

Toad® for IBM® DB2® 6.3

Installation Guide



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Toad for IBM DB2 6.3
Installation Guide
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Installation

System Requirements

Review the following client and database server requirements for Toad® for IBM® DB2®.

Client Requirements

Before installing Toad, ensure that your client system meets the following minimum hardware and software requirements:

Requirement	Details
Platform	2 GHz processor (recommended minimum)
Memory	4 GB of RAM minimum, 16 GB recommended Note: The memory required may vary based on the following: <ul style="list-style-type: none"> • Applications that are running on your system when using Toad • Size and complexity of the database • Amount of database activity • Number of concurrent users accessing the database
Hard Disk Space	162MB to run Toad Note: The disk space required may vary based on the edition of Toad selected for installation.
Operating System	Windows Vista® Service Pack 2 (32-bit or 64-bit) Windows Server® 2008 Service Pack 2 (32-bit or 64-bit) Windows Server® 2008 R2 Service Pack 1 (64-bit) Windows Server® 2012 Windows Server® 2012 R2 Windows Server® 2016 Windows® 7 (32-bit or 64-bit) Windows® 8 (32-bit or 64-bit) Windows® 8.1 (32-bit or 64-bit) Windows® 10
.NET Framework	Microsoft® .NET Framework 4.5.1
Database Client	When connecting to a DB2 database/subsystem, ensure that you have a DB2 Client or IBM Data Server Driver installed. Toad supports DB2 Client versions 9.7.6 through 11.1. Toad has been tested with the following versions of the DB2 Client: 9.7.6, 9.7.9 , 10.1.0, 10.1.2, 10.1.3, 10.5.0, 10.5.2, 10.5.3, and 11.1.0.

Requirement	Details
Additional Requirements	<p>Web Browser Microsoft® Internet Explorer® 7.0 or later</p> <p>Screen Toad supports screen resolutions up to 3200 x 1800 and display DPI settings up to 150%</p>

Server Requirements

Before installing Toad, ensure that your server meets the following minimum hardware and software requirements:

Requirement	Details						
Database Server	<p>IBM DB2 for LUW 9.5, 9.7, 10.1, 10.5, 10.5.0.5, 11.1 IBM DB2 for z/OS 9, 10, 11, 12</p> <p>Note: Toad may support IBM DB2 Express and SWE in addition to listed above servers, but note that no testing was performed on it.</p> <p>Note: Windows 8, 10 and Windows Server 2012 require the following Fix Pack in order to ensure registration of DLLs in Global Assembly Cache:</p> <table> <tbody> <tr> <td>IBM DB2 LUW 10.5</td> <td>Fix Pack 4</td> </tr> <tr> <td>IBM DB2 LUW 10.1</td> <td>Fix Pack 4</td> </tr> <tr> <td>IBM DB2 LUW 9.7</td> <td>Fix Pack 10</td> </tr> </tbody> </table>	IBM DB2 LUW 10.5	Fix Pack 4	IBM DB2 LUW 10.1	Fix Pack 4	IBM DB2 LUW 9.7	Fix Pack 10
IBM DB2 LUW 10.5	Fix Pack 4						
IBM DB2 LUW 10.1	Fix Pack 4						
IBM DB2 LUW 9.7	Fix Pack 10						

Virtualization Support

Requirement	Details
Application Virtualization	<p>Limited testing has been performed for Citrix® XenApp™ 5.0 on Windows Server 2003 and Citrix XenApp 6.5 on Windows Server 2008 R2.</p> <p>Limited testing has been performed for Citrix support on Windows Server 2003 Enterprise Server (Service Pack 2) using the MetaFrame Presentation Server 5.0 and Citrix Presentation Server Clients 10.2.</p> <p>See "Install Toad on Citrix® Systems" on page 17 for more information.</p>
Desktop Virtualization (VDI)	<p>Toad has been tested with vWorkspace™ 7.6 running on Windows Server 2008 R2 64-bit.</p>

Note: Toad may work in virtualization environments other than the ones in which it was tested.

User Requirements

User Requirements to Install Toad

Only Windows Administrators and Power Users can install Toad.

Note: The following exceptions exist for Power Users:

- A Power User cannot install Toad on a computer running Windows Vista Enterprise. This is a Windows limitation because Vista does not support Power User mode.
- A Power User can install Toad as long as this user belongs to the DB2ADMNS or DBUSERS group.

If an Administrator installs Toad, the Administrator can share the Toad shortcut icon on the desktop and menu items with any user—a Power User, Restricted User, Vista standard user—on the computer.

If a Power User installs Toad, a Restricted User cannot do the following:

- Associate file extensions.
- View the Toad shortcut icon on the desktop or the Toad menu options in the Windows Start menu. As a workaround, Restricted Users can create a shortcut to Toad from the install directory and place the shortcut on their desktop.

User Requirements and Restrictions for Running Toad

The following describes the requirements and restrictions for users who launch and run Toad:

- A Windows Power User or Restricted User must belong to the DB2ADMNS or DB2USERS group. To add the user to one of these groups, select **Start | Control Panel | Administrative Tools | Computer Management | System Tools | Local Users and Groups | Groups | DB2ADMNS or DB2USERS**.
- A Windows Vista user must be either an administrator or a standard user that belongs to an Vista Administrators group. Additionally, to enable full functionality in Toad when Vista's User Access Control security feature is turned on, the standard user must run Toad as an administrator. (Right-click the Toad icon on the Vista desktop and select **Run as administrator**.)
- A Windows Power User or Restricted User does not have the authority to add or remove DB2 catalog entries using the Toad Client Configuration wizard. However, these users can use the Import Profile function in the Toad Client Configuration wizard to import catalog entries to Toad.
- To take full advantage of Toad for DB2 LUW functionality, the user ID specified in the Toad connection profile for each DB2 for LUW database connection requires the authorizations listed in the following document:

[ToadDB2LUWAuthorizations.xls](#)

- As a minimum requirement to manage a DB2 for z/OS subsystem in Toad, the user ID defined in the Toad connection profile for the subsystem must either have SYSADM privileges or SELECT privileges on the DB2 catalog tables. For a complete list of authorizations (and corresponding GRANT statements) a user requires to take full advantage of Toad for DB2 z/OS functionality, refer to the following document:
[ToadDB2zOSAuthorizations.doc](#)
- To create or modify the QuestSoftware.ToadSecurity table to enable Toad Security, the user who maintains this table must have privileges to create, insert, update, and delete it. All other users need only the ability to read the QuestSoftware.ToadSecurity table to use Toad Security features.
- For information about defining a RACF, Unix, or Linux group as a Toad Security role, see the *About Setting Up Toad Security* topic in the Toad online help. This topic explains how to add the Toad Security icons to your toolbar and how to define Toad Security roles that apply to your current connection. (The ability to define RACF, Unix, and Linux groups as Toad Security roles works with DB2 for LUW 9 or later databases and DB2 for z/OS 8 or later subsystems.)

Requirements for Full Access to Toad for DB2 z/OS Functionality

Install the following components on each DB2 for z/OS subsystem:

- Toad for IBM DB2 z/OS Components

Notes:

- Without the z/OS components installed, Toad for IBM DB2 provides limited support for managing DB2 for z/OS subsystems. With the z/OS component installed, you have access to a full range of

Toad functionality needed to manage DB2 subsystems.

See "Install Other Toad Components" on page 16 for more information.

- If no Toad for IBM DB2 z/OS components are installed on your subsystem, see the *Toad for IBM DB2 z/OS Components Installation Guide* for installation requirements and instructions.
- IBM stored procedure SYSPROC.DSNUTILU, installed and operational.

Notes:

- Toad requires SYSPROC.DSNUTILU to run DB2 utilities. For more information about this stored procedure, see *Appendix B of the IBM DB2 Universal Database for z/OS Utility Guide and Reference*.
- A 32K character-size limit exists for each utility statement executing through DSNUTILU.
- Certain table alterations require that Toad perform advanced alters involving multiple UNLOADs and LOADs of table data. Before executing these types of alterations, ensure that the **Mask** value defined for the Toad dataset template that generates the Unload datasets includes the &SEQ variable. This variable creates a unique name for each Unload dataset. (The Unload dataset template is identified in **Tools | Options | Database | DB2 | z/OS | Load/Unload**.)
- When Toad migrates data from one subsystem to another, Toad invokes the IBM DB2 for z/OS UNLOAD and LOAD utilities. Ensure that the Reorg Unload dataset template (identified in **Tools | Options | Database | DB2 | z/OS | Reorg**) generates a dataset that resides on a pack (VOLSER) accessible by both the source and target subsystem.

Compile and Debug Requirements for Stored SQL Procedures

Toad requires the following to compile and debug stored SQL procedures in DB2.

- **DB2 for LUW Requirements**

The following is required to debug and compile stored SQL procedures on DB2 for LUW databases:

Component	Requirements
Supported DB2 Versions	DB2 for LUW 9 or later
Each DB2 Database	IBM SYSPROC.DBG_% procedures, installed and operational
Privileges	On each DB2 database, EXECUTE authority on all SYSPROC.DBG_% procedures

- **DB2 for z/OS Requirements**

The following is required to debug and compile stored SQL procedures on DB2 for z/OS subsystems:

Component	Requirements
Supported DB2 Versions	DB2 for z/OS 9 to 11
Each DB2 Subsystem	<ul style="list-style-type: none"> • IBM DB2 stored procedure SYSPROC.DSNTPSMP, installed and operational (needed to compile stored procedures in Toad) • IBM DB2 installation job DSNTIJSJ, executed (needed to debug stored procedures) • IBM SYSPROC.DBG_% procedures, installed and operational
z/OS	IBM Unified Debugger Session Manager, installed and configured: DB2 for z/OS

Component	Requirements
	<ol style="list-style-type: none"> 1. Install and configure DB2UDSMD (the Debugger Session Manager). 2. Start task DB2UDSMD, using default port number 4553. <p>Refer your systems administrator to the following link for instructions on installing and configuring DB2UDSMD:</p> <p>http://www.ibm.com/developerworks/data/library/techarticle/dm-0903debugdatastudio/</p>
Privileges	<ul style="list-style-type: none"> • On each DB2 subsystem, EXECUTE authority on all SYSPROC.DBG_% procedures • DEBUGSESSION system privilege (for continued debugging of SQL procedures)

Install Toad

Toad for IBM DB2 is available in the following editions: Base, Professional and Xpert. DB Admin Module is an add-on module that provides extended admin functionality and can be added to any Toad edition.

Note: Your Toad for IBM DB2 license key determines the edition and will enable Toad for IBM DB2 functionality accordingly. In many cases, if functionality is disabled within Toad for IBM DB2, you may not have an appropriate license to use it. When Toad is running, you can see which components are licensed by selecting [Help | About](#).

To install Toad

1. Run the Installer.
2. Accept the License Agreement.
3. Select the products you want to install and click **Install**.

Note: When installing Toad using Quest Software Installer on Windows 7 64-bit, Program Compatibility Assistant may appear with "This program might not have installed correctly" message. Select **This program installed correctly** to continue installation.

Specify Application Data Directory Location

Toad for IBM DB2 6.3 stores settings files in the user's Application Data directory. The default location cannot be modified from within the application. Toad provides two methods to change the default location: by using a Registry setting or by using a command switch in a Toad shortcut.

Use the Registry setting method to change the application data directory from Roaming to Local. Use the command switch method to change the location to any new path.

To change Toad Application Data directory location from Roaming to Local

In the Registry under Toad for IBM DB2 (Computer\HKEY_CURRENT_USER\Software\Quest Software\Toad for IBM DB2\6.3), add LOCALSETTINGS with a value of 1.

See the following table for default (Roaming) and resulting (Local) directory path.

Caution: All current Toad settings will be lost after applying this Registry setting unless you manually copy the settings files from the default location (Roaming directory) to the new location (Local directory). Copy the settings files BEFORE you add the Registry setting and BEFORE opening Toad.

Operating System	Default Location	New Location when LOCALSETTINGS = 1
Windows Vista	C:\Users\username\	C:\Users\username\
Windows Server 2008	AppData\Roaming\Quest	AppData\Local\Quest Software\ Toad
Windows 7	Software\Toad for IBM DB2 6.3	for IBM DB2 6.3

To change Toad Application Data directory location using a command-line switch

You can override the default Application Data directory by running Toad with the command switch:

```
Toad.exe --datadir="YourNewDirPath"
```

To instruct Toad to always use the new directory path, add the command switch and the new directory path to a Toad desktop shortcut. Then use the desktop shortcut when opening Toad.

1. To add the command switch, right-click the Toad shortcut and select Properties.
2. Enter the command switch and add the directory path in quotes (replace "YourNewDirPath" with your directory path).

Install Toad Silently

Silent installation provides a convenient method for deploying Toad to multiple machines. With some customization, you can also deploy the license key and settings at the same time.

Note: To perform a silent install, you can use either stand-alone installer or extract the .msi from the Quest Software Installer, provided with Toad Suite.

Determine Which Installer to Use

Before performing a silent installation, review the following to determine which installer to use:

Installer	Advantages	Disadvantages
Executable file (.exe)	<p>Silent installation using the .exe file has the following advantages:</p> <ul style="list-style-type: none"> • Verifies whether the prerequisite software is installed, and if not, redirects you to the download location. 	<p>Silent installation using the .exe file has the following disadvantages:</p> <ul style="list-style-type: none"> • Cannot deploy custom Toad settings files or license keys. • Installer automatically exits if the prerequisite software is not installed.
Microsoft Installer file (.msi)	<p>Supports deployment of Toad settings files and license keys.</p>	<p>Silent installation using the .msi file has the following disadvantages:</p> <ul style="list-style-type: none"> • Requires manual verification and download of any prerequisite software. • Requires a manual uninstall of the previous version of Toad using Add/Remove Programs.

Silent Installation Prerequisites

Before you can perform a silent installation, the following software must be installed on every computer where you are installing Toad:

- Microsoft .NET Framework 4.5

Silent Installation Using the Executable

Use the executable file to perform a silent install to the default directory (or to a different directory) and to specify options such as logging installation messages.

To perform a silent install using the executable file

1. At a Windows command prompt, switch to the drive or directory where the executable for Toad is located. (This file can be downloaded from the Quest Software Web site or can be found on the Toad installation CD-ROM.)
2. For a standard installation with all features enabled, enter the following command:

```
"ToadInstaller.exe" /S
```

You can customize MSIEXEC command-line options and overrides for your installation similar to the following command:

```
"ToadInstaller.exe" /S /Lx "C:\temp\installLog.txt" INSTALLDIR="Drive:\your_install_path" USERNAME="some_user" COMPANYNAME="your_company" ALLUSERS=1
```

Use the following descriptions to customize the command-line options and overrides for your installation.

Command-Line Options

The following MSIEXEC command-line options are used in this example:

Option	Description
<code>/L "C:\temp\installLog.txt"</code>	(Optional) Write installation messages to the specified log. You can append other options, such as <code>x</code> for debug (used in the previous example) or <code>v</code> for a verbose log. See the log section at http://msdn2.microsoft.com/en-us/library/aa367988.aspx for more information about additional logging options. Also, substitute <code>"C:\temp\installLog.txt"</code> in the example with the fully qualified name of the log file. Enclose this value in double quotations. The installation process creates this file if it does not exist. Otherwise, the existing file is overwritten.

Toad Default Installation Option Overrides

You can specify the following values to override Toad's default installation options. Enclose each value in double quotations.

Option	Description
INSTALLDIR	(Optional) Specify the absolute path for the directory in which you want to install Toad. If you do not include this path, the installation program defaults to: C:\Program Files\Quest Software\Toad for IBM DB2 6.3.
ALLUSERS	(Optional) Specify one of the following: <ul style="list-style-type: none">• For a per-machine installation, specify <code>1</code>. This value allows any user to use the Toad shortcut on the desktop after the installation completes.• For a per-user installation, enter the empty string value (<code>""</code>). This value allows only the user specified for USERNAME (and the user that installed Toad) to see the Toad shortcut on the target desktop. If USERNAME is omitted, only the user that installed Toad sees the shortcut. Note: If you do not specify this property, the installation program defaults to a per-user installation.
USERNAME	(Optional) Specify the user that intends to use Toad on the target computer. Notes: <ul style="list-style-type: none">• If ALLUSERS is omitted or defined with the empty string value (<code>""</code>), only the user specified here (and the user that installed Toad) can see the Toad shortcut on the desktop after the installation completes.

Option	Description
	<ul style="list-style-type: none"> If ALLUSERS is omitted or defined with the empty string value ("") and you omit the USERNAME option, only the user that installed Toad sees the Toad shortcut on the desktop. If ALLUSERS is 1, the USERNAME value is ignored during installation.
COMPANYNAME	(Optional) Specify the name of the company that owns this installation.

Notes:

- All default installation option overrides are case-sensitive.
- Enclose all values (except for the ALLUSERS value) in double quotations.

Silent Installation Using the Microsoft Installer

For Toad purchased with the Suite you should extract the .msi from the Quest Software Installer first.

Note: (MSI installs on Windows Vista and 7) If you are using MSI to install Toad on Windows Vista or 7 with UAC enabled, you can install a file that adds a "Run as administrator" option when right-clicking the MSI file: <http://www.symantec.com/connect/downloads/msi-run-administrator-context-menu-vista>.

Extract MSI file from Quest Software Installer

The Quest Software Installer can be launched in "extraction mode," which allows you to extract the Toad for IBM DB2 MSI installer.

Note: You do not need to install the Quest Software Installer on any of the computers where you are silently installing Toad products. The Quest Software Installer is only used to extract the required MSI files.

To launch the Quest Software Installer in extract mode

- Run Toad from the command prompt and include the command-line switch "/extract".

```
"ToadInstaller.exe" /extract
```

- The Quest Software Installer launches in extract mode. In the Extract Location page, specify a target location for the extracted files by entering or browsing to a directory.
- In the Product Selection page, select the products that you want to extract.
- Click **Extract** to extract the files.

The Finish page has a link to the directory into which the files were extracted and a link to the log file for the extraction process (Readme.txt). The extraction log contains verification of the files that have been extracted along with the command-line switches required for performing the default installation. You must run the installers in the order specified.

Perform Silent Installation Using MSI

You can deploy the license key, custom settings, and connections files when installing using the .msi installer. See "Create Transform (MST) Files" on page 15 for more information.

To perform a silent install using msi

- At a Windows command prompt, switch to the drive or directory where the msi installer for Toad is located.
- For a standard installation with all features enabled, enter the following command:

```
msiexec /i "ToadInstaller.msi" /q
```

You can customize command-line options and overrides for your installation similar to the following:

```
msiexec /i "ToadInstaller.msi" INSTALLDIR= "Drive:\your_install_path" /q
USERNAME="someone" COMPANYNAME="your_company" ALLUSERS=1
```

Command-Line Options

The following MSIEEXEC command-line options are used in this example:

Option	Description
/i	Run the installation.
/q	Specify the user interface (UI) that displays during installation. You can append other options, such as <i>n</i> to hide the UI or <i>b</i> to hide the Cancel button during the installation.

Note: All command-line options are case-insensitive. See <http://msdn2.microsoft.com/en-us/library/aa367988.aspx> for a complete list of command-line options.

Toad Default Installation Option Overrides

You can specify the following values to override Toad's default installation options. Enclose each value in double quotations.

Option	Description
INSTALLDIR	(Optional) Specify the absolute path for the directory in which you want to install Toad. If you do not include this path, the installation program defaults to: C:\Program Files\Quest Software\Toad for IBM DB2 6.3.
ALLUSERS	(Optional) Specify one of the following: <ul style="list-style-type: none"> For a per-machine installation, specify <i>1</i>. This value allows any user to use the Toad shortcut on the desktop after the installation completes. For a per-user installation, enter the empty string value (<code>""</code>). This value allows only the user specified for USERNAME (and the user that installed Toad) to see the Toad shortcut on the target desktop. If USERNAME is omitted, only the user that installed Toad sees the shortcut. <p>Note: If you do not specify this property, the installation program defaults to a per-user installation.</p>
USERNAME	(Optional) Specify the user that intends to use Toad on the target computer. <p>Notes:</p> <ul style="list-style-type: none"> If ALLUSERS is omitted or defined with the empty string value (<code>""</code>), only the user specified here (and the user that installed Toad) can see the Toad shortcut on the desktop after the installation completes. If ALLUSERS is omitted or defined with the empty string value (<code>""</code>) and you omit the USERNAME option, only the user that installed Toad sees the Toad shortcut on the desktop. If ALLUSERS is <i>1</i>, the USERNAME value is ignored during installation.
COMPANYNAME	(Optional) Specify the name of the company that owns this installation.

Notes:

- All default installation option overrides are case-sensitive.
- Enclose all values (except for the ALLUSERS value) in double quotations.

Additional Options

Option	Description
TRANSFORMS	(Optional) Specify the name and location of the .mst file. TRANSFORMS="filename.mst" See Create Transform (MST) Files for more information.

Create Transform (MST) Files

You can create a Microsoft transform (.mst) file that deploys the license key, custom settings, and connections for users when performing a silent install using the .msi file.

If you do not already have the license key, settings, and connections files that you want to deploy in a silent install, you can create them in Toad.

To create license, settings, and connections files in Toad

1. **License file.** In Notepad, do the following:
 - a. Enter the license key in the first line.
 - b. Enter the site message in the second line.
 - c. Save the file with **license.key** as the file name in the Toad install directory. Make sure the file extension is **.key** not .txt.
2. Start Toad. The application should open without prompting you to enter a license key.
3. **Settings file.** Select **Tools | Configuration Wizard** from the Toad menu and complete the Configuration wizard. This wizard creates an initial settings file (Settings.xml).
4. **ModuleSettings files.** Select **Tools | Options** from the menu in Toad to open the Options window.
 - Select each page in the window and set any options you want to deploy. These options create a module settings folder and files.
5. **Connection file.** Select **View | Connection Manager** from the menu in Toad to open the Connection Manager.
 - Create any connections you want to deploy.
6. Exit Toad. Upon exiting, a Connections file is created.
7. Locate the files you created. See the following table for file locations.

File	Location (Windows Server 2003)	Location (Windows Vista, Windows Server 2008, Windows 7, Windows 8)
Settings.xml	C:\Documents and Settings\username\Application Data\Quest Software\Toad for IBM DB26.3.	C:\Users\username\AppData\Roaming\Quest Software\Toad for IBM DB26.3.
ModuleSettings folder and files	C:\Documents and Settings\username\Application Data\Quest Software\Toad for IBM DB26.3\ModuleSettings.	C:\Users\username\AppData\Roaming\Quest Software\Toad for IBM DB26.3\ModuleSettings.
Connections.xml	C:\Documents and Settings\username\Application Data\Quest Software\Toad for IBM DB26.3.	C:\Users\username\AppData\Roaming\Quest Software\Toad for IBM DB26.3.

To create a Transform (.mst) file

1. Select the tool of your choice to create a Transform (.mst) file using the *ToadInstaller.msi*.
2. Package the files created in the previous procedure. When creating the Transform file, select the Toad Installation directory as the Destination.

For example, C:\Program Files\Quest Software*<product>* *<version>*

When the user starts Toad for the first time, if these files are located in the Installation directory then the files are copied to the appropriate location.

3. Generate and save the Transform file.
4. Perform a silent install. See "[Perform Silent Installation Using MSI](#)" on page 13 for more information.

Install Other Toad Components

Depending on your Toad license type, additional Toad components might be available. See the following sections for information about installing these components:

- [Toad for IBM DB2 z/OS Components](#)
- [Toad for IBM DB2 LUW Agent](#)
- [SQL Optimizer for DB2 LUW](#) - Included in Toad® for IBM® DB2® Xpert Edition.
- [SQL Optimizer for DB2 z/OS](#) - Included in Toad® for IBM® DB2® Xpert Edition.

Toad for IBM DB2 z/OS Components

The Toad for IBM DB2 z/OS components enable you to take full advantage of Toad functionality on your DB2 for z/OS subsystem. If you do not have the z/OS components installed, Toad still provides some basic functionality to manage your DB2 for z/OS subsystems. However, with the z/OS component installed on your DB2 subsystem, you can perform these additional functions in Toad:

- Bind and rebind packages and plans
- Invoke DB2 for z/OS utilities and commands within scripts that Toad for IBM DB2 generates for advanced alters, migrations, and data and object synchronization
- Run stand-alone DB2 for z/OS utilities and commands available with UIs in Toad
- Run DB2 for z/OS commands from the Editor
- Execute remote DB2 for z/OS scripts
- Create, alter, or drop dataset templates
- Use Toad UIs to run DISPLAY, START, and STOP commands on DB2 for z/OS databases, tablespaces, and indexes
- Access accurate buffer-pool information for the DB2 subsystem
- View volumes available for defining a storage group
- View dataset information for tablespace and indexes
- Access information about the current threads connected to the DB2 subsystem
- Assign a RACF group to a Toad Security role to control the Toad features available to all users belonging to the RACF group

The z/OS components should be installed on each subsystem that you want Toad to manage. For a complete description of system requirements and installation instructions for this component, refer the *Toad for IBM DB2 z/OS Components Installation Guide*.

Toad for IBM DB2 LUW Agent

LUW Remote Script Execution Wizard has been modified to generate scripts that can be executed natively in the DB2 CLP on the database server. This eliminates the need for the Toad for IBM DB2 Agent which is no longer shipped with Toad.

SQL Optimizer for DB2 LUW

SQL Optimizer for IBM DB2 LUW lets you tune the SQL used in the DDL for triggers, views, or materialized query tables and the SQL included in packages. You can also tune the SQL on which you are working in the Editor. See the *SQL Optimizer for IBM DB2 LUW Installation Guide* for requirements and installation instructions.

SQL Optimizer for DB2 z/OS

SQL Optimizer for DB2 z/OS lets you tune the SQL used in the DDL for triggers, views, or materialized query tables and the SQL included in packages and plans. You can also tune the SQL on which you are working in the Editor.

Install Toad on Citrix[®] Systems

Toad must be installed on the Citrix server by the Citrix administrator. Users then connect to this instance through their Citrix login.

Note: Limited testing has been performed for Citrix XenApp™ 5.0 support on Windows Server® 2003 and for Citrix XenApp 6.5 on Windows Server 2008 R2.

To install Toad on a Citrix system

1. Connect to the Citrix Environment as an administrator.
2. Copy Toad to the Citrix server, if needed.
3. Start the Toad installation process.
4. During installation, on the Product Selection page, select Toad for IBM DB2 and click **More Info**. Then select the **Install for everyone** checkbox.
5. Repeat steps 2 through 4 for each server in the Citrix farm.

Note: Although you must install Toad on every server in the Citrix farm, you only need to publish Toad once.

6. Review the following considerations regarding licensing:
 - Individual licenses should be entered for each user.

Upgrade Toad

To upgrade Toad

1. Run appropriate Toad installer (*ToadForDB2_version*) from the DVD or downloaded file.
2. Select the products you want to install and click **Install**.

If you are upgrading from a previous version of Toad, you are prompted to migrate your settings the first time you start Toad. The settings files include database connections, layout customizations, shortcut keys, and options customized in the Options pages.

To migrate the settings again, remove or rename the current version's Application Data folder and migrate the files from the previous version's Application Data folder.

Upgrade Automation Scripts and Scheduling Tasks

If you upgrade to a newer version of Toad, Automation scripts created in a previous version must be upgraded before you can open them in the newer version. Toad prompts you to automatically upgrade a script when you attempt to open it in a newer version.

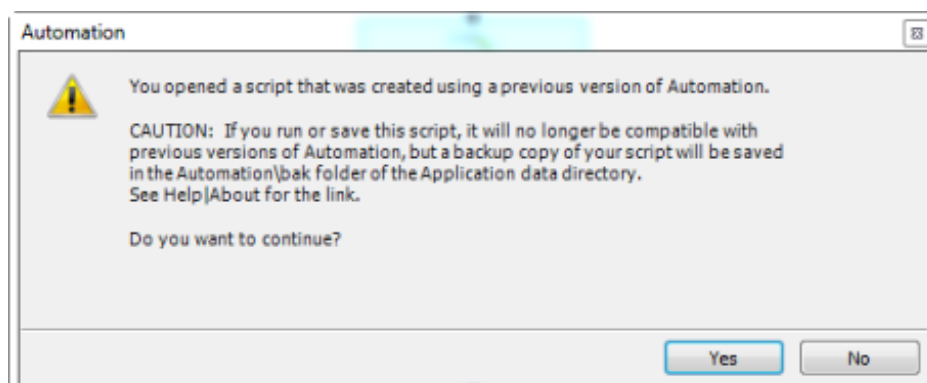
In addition, *scheduled* scripts are scheduled to run using the version of Toad in which they were created. After upgrading Toad, those previously-created, scheduled scripts will not execute in the newer version until you migrate each script's scheduling task. Toad prompts you to migrate scheduling tasks when you initially launch the application after installation.

Upgrade Automation Scripts to Newer Version of Toad

An automation script is compatible with the version of Toad in which the script was created. If you want to open and/or modify a script using a newer version of Toad, you must upgrade the script. Toad automatically prompts you to upgrade the script the first time you open it in the newer version.

To upgrade an Automation script

1. Open the script in Toad. Toad prompts you to upgrade the script.



2. To upgrade the script, select **Yes**.

Caution: If you upgrade an automation script, it will no longer be compatible with earlier versions of Toad.

3. Select **No** (and do not elect to save the script), to keep the script compatible with the previous version.
4. If you selected Yes, Toad upgrades your script and saves a backup copy of the original script in the following location:

<application data directory>\Automationbak

5. If the script you upgraded is also scheduled, you **must** migrate the scheduling task, otherwise the upgraded script will fail to run.

Migrate Scheduling Tasks to Newer Version of Toad

Each scheduled Automation script uses a Windows scheduling task. The scheduling task specifies which version of Toad to use by specifying the version's application path. Toad provides you with two easy ways to migrate your scheduled scripts' scheduling tasks when you upgrade Toad. First, Toad prompts you to migrate scheduling tasks upon initial launch of the application after installation. Next, you can migrate scheduling tasks at any time using the Job Manager.


Notes:

- If you upgrade a previously-created script by opening it in a newer version of Toad, you must also migrate the scheduling task to the newer version.
- If you install the newer version of Toad side-by-side with the older version, previously-created, scheduled scripts will continue to execute using the older version, until you migrate the scheduling tasks (provided that you do not open the scripts in the newer version).

To migrate scheduling tasks upon initial launch

1. After upgrading Toad, and upon initial launch of the application, the Migrate Scheduled Tasks dialog opens.
2. Select the scheduled tasks (scheduled Automation scripts) to migrate to the new version of Toad.
3. Click **OK** to close the dialog.
4. Toad immediately prompts you for your Windows password. Enter your password to migrate the scheduled tasks.

To migrate scheduling tasks using the Job Manager

1. Select **Tools | Administer | Job Manager**.
2. Click  on the Job Manager toolbar.
3. Select the scheduled tasks to migrate and click **OK**.

Note: Only currently-scheduled tasks (enabled or disabled) are listed in the Migrate Scheduled Tasks dialog.

4. Toad immediately prompts you for your Windows password. Enter your password to migrate the scheduled tasks.

Manually Edit Scheduling Tasks

On occasion you may need to modify the application path in a Windows scheduling task. You can do this by manually editing the scheduling task using the following procedure.

To manually edit a scheduling task

1. In the Job Manager (**Tools | Administer | Job Manager**), right-click a task and select **Edit Task**.
2. To change the version of Toad used to run the script, in the **Actions** tab, change the folder name in the *toad.exe* path.

Files Migrated During Upgrades

When upgrading to a new version of Toad, the following files can be migrated from the previous version's Application Data Directory (click the *Application Data Directory* link in **Help | About** to open the directory).

Caution! Migrating settings from a previous version of Toad may overwrite new settings files, implemented for the current release (for example, updated reports templates, layouts, etc).

File	Description
Action.log	Tracks your usage within Toad. If you agree to share this data, the file is automatically sent to Quest Software on a periodic basis.
Connections.xml	Contains all connections stored in the Connection Manager or the New Connection window.
ConnectionTrace.log	Contains the SQL Output connection trace log file if you select Tools Execution Trace from the menu.
ExceptionTrace.log	Contains a log of all exceptions encountered while running Toad.
FTPConnection.log	Contains a log of exceptions encountered when attempting to connect to FTP servers.
FTPConnections.xml	Contains connections to FTP servers stored in the FTP Connections window.
Quest.PersistentCache.xml	Contains the private object annotation cache options (object notes, Lookup tables, and hidden columns). You can share these options with other Toad users in Tools Options Database Cache .
Settings.xml	Contains many of the global configuration settings.
ToadSupportBundle.zip	Contains the last support bundle you generated.
Folder	Description
Automation (temporary folder)	Used by automation when executing automation scripts.
Cache	Used to spool cache database metadata to disk if enabled. The data is in binary format and can always be recreated by fetching it from the database.
Context	Contains settings that depend on the context within Toad including the following: <ul style="list-style-type: none">• Adapter—Custom data editing statements.• Filter—Unnamed filters defined in the Object Explorer or Database Explorer.• Named Filter—Named filters defined in the Object Explorer or Database Explorer.• TYPE—Tabs that display on the right when you select an object in the Object Explorer or Database Explorer.
Document Recovery	Contains backup copies of Editor, Query Builder, and Database Diagram files saved if you have enabled Document Recovery in Tools Options Environment General .

Keyboard	Contains custom keyboard shortcut layouts.
Layouts	Contains layouts for some areas in Toad, such as tool windows that automatically display in the Editor and column layouts for the Messages tab.
ModuleSettings	Contains general settings for various components in Toad, such as whether the data grid defaults to read-only, displays not null indicators, etc.
Plugins	Used by Toad plugin components.
Session	Contains desktop configurations, including toolbar customizations and tool window locations.
SQLFormatter	Contains pre-set and user created templates for formatting SQL, and the SQL statement used to preview formatting changes in the Formatting Options page.
SQLRecall	Contains the SQL statements saved by SQL Recall.
Templates	Contains the following templates: <ul style="list-style-type: none"> • Code Templates—Templates used to define default values when creating new objects in the Object Explorer or Database Browser. • Scripts—Startup scripts to run when connecting. • Snippets—Code Snippet entries. • Reports—Report entries.

Uninstall Toad

If you uninstall Toad, it may not uninstall completely. When you use Toad, you create new files such as SQL scripts, data output, or temp files, etc. The following types of files are not removed when you uninstall:

- Any new files you create
- Any copies of files you make for backup purposes
- Settings files

You can uninstall Toad for IBM DB2 by using the Windows install/uninstall programs feature.

To uninstall Toad

1. Open the Windows Control Panel and select **Programs and Features**. (In Windows XP, select Add/Remove Programs.)
2. Select the product that you want to uninstall.
3. Click **Uninstall**.

Licensing

To enter your license key

1. Select **Help | Licensing** from the menu (ALT+H+L).
2. Review the following for additional information:

Authorization key	Enter the license key for Toad.
Site message	Enter the site message included with the license key.

Note: Your license key determines the edition of Toad (Pro, Xpert, etc.) and will enable the functionality accordingly. In many cases, if functionality is disabled within Toad, you may not have an appropriate license to use it. When Toad is running, you can see which components are licensed by selecting **Help | About**. For complete list of features shipped with your Toad edition see <http://www.quest.com/>.

Note: The license is provided for all products and Toad components purchased within Toad for IBM DB2 Edition.

Notes for Toad for IBM DB2 Users

Trial Keys

The commercial version of Toad for IBM DB2 comes pre-installed with a trial license key for your convenience. This allows you to use the application while waiting for your commercial key to be delivered.

The trial license key remains active for the designated trial period, even after you enter your commercial license key (the splash screen may continue to indicate your application is a trial version). This is helpful if you are previewing an upgrade or an advanced module.

If you entered your commercial license key and do not require the trial version, you can delete the trial key.

Important: If you delete the Trial key, any advanced features not included in your purchased edition will be disabled.

To delete a trial key

1. Select **Help | Licensing**.
2. In the Toad Licensing dialog, select the License tab for the trial license key and then click **Delete License** to delete the trial key.

DB Admin Add-on and DBA Suite Keys

DB Admin Add-on Module is included in Toad for DB2 DBA Suite or can be purchased with any commercial Toad edition. It includes a large set of database administration tools. LUW DB Admin Add-on also enables Toad for DB2 z/OS freeware functionality, while z/OS DB Admin Add-on enables Toad for DB2 LUW freeware functionality.

Create and Troubleshoot Connections

Understand Toad Connections

Review this topic to learn about open database connections in Toad.

Toad Open Connections

In Toad, an open connection in the Connection/Navigation Manager represents one or more actual connections to the database. When you open a database connection in Toad:

- Toad creates an initial database connection for general use.
- Toad also creates a separate database connection for each Editor (the first time you execute a statement) and for each Data tab in the Database Explorer (the first time you select the tab and query data).

The connection associated with the window (or tab) remains open until you close the window. If a window has an associated connection, but a statement is not currently executing, the connection is in an inactive state.

To view information for an open connection

- To view the number of actual database connections that exist for a Toad connection, including the number of active connections, place the cursor over the connection in the Connection/Navigation Manager pane or in the connection drop-down list.

To use the Background Processes pane

- When a statement is executing, a progress bar displays in the Status bar located at the bottom of the Toad application window. Click the executing progress bar to open the Background Processes pane.
- To cancel statement execution, use the Background Processes pane.

Note: It is recommended that you cancel only your own processes, because terminating Toad activities could cause unexpected behavior.

Sharing a Connection Among Windows

You can instruct Toad to share an open connection among windows. In this way, the Editor windows and Data tabs can share the same connection when the connection is inactive.

To share a database connection among windows in Toad

1. Select **Tools | Options | Editor | General**.
2. Clear the checkbox for the **Use individual connection for each open editor** option.
3. When this option is not selected, Toad attempts to use a single connection for any new windows or query

execution. For example, if you share a database connection, you can execute a query in the Editor, execute another query in a new Editor, and then select the Data tab from the same connection.

If the single connection is in use when Toad attempts to execute it, the following occurs:

- If your database supports executing multiple queries simultaneously on a shared connection, the query is placed in a queue and executes as soon as the current operation completes.
- If your database does not support executing multiple queries on a shared connection, a dialog prompts you to either permanently associate the window with a new database connection, cancel the previous operation, or add the query to a queue until the current operation completes, and then execute it. If you place multiple queries in the queue, each one executes in the order that it was added to the queue.

Note: Although you can share a database connection, any commits apply to the selected window only.

Configure DB2 Client Connections

Setting up connections to the DB2 for LUW databases and DB2 for z/OS subsystems that Toad will manage requires two main steps.

Step 1. Configure DB2 client connections - Before you can create a connection profile, each of the databases or subsystems must be cataloged on the DB2 client. This topic helps you with that process.

Step 2. Create connection profiles - Step 2 involves creating Toad connection profiles for the cataloged DB2 databases or subsystems. Each profile contains the information that Toad needs to connect to the system, such as the user ID and password, DB2 registry settings, and the default schema. See "[Create Toad Connection Profiles for DB2](#)" on page 30 for more information.


Configure DB2 Client Connections

Use one of the following methods to catalog each of the databases or subsystems on the DB2 client.

Transfer a Catalog Any Time After Initial Setup

Use this method to transfer a catalog from another DB2 client on your machine to your default DB2 client.

To transfer a catalog any time after initial setup

1. In the Connection Manager, click  in the toolbar.

Note: If the Client Configuration Wizard opens, Toad found only one DB2 client installed.


2. From the **DB2 Client** list, select the name of the DB2 client whose catalog you want to transfer to your default DB2 client.


This list contains all current previously installed DB2 clients on your computer, including the default DB2 client instance and any Toad DB2 client installations.

3. Click **OK**.
4. To create a connection in Toad for any of the transferred catalog entries, see [Create Toad Connection Profiles for DB2](#).

Import a DB2 catalog previously exported to a file

To import an exported catalog profile

1. In the Connections (or Create New Connection) window, click  beside the **Database alias** drop-down list to open the Client Configuration wizard.

2. On the Welcome page, select **Import Profile**.
3. Click **Next**.
4. Click  in the **Profile name** field to browse for and select the exported profile you want to import. When you select the profile, its contents display in the text pane.
5. Complete the wizard.


Once you close the wizard, the **Database alias** drop-down list in the Connections window includes all the DB2 databases and subsystems whose catalog entries you imported.

Note: DB2 does not automatically export catalog entries for the local DB2 instance and its databases on the computer from which the export is run (unless these entries already exist in the catalog). Therefore, the profile you are importing might not include these node entries. To add the missing entries to your DB2 client catalog, you must manually catalog the databases. If these databases are local to your computer, catalog them as remote databases. See "Manually catalog DB2 for LUW databases " on page 25 for more information.

6. Proceed to catalog entries as needed. See "Create Toad Connection Profiles for DB2" on page 30 for more information.

Manually catalog DB2 for LUW databases

To manually catalog a DB2 for LUW database

1. In the Connections (or Create New Connection) window, click  beside the **Database alias** drop-down list to open the Client Configuration wizard. The Welcome page displays, showing the DB2 client's existing catalog configuration in a tree view.
2. If the host and node names for the database you want to configure are listed in the tree, select them. These selections pre-fill certain fields required later in the wizard process. If these names are not listed, you must provide the necessary host and node information later in the wizard.
3. Click **Add Catalog Entry**.
4. Review the following for additional information:

Add a Host	Description
Operating system	Select the operating system for the server on which the DB2 for LUW instance containing the DB2 database you are cataloging resides. For a list of supported server platforms, see the release notes.
Host name	Enter the TCP/IP address or the system name for the server on which the DB2 database resides.
Port number	Enter the port number for the server on which the DB2 database resides.
Security type	Select a secure protocol to handle TCP traffic for this connection.
Specify an Instance	Description
Node name	Enter a user-defined name for the DB2 instance containing the database you are cataloging. If you selected the node name from the tree on the Welcome page, this information is pre-filled (but you can update it as needed).
Instance name	Enter the real name of the DB2 instance.
Comment	Enter a descriptive comment for the instance, if needed.
Add a Database	Description

Database name	Enter the real name of the DB2 database.
Database alias	Enter a unique nickname to identify the database on your system.
Authentication	Select the authentication method that is required to connect to the database.
Target principal	Enter the service account name for server's service where the database resides. Note: This option is available only when <i>Kerberos</i> is selected as the authentication method.


5. Complete the wizard.

The **Database alias** drop-down list in the Connections window shows the alias for the newly cataloged database. To complete the Toad connection setup, you must create a Toad connection profile for the database. See "Create Toad Connection Profiles for DB2" on page 30 for more information.

Manually catalog DB2 for z/OS subsystems

Note: If you connect directly to a DB2 for z/OS subsystem, you cannot take advantage of Sysplex. If you want to use Sysplex, catalog an entry to a DB2 Connect gateway instead. See "Manually catalog DB2 Connect gateways" on page 27 for more information.

To manually catalog a DB2 for z/OS subsystem

1. In the Connections (or Create New Connection) window, click  beside the **Database alias** drop-down list to open the Client Configuration wizard. The Welcome page displays, showing the DB2 client's existing catalog configuration in a tree view.
2. If the host name for the DB2 subsystem you want to configure is listed in the tree, select it. This selection pre-fills certain fields required later in the wizard process. If the host name is not listed, you must provide the necessary host information later in the wizard.
3. Click **Add Catalog Entry**.
4. Review the following for additional information:

Add a Host	Description
Operating system	Select z/OS for the server operating system.
Host name	Enter the TCP/IP address or the system name for the server on which the DB2 subsystem resides.
Port number	Enter the port number of the service for the DB2 subsystem.
Enable SOCKS security	Select this checkbox to enable the SOCKS secure protocol to handle TCP traffic for this connection. SOCKS adds an authentication mechanism for additional security.
Add a DB2 Subsystem	Description
Location name	Enter the location name of the DB2 subsystem as defined during the DB2 installation.
Database alias	Enter a unique, user-defined alias to identify the DB2 subsystem on your system. You can use the same name you used in the previous Location name field, as long as it does not already exist in the list aliases in the DB2 client.


5. Complete the wizard. A message informs you whether the entry was added successfully.

The **Database alias** drop-down list in the Connections window shows the alias for the newly cataloged subsystem. To complete the Toad connection setup, create a Toad connection profile for the database. See "Create Toad Connection Profiles for DB2" on page 30 for more information.

Manually catalog DB2 Connect gateways

In order to connect to a DB2 for z/OS subsystem, you need to catalog two entries. First, you need to catalog the DB2 subsystem on the DB2 Connect gateway. During this process, you define an alias for the DB2 subsystem. Second, you need to catalog this DB2 subsystem alias in Toad. The procedure below describes both cataloging events.

To manually catalog an entry to a DB2 Connect gateway

1. Catalog the DB2 subsystem on the DB2 Connect gateway. See the IBM DB2 for z/OS documentation for more information.
2. In the Connections (or Create New Connection) window in Toad, click  beside the **Database alias** drop-down list to open the Client Configuration wizard.
3. Click **Add Catalog Entry**.
4. Review the following for additional information:

Add a Host	Description
Operating system	Select the operating system for the server on which the DB2 Connect gateway resides.
Host name	Enter the TCP/IP address or the system name for the server on which the DB2 Connect gateway resides.
Port number	Enter the port number of the service for the DB2 Connect gateway.
Enable SOCKS security	Select this checkbox to enable the SOCKS secure protocol to handle TCP traffic for this connection. SOCKS adds an authentication mechanism for additional security.
Specify an Instance	Description
Node name	Enter an alias for the user-defined node name you specify in the Instance name field.
Instance name	Enter a user-defined name for the gateway node or use the same value entered in the Node name . Note: This name does not point to an actual node on the gateway system, but is needed to continue the cataloging process.
Add a Database	Description
Database name	Enter the database alias name for the DB2 subsystem. Note: This alias name must match the alias cataloged on the DB2 Connect gateway.
Database alias	Enter a unique, user-defined alias for the DB2 Connect gateway. You can use the same alias you used in the previous Database name field, as long as it does not exist in the list of Toad for DB2 aliases.
Authentication	Select the authentication method that matches the method specified for the DB2 subsystem on the DB2 Connect gateway.

5. Complete the wizard.

The **Database alias** drop-down list in the Connections window shows the name for the newly cataloged DB2 subsystem. To complete the Toad connection setup, you must create a Toad connection profile for the subsystem. See "Create Toad Connection Profiles for DB2" on page 30 for more information.


Note: Toad for DB2 supports LDAP connections. See "Configure DB2 LDAP Support" on page 29 for more information.

Maintain DB2 Client Connections

Additionally, Toad provides functionality to perform the following maintenance on the catalog you set up for the current DB2 client:


Edit DB2 catalog entries

To edit a DB2 catalog entry

1. In the Connections (or Create New Connection) window, click  beside the **Database alias** drop-down list to open the Client Configuration wizard.
2. In the catalog configuration tree for the DB2 client, select the catalog entry for the DB2 database or subsystem that you want to edit.
3. Click **Edit Catalog Entry**.
4. On the Edit Catalog Entry page, update the catalog properties as needed. For a description of the catalog properties, see the following links:
 - [Manually catalog DB2 for LUW databases](#)
 - [Manually catalog DB2 for z/OS subsystems](#)
 - [Manually catalog DB2 Connect gateways](#)
5. Click **Next** to open the Catalog Script Review window.
6. Review and modify the script in the preview pane as needed.
7. Click **Finish**. A message window displays, informing you whether the updates to the catalog entry completed successfully.

Remove DB2 catalog entries

To remove a DB2 catalog entry

1. In the Connections (or Create New Connection) window, click  beside the **Database alias** drop-down list to open the Client Configuration wizard.
2. In the catalog configuration tree for the DB2 client, expand one or more nodes, and select the catalog entries that you want to remove. (Press CTRL+click to select multiple entries.)


Note: You can remove a node by selecting all database entries for that node.
3. Click **Remove Catalog Entry**.
4. On the Catalog Script Review page, modify the script in the preview pane as needed.
5. Click **Finish**. A message window displays, informing you whether the removals completed successfully.



Export the catalog for the current DB2 client

Toad for IBM DB2 provides functionality to export your current DB2 client catalog to a file, called an *export profile*. You can then import this profile to set up the catalog for another DB2 client.

To create the export profile containing the current DB2 client catalog, Toad executes the DB2 Connectivity Configuration Export Tool command `db2cfexp`. If you want to export the catalog of a remote or local DB2 client (other than your current DB2 client), you must manually execute this command. For more information, see the following IBM documentation: <http://publib.boulder.ibm.com/infocenter/db2luw/v8/index.jsp?topic=/com.ibm.db2.udb.doc/core/r0002442.htm>.

To export the DB2 client catalog

1. In the Connections (or Create New Connection) window, click  beside the **Database alias** drop-down list.

2. Click **Export Profile** in the Welcome window of the Client Configuration wizard. (You might need to click  this button.)
3. Click **Next**.
4. Click  in the **Profile name** field to browse for and select the path for the profile in which to export the current DB2 client catalog.
5. Select the type of profile you want to create:
 - *Template* to create a profile used as a template for other DB2 clients (default for exporting a DB2 catalog)
 - *Backup* to create a profile used to back up a DB2 database instance
 - *Maintain* to create a profile that contains only database or node information required for updating other instances

For more information about these profile types, see the IBM documentation (as cited previously) describing the `db2cfexp` command.
6. Complete the wizard. A message window displays, informing you whether the export completed successfully.

Note: DB2 does not automatically export catalog entries for the local DB2 instance and its databases installed on your computer unless these entries already exist in the catalog you are exporting. If you later import the export catalog to a DB2 client, you must manually catalog the missing local-node databases as remote databases. See "Manually catalog DB2 for LUW databases " on page 25 for more information.

After you have set up the catalog on the current DB2 client, you can proceed to the second phase of the Toad connection setup. This phase involves creating Toad connection profiles for the cataloged DB2 databases or subsystems. See "Create Toad Connection Profiles for DB2" on page 30 for more information.

Configure DB2 LDAP Support

You can create DB2 Lightweight Directory Access Protocol (LDAP) connections when the DB2 client installed with Toad is configured for LDAP. Configuring the client consists of enabling LDAP support and specifying the host name and port number of the LDAP server. Once the client is configured, Toad retrieves names from your LDAP server and displays them in the **Database Alias** list in the Connections window.

Notes:

- You must configure LDAP support for the DB2 client installed with Toad regardless of whether an existing DB2 client on the computer is already configured to support LDAP.
- Currently, Toad for DB2 supports only the access of DB2 LDAP catalog entries. Toad does not support the management of these entries.

To configure the DB2 client for LDAP

1. Open the Command Window for the DB2 client installed with Toad by selecting **Start | All Programs | IBM DB2 | <ToadCom, ToadEval, or ToadFree> | Command Line Tools | Command Window**.
2. Enter the following command to enable LDAP support:


```
db2set DB2_ENABLE_LDAP=YES
```
3. Enter the following command to specify the TCP/IP host name and port number of the LDAP server:

```
db2set DB2LDAPHOST=<hostname[:port]>
```

The port number defaults to 389 (default LDAP port) if you leave the port number blank.

4. Exit the Command window.
5. Launch Toad and open the Connections window.

Databases on the LDAP server should be available from the **Database alias** drop-down list in the Connections window. To complete the Toad connection setup, you must create a Toad connection profile for each database. See "[Create Toad Connection Profiles for DB2](#)" on page 30 for more information.

Create Toad Connection Profiles for DB2

Setting up connections to the DB2 for LUW databases and DB2 for z/OS subsystems that Toad will manage requires two steps.

Step 1. Configure DB2 client connections - If you use a DB2 client each of the databases or subsystems must be cataloged on the client. See [Configure DB2 Client Connections](#) to learn how to catalog databases/subsystems.

Step 2. Create connection profiles - Step 2 involves creating Toad connection profiles for DB2 databases or subsystems that were either cataloged in the DB2 client or imported from your Data Server Driver configuration file. Each profile contains the information that Toad needs to connect to the system, such as the user ID and password, DB2 registry settings, and the default schema. If you use IBM DSD environment you can import your connection profile from a Data Server Driver configuration file.

Note: The default location of your Data Server Driver configuration file is in ...Program Data\IBM\DB2\IBMDBCL1\cfg. The default config filename is db2dsdriver.cfg.

Note: When you connect using IBM Data Server Driver the Database button and the toolbar option in Tools | LUW Database Options will not be available.

Connection Using a Custom Connection String

You can also connect to your DB2 database/subsystem using a custom connection string.

- Select Connect Using | Connection String in Connection Properties
- Enter Database alias, Host name, Login, and Password and the connection string will be automatically updated according to what you enter
- You can save a connection created using a custom connection string in your Connection Manager

Create Connection Profiles


Use one of the following methods to create Toad connection profiles:

- Import Toad connection profiles previously exported to an XML file

(See "[Export connection profiles to an XML file](#)" on page 31 for more information about exporting a profile that you can later import.)

Note: The connection profiles are not usable unless you have also created entries in the DB2 catalog for the DB2 databases and subsystems to which these profiles correspond. See "[Configure DB2 Client Connections](#)" on page 24 for more information.

To import connection profiles


1. In the Connections (or Create New Connection) window, click  on the toolbar, and select **Connection file**.



2. From the Import Connections window, browse for and select the XML file containing the connection profiles you want to import.
3. Click **Open**.
4. Select *DB2* and click **OK** to complete the import.

The connections whose profiles you imported are listed on the Connections window.

- Manually define Toad connection profiles.

To create a Toad connection profile for a DB2 database or subsystem

1. In the Connections (or Create New Connection) window, click  on the toolbar (ALT+F+N).
2. Select *DB2* from the **Group** list box.
3. Review the following for additional information:

Database alias	Select the alias for the DB2 database or subsystem. This alias was defined when you cataloged this DB2 database or subsystem on the DB2 client. See " Configure DB2 Client Connections " on page 24 for more information if the alias does not display in the list. Tip: Click  to refresh the alias list. Normally, Toad caches the DB2 catalog the first time you open this window in your Toad session and continues to read from cache each time you subsequently open this window. This button forces Toad to reread the DB2 catalog to list any new systems that might have been cataloged externally during the caching period.
Default schema/auth ID	Enter the SET SCHEMA value (DB2 for LUW) or the SET SCHEMA or SET CURRENT SQLID value (DB2 for z/OS) for this connection.
Category	Select or create a category if you want to color code Editor tabs for a specific connection. This can help differentiate between development and production databases. You can also set an option to color code the Object Explorer pane and object editor windows (Create, Alter, Drop, etc.).  Click here to view a video of this feature.

4. Select the Advanced tab to define special register values that are then in effect each time Toad connects to the DB2 database or subsystem.
5. Click **Connect** to save the connection and immediately connect to the database.

or

Click **Save** to save the connection without connecting to the database.


Manage Connections

After you have completed both phases for configuring Toad connections to DB2 databases or subsystems, the Connections window lists all the configured connections, allowing you to perform the following:

- Connect to and manage a DB2 database or subsystem through Toad
- Export connection profiles to an XML file

Toad for DB2 provides functionality to export one or more of your current Toad connection profiles to an XML file. You can then import these exported connection profiles into another Toad for DB2 installation. See "[Import Toad connection profiles previously exported to an XML file](#)" on page 30 for more information.

To export connection profiles


1. In the Connections (or Create New Connection) window, select the connections whose profiles you want to export.
 2. Click  on the toolbar, and select **Connection file**.
 3. On the Export Connections window, review the selected connections, and click **OK**.
 4. Browse for and select the path for the file in which to export the selected profiles.
- Import missing connections defined on the Toad client


You can import all connection entries currently defined in the DB2 client catalog or Data Server Driver configuration file but missing from your current list of Toad connections.

Note: Default location for Data Server Driver configuration files is in ...\\IBM\\DB2\\IBMDBCL1\\cfg.

Note: The imported connection entries might be associated with incorrect or missing DB2 catalog or Toad connection profile information, making them currently invalid. To re-instate any of these connections, you might need to provide accurate DB2 catalog and Toad profile information.

To import missing connections

- In the Connections or Connections Manager window, click .
- Troubleshoot connection issues

Note: Click  to open the Client Configuration Wizard. See "Configure DB2 Client Connections" on page 24 for more information.

Tip: Connections are stored in the connections.xml file and can be found by clicking the *Application Data Directory* link in **Help | About**.

Create a Connection to Intelligence Central


Toad allows you to create a connection to a Toad Intelligence Central server.

About Toad Intelligence Central Connections


To create a new TIC connection, you must provide the TIC server name and then register with TIC by creating a new user account for yourself. The new user name and password will be used by TIC to identify you from among the group of TIC users and to manage the objects you create and are granted access to on the TIC server.

A TIC connection displays in the format: **username@server**. The *username* is the name of the new user you create when you create a new TIC connection.


To create an Intelligence Central connection

1. Click  in the Toad Intelligence Central Object Explorer (**View | Toad Intelligence Central**).
2. Select the **Register New User** tab.
3. **Register New User.** Use this tab to register with Intelligence Central by creating your own account (user name and password). Review the following for additional information:

Note: If you are creating a connection to a Intelligence Central instance for which you already have a user account, do not fill in this tab again. Skip ahead to the next step (Login tab).

Register New User	
Use Windows Authentication	Select to create a new user account using your Windows credentials. Toad automatically populates the fields with your account information.
Host	Enter the name of the Intelligence Central host server. Click  to display a list of Intelligence Central servers currently active on the network.
User Name	Create a new user name for this connection. This is the name you will be logged in with. The objects you create will be linked to this user name. All your TIC rights (like sharing) will be linked to this user name. This user name will display in the format: username@server Note: User names must be lower case only. When you enter a user name, all upper-case characters are automatically converted to lower-case.
Password	Create a password.
Verify Password	Re-enter the password to confirm.
Full Name	Enter your full name. This name, along with your user name, displays on the Sharing tab of the Publishing dialog and in the Alter Visibility dialog. Your full name will help users identify you when they select users with which to share an object.
Email Address	Enter your email address.
Port	Enter the port number for the App Server.

4. **Login as Existing User tab.** Use this tab to create a new connection to a TIC server for which you already have a user account. (When you open an existing connection, this tab displays your user account information.)

Login as Existing User	
Host	Enter the name of the Intelligence Central host server. Click  to display a list of Intelligence Central servers currently active on the network.
User	Enter an existing server user name.
Password	Enter the existing password for the user name.
Data Source	(Optional) Enter the name of a default data source to open upon connection.
Port	Enter the port number for the App Server.
Category	(Optional) Select an existing category or create a new one.

5. (Optional) Select **Save Password** to save your password with this connection.
6. Click **Connect** to connect immediately and save the connection information. Optionally, click **Save** to save the connection without connecting.

To change your Intelligence Central user password

You can change your password for your Intelligence Central user account at any time.

Note: You cannot use this procedure to change the password for a Intelligence Central account that uses Windows Authentication.

1. In the Navigation Manager, right-click the Intelligence Central connection and select **Change Password**.
2. Enter the old password and then enter the new password. Enter the new password a second time to confirm.

To switch your TIC user account to a Windows Authentication account

You can switch your current Intelligence Central account to a Windows Authentication account if both accounts have the **same** user name.

1. In the Connection Manager, right-click your current TIC account connection and select **Properties**.
2. In the **Register New User** tab, select **Use Windows Authentication**. Toad prompts you to switch your account.

Tip: Connections are stored in the **connections.xml** file and can be found by clicking the *Application Data Directory* link in **Help | About**.

Troubleshoot DB2 LUW Issues

Review the following solutions to help troubleshoot DB2 LUW issues pertaining to Toad installation and database connections.

Installation Issues

The following table describes issues related to installing Toad for DB2.

Issue	Cause/Solution
System.IO.FileNotFoundException - File or assembly name DB2AdminWrapper, or one of its dependencies was not found	<p>You are not a member of the DB2ADMIN or DB2USERS group. To install Toad, you must be a member of either group.</p> <p>Solution: Ensure that you have been added to one of these groups.</p>
Error: "Could not load file or assembly 'IBM.Data.DB2.9.1.0, Version=9.1.0.2, Culture=neutral, PublicKeyToken=7c307b91aa13d208' or one of its dependencies. The system cannot find the file specified."	<p>You installed a commercial version of Toad for DB2 after uninstalling the freeware version.</p> <p>Solution: You must remove run time information for the freeware version of Toad from the .NET system.config file.</p> <p>To remove run time information</p> <ol style="list-style-type: none"> 1. Exit Toad. 2. Navigate to the following .NET framework directory: C:\WINDOWS\Microsoft.NET\Framework\v2.0.50727\ CONFIG 3. Create a backup copy of the system.config file. 4. Open the system.config file in Notepad. 5. Locate the <runtime> tag delete everything between the runtime tags (including <runtime> and </runtime>). 6. Save the file. 7. Restart Toad.

Issue	Cause/Solution
When installing Toad on Windows 7 64-bit, Program Compatibility Assistant may appear with “This program might not have installed correctly” message.	<p>Solution:</p> <p>Select This program installed correctly to continue installation. For more information, see http://windows.microsoft.com/en-PH/windows7/Program-Compatibility-Assistant-frequently-asked-questions</p>

Connection Issues

Issue	Cause/Solution
ERROR [08001] [IBM] SQL1336N The remote host was not found. SQLSTATE=08001	<p>You are attempting to connect to a database version that is not supported in Toad.</p> <p>Solution:</p> <p>Review the list of supported databases in the Release Notes or Installation Guide.</p>
ERROR [58031] [IBM] SQL1031N The database directory cannot be found on the indicated file system. SQLSTATE=58031	<p>Catalog entries have not been imported or defined for the connection.</p> <p>Solution:</p> <p>See "Configure DB2 Client Connections" on page 24 for more information to determine the best method for cataloging a database.</p>
<p>"The type initializer for 'IBM.Data.DB2.DB2Connection' threw an exception."</p> <p>or</p> <p>"SUCCESS - unable to allocate an environment handle."</p>	<p>A settings file might be corrupt.</p> <p>Solution:</p> <p>Rename your local settings directory so a new one can be recreated.</p> <p>To rename your local setting directory</p> <ol style="list-style-type: none"> Exit Toad. Navigate to the following settings directory: <ul style="list-style-type: none"> Windows XP, Windows Server 2003— C:\Documents and Settings\username\Local Settings\Application Data\Quest Software Windows Vista, Windows Server 2008, Windows 7—C:\Users\username\AppData\Roaming\Quest Software\ Rename the Toad for DB2 <i>version#</i> folder to "Toad for DB2 OLD". Restart Toad and try to connect. <p>Notes:</p> <ul style="list-style-type: none"> Make sure you can view hidden folders in Windows Explorer. To navigate to this directory quickly, click the Application Data Directory link in the About dialog (Help About).

Other Issues

Issue	Cause/Solution
Unable to capture Container Information in DB2 for LUW Multi-Partition Databases	Certain Toad functions require that the DFT_MON_BUFPOOL database manager configuration parameter be set to ON to capture information on containers used in DB2 for LUW databases. Additionally, to capture container information across all partitions in a multi-partition database, the snapshot monitor requires that all database partitions be active. To activate all database partitions (and keep them active), execute the DB2 command <code>ACTIVATE DATABASE <i>real_database_name</i></code> on the server before connecting Toad to the database. See your IBM DB2 for Linux, Unix, and Windows documentation for more information about this command.

Troubleshoot DB2 z/OS Issues

Review the following solutions to help troubleshoot DB2 z/OS issues in Toad.

Installation Issues

Issue	Cause/Solution
Error: "Could not load file or assembly 'IBM.Data.DB2.9.1.0, Version=9.1.0.2, Culture=neutral, PublicKeyToken=7c307b91aa13d208' or one of its dependencies. The system cannot find the file specified."	<p>You installed a commercial version of Toad for DB2 after uninstalling the freeware version.</p> <p>Solution:</p> <p>You must remove run time information for the freeware version of Toad from the .NET system.config file.</p> <p>To remove run time information</p> <ol style="list-style-type: none"> 1. Exit Toad. 2. Navigate to the following .NET framework directory: C:\WINDOWS\Microsoft.NET\Framework\v2.0.50727\ CONFIG 3. Create a backup copy of the system.config file. 4. Open the system.config file in Notepad. 5. Locate the <runtime> tag delete everything between the runtime tags (including <runtime> and </runtime>). 6. Save the file. 7. Restart Toad.
When installing Toad on Windows 7 64-bit, Program Compatibility Assistant may appear with "This program might not have installed correctly" message.	<p>Solution:</p> <p>Select This program installed correctly to continue installation. For more information, see http://windows.microsoft.com/en-PH/windows7/Program-Compatibility-Assistant-frequently-asked-questions</p>

Connection Issues

Issue	Cause/Solution
ERROR [08001] [IBM] SQL1336N The remote host was not found. SQLSTATE=08001	You are attempting to connect to a database version that is not supported in Toad. Solution: Review the list of supported databases in the Release Notes or Installation Guide.
ERROR [58031] [IBM] SQL1031N The database directory cannot be found on the indicated file system. SQLSTATE=58031	You do not have any catalog entries defined for the connection. Solution: See " Configure DB2 Client Connections " on page 24 for more information to determine the best method for cataloging a database.
ERROR [42501] [IBM][DB2] SQL0551N "UserName" does not have the privilege to perform operation "SELECT" on object "SYSIBM.SYSSTMT". SQLSTATE=42501	You do not have SYSADM privileges for the DB2 for z/OS subsystem. Solution: Ensure that you are granted SELECT permissions on the DB2 catalog tables.
ERROR [] [IBM] SQL1460N The environment variable "SOCKS_NS" required for SOCKS server name resolution is not defined or not valid.	When using the Time-Sharing Option (TSO) to connect, the user ID, port number, or IP address entered may be incorrect. Solution: Ensure that you use the following for TSO connections: <ul style="list-style-type: none"> • DB2 user ID for the DB2 subsystem • Port number that DB2 listens on, for remote connections, via the DB2 DDF address space • IP address for the z/OS subsystem
ERROR [56038] [IBM][DB2] SQL0969N There is no message text corresponding to SQL error "-4700" in the message file on this workstation.' when connecting to compatibility mode database. -or- After connecting, some objects do not display properly or some functionality does not work as designed.	In general, Toad does not support a z/OS subsystem running in Compatibility mode. Solution: If possible, switch the subsystem's operating mode to Full Function mode. If this is not possible, Toad now provides a message when you connect to subsystem, informing you of that the subsystem is running in compatibility mode and that some features might not be available.

Other Issues

Issue	Cause/Solution
Poor performance when browsing DB2 for z/OS objects in Toad. Indexes are populated slowly.	User-defined indexes on specific system catalog tables can improve performance when you are browsing DB2 for z/OS objects in Toad. The following link contains the DDL for indexes that can optimize Toad performance on your DB2 for z/OS subsystem. Keep in mind that the creation of these indexes is a recommendation only. The indexes can have different results in different environments, depending on the number of DB2 objects and the amount of data involved. To create these indexes, edit

Issue	Cause/Solution
	<p>and run the DDL contained in the following file: ToadDB2zOSIndexes.txt</p> <p>Additionally, if the schema drop-down lists in the Object Migration wizard populate slowly, consider creating an index on the SCHEMA and CREATOR columns in the catalog table for each object type. Here is a list of some of the object-type tables:</p> <p style="text-align: center;"> SYSIBM.SYSSYNONYMS SYSIBM.SYSSEQUENCES SYSIBM.SYSROUTINES SYSIBM.SYSTABLES SYSIBM.SYSDATATYPES SYSIBM.SYSINDEXES SYSIBM.SYSTRIGGERS SYSIBM.INDEXES </p>
<p>Encountering the S378 Abend when running IBM DB2 z/10 subsystem in Conversion mode with older versions of Toad.</p>	<p>This issue appears because the Toad z/OS Component tries to reference the QUEST.QC200ZPARAM function.</p> <p>Solution:</p> <p>DROP the QUEST.QC200ZPARAM function from your DB2 z/OS 10 subsystem. This will eliminate the possibility of the function being called into the WLM environment procedure and causing the S378 abend.</p> <p>We do not recommend that you to just STOP the QUEST.QC200ZPARAM function on the mainframe side, without actually dropping it, because that may case Toad or the batch process (QCEXEC – remote job execution) to hang. Dropping the QUEST.QC200ZPARAM function is recommended.</p>

Configure Version Control

About Version Control

Toad integrates with your existing version control system so you can maintain multiple revisions of objects and SQL scripts. See ["Configure Version Control for Objects"](#) on page 43 for more information on configuring version control in Toad.

For Version Control of your files handled by Toad see [Version Control for Toad Files](#).

Important: See ["Troubleshoot Version Control"](#) on page 47 for more information about issues when upgrading version control from a previous version.

Notes:

- If you want to place database objects under version control, you must configure version control for objects using the Object Explorer. Once configured, you can manage SQL scripts there. The main advantage of managing scripts in the Object Explorer is that you can easily share them with team members who have version control configured. See ["Manage Objects under Version Control"](#) on page 44 for more information.
- If you rename a version controlled object, Toad drops the original object and its history from version control and prompts you to add the renamed object to version control. This newly renamed object does not have any history associated with it.
- Currently, CLR objects are not supported by version control.

Prerequisites

You must install a supported version control client on the computer where Toad is installed. The following table lists the supported version control providers and the versions tested with Toad.

Supported Provider	Server Version Tested	Client Version Tested
Apache Subversion™	Subversion 1.7.5 on Windows	CollabNet Subversion Command-Line Client 1.7.5 Note: Any Subversion client must have svn.exe in its installation directory to use version control in Toad.
Git	Toad works only with the local repository. For commands such as clone, pull and push use an external tool.	
Team Foundation Server (TFS)	TFS 2008, 2010, 2012, 2013	Visual Studio® (2008, 2010, 2012, 2013) Team Explorer Client
File system based	Toad allows to utilize practically any version control system using the external client tool. In this case Toad Version Control tool works with the directories at local HDD while you commit changes to the repository with version control client tool.	

Note: Toad connects to your version control system based on login information included in the configuration. Your version control client does not need to run for Toad to connect.

The following objects can be added to Version Control:

ALIAS
DISTINCT TYPE
INDEX
MQ TABLE
SCHEMA
SEQUENCE
TABLE
TRIGGER
USER
VIEW
FUNCTION
PROCEDURE
SCRIPT

Details of Team Foundation Server support:

Visual Studio/Team Explorer version	TFS 2013 support notes	TFS 2012 support notes	TFS 2010 support notes
Visual Studio 2015	Supported (RTM or latest update)	Supported (RTM or latest update)	Supported (RTM or latest update)
Visual Studio/Team Explorer 2013	Supported (RTM or latest update)	Supported (RTM or latest update)	Supported (RTM or latest update)
Visual Studio/Team Explorer 2012	Requires latest Visual Studio 2012 update. Supports Git with Visual Studio Tools for Git extension	Supported (RTM or latest update). Supports Git with Visual Studio Tools for Git extension	Supported (RTM or latest update). Supports Git with Visual Studio Tools for Git extension

Note: Additional functionality and compatibility with older clients is possible but out of scope of what we are able to test.

Version Control for Toad Files

Toad can integrate with your existing version control system allowing you to maintain multiple versions of Toad files. After you integrate Toad with your version control system, you can perform version control tasks directly from within Toad, such as commit file changes and retrieve revisions.

Toad supports the following version control systems for managing Toad files:

- Apache Subversion™—Toad has been tested with Subversion 1.7.5 and 1.8.

The following types of files can be managed using version control from within Toad: Editor (.tef, .sql, .txt), Query Builder (.tsm), ER Diagram (.ter), and Automation (.tas).

Toad supports version control for database objects, as well as files. Version control for objects is configured separately from version control for files. For more information about version control for objects, see [Configure Version Control for Objects](#).

To configure version control for Toad files

1. Ensure that an Apache Subversion client is installed on the same computer as Toad.
2. In Toad, open one of the supported file types. Then right-click the document window tab and select **File Version Control | Version Control Wizard**. This action opens the Version Control Wizard which allows you to configure Toad for your version control system.

Note: Even if you previously configured version control for objects, you must run the Version Control Wizard again to configure version control for files.

3. Use the wizard to provide information about your version control system to Toad. Review the following for additional information:

Field/Button	
Version Control System Page	
Type	Select <i>Subversion</i> .
Properties	Click the Properties button and enter the path to the Subversion executable (svn.exe) on the client computer. For example, if using TortoiseSVN, the path might be: C:\Program Files\TortoiseSVN\bin Note: Do not include <i>svn.exe</i> in the path.
Server	Enter the URL for the Subversion repository on the Subversion server.
Login and Password	Enter the user name and password for your Subversion account.
Default Version Control Settings Page	
Version Control Folder	Select the folder on the Subversion server where you want to check in files. If you currently have files under version control, select the folder on the server where these files are located.
Working Folder	Select a folder on the client computer to use as the root working folder. This is the location into which you will check out files. If you currently have files under version control, select your existing working folder.

To add a file to version control

1. After configuring version control for files, you can start adding files to version control from within Toad. Right-click a document window tab and select **File Version Control | Add file to working folder**.
2. Select a location in your working folder in which to save the file. Click **Save**.
3. In the Commit dialog, enter a comment and click **OK** to add the file to version control.

To browse the repository

1. Right-click the document window tab (of one of the supported file types) and select **File Version Control | Repository Browser**.
2. In the Repository Browser you can right-click a file to perform one of the following actions. Available actions depend on the file's status.

Action	Description
Open	Open the file in Toad.
Commit	Commit your changes. Available for <i>Modified</i> or <i>Untracked</i> files.
Undo Changes	Discards your changes and reverts to the previous revision of the file (previous commit). Available when the file status is <i>Modified</i> .
Get Latest Version	Check out the latest revision from the remote repository. Available when the file status is <i>OutOfDate</i> .

To commit your changes

- After modifying a file, right-click the document window tab and select **File Version Control | Commit**.

To compare revisions (Editor files only)

- After modifying and saving an Editor file, you might want to compare your changes to the remote copy (last commit) before committing your changes. Right-click the document tab and select **File Version Control | Diff with latest revision**.
- You can compare two revisions of an Editor file (.tef, .sql, or .txt) by using the History dialog.
 1. To open a file's History dialog, right-click the document tab and select **File Version Control | Show history**.
 2. Select two revisions to compare. Then right-click the revisions and select **Compare revisions**.
 3. For an *OutOfDate* file, right-click the latest revision in the History dialog and select **Compare with working copy** to compare the remote file to your working copy.

To check file status

- The status of a currently open file displays in the status bar of the document window. You can also place the cursor over the document tab to display status.
- You can check the status of one or more files by using the Repository Browser. To update file status in the Repository Browser, right-click a folder and select **Update folder**.
- Review the following file status definitions.

File Status	Definition
Untracked	The file has not been added to version control. Right-click the file in the Repository Browser and select Commit to add it to version control.
UpToDate	The file in your working folder is synchronized with the file in the remote repository. No changes are detected. No action is required.
Modified	The working copy of this file was modified. The changes are stored in the working folder only. Commit this file to add the changes to the remote repository.
OutOfDate	A more recent revision of this file exists in the remote repository. To update your working copy, check out the latest revision from the remote repository (right-click the file and select Get Latest Version).

File Status	Definition
Unknown	The file is under version control, but its status cannot be determined.
Deleted	The file was under version control, but it was dropped or renamed in the working folder and exists only in the remote repository.

Additional Actions

- To open the folder where a file is located, open the file and then right-click the document tab and select **File Version Control | Open in Windows Explorer**.

Configure Version Control for Objects

To configure version control for files, see [Version Control for Toad Files](#).

To configure version control for Objects

- Ensure that a supported version control client is installed on the computer where Toad is installed. See "[About Version Control](#)" on page 39 for more information about tested version control clients and supported versions.
- Right-click one or more objects in the Object Explorer and select **Version Control | Version Control Wizard**.

Note: Version control is configured for entire LUW database or z/OS subsystem.

- Review the following for additional information:

Version Control System Page	Description
Type	<p>Select the version control system name:</p> <ul style="list-style-type: none"> Apache Subversion™ <ul style="list-style-type: none"> Note: The version number beside Subversion is an internal file definition used by Toad to check if an update for this file is available. It is not the actual version number for the version control provider. Git Team Foundation Server <ul style="list-style-type: none"> Note: If you select TFS, you must specify the workspace name for the provider in the Team Foundation Server Properties window that displays. File system based
Properties	<p>(Subversion only) Click this button (beside the Type field) and complete the binary path. Enter the path where the Subversion client that contains svn.exe is installed. For example, if you installed the CollabNet Subversion Client, you would enter:</p> <p>C:\Program Files\CollabNet Subversion Client</p> <p>Note: <i>Do not</i> include svn.exe in the path.</p>
Server	<p>Select one of the following:</p> <ul style="list-style-type: none"> Subversion—Specify the existing working folder for the version control repository or specify the server string (for example:

	<p>svn://MyServer).</p> <ul style="list-style-type: none"> • TFS—Specify the server where your version control provider is installed and the port number (default is 8080) to use in the following format: <ul style="list-style-type: none"> ◦ http://MyServer:Port for TSF 2008 ◦ http://MyServer:Port/TFS for TFS 2010, 2012 • File System Based—Specify a directory at your local machine.
Repository Settings	Set your local Working Folder and your Version Control Folder will be automatically filled.
User name/ Password	Enter your Subversion command-line user name and password and click Login . Note: For TFS only, if you leave the user name and password fields blank, Toad uses your default Windows credentials.
Version Control General Options Page	Description
Prompt to Commit on Close	You will be asked to commit your changes before each version controlled file is closed
Store Grant Statements with DDL	Grant statements will be stored and tracked along with DDL script Note: IBM DB2 only
Version Control Configurations Options Page	Description
Version control folder	Select the folder on the version control server where you want to check objects and scripts in. If you already have objects or scripts under version control, select the folder on the server where these objects or scripts are located. Note: Version control automatically checks out objects or scripts in this folder and any subfolders to the location you specify in the Working folder field.
Working folder	Select the root repository folder on the client computer to use as the default working folder for checking objects and SQL scripts out. If you already have objects or SQL scripts under version control, select the existing working folder for these.

4. Manage object and scripts using Version Control. See "Manage Objects under Version Control" on page 44 for more information.



Manage Objects under Version Control

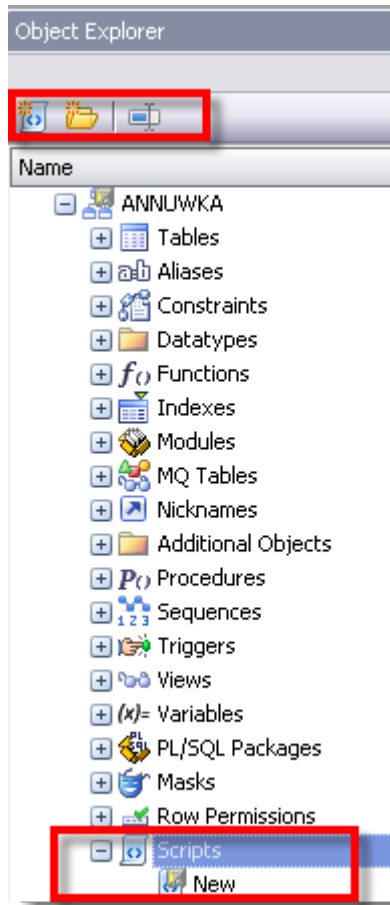
Note: Version Control should be configured in Toad before you start managing objects. See "Configure Version Control for Objects" on page 43 for more information.

To add objects and scripts under version control

- » Right-click an object or script and select **Commit**.

Tips:

- The objects under version control are marked with  sign at the top right corner of the object's icon.
- If you rename a version controlled object, Toad drops the original object and its history from version control and prompts you to add the renamed object to version control. This newly renamed object does not have any history associated with it.
- You can create and version control SQL scripts for current database using the Scripts node in the Object Explorer. Click  to create the new script.



To manage objects and scripts under version control

1. Determine object's version control status. Hover a mouse over the object in the Object Explorer to see its status. Review the following for additional information:

Version Control status	Description
Uninitialized	The object status is undetermined yet. This is a temporary status that is issued for all objects during version control status processing.
Untracked	The object is not added to version control.
Ignored	The object is added to ignore list and excluded from version control.
UpToDate	The object is under version control and is synchronized with version control repository. No changes are detected.
Modified	The object is under version control and has been modified by user. The changes are stored in local database only and need to be synchronized with version control repository.

Version Control status	Description
Merge	The object is under version control and has been modified in both local database and version control repository. Note: Toad's Version Control feature does not allow to merge object scripts.
OutOfDate	The object is under version control and has been modified in version control repository.
Unknown	The object is under version control but for some reason its status cannot be determined (for example, you created a script in your local database while the script with the same name already exists in version control repository, or you upgraded to a higher version of Toad and configured version control for the same repository while you have some uncommitted changes in the database). Tip: If you are sure that the object is up to date but is listed as unknown, commit the object in version control system to resolve unknown status.
Deleted	The object was under version control, but it was dropped or renamed in local database and exists only in version control repository. Tip: You can see deleted objects in the Controlled objects pane only. To access it right-click any object and select Show perspective . Once you commit changes in Controlled objects pane, the object with all history will be deleted from version control repository.
NotInView	The object is under version control and exists in version control repository only.

2. Right-click an object or script and select one of the following actions:

Use	To...
Show perspective	Select to review all controlled objects for current configuration.
Diff	Select to review differences between the object script in your local database and the object's revision that was applied to it. Note: Diff is unavailable for File System Based configuration.
Diff with latest revision	Select to review differences between the object script in your local database and the latest revision in the version control repository.

Example: You got the latest object revision from the repository 2 days ago. By the time you did it, the latest revision was 5. Yesterday your colleague worked with the same object and committed changes in the repository, which are now marked as revision 6.

Today you altered the object's script and want to see the differences. You can select one of the following:

- Diff—To compare the object in your local database with revision 5.
- Diff with latest revision—To compare the object in your local database with revision 6.

Show history	Select to review all commits for selected object. Tip: Select Show history on database to review all commits. Note: Show History is unavailable for File System Based configuration.
Get latest revision	Select to apply object's changes from the version control repository to your local database. The synchronization script is generated to update selected object to the latest revision.
Commit	Select to apply object's changes from your local database to the

Use	To...
	version control repository. Note: You should write a comment when committing changes.
Undo changes	Select to rollback changes in your local database. The synchronization script is generated to revert object to the revision which was a applied last time.
Update status	Select to compare a script in your local database with the script in the repository. New status will be issued according to the comparison results.
Add to ignore list	Select to exclude object from the version control. Ignored objects are not listed in Controlled Objects pane, Commit and Get latest revision are disabled.
Remove from ignore list	Select to set object status as <i>Untracked</i> and add it to version control.
Open in Windows Explorer	Select to navigate to the file in the Windows Explorer.

Tip: You can enable, disable, or delete a version control configuration under **Tools | Options | Version Control | Configurations**.

Troubleshoot Version Control

Troubleshoot Upgrades

For this release, the back-end of version control has been rewritten. If you previously used version control in Toad, the following may occur:

- Version control settings are not migrated from the previous version of Toad, so you have to reconfigure version control in Toad.
- In previous releases, the method Toad used to generate the script was different than the current method. After upgrading Toad and reconfiguring version control, the local revision of the objects differs from version control repository (The objects have Unknown status). If the object in your database is current, you should commit it into version control.

Troubleshoot Other Issues

Review the following to help troubleshoot issues with version control:

Apache Subversion™ Issues	Description
System cannot find file	If a message stating that, "The system cannot find the file specified" displays, this usually means that the Subversion executable cannot be found in the path you specified in the BinaryPath field of the Command Based Version Control Properties window. Verify that svn.exe exists in the directory you specified in this field.
Command execution	When executing Subversion commands, user input is not allowed. This presents an issue when the user is using Subversion with the SSH method and must enter a password to establish the Secure Shell. Workaround: Generate identity keys that automatically authenticate between the client and the server

	when connecting with SSH.
OutOfMemory exception when adding a large number of objects	When adding a large number of objects, Subversion may encounter OutOfMemory exception. Workaround: Commit objects in several steps.
SVN is missing in the list of available providers	If Subversion is missing in the list of available version control providers, it means that Subversion.xml was removed or corrupted. Workaround: Contact Support to get a new Subversion.xml and place it under <code><Toad install path>/Templates/Version Control/</code> .
Object Issues	Description
Adding multiple objects failed	When you add multiple objects to version control, the objects are grouped and added in batches (for example, all the tables for a particular schema are added at once). If an error (for example, failure to support Korean characters) causes this command to fail, none of the objects are added.
Script Issues	Description
Canceled check-in	SQL scripts remain checked out if a change was made to the text, but check-in was canceled during the prompt for a check-in comment. This behavior is by design—that is; the user can either undo the checkout or check in the script. Note: If you alter the object again, you receive a prompt to use the “locally changed” script. Click Yes to use the locally changed copy; click No to refresh the local copy from the source repository; click Cancel to cancel the prompt.

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