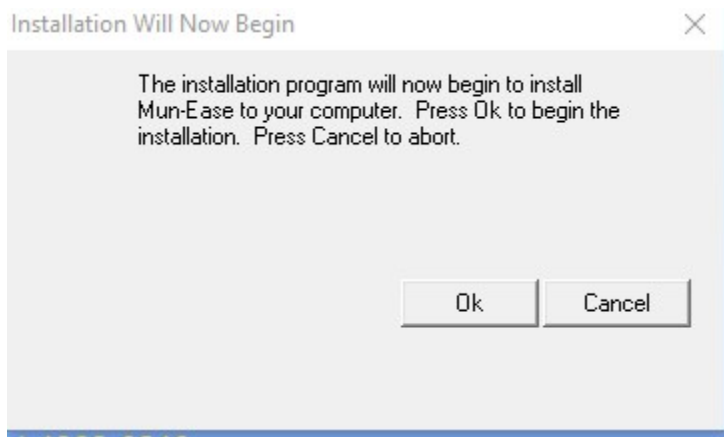


Figure 1-11: Notice that Mun-Ease Installation will start

After you press Ok, Mun-Ease will begin copying files from the setup utility to your computer. After the installation program has finished installing the files, it displays a message about the screen resolution and fonts to be used.

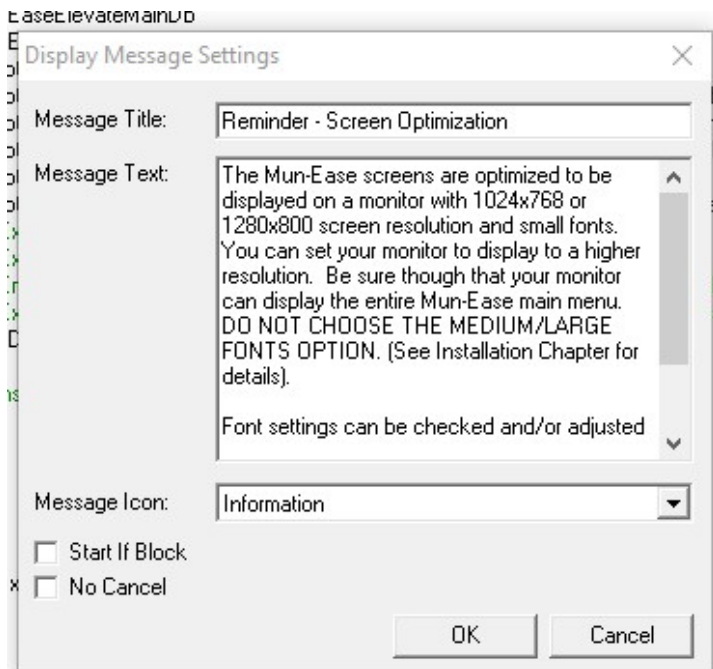


Figure 1-12: Warning about large fonts

All Windows applications are optimized for a specific screen resolution. Mun-Ease screens are optimized for 1280x800 or 1024x768 screen resolutions. You can choose a higher resolution, however it will appear that Mun-Ease is only displaying windows in a fraction of the available screen space.

Important: DO NOT choose the Large or Medium Fonts display option in the Display Options section of the Windows Control Panel. There are many well-documented problems with large and medium fonts¹. (Non-believers can google “problems with large fonts” to view a small sample of the issues with large fonts.) When you use large or







¹ Specifying large or medium fonts will even cause Windows to truncate some screens in the Control Panel.

medium fonts in Mun-Ease, many screens will appear truncated. The truncated screens are those that have controls anchored to the bottom of the page. If have chosen large fonts because the characters are too small to read on the screen, we recommend an alternative solution: just reduce the screen resolution of your monitor.



Figure 1-13: Another warning about 64-bit drivers

If you are running the 32-bit versions of Microsoft Office and Mun-Ease, you may need to install the 32-bit Access drivers. We provide a menu option under the Mun-Ease 2018 group to install these drivers. Conversely, if you running the 64-bit versions, we provide a menu option to install the 64-bit drivers for Access.

	Convert 2008 Sizing Profiles to 2010 format	9/10/2018 3:04 PM	Shortcut	2 KB
	Convert BDE database to EDB Database	9/5/2018 1:40 PM	Shortcut	2 KB
	Convert BDE database to SQL Server	9/10/2018 3:04 PM	Shortcut	2 KB
	Convert EDB database to SQL Server	9/10/2018 3:04 PM	Shortcut	2 KB
	Install Access Database Engine (64-bit) (o...	9/10/2018 3:04 PM	Shortcut	2 KB
	Mun-Ease 2018 64-Bit, The Municipal Bo...	12/6/2017 9:51 AM	Shortcut	2 KB

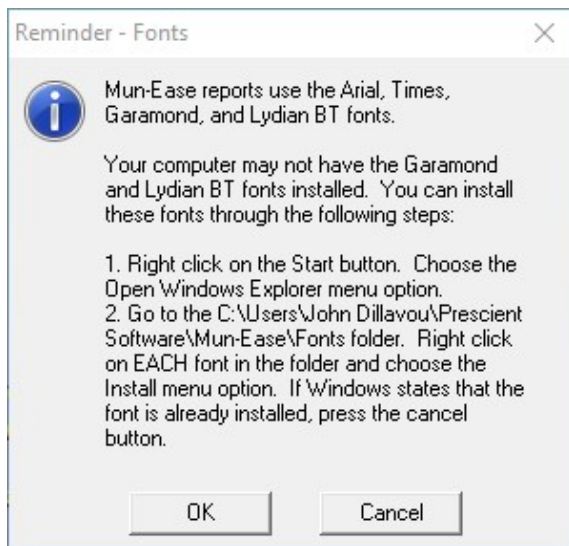


Figure 1-14: Reminder: Install Fonts If Necessary

The installation program then displays a reminder to install fonts. *Background:* The reports that we provide with Mun-Ease use the Arial, Arial Narrow, Times, Garamond, and Lydian BT fonts. With the exception of the Lydian BT (and possibly Garamond fonts), users will have all of these fonts installed. We provide the latter two fonts in the \fonts subdirectory of the user's personal folder.

You should check your computer to determine if the required fonts are installed. You can install the fonts by opening Windows Explorer and browsing to the \fonts folder of your personal directory. Right-click on first font and choose the install option from the menu. If the font is already installed, Windows will inform you of that fact. Press the cancel button if the fonts are already installed. Repeat the same process for the remaining fonts. Note that if you do not have the required fonts installed, Crystal Reports will substitute a font resembling the required font. Arial fonts are substituted for Lydian BT fonts and Times fonts are substituted for Garamond fonts.

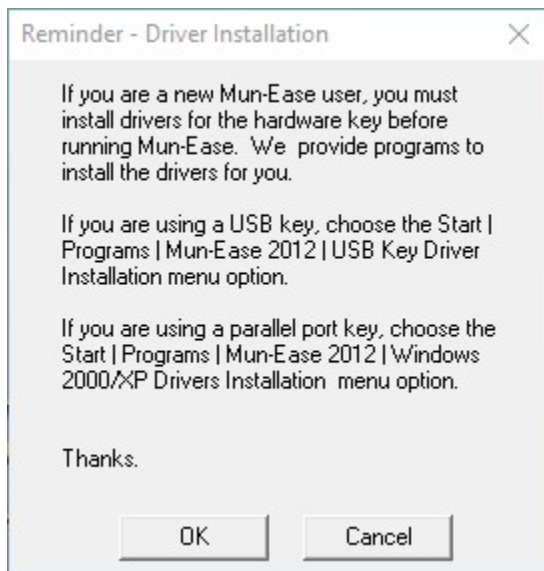


Figure 1-15: Hardware Key Drivers

If you are installing Mun-Ease for the first time on your computer, you will need to install the drivers for the hardware key. Usually you do not need to reboot the computer after you install the drivers. If you do not install the drivers, Mun-Ease will display the message “Unable to detect hardware key.”

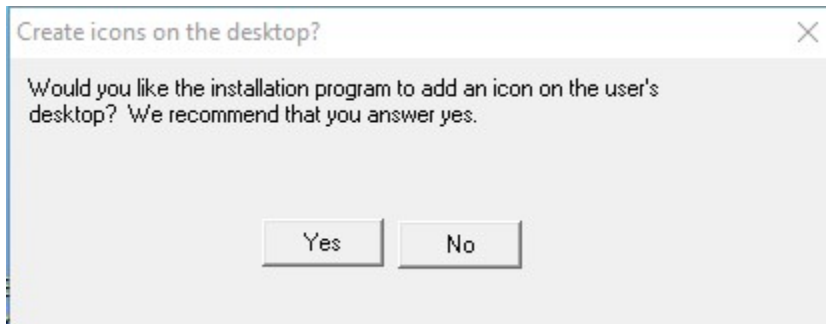


Figure 1-16: Add an icon to the desktop?

Answer ‘yes’ if you would like to add an icon to the desktop for the Mun-Ease executable.

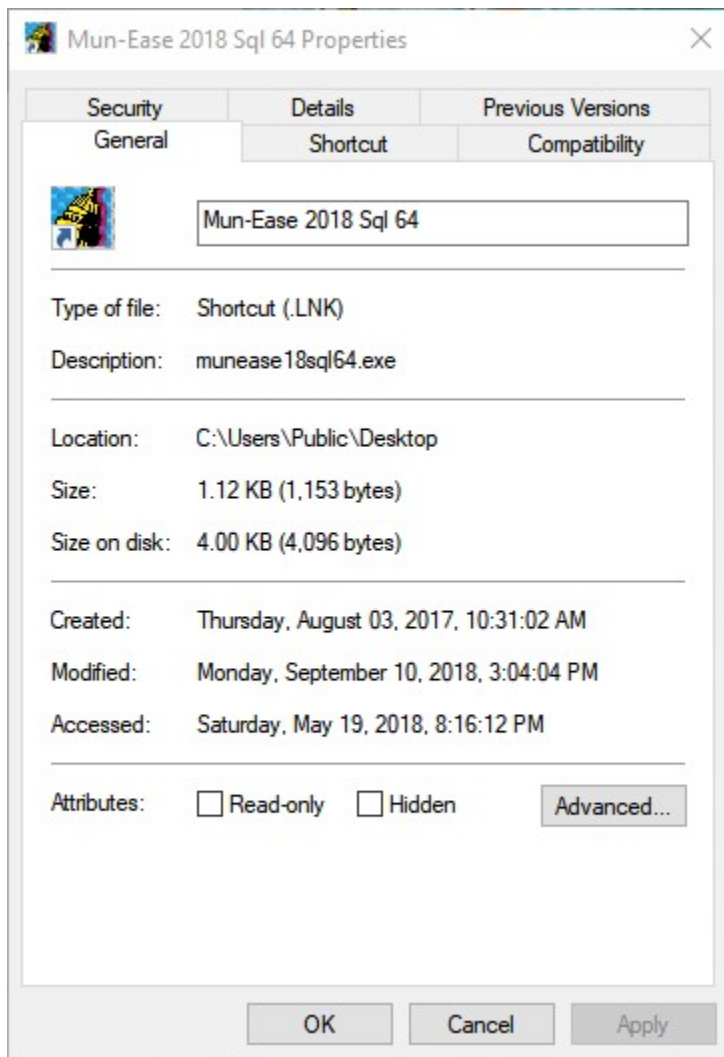


Figure 1-17: Program Manager Group

Click OK to install Mun-Ease under the default program name of Mun-Ease 2018. This program group will contain the Mun-Ease icons. The Installation program only creates icons under the C:\Users\Public\Desktop folder.

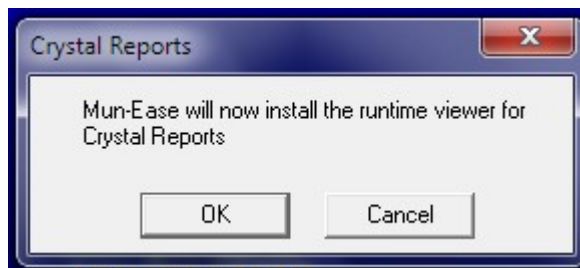


Figure 1-18: Installation Program Begins Installation of Crystal Reports Runtime Viewer

1.10 INSTALLING THE CRYSTAL REPORTS RUNTIME VIEWER

After the icons are created for the Mun-Ease 2018 group, the installation program notifies the user that the installation of the Crystal Reports Runtime Viewer is about to begin. It is necessary to install the Runtime Viewer because all of the reports in Mun-Ease are in a Crystal Reports format.

The installation program does not need any input from the user during installation. When completed, the installation program displays a message that the Runtime Viewer has been installed

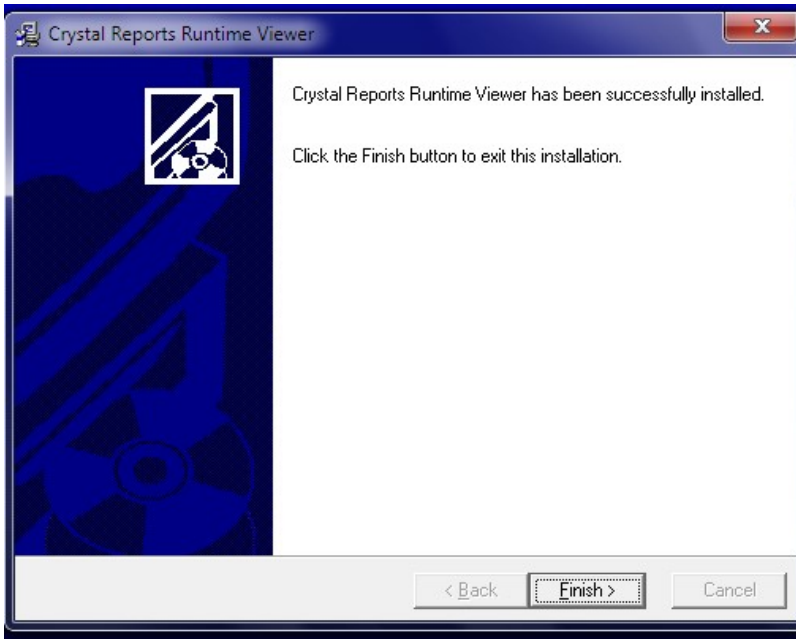


Figure 1-19: Runtime Viewer Successfully Installed

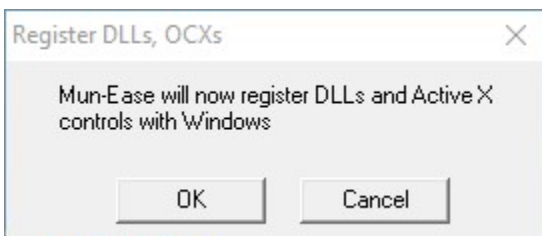


Figure 1-20: Register DLLs and Active X Controls

The Mun-Ease installation displays a dialog box before it attempts to register the DLLs and Active X controls. *Important!* Note that this task can't be completed if you are attempting to install Mun-Ease while you have an older version of Mun-Ease running at the same time.

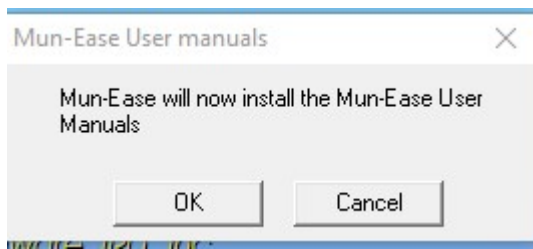


Figure 1-21: Install User Documentation

1.1.1 INSTALLING THE USER DOCUMENTATION

The Mun-Ease installation program displays a dialog box before it begins to install the user documentation. The user documentation is in PDF format and can be accessed within Mun-Ease through the *help | view user manuals* menu option.

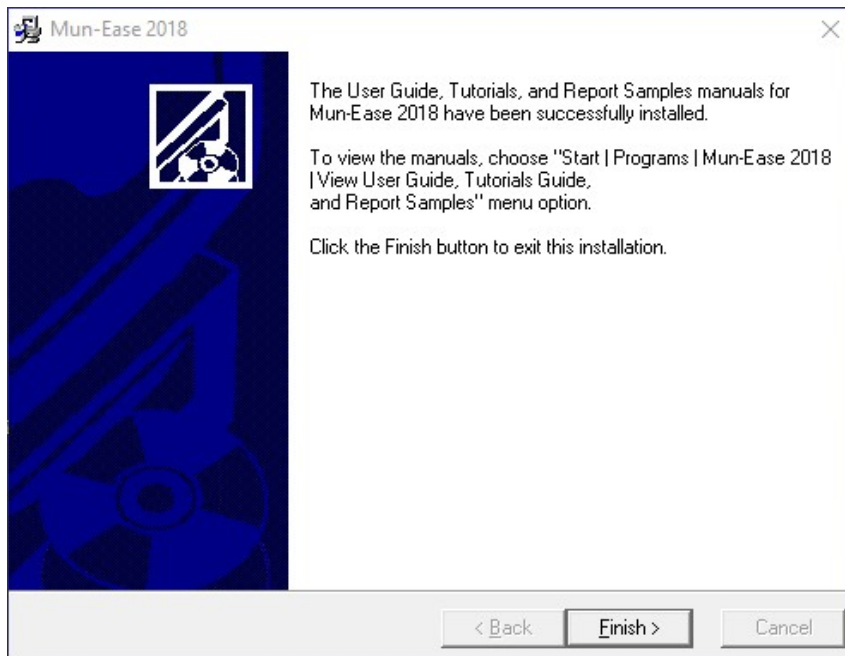


Figure 1-22: Documentation Installed Message

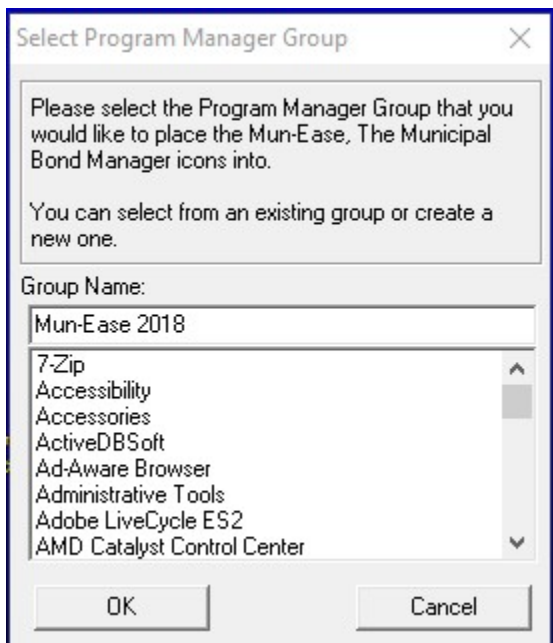


Figure 1-23: Choose the program group for Mun-Ease 2018

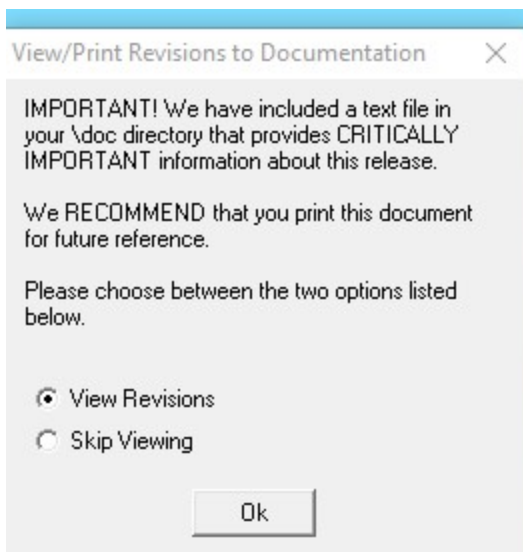


Figure 1-24: View Changes Included in Release

Prescient Software always provides additional information about the release of Mun-Ease in a file called *Latest2018.pdf*. By default, this information is installed in the *\doc* folder in the user's personal directory. If you click on the *View Revisions* radio button, Mun-Ease will start WordPad so that you can view the revisions. You can also view this document in Mun-Ease through the *help | what's new* menu option.

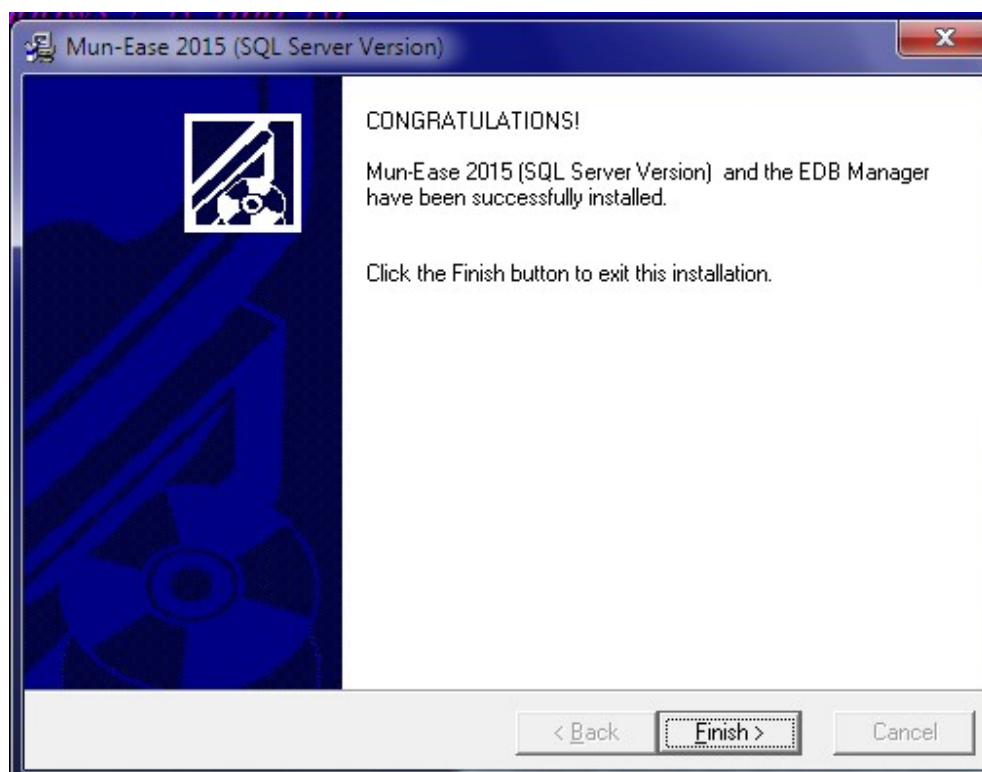
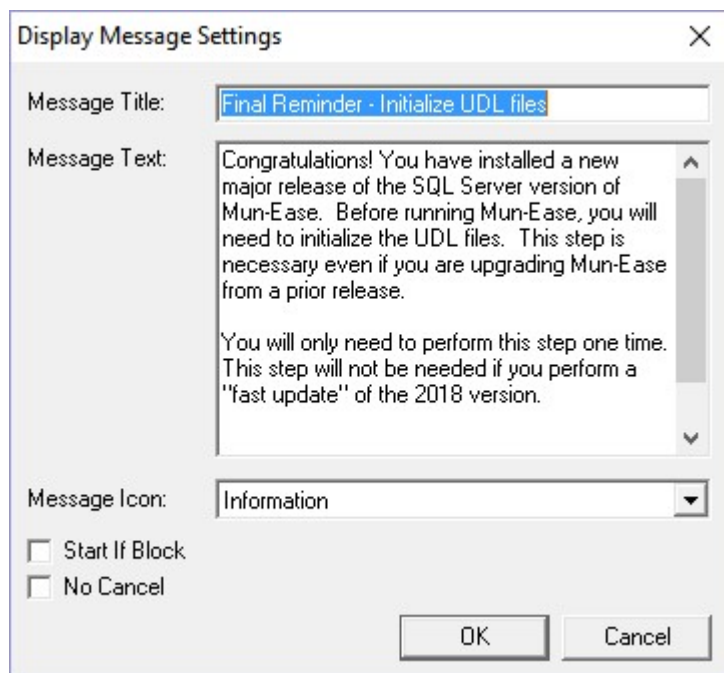


Figure 1-25: Runtime Viewer Successfully Installed

1.12 STEP 2: INSTALLING SQL SERVER EXPRESS

If you do not currently own a copy of SQL Server, you'll need to install SQL Server Express. SQL Server Express is a scaled-down version of the Microsoft database product SQL Server. Mun-Ease is compatible with the ASCII versions (non-Unicode) of SQL Server 2005, 2008, 2012 or 2017. However Windows 7/10 may not allow you to run earlier versions of SQL Server.

Microsoft does not charge for the use of SQL Server Express. Like the full-version of SQL Server, it is a multi-user database; however it is limited to four concurrent users.

1.12.1 PLEASE NOTE THAT OUR DOCUMENTATION DOES NOT INCLUDE A DISCUSSION OF HOW TO INSTALL SQL SERVER.

We realize that the installation and maintenance of SQL Server Express can be intimidating to new users. If you encounter problems with the installation of SQL Server, you might consider the purchase of one of the many books on SQL Server and/or SQL Server Express. Our recommendation is that you use the EDB database if you do not already have SQL Server installed.

1.12.2 RESTORE BACKUPS UNDER SQL SERVER 2005

The following instructions are for the Mun-EaseMainDb database. Repeat this process for the databases Mun-EaseEmptyDb and Mun-EaseExamplesDb.

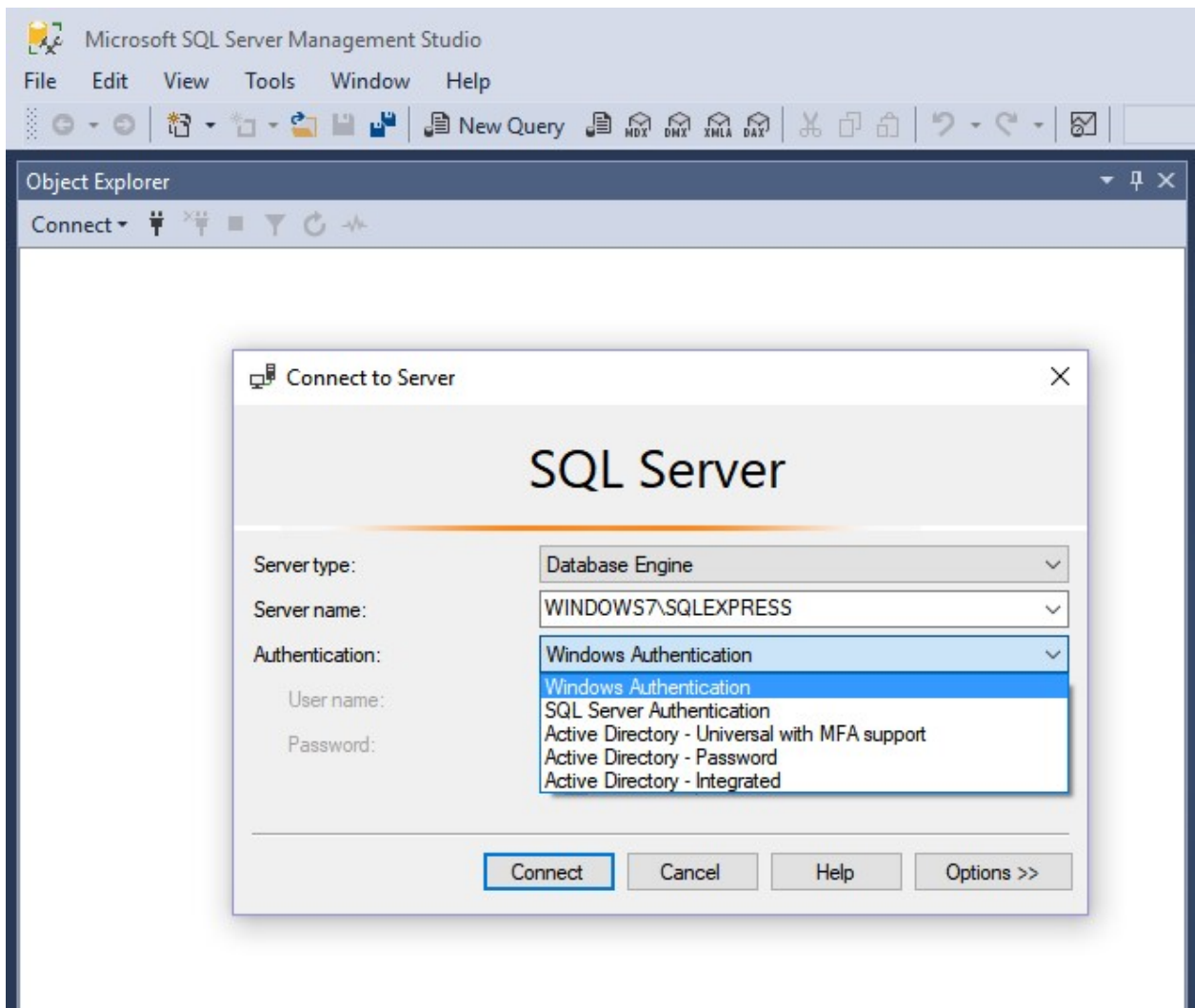


Figure 1-26 SQL Server Management Studio Connection Window

1. Start the SQL Server Management Studio (SQL Server 2005 through 2017). Enter *(local)* in the *database server* field if the Mun-Ease database is stored locally and you have chosen a default instance, otherwise enter the name of the server in the *Server Name* field.

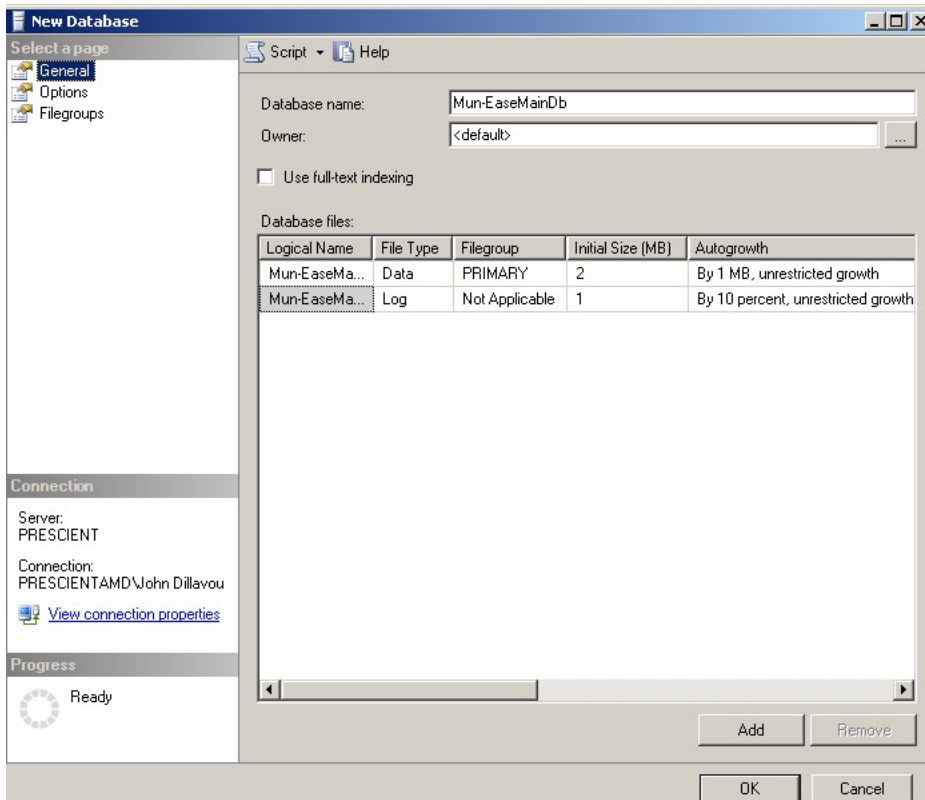


Figure 1-28 Add a Database Window

3. Enter the database name (e.g. *Mun-EaseMainDb*) and click on the *add* button. (SQL Server will add the database and then add an extraneous row at the bottom of the grid. Highlight the extraneous row and press the *remove* button). Click on the *OK* Button.

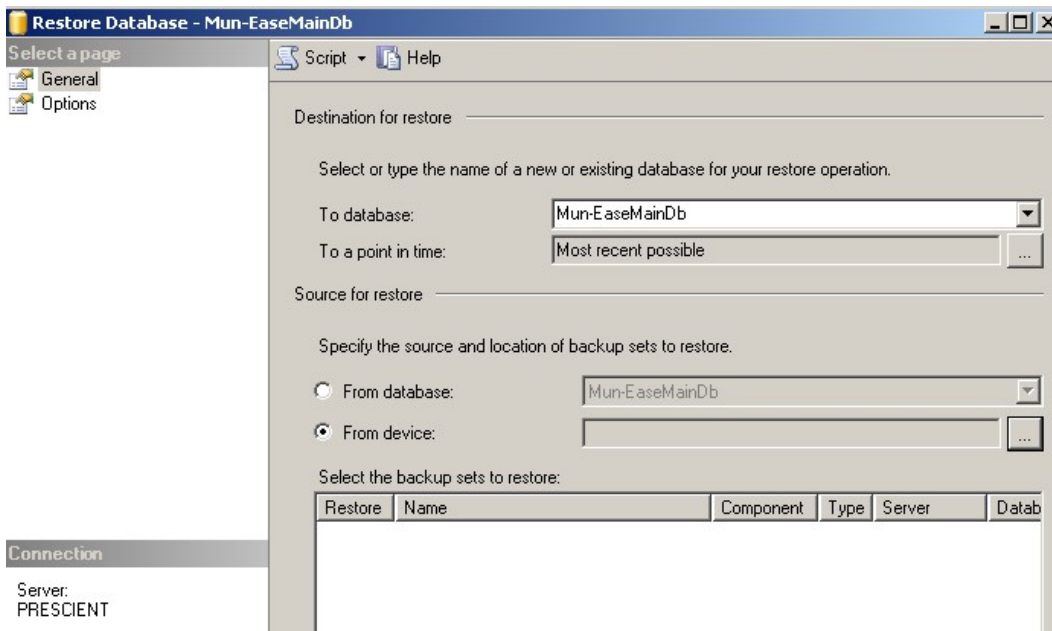


Figure 1-29 Restore Database Window

- Highlight the new database (e.g. *Mun-EaseMainDb*) and right-click with the mouse. Choose the *tasks | restore | database* menu option. Click on the *From Device* radio button, then press the *ellipsis (...)* button to browse to the folder where you have installed your backup database files. Click *Ok*.

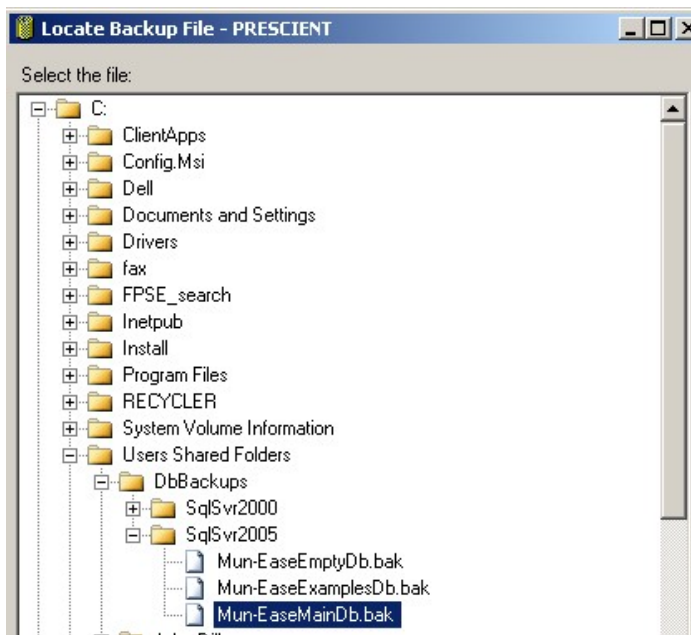


Figure 1-30 Database backup to be restored.

- Choose the database to be restored (*Mun-EaseMainDb.bak*) and click *OK*. Click *OK* again when the Management Studio displays the *Specify Backup* window. .

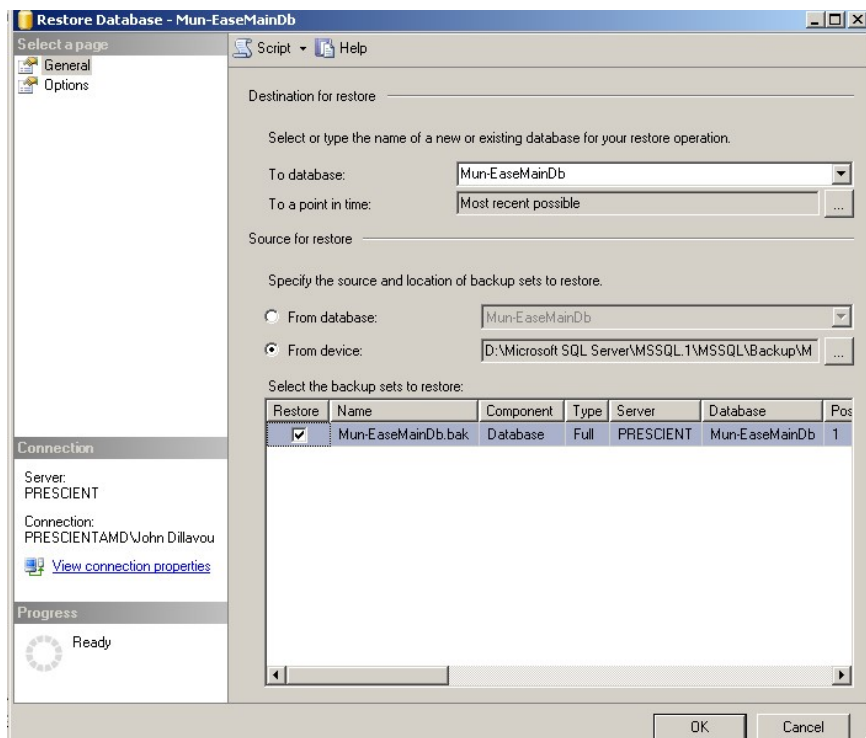


Figure 1-31 The General Tabbed Window

6. Check the checkbox in the *Restore* column, then press the *Options* page in the upper left hand corner. The Management Studio will display the *Options* tabbed window.

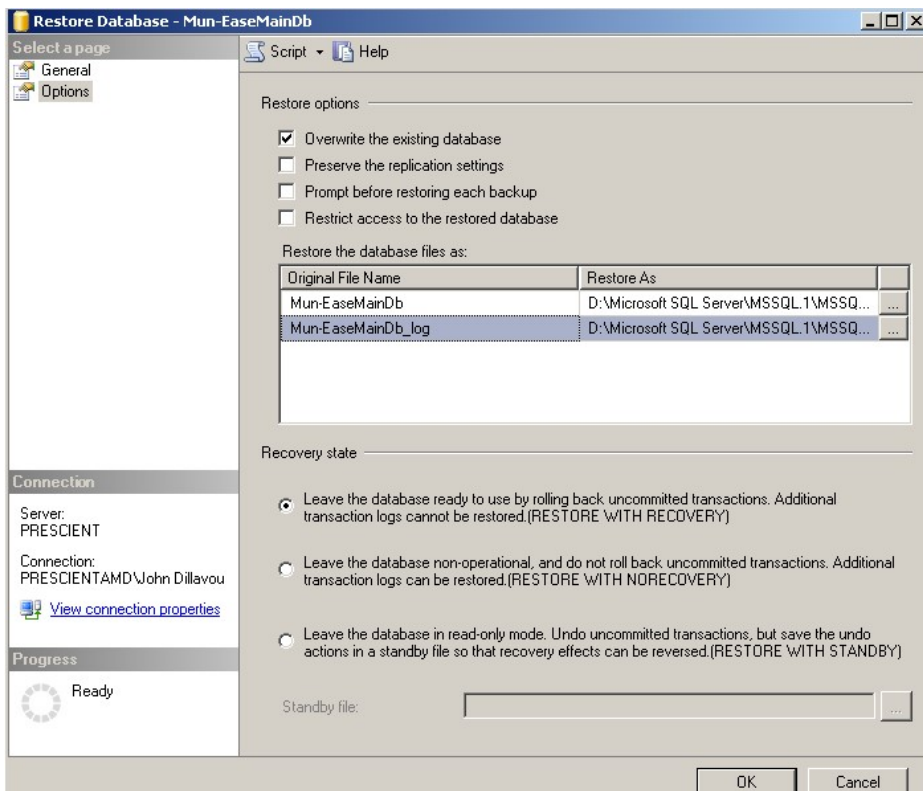


Figure 1-32 The Options Tabbed Window

7. Check the "overwrite the existing database" checkbox and change the internal name of the backup in the *restore as* column. Click Ok.

Important: Note that you override the name of the database in the "restore database files as" list box. You will almost always need to change the name because the SQL Server backup file maintains the name and directory paths of the database backup internally. (The name and directory paths used to create the backup will probably differ from name and directory paths in your installation).

This task is also necessary if you ever create a new database from the *Mun-EaseEmptyDb* backup. In this case, you will override the name of the *Mun-EaseEmptyDb* database name with the new database name.

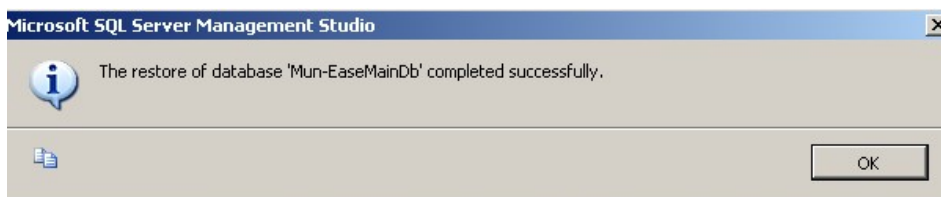


Figure 1-33 Restore Successful Window

The Management Studio displays a message that the backup has been successfully restored. You'll now repeat this same process for other two database backups that we provide (*Mun-EaseEmptyDb.bak* and *Mun-EaseExamplesDb.bak*).
Granting Rights and Permissions to the Mun-Ease Databases

If the user does not have administrative rights to the computer where the database resides, the network administrator will need to grant permissions to the user.

1.13 STEP 4: RUN THE MICROSOFT DATA LINK (UDL) WIZARD

By default, Mun-Ease will install four data link (UDL) files to the user's computer. We store database connection information in the UDL files. These UDL files are called *Mun-EaseMainDb.UDL*, *Mun-EaseExamplesDb.UDL*, *Mun-EaseEmptyDb.UDL*, *AccessRptDbforMun-Ease*, and *AccessRptDb64*.

For Windows 7/10 users, the default location is **c:\Users\<WinSignOn>\Prescient Software\Mun-Ease\UDLFiles** folder.

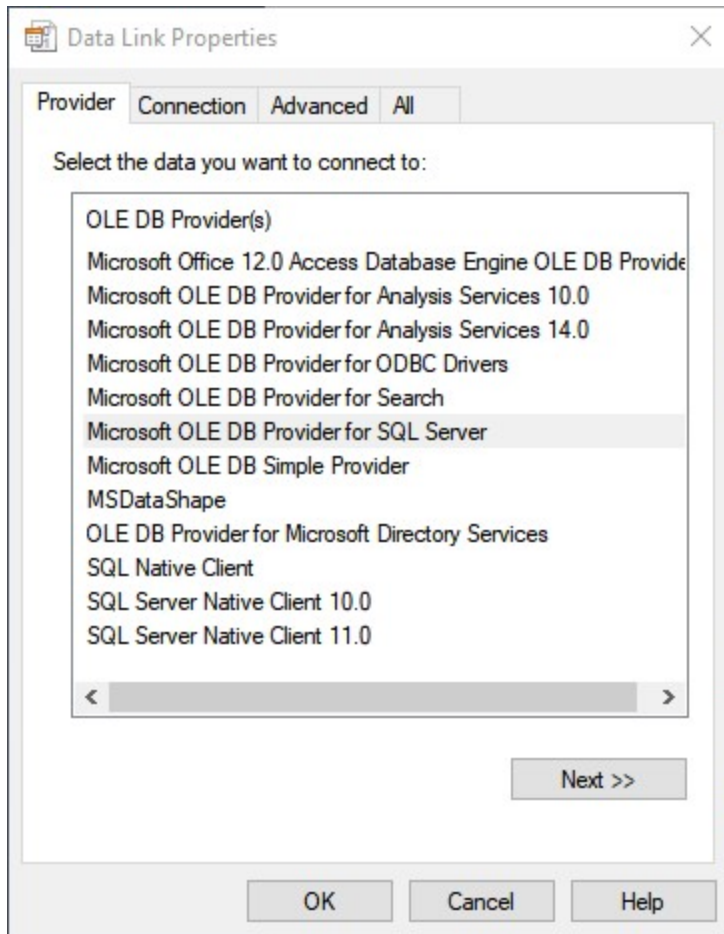


Figure 1-34: The provider tab of the UDL data link wizard

Steps:

1. Double-click on *Mun-EaseMainDb.UDL* icon. The Windows operating system will initiate the UDL wizard.
2. Click on the provider tabbed window and choose *Microsoft OLE DB provider for SQL Server* from the OLE DB Provider list box.

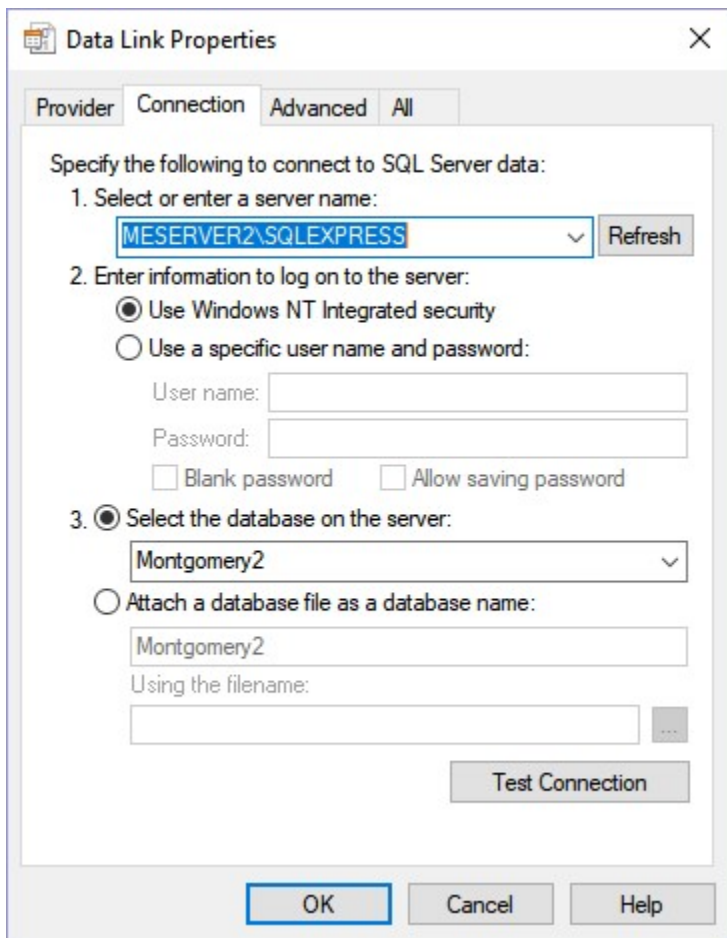


Figure 1-35 The connection tab of the UDL data link wizard

3. Click on the *Connection* tabbed window. Enter the server name. If you do not have installed SQL Server locally on the client computer and you do not have a named instance, enter *(local)* as the server name.
4. While in the *Connection* tabbed window, choose between *Windows integrated security* or enter a user name and password. (For the sake of simplicity, we generally recommend that the installer choose *Windows integrated security*.)
5. Enter *Mun-EaseMainDb* as the name of the database. Click on the *test connection* button to ensure that you have a good connection to the database.

Repeat the above steps for the *Mun-EaseExamples.UDL* and *Mun-EaseEmptyDb.UDL* datalink files. Be sure to substitute the *Mun-EaseExamplesDb* and *Mun-EaseEmptyDB* databases for the *Mun-EaseMainDb* database in each respective data link file.

All of the reports within Mun-Ease are generated with the Crystal Reports runtime viewer. Whenever a user requests Mun-Ease to generate a report, Mun-Ease writes the report data to two database tables (**Rptdtl** and **Rpthd**). The **Rptdtl** table contains a record for every line in the report and the **Rpthd** contains one record for all of the information in the header and footer of the report. Each report is identified by a 3-character report ID field and the user ID of the person generating the report. Mun-Ease keeps only the most current version of each report on the database.

The **Rptdtl** and **Rpthd** tables are placed in a separate Access database residing on the user's PC. Thus each user has a Report database on his individual computer.

The SQL Server and EDB versions use the same Crystal Report specifications and the same Access database that is stored locally on each user's computer. In addition to reducing the overhead on the server, this change eliminates the development and maintenance costs that are incurred by supporting two different versions of the report specifications.

The Access database is called **Mun-EaseRptdb.MDB** and resides in the **C:\Mun-EaseDbs\RptDb** folder. You connect to the database through the UDL (uniform data link) connection file located in the \UDLFiles folder in your personal directory. By hard-coding the folder where the report database resides, we eliminate the requirement for the user to initialize the settings of this UDL file.

Initializing the settings of the UDL file can be daunting because the properties for the connection file are different for 32-bit and 64-bit computers. If you look in the \UDLFiles subfolder under your personal directory, you will see (a) one UDL file to be used for Windows XP computers (**AccessRptDbForMun-EaseJet40.UDL**), (b) another to be used for Windows 7 computers (**AccessRptDbForMun-EaseWin7.UDL**) running the 32-bit version of Mun-Ease, and (c) still another for 64-bit computers running the 64-bit version of Mun-Ease (**AccessRptDb64.UDL**). The installation program automatically detects the user's environment and will create the correct settings for each UDL file.

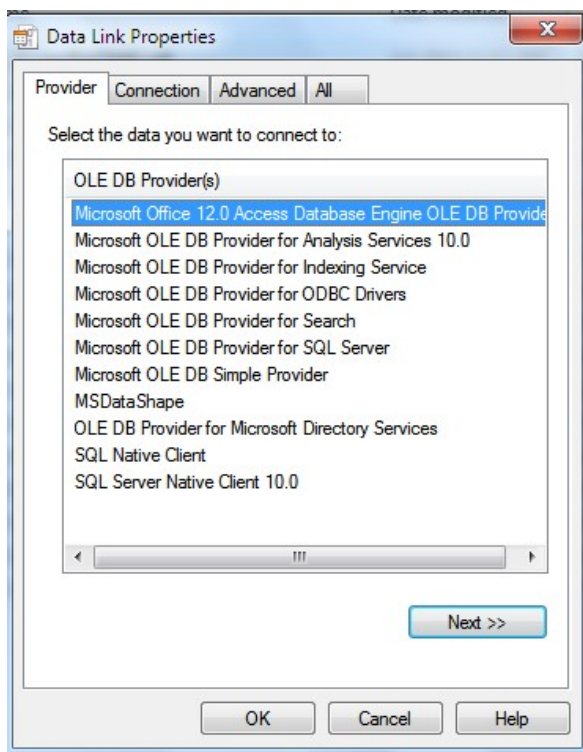


Figure 1-36: 64-Bit Provider Tab in the UDL Wizard

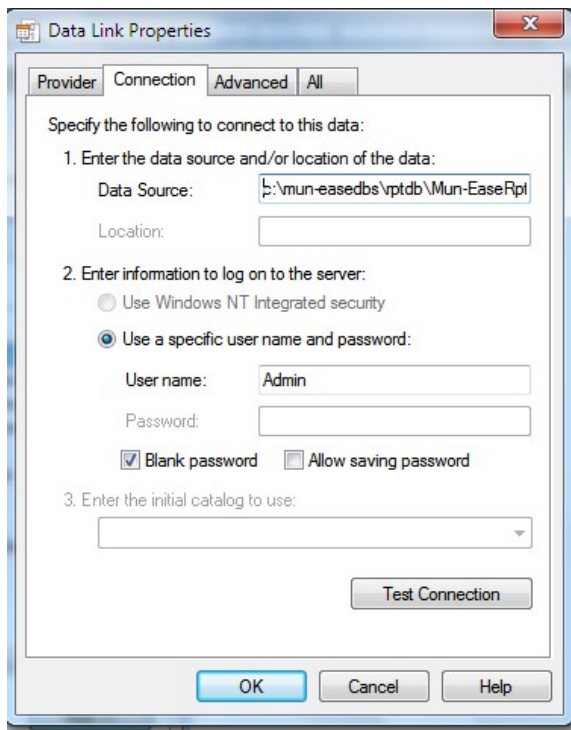


Figure 1-37: 64-Bit Connection Tab in the UDL Wizard

Installing the Access Database Engine (optional)

We provide a menu option in the Mun-Ease 2018 group to install the 64-bit Access database Engine. In most cases, you will not need to install the database engine. Choose this option only if you do not see the Microsoft Office 12.0 Database Engine OLE Db Provider option in the provider tab of the UDL wizard.

Instructions for Creating 32-Bit Access Drivers Windows 7 64-Bit Computers

The installation program creates an additional icon called "Access DB Driver Instructions for 64-bit computer" in the Mun-Ease 2018 group. This icon contains a text file with instructions on how to set up the 32-bit Access UDL file on a 64-bit computer. The text file is named *UDLInstructions64bit.Text* and is located in the \UDL subfolder.

Why do we include additional instructions?

The UDL wizard always assumes that you are creating 64-bit drivers. Thus you cannot install the Access drivers using the UDL wizard. Instead you'll need to click on the Windows *Start* button and choose the *Run* menu option. Insert the following statement into the Run text box:

C:\Windows\system64\rundll32.exe "C:\Program Files (x86)\Common Files\System\Ole DB\oledb32.dll",OpenDSLFile C:\Users\<WinLogOn>\AppData\Prescient Software\Mun-Ease\UdlFiles\AccessRptDbForMun-Ease.udl

(where <winlogon> is either public or the Windows User ID.)

As mentioned earlier, the installation program will install the correct options for the *AccessRptDbForMun-Ease.UDL* file based on the version of Windows that you are running. If you encounter problems, you will need to verify that you have a good connection to the Report database. Shown below are the steps to verify the connection.

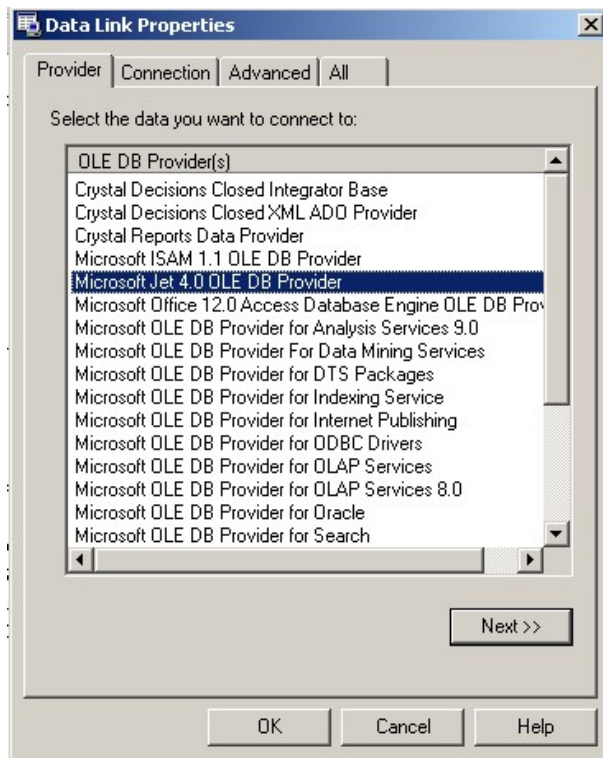


Figure 1-38: Datalink Wizard – Provider Tabbed Window (32-bit)

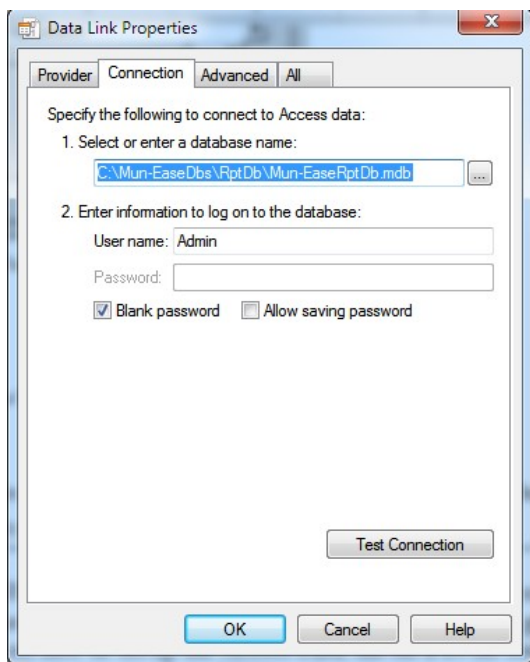


Figure 1-39: The Datalink Wizard - Connection Tabbed Window (32-bit)

1.15 STEP 5: OPTIONAL CONVERSIONS

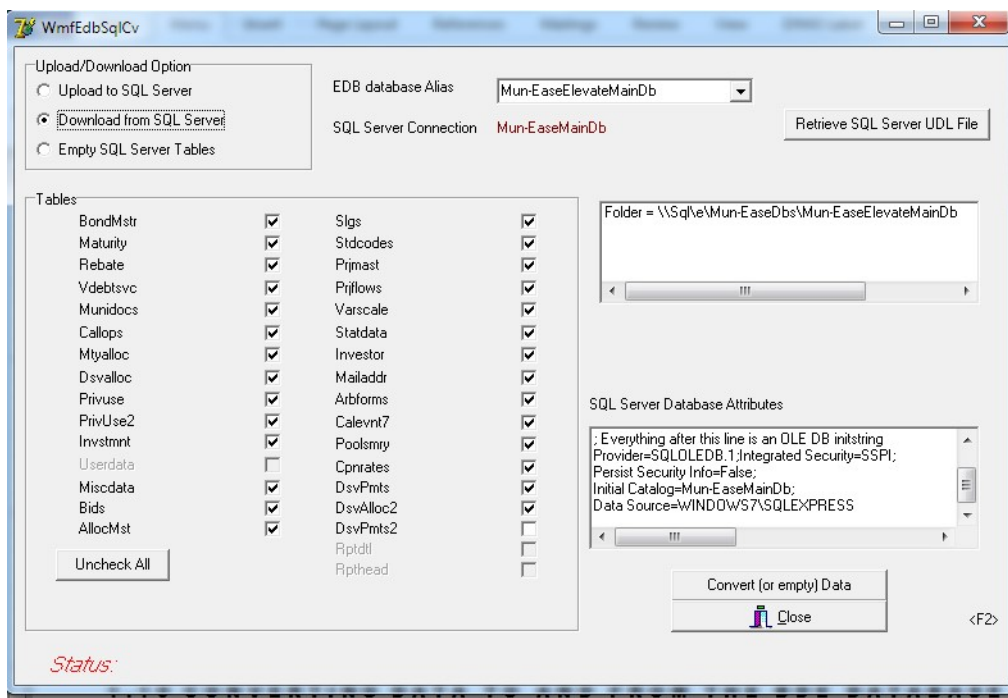


Figure 1-40: EDB To SQL Server Conversion

1.16 CONVERTING DATA FROM THE EDB TO SQL SERVER

1. Choose the Start | | Mun-Ease 2018 | Convert EDB database to SQL Server menu option.
2. In the top left-hand corner, click on a radio button to (a) copy the EDB database to a SQL Server database, (b) copy a SQL Server database to an EDB database, or (c) empty a SQL Server database.
3. In the *Tables* group box, check the tables that you wish to convert. Click on the *check all/ uncheck all* button, if you wish to convert all of the tables (recommended).
4. In the upper right-hand corner, select the EDB database from the combo box item list that you wish to convert (either upload or download).
5. In the middle right-hand side, select the SQL Server database from the combo box item list that you wish to convert (either upload or download).
6. Press the *Convert (or empty) Data* button. The Status label will display the tables as they are converted. When all of the tables are converted, a message box will display stating that fact. (Note: at times, Windows will hide this box. If the migration process appears to stop, press the <alt> tab key and the message box will reappear.) Press the Close button.
7. Click the Yes button. Mun-Ease saves the 2008 profile in the new 2010 format. Repeat the above process until all of the profiles have been converted.

Sizing Profile Conversion Steps:

1. Choose the *start | Mun-Ease 2018 | convert 2008 sizing profiles* menu option. The conversion utility determines if you are running an older version of Windows.
2. Click on the *open 2008 sizing profile* button. Mun-Ease opens a browse window in the *c:\nmuni\<xxx>* folder where <xxx> are the user's initials. Change the directory where the profiles are located and select the profile to be converted. Click on the *open* button in the browse window.
3. The conversion utility displays a message similar to "convert the c:\users\John Smith\prescient software\mun-ease\profiles \Ex01-2005levelDebtSvc.Sz2008Profile to 2010 format?."
4. Click the Yes button. Mun-Ease saves the 2008 profile in the new 2010 format. Repeat the above process until all of the profiles have been converted.

1.17 STEP 6: HARDWARE KEY ROUTINES

The hardware key is used by Mun-Ease to record the modules and versions of software purchased by the user. Before you can begin using Mun-Ease, you must install the hardware key and drivers for that key. We supply both the hardware key and drivers for the hardware key. Mun-Ease cannot detect the hardware key until the appropriate driver is installed.

The hardware key that we provide is either a USB key or parallel port key. Your hardware key must be connected for the complete Mun-Ease session. Failure to connect the hardware key for the complete session will result in an error.

Users who have not purchased the complete Mun-Ease package will be restricted to the modules that they purchased through the hardware key. The hardware key can be reprogrammed to allow the execution of additional modules by calling Prescient Software. The newly purchased modules will be activated over the telephone.

1.17.1 INSTALLING HARDWARE KEY DRIVERS

Note: You do not to install the drivers if you are upgrading from a previous version of Mun-Ease.

For a USB key, choose the *start | all programs | Mun-Ease 2018 | USB key driver installation* menu option. Choose the default options and driver will be installed. In some cases, you may need to reboot after the driver is installed.

For a parallel port key, choose the *start | all programs | Mun-Ease 2018 | Parallel port key driver installation* menu option. Choose the default options and driver will be installed. In some cases, you may need to reboot after the driver is installed.

The Windows firewall must be disabled when installing the hardware key. (The hardware key installation routine will ask your permission before it disables the firewall.)

1.17.2 REPROGRAMMING THE HARDWARE KEY

Users who are upgrading from a previous version of Mun-Ease (2012 version or earlier) must call Prescient Software so that their key may be reprogrammed for the new version. Prescient Software can reprogram the key over the telephone in a minute or two. Call: (949)248-5788.

1.18 INSTALLING THE ADOBE ACROBAT READER

We recommend that you install the Adobe Acrobat reader on your computer if you have not done so already. The Acrobat Reader will allow you to view/print the arbitrage 8038 tax forms and our documentation. You can download the latest of the Acrobat reader from the Adobe web site.

1.19 PLACING A MUN-EASE ICON ON YOUR DESKTOP

The Mun-Ease installation program places two icons on our desktop: (a) Mun-Ease 2018 and (b) Mun-Ease Utilities.

1.20 WINDOWS REGISTRY

Mun-Ease stores directory information in the Windows Registry. This information is stored in the **HKEY_LOCALMACHINE | SOFTWARE | Prescient Software | Mun-Ease** directory. We store directory paths for the executable folder (*ExeDir*), the user's personal folder (*Perdir*), and the folder (*UdlFilesDir*) where the data link (.UDL) files reside. Additionally Crystal Reports stores information in the **HKEY_LOCALMACHINE | SOFTWARE | Crystal Decisions** folder.

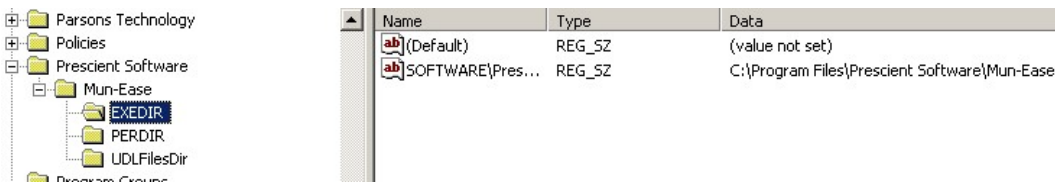


Figure 1-41 Registry Entries for Mun-Ease

Important: Although the Mun-Ease “ini” file is an ASCII file that you can access at any time, we recommend that you do not change their entries. If you incorrectly change these entries, Mun-Ease and/or Crystal Reports may terminate abnormally.

1.21 USB KEY DRIVER SETUP

To install the drivers, choose the *USB key driver installation* menu option from within the *Mun-Ease 2018* group. The drivers are automatically installed after the command prompts are displayed to you. The Windows firewall must be disabled when installing the hardware key. (The hardware key installation routine will ask your permission before it disables the firewall.)

1.2.2 INSTALLING THE HARDWARE KEY

Users who are upgrading from the 2012 version (or earlier) must call Prescient Software so that their key may be reprogrammed for the new version. Prescient Software can reprogram the key over the telephone in a few minutes. Call: (949)248-5788.

Before you can begin using Mun-Ease, you must install the Sentinel Pro hardware key by plugging the hardware key into the USB port.

Users who have not purchased the complete Mun-Ease package will be restricted to the modules that they purchased through the hardware key. The hardware key can be reprogrammed to allow the execution of additional modules by calling Prescient Software.

Warning: Your hardware key must be connected for the complete Mun-Ease session. Failure to connect the hardware key will result in an error.

1.2.3 WMUNI.INI FILE

When you install Mun-Ease for the first time, Mun-Ease creates an initialization file (*wmuni.ini*) in the user's personal folder. We also update the "ini" file every time you access your user record on the *Userdata* table. The *Wmuni.ini* file and is used by Mun-Ease to initialize your setup parameters in the *Userdata* table. Shown below is the format of a typical Wmuni.ini file:

```
[PERDIR]
PERDIR=C:\Users\Thomas Smith\Prescient Software\Mun-Ease
[USERID]
USERID=TAS
[CRYSTAL]
CRYSTAL=C:\Users\Thomas Smith\Prescient Software\Mun-Ease\CrystalAccess
[EXE64DIR]
EXE64DIR=C:\Program Files (x86)\Prescient Software\Mun-Ease
[EXE32DIR]
EXE32DIR=C:\Program Files (x86)\Prescient Software\Mun-Ease
[EXEDIR]
EXEDIR=C:\Program Files (x86)\Prescient Software\Mun-Ease
[UDLDIR]
UDLDIR=C:\Users\Thomas Smith\Prescient Software\Mun-Ease\UDLFiles
[DEBUGMODE]
DEBUGMODE=OFF
[DOCDIR]
```

DOCDIR=C:\Users\Thomas Smith\Prescient Software\Mun-Ease\UD
PERDIR=C:\USERS\Thomas Smith\PRESCIENT SOFTWARE\MUN-EASE\UD
[FORCESQLSVRSIGNON]
FORCESQLSVRSIGNON=N
[BOND_DOC_DIR]
BOND_DOC_DIR=\Mun-EaseMainDb\Doc\
[USERNAME]
USERNAME=Thomas Smith
[CURRENT_ONLINEUSER]
CURRENT_ONLINEUSER=ABC
[STARTUPSTATUS]
Initializing=Completed C:\Users\Thomas Smith\Prescient Software\Mun-Ease\ 01/04/2019 15:10
[CURRENT_DBDIR]
CURRENT_DBDIR=c:\mun-easeDbs\mun-easeElevateMainDb\
[BondCalcs]
TIC=48718,24510,85118,71606,31601,80317
NIC=52004,150814,139806,130802,63501,49011
[HWKEYINFO]
HWKEYTYPE=USB
[FIRSTMOINFY]
FIRSTMOINFY=7
[DISABLEDBBROWSE]
DISABLEDBBROWSE=N
[EDB_ROOTDBDIR]
EDB_ROOTDBDIR=c:\mun-easedbs
[EDB_CONFIGPATH]
EDB_CONFIGPATH=c:\mun-EaseDbs\EdbConfig
[DB_TORESIDEONSERVER]
DB_TORESIDEONSERVER=FALSE
[EDB_INIT_STATUS]

1.23.1 ABOUT THE WMUNI.INI FILE

Important: Users will need read/write access to the wmuni.ini file located in their personal folder.

When you sign on to Mun-Ease for the first time or sign-on under a new user ID, Mun-Ease reads information in the `wmuni.ini` file and creates a record for your user ID on the *Userdata* file.

Additionally every time you start up Mun-Ease, it will read the `wmuni.ini` file to locate the *Mun-EaseMainDb.UDL* data link file (*the Mun-EaseMainDb.UDL* file contains connection information to the database).

The `wmuni.ini` file is also updated whenever you update your user options (through the *UserOps* speed button or through the *setup | user options | edit your own user profile* menu option). This option updates your user name, the first month in the fiscal year, and the run-time options for the Internet Add-On Module.

The `wmuni.ini` file also contains other information. For example, the Internet Add-On module can be used to conduct competitive bond sales over the Internet. The processing options for this feature are defined in the **InternetAddonOps** group. The options defined are (a) the bond issue to be sold competitively, (b) the status of the bond sale (no-sale, pre-sale, active, or closed), and (c) whether bidders can view competitor bids during the sale (`openlook = Y` or `openlook = N`).

1.24 MUN-EASE CONNECTIONS .INI FILE

Mun-Ease stores database connection information in the *Mun-EaseCurrDbConn.ini* file. This file is located in your personal folder (`c:\users\<username>\appdata\prescient Software\mun-ease` where `<username>` is the Windows user ID). Information in this file is initialized when you initially start up Mun-Ease and is updated whenever you switch to a new database. This information is derived from the connection string that is stored in the Microsoft data link (.UDL) files. Shown below are the typical entries stored in this .INI file.

[oledb]

Provider=SQLOLEDB.1

Integrated Security=SSPI

Persist Security Info=False

Initial Catalog=Mun-EaseMainDb

Data Source=(local)

1.25 TROUBLESHOOTING: USER UNABLE TO SEE MUN-EASE ICONS

The Installation program creates icons for the various functions of Mun-Ease in the *Mun-Ease 2018* group that is created under the *C:\Users\Public\Desktop* folder. There are two reasons why the user would be unable to see the Mun-Ease icons:

- (a) The installation program aborted before all of the installation tasks were completed. (Creating the icons is one of the last tasks performed by the installation program).
- (b) The installer installed Mun-Ease under a Windows sign-on that is different from the Windows sign-on of the user. The installer should install Mun-Ease under the user's sign-on and temporarily give the user administrative rights before initiating the installation process (see Section 1.7).

1.26 TROUBLESHOOTING: CRYSTAL REPORTS ERRORS

1.26.1 REPORT GENERATED WITH BLANK DATA

Diagnosis: Data in the report needs to be refreshed. Click on the report button again to regenerate the report.

Background: The report database is a Microsoft Access database. The Access database performs database operations in memory whenever possible. We attempt to force Access to empty its memory buffers before generating a report by issuing commands to close and reopen the report database tables. We also issue a command to Crystal Reports to refresh its view of the database. There are times though when these steps are not sufficient. Thus you may need to regenerate the reports by pressing the report button again.

1.26.2 ERROR 114: REPORT NOT FOUND

Diagnosis: In most cases, this problem occurs when a user upgrades from a Windows XP computer to a Windows 7 computer.

Background: As we mentioned earlier in this chapter, the folder conventions are different for a Windows 7 computer than for a Windows XP computer. Mun-Ease stores the folder locations in the UserData database table. When the user upgrades to Windows 7, the locations are no longer valid. You can correct this problem by:

- (1) Sign on to the Windows 7 computer with a user ID that doesn't exist (a temporary user ID). Mun-Ease will initialize the folders for the user by reading information from the wmuni.ini file.
- (2) Delete the old user ID in the Userdata database table. (setup | user options | edit/add/delete another user's profile).
- (3) Sign off Mun-Ease and log on with the old user ID. Mun-Ease will initialize the user ID with the correct settings. You can then delete temporary user ID.

The following screen shots show the typical folder locations for Windows 7 users.

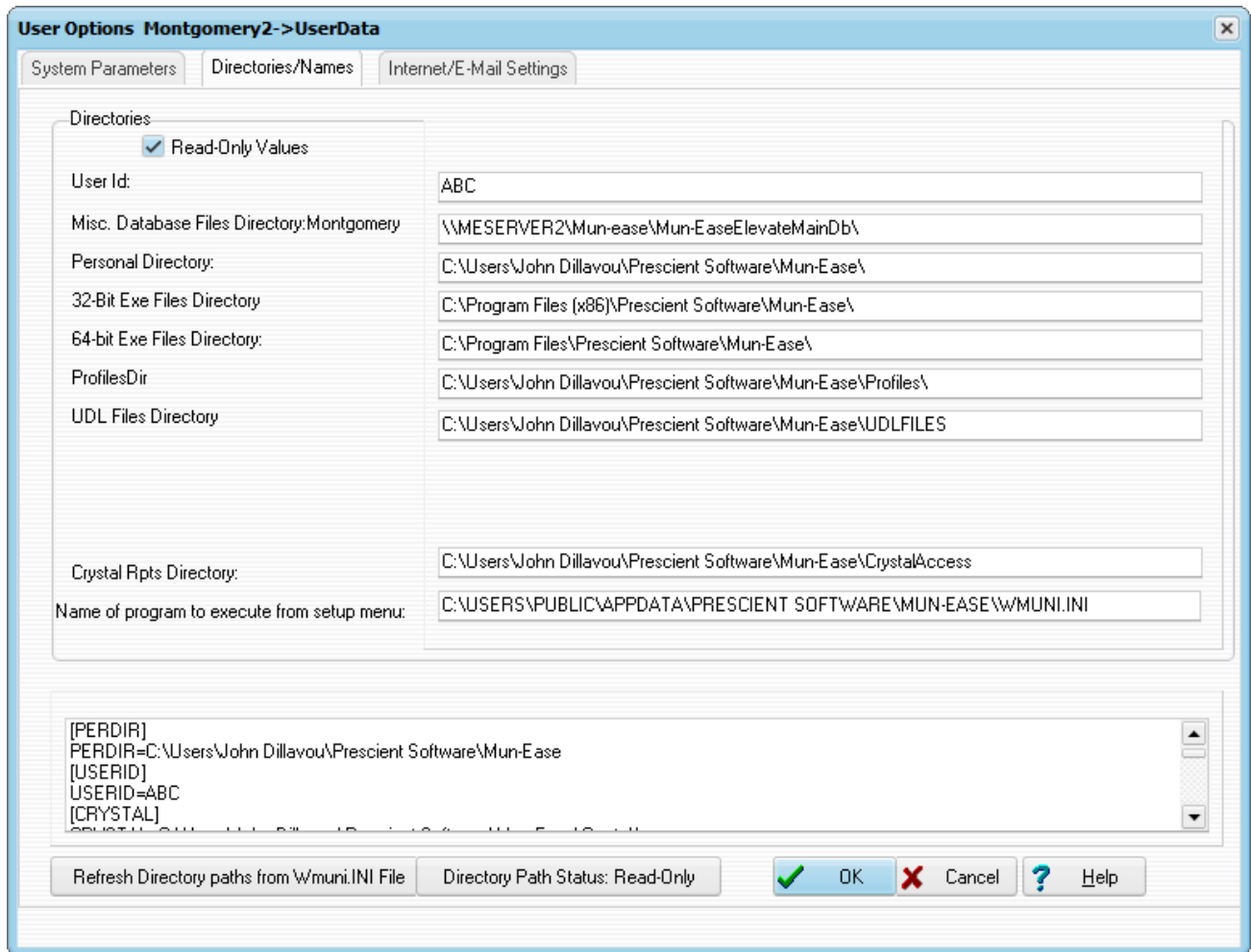


Figure 1-42: Folder Locations for a Typical Windows User