



# ***iBOLT***

## ***Guide to Installation & License Management***

**iBOLT V3**

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iBOLT Guide to Installation & License Management - iBOLT V3

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# 1

## *Installing iBOLT*

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**T**his chapter describes the different stages of the iBOLT installation process.

In this chapter:

- Installing iBOLT
- General Installation Screens
- Installing the iBOLT Suite
- Multiple Installations
- Uninstall - Backup Files

# Installing iBOLT

Before you install iBOLT:

- Ensure that the iBOLT computer has access to a supported database gateway.
- Ensure your system meets the iBOLT requirements (see [Appendix A, System Requirements](#)).
- Back up the **Magic.ini** file from any previous iBOLT installation.

When you start the iBOLT setup program, the screen shown below opens:

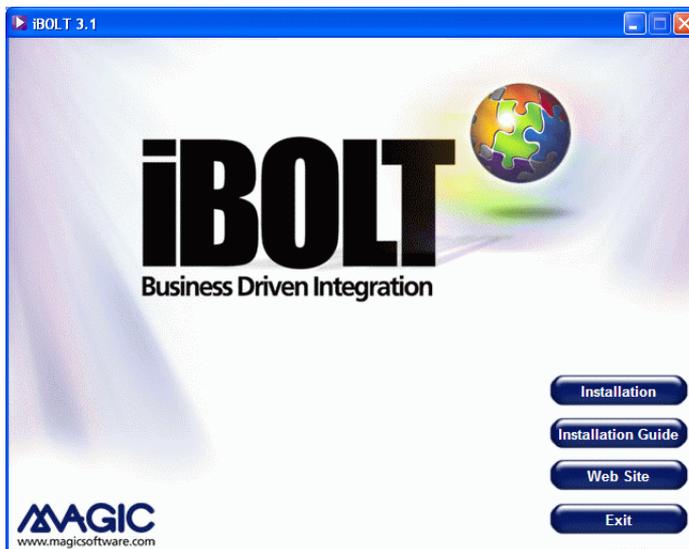


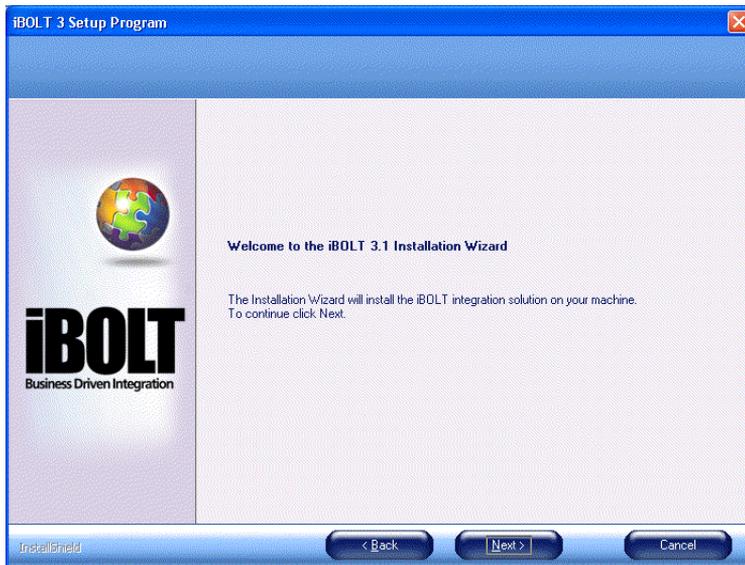
Figure 1-1 The Main Screen

This screen has the following buttons:

Button	Click to...
<b>Installation</b>	...start the installation process
<b>Installation Guide</b>	...open the Installation Guide
<b>Web Site</b>	...enter the iBOLT Web site
<b>Exit</b>	...exit the installation wizard without installing iBOLT

## *General Installation Screens*

When you first run the iBOLT installation wizard, the **Welcome** screen, shown below, opens.



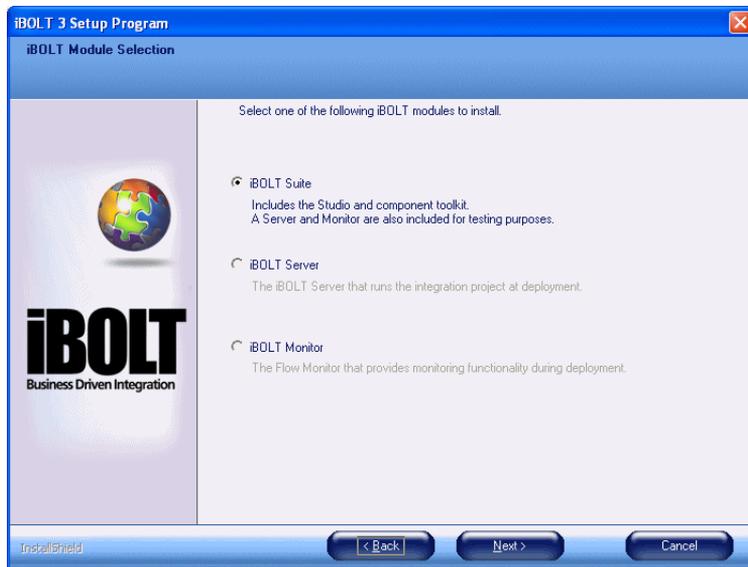
*Figure 1-2 The Welcome Screen*

Click **Next** to continue to the **License Agreement** screen. Read and accept the license agreement, and then click **Next** to progress to the [The Module Selection Screen](#).

## ***iBOLT Module Selection***

In this screen, shown below, you can select which iBOLT module you want to install. The choices are:

- **iBOLT Suite:** Includes the iBOLT Studio, an iBOLT Server, and iBOLT Monitor. The iBOLT Server and iBOLT Monitor installed with this option are used for development purposes.
- **iBOLT Server:** An iBOLT Server that runs your integration project at deployment.
- **iBOLT Monitor:** The iBOLT Monitor that provides monitoring functionality during deployment.



*Figure 1-3 The Module Selection Screen*

# Installing the iBOLT Suite

This section describes how to install the iBOLT Suite.

## Installation Directory

Enter the folder or directory where you want to install the iBOLT Suite. By default, iBOLT is installed in the **C:\iBOLT3** folder. To install in this directory, click **Next**. If you do not have a directory with this name, the installation wizard asks if you want the wizard to create this directory. Click **Yes** to confirm and to progress to the next screen. If you do not want to install iBOLT in this folder, click **Browse** and select a different folder. *The folder name where you install iBOLT cannot contain spaces.* You must install iBOLT in an empty folder.

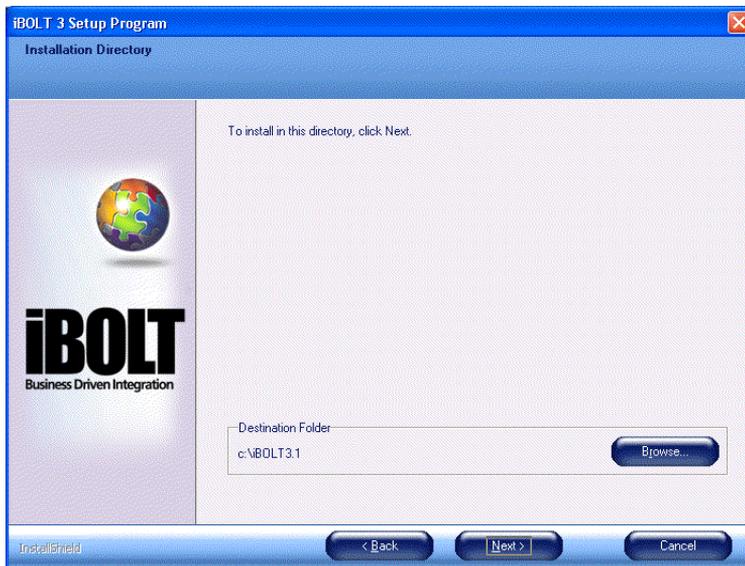


Figure 1-4 The Installation Directory Screen

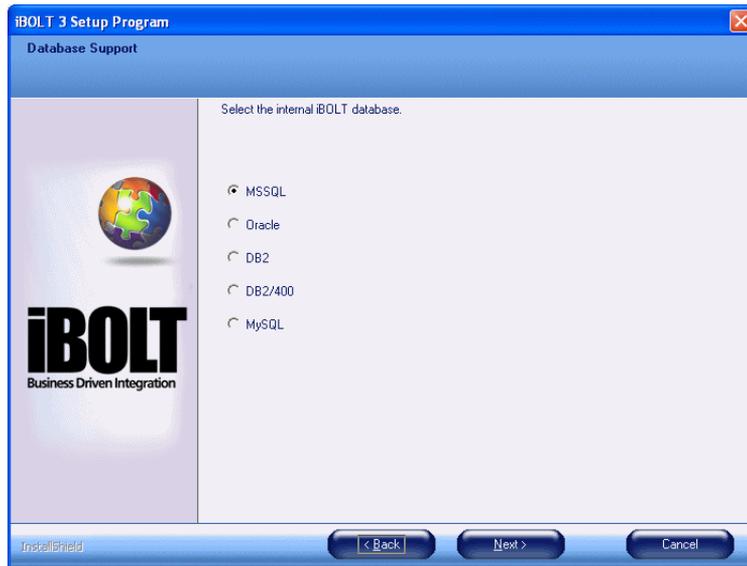
Click **Next**, to open [The Database Support Screen](#).

## Databases

In the Database Support screen, click the database to be used as your internal iBOLT database. This screen only provides information to the installation

wizard required to set up the installation. iBOLT supports the following databases:

- [MSSQL](#): Microsoft SQL Server 2000 and 2005
- [Oracle 9i and 10g](#): (both OCI 32bit only),
- [DB2](#): UDB8
- [DB2/400](#): IBM DB2 for System i
- [MySQL \(Using the ODBC protocol\)](#): 5.x



*Figure 1-5 The Database Support Screen*

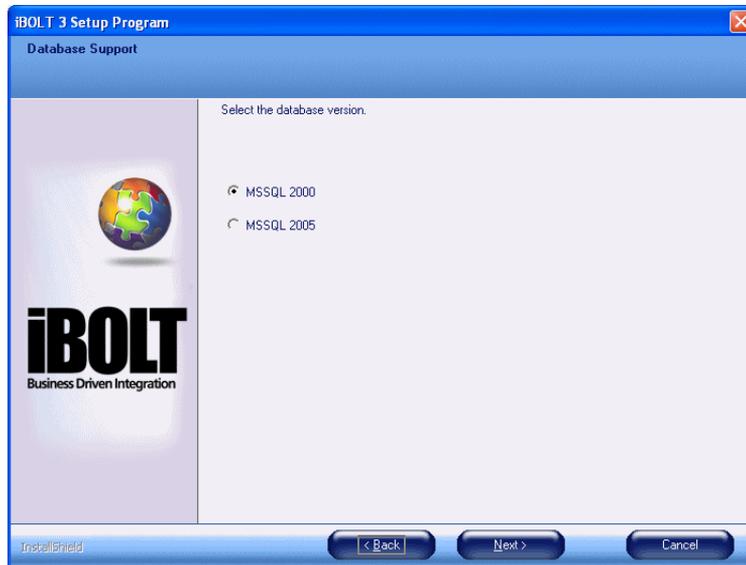
After you select a database, click **Next**.

The following steps are used to set up information about your iBOLT internal database. The information you are required to provide depends on which database you are using.

- i** The iBOLT installation creates a subfolder called **db** and within it nested subfolders for each database supported by iBOLT. If you previously chose to install the database at a later stage, you can install it from these scripts (under the required database). A **Read me** file that explains how to run the scripts is included in the folder. The information from the Read me files is also in [Appendix B, Running Database Scripts](#).

## ***MSSQL***

If you select MSSQL, The MSSQL Database Support Screen opens.



*Figure 1-6 The MSSQL Database Support Screen*

Then, click **Next** to open The Running Scripts Screen. Here, you determine whether the installation wizard sets up your database tables during the installation. The options are: **Now** and **Later**.

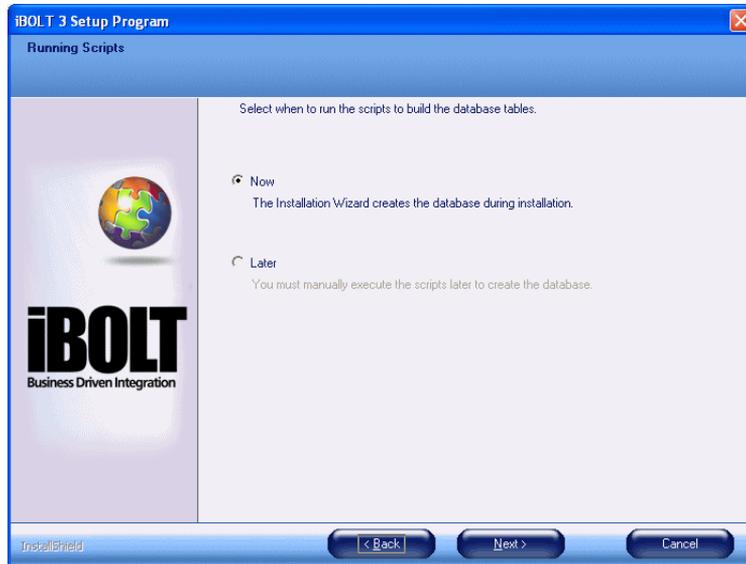


Figure 1-7 The Running Scripts Screen

- If you click **Now**, the installation wizard will create the database tablespace and tables during the installation.
  - If you select **Later**, the tables are not created during installation, and you can create them manually after the installation.
- i** When selecting to install the database later, all the required logical names for this database will be available in the **magic.ini** file but some will be commented with a semicolon.

For example, in Oracle if only the DB\_SERVER\_NAME was missing, the **magic.ini** would include:

```
;DB_SERVER_NAME=dbservername
```

For more information, see [Appendix B. Running Database Scripts](#). The installation wizard will go to [The iBOLT Shortcut Screen](#) when you click **Next**.

If you clicked **Now** in the previous screen, [The MSSQL Database Details Screen](#) opens. In this screen you enter the information about where your Database Server resides and database User and Password.

Click **Local host** if the database server is located on the same computer where you are installing iBOLT. Select **Remote server** if the database server is located on a different computer. If you click **Remote server**, the **Server** field becomes active. Click the **Selection** button to open the **Server List**. From the **Server list**, select the name of the computer where the database server is located and click **Select**. The **Server List** closes and you can enter the user name and password for your database. You must be sure that the username of the Database Administrator is entered in the **User** field.

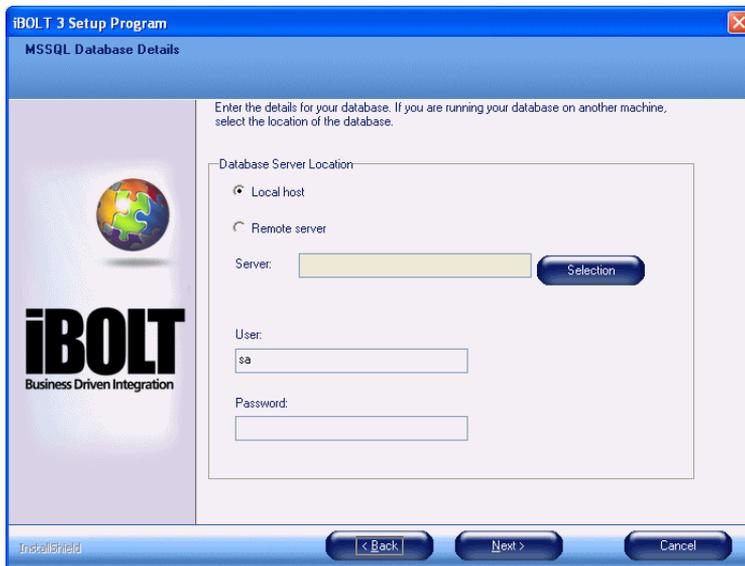


Figure 1-8 The MSSQL Database Details Screen

## Oracle 9i and 10g

iBOLT V3 supports Oracle Database Server V9i and V10g. If you selected an Oracle database as your iBOLT internal database, when you click **Next** in the **Database support** screen, [The Running Scripts Screen](#) opens. In this screen you can determine whether the installation wizard sets up your database tables during the installation. The options are: **Now** and **Later**. If you select

**Now**, the installation wizard will create the database tablespace and tables during the installation.

If you select **Later**, the tables are not created during installation, and you can create them manually after the installation. For more information, see [Appendix B. Running Database Scripts](#). The installation wizard will progress to [The iBOLT Shortcut Screen](#) when you click **Next**.

If you selected **Now** in the previous screen, the Oracle Database Details screen opens. In this screen you enter the information about where your Database Server resides and database User and Password.



*Figure 1-9 The Oracle Database details Screen*

Select **Local Host** if the database server is located on the same computer where you are installing iBOLT. Select **Remote server** if the database server is located on a different computer. If you select **Remote server**, the **Service** field becomes active. Click the **Selection** button to browse the **Server List**. From the **Server list**, select the name of the Oracle Database Client for your database. The **TNS Names.ora** file for Home-0 defines the list of clients. Choose a client and click **Select**. The **Server List** closes and you can enter the database user name and password. Ensure that the user name of the Database Administrator is entered in the **User** field as well as any password.

When you install Oracle as an internal database, an error message regarding incorrect syntax may appear. This does not affect the installation process or the operation of iBOLT.

## DB2

If you select **DB2** as your iBOLT internal database (DB2 runs on the Windows operating system), when you click **Next** in the **Database Support** screen, The DB2 Database Details Screen opens.

**i** For DB2 databases, you must run the iBOLT scripts to create the database tables **later** (see [Appendix B, Running Database Scripts](#)).

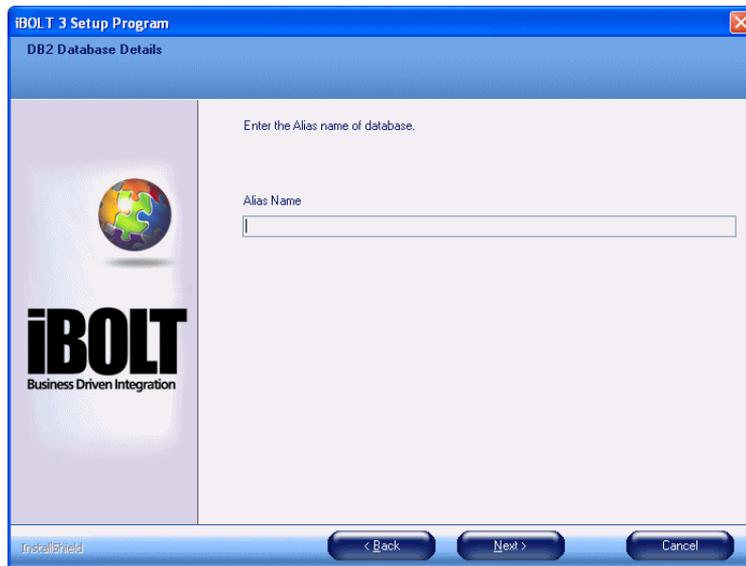
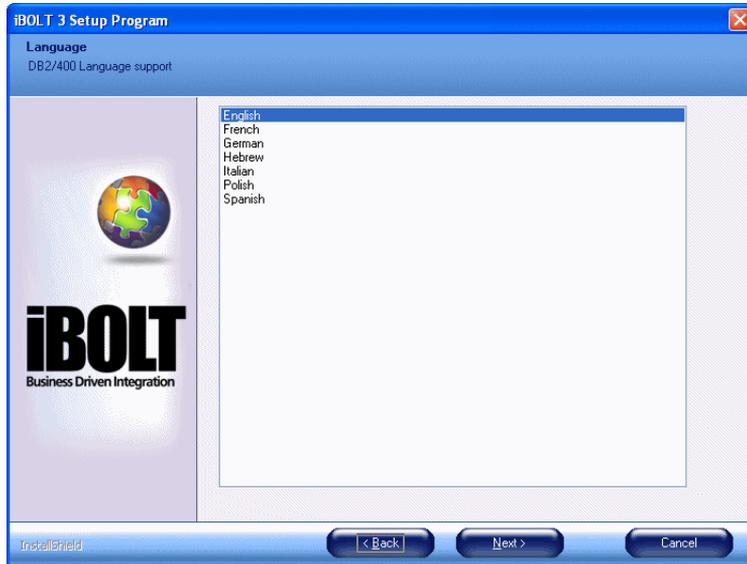


Figure 1-10 The DB2 Database Details Screen

In the **Alias Name** field, type the alias name for the DB2 database you are using. The alias is defined in the DB2 client software. It defines the computer where the DB2 database server is located, the user, and the user's password. For information on creating aliases, see the *DB2 User Guide*.

## ***DB2/400***

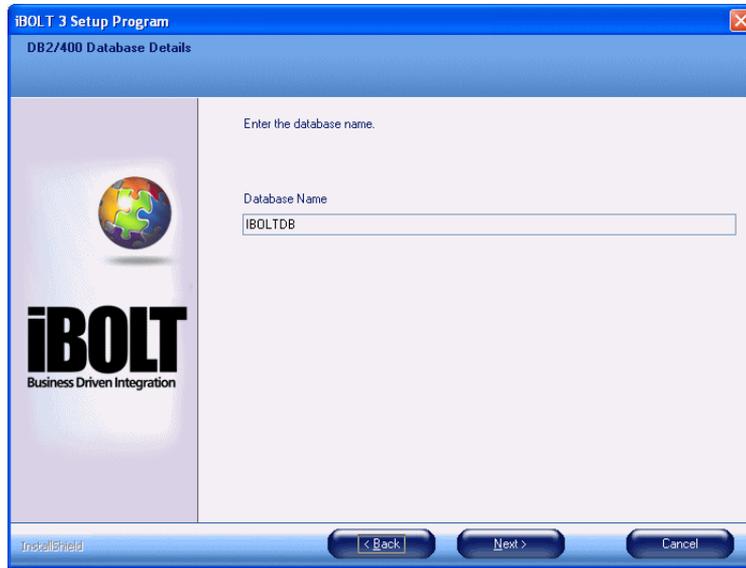
Select DB2/400 if your DB2/400 database resides in a System i environment. Click **Next** and The DB2/400 Language Screen opens, wherein you select your DB2/400 database's language.



*Figure 1-11 The DB2/400 Language Screen*

After you select the language, click **Next** to open [The Running Scripts Screen](#). In this screen you can determine whether the installation wizard should set up your database tables during the installation. The options are: **Now** and **Later**. If you select **Now**, the installation wizard will create the database tablespace and tables during the installation.

Then click **Next** to open The DB2/400 Database Details Screen. In the **Database Name** field, type the name of the database that you are using as the iBOLT internal database.

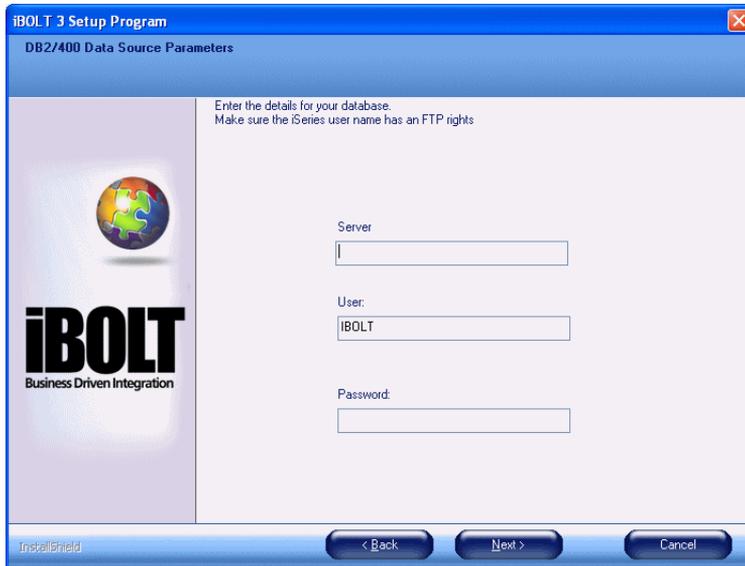


*Figure 1-12 The DB2/400 Database Details Screen*

After you enter the name of the database, click **Next** to open [The DB2/400 Data Source Parameters Screen](#). Enter the following information in this screen:

- In the **Server** field, type the IP address or location of the computer where the DB2 database server is located.
- In the **User** field, type the user name for the person authorized to access the database.

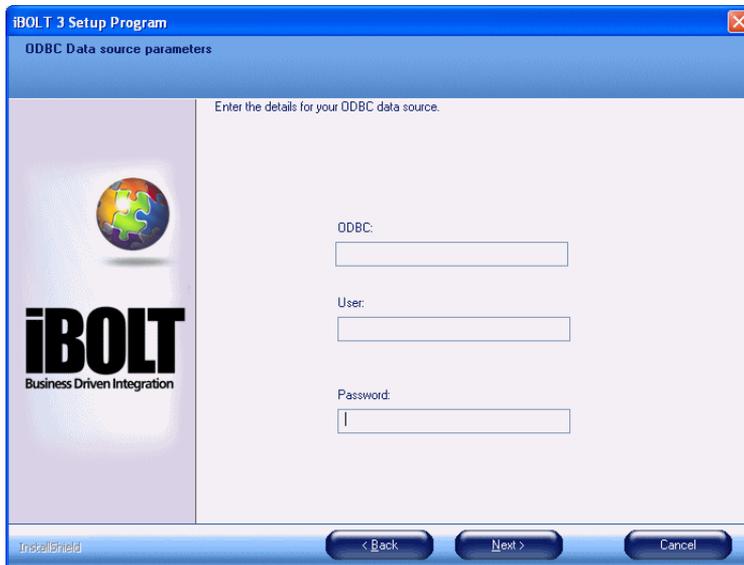
- In the **Password** field, type the authorized user's (as entered in the **User** field) password.



*Figure 1-13 The DB2/400 Data Source Parameters Screen*

## ***MySQL (Using the ODBC protocol)***

If you are using an ODBC data source as your iBOLT internal database, you must select MySQL from [The Database Support Screen](#). When you click **Next**, The ODBC Data source parameters Screen opens.



*Figure 1-14 The ODBC Data source parameters Screen*

In the **Name** field of the **ODBC Data source** screen, enter the name of the ODBC data source driver for your database. iBOLT reads the data using the ODBC protocol.

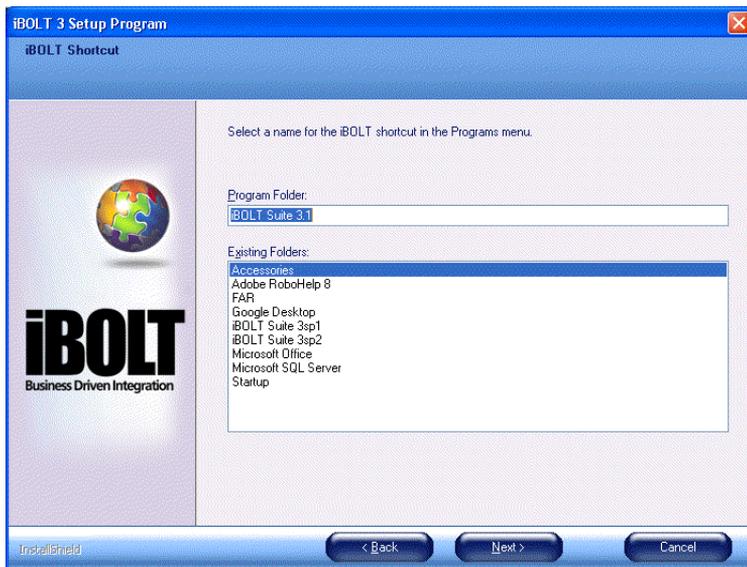
The ODBC data source driver is configured in the **Windows ODBC Data Source Administrator**. If you have not configured your system to work with the driver you are using, you must first set this up. For information on how to configure a MySQL database and an ODBC data source driver, see [Appendix B, Running Database Scripts](#).

**Note:** The MySQL database is not created during the installation process. It must be created (previously) manually.

When you click **Next**, the installation wizard goes to [The iBOLT Shortcut Screen](#).

## ***iBOLT Shortcut***

In this screen, you can enter a name for the iBOLT shortcut in your **Programs** menu. A default name is provided, which you can change. If the selected Program Folder already exists, you will be asked if you want to enter a new shortcut name. If you select **Yes**, you can change the program folder. If you select **No**, the chosen program folder will replace the existing one.



*Figure 1-15 The iBOLT Shortcut Screen*

When you click **Next** in the **iBOLT Shortcut** screen:

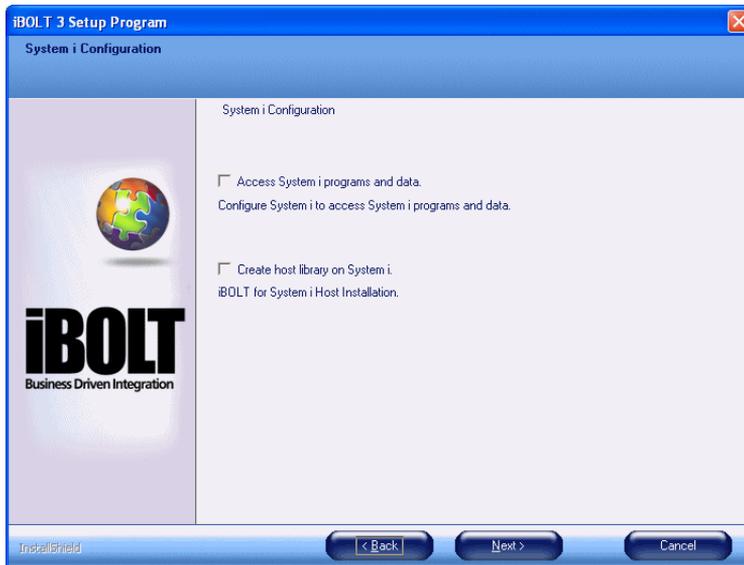
- If you did not select DB2/400 as your internal database, the [The System i Configuration Screen](#) opens.
- If you selected DB2/400 as your internal database, [The Options Screen](#) opens.

## ***System i Configuration***

You must indicate whether you use System i servers in any part of your iBOLT projects, because iBOLT must be configured to work with your current system language. If the DB/400 is used as your iBOLT internal database, iBOLT

updates the configuration file (**magic.ini**) to support the System i and DB2/400 database native language. If DB2/400 is not your internal database and you want to use it or System i programs for other activities in your projects, such as mapping data, indicate this by selecting the **Access System i programs and data** check box in the screen. iBOLT will update the configuration file to support System i and the DB2/400 database.

If you select the **Create host library on System i** check box, the default iBOLT for System i library is installed. If you do not select this option, you can install the host library manually. For more information, see [“iBOLT for System i Host Library Installation” on page 65](#). Click **Next** to progress to the **Options** screen.



*Figure 1-16 The System i Configuration Screen*

## Options

- Select the **Create shortcut folder** check box to create a shortcut folder on your desktop that includes shortcuts for the iBOLT Studio, iBOLT Monitor, iBOLT Server, and the uniPaaS Studio.
- Select the **Install License Server** check box to install the license server to manage the licensing for the iBOLT Servers used in your projects. For more information, see [Chapter 5, iBOLT Licenses](#).
- Select the **Install Sample Projects** check box to install a set of iBOLT projects that help you understand how to work with different iBOLT features and functionality.

When you have finished with this screen, click **Next** to proceed to [The Broker Configuration Screen](#).

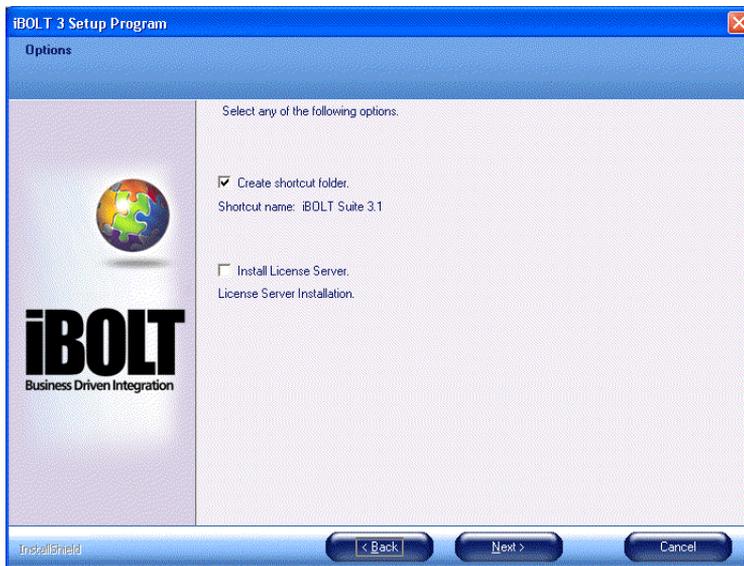


Figure 1-17 The Options Screen

## Broker Configuration

The iBOLT Broker is responsible for managing the various internal iBOLT tasks, such as handling threads from iBOLT Servers as well as receiving and processing requests from external resources, such as HTTP and Web services. This screen lets you specify how you wish to install the iBOLT Broker.

- If you choose **Install iBOLT Broker as an executable**, control over the broker will be via the broker icon, which will be shown in the status bar of the operating system. When this option is selected, the broker will load when the iBOLT Studio loads.
- If you choose **Install iBOLT Broker as a service**, control over the broker will be via the broker service in the operating system's Services table. In this case, a name should be provided for the service. When this option is selected, the broker loads when the operating system loads.

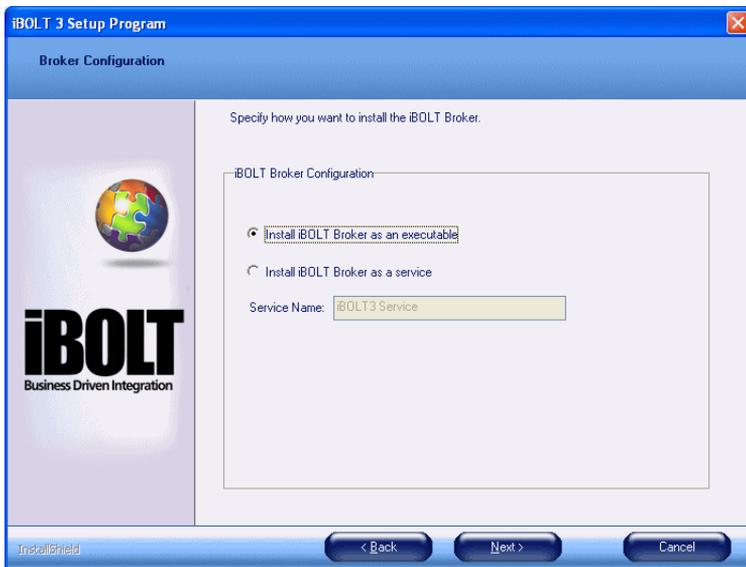


Figure 1-18 The Broker Configuration Screen

When you have completed this screen, click **Next** to proceed to [The Setup Information Screen](#).

## Setup Information

The **Setup Information** screen, shown below, indicates that the iBOLT installation wizard is ready to install iBOLT. If you need to change any installation settings, click **Back** to return to previous screens. When you are ready, click **Next** to begin the installation process.

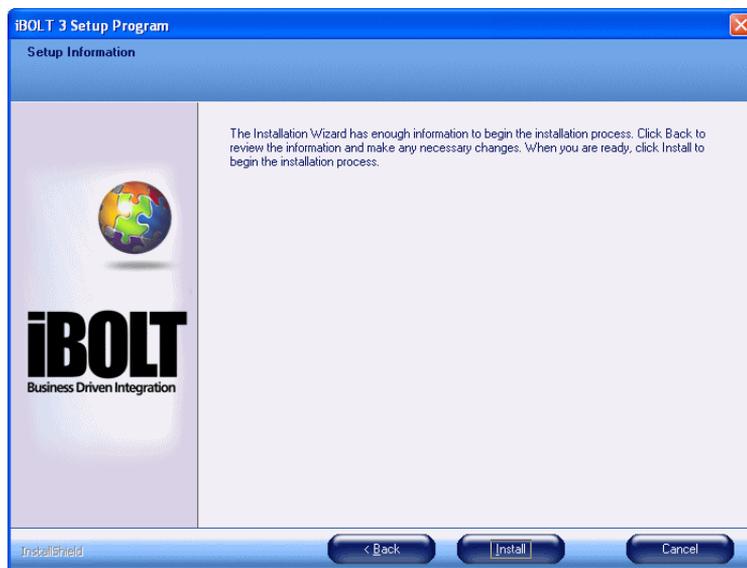
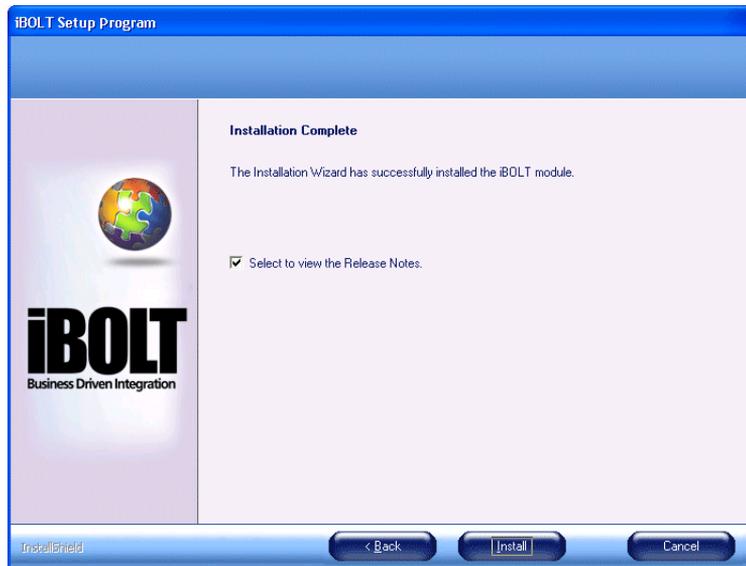


Figure 1-19 The Setup Information Screen

## ***Installation Wizard Complete***

When the installation wizard has completed the installation successfully, The Installation Complete Screen opens. Select the check box to view the Release Notes.

Click **Finish** to exit the installation wizard.



*Figure 1-20 The Installation Complete Screen*

## ***Multiple Installations***

For information about multiple iBOLT installations, please see the **Working with Multiple iBOLT Installations** technical note, in the iBOLT Help.

## ***Uninstall - Backup Files***

When you uninstall iBOLT, all INI files in the iBOLT root directory are backed up as .bck extension files. This preserves any changes that you made to the INI files.

# 2 *iBOLT Files*

---

**T**his chapter describes the files that are installed for the different iBOLT modules and provides important information to help you maintain your iBOLT files in an orderly and logical fashion.

## *iBOLT Suite Files*

The iBOLT Suite installation contains all the iBOLT Suite files, including the Studio, Components, Server, and Monitor modules, as well as a full installation of Magic Software’s uniPaaS product.

The table below provides an explanation of some of the different folders contained in the iBOLT root folder.

<b>Folder</b>	<b>Contains</b>
<b>Builders</b>	Hold the web service JAR files that are deployed to Systinet. These JAR files can be deployed manually.
<b>db</b>	Database scripts available for the manual execution of the internal database installation.
<b>Gateways</b>	Database gateways.
<b>icons</b>	All the images used for the various iBOLT components. This is also where you should add images for any components you develop yourself.
<b>icons/BP_Image</b>	The images used for the Business Process Editor.
<b>ifclib</b>	The Component files. Each component is located in a separate folder with the same name as the component. The files in these folders are used for component configuration in the Editor.
<b>java</b>	iBOLT Java classes and JAR files.

Folder	Contains
<b>jre</b>	The Sun Java JRE product, which is installed automatically.
<b>logs</b>	Directory for logs created during project runtime.
<b>Messaging</b>	Files required for message queuing.
<b>projects</b>	Root directory for iBOLT projects.
<b>projects/ &lt;Project Name&gt;</b>	All the project files of a specific project. Each iBOLT project will have a separate folder and have the same name as the project name defined in the iBOLT Suite. The project configuration file with the .ibs extension, the project executable file with the .ibp extension, and project XML source files are stored in this folder.
<b>Scripts</b>	Contains web-related scripts. A web alias is defined in the server that references this folder. See the 64-Bit Support section below.
<b>System i</b>	Files used for running iBOLT with the System i environment.
<b>temp</b>	Temporary files used in iBOLT activity.
<b>User Resources</b>	The SDK components are created into this folder.

**i** During the iBOLT installation, the installation wizard saves certain files in an **iBOLT** folder in your system's **Common Files** folder. Different iBOLT modules use these files and therefore you should not delete this folder.

## 64-Bit Support

When installing iBOLT on 64-bit machines, the 64-bit requester dlls are installed in the **scripts** folder.

In addition, two subfolders called **32bit** and **64bit** are created and contain the relevant dlls.

If your Web server is configured to use 32-bit dlls, you need to manually copy the 32-bit dlls to the **scripts** folder.

# 3 *Component Setup*

---

**T**his chapter explains the setup requirements for the different iBOLT flow components.

## **In this chapter:**

• COM
• Directory Scanner
• Domino
• EJB
• Email
• Encryption
• File Archive
• File Management
• File Splitter
• FTP
• Google Calendar
• HL7
• HTTP
• ItemField Connector
• JD Edwards
• JMS

• LDAP
• Microsoft Excel
• Microsoft Word
• MSMQ
• .NET Service
• Notes DB
• Salesforce
• SAP A1
• SAPB1
• SAP R/3
• System i
• uniPaaS Service
• Validation
• WebSphere MQ
• W4
• XSLT

## ***COM***

No prior procedures need be performed in order to use the iBOLT COM component.

## ***Directory Scanner***

No prior procedures need be performed in order to use the iBOLT Directory Scanner component.

## ***Domino***

To be able to use the iBOLT Domino component, ensure that you have **Lotus Notes** client VR5, or later, installed on your computer. You are required to supply the following information:

- Notes server name
- Notes database name and password

Before you use the Domino component, you must do the following:

- Enter the complete path of the Notes.jar (for example, **D:\lotus\notes\Notes.jar**) in the Windows Environment Variables CLASSPATH. This .jar file is located in the Lotus Notes client installation folder.
- Enter the complete path of the Lotus Notes installation folder where all the Louts Notes DLLs reside in the Windows Environment Variables PATH.

## ***EJB***

To be able to use the iBOLT EJB component, ensure that you have a J2EE Server with client software and Java SDK 1.4 installed. Java runtime is required to access the Java Beans.

### To complete configuration for the EJB component:

1. Open the **Mgreq.ini** file in the main iBOLT root directory.
2. Enable the requester to listen to Java requests. You do this by removing the semicolon in the MGSVR05 property of the [MAGIC\_MESSAGING\_GATEWAYS] section.
3. In the MaxThreads parameter, enter a percentage of threads of the total permitted thread count, according to your iBOLT Sever license, to define the number of concurrent EJB requests the iBOLT Server will accept. For example:

```
MGSVR05 = , , , ,MaxThreads=10%
```

- i** Ensure that you have an up-to-date copy of the iBOLT **Mgejbgnrc.jar** file in the **%JAVA\_HOME%\jre\lib\ext** folder. You can find this file in the **iBOLTx.x\Support** folder.

### To enable use of the iBOLT EJB component to access Enterprise Java Beans (EJB):

1. Copy the **Mgejbgnrc.jar** file to the **iBOLTx.x\jre\lib\ext\** folder. This file is in the **iBOLTx.x\Support** folder.
2. Define the **J2ee.jar** path in the CLASSPATH property in the [MAGIC\_JAVA] section.
3. Define the class or deployed EJB path in the **Magic.ini** file. For example:

#### [MAGIC\_JAVA]

```
CLASSPATH =
```

```
C:\j2ee\lib\j2ee.jar;C:\jdk\jre\lib\ext\mgejbgnrc.jar;C:\JAVAClass\C:\magic940\Components\EJB\JAVAEB\Sun\JAVAEBClient.jar;
```

4. Open your computer's System Properties dialog box and click the **Advanced** tab.
5. Enter the following in the **User Variables** field:
  - J2EE\_HOME: to the J2EE directory path
6. Enter the following in the **System Variables** field:
  - CLASSPATH: to the Mgejbgnc.jar file, J2EE directory location
  - PATH: to the Jvm.dll file location

## ***Email***

To use the iBOLT Email component you need access to an email server and the following information:

- The **SMTP** and **POP3** or **IMAP** server address
- The respective user name and password

## ***Encryption***

No prior procedures need be performed in order to use the iBOLT Encryption component.

## ***File Archive***

No prior procedures need be performed in order to use the iBOLT File Archive component.

## ***File Management***

No prior procedures need be performed in order to use the iBOLT File Management component.

## ***File Splitter***

No prior procedures need be performed in order to use the iBOLT File Splitter component.

## ***FTP***

No prior procedures need be performed in order to use the iBOLT FTP component.

## ***Google Calendar***

To use the Google Calendar component, you must have **SMTP** and **POP3** or **IMAP** servers installed in your network.

To configure the Google Calendar component you should know the following information:

- If your internet connection is through a proxy, you need to know its **SMTP** and **POP3** or **IMAP** server address.
- The respective gmail user name (for example, xyz@gmail.com) and password.

## ***HL7***

No prior procedures need be performed in order to use the iBOLT HL7 component.

## ***HTTP***

To be able to use the iBOLT HTTP component and access Web sites using a proxy server, set the following entries in the MAGIC\_ENV section of the Magic.ini file:

HTTPProxyAddress = <ProxyAddress>: <Port>

- For example: 10.9.3.16:8080

HTTPTimeout = <Timeout>

- For example: 5000

**i** A Web server is required for triggering execution of iBOLT flows.

## ***ItemField Connector***

To be able to use the iBOLT ItemField Connector component, install the ItemField software – Content Master V3.2 (or above) on your machine and obtain a valid license.

To be able to use ItemField services in the iBOLT ItemField Connector component, publish the required service on your machine, such as PDF for PDF conversion, using the ContentMaster software, which is an ItemField online tool.

Enter the complete path of the ItemField installation folder in the Windows Environment Variables PATH.

## ***JD Edwards***

The iBOLT JDE component relies on the JDE Dynamic Java connector. Ensure that the JDE Dynamic Java connector is fully configured and working on your computer. You can test this by running the JDE example application for the Dynamic Java connector (supplied with the JDE installation).

## ***JMS***

Before you use the iBOLT JMS component, install JMS client software and perform the following steps:

1. Install the Jre13.exe and J2sdkee-1\_3\_1-win.exe files.
2. Configure your operating system so that you can test the J2EE environment. To do this, open your machine's **Environment Variables** dialog box and set the following:

Variable Name	Value
%JAVA_HOME%	The directory where the JDK is installed
%J2EE_HOME%	The directory where the J2EE product is installed
%CLASSPATH%	Add these paths: %J2EE_HOME%\lib\j2ee.jar; %J2EE_HOME%\lib\locale
%PATH%	Add this path: %J2EE_HOME%\bin

3. Set the following property values in the iBOLT **Magic.ini** file's **[MAGIC\_JAVA]** section:

Property	Enter This:
CLASSPATH=	.\;.\JAVA_CLASSES
JVM_ARGS=	-
	Djms.properties=%J2EE_HOME%\config\jms.client.properties

### ***JMS Provider Settings***

The J2EE server is the JMS provider. To access the server from the JMS client, you need to enter these settings:

1. Open the %J2EE\_HOME%\config\orb.properties file.
2. Set the J2EE server path and port number.

**For example:**

%J2EE\_HOME% - C:\j2sdkee1.3.1

## ***LDAP***

No prior procedures need be performed in order to use the iBOLT LDAP Connector component.

## ***Microsoft Excel***

To use the Microsoft® Excel component, ensure that Microsoft® OfficeXP® Excel, or later, is installed on your computer.

Prior knowledge of Microsoft Excel is necessary to use this component.

## ***Microsoft Word***

To use the Microsoft® Word component, ensure that Microsoft® OfficeXP® Word, or later, is installed on your computer.

Prior knowledge of Microsoft Word is necessary to use this component.

## ***MSMQ***

To be able to use the iBOLT MSMQ component, ensure that you have MSMQ services installed on your computer. Also, define a queue that you will access using the MSMQ component.

## ***.NET Service***

To deploy iBOLT projects that use .NET services, a .NET framework installation is needed.

To edit .NET service code, you must purchase Microsoft® Visual Studio .NET.

## ***Notes DB***

To be able to use the Notes DB connector, ensure that you have Lotus Notes Client VR5, or later, installed on your computer. You will need to provide the following information:

- The Lotus Notes server name
- The Lotus Notes database name and password

Before you use the Notes DB connector, you need to do the following:

- Enter the full path of the Notes.jar (for example, D:\lotus\notes\Notes.jar) in the Windows Environment Variables CLASSPATH. This .jar file is located in the Lotus Notes clients installation folder.
- Enter the full path to the Lotus Notes DLLs folder in the Windows Environment Variables PATH.

## ***Salesforce***

To use iBOLT's Salesforce connector, ensure that you have the following:

- A licensed iBOLT Special Edition for Salesforce.com installation.
- A valid Salesforce.com user name, password, and security token.

## ***SAP A1***

To use the SAP A1 connector, you should have a thorough knowledge of SAP A1, and have access to a functional SAP A1 system.

## ***SAPB1***

To use the iBOLT SAPB1 components, ensure that the following are installed on your network:

- An SQL database

- SAP Business One server tools
- SAPB1 Data Interface API

The SAPB1 component supports SAP Business One 2004, 2005, and 2007.

## ***SAP R/3***

To use the SAP R/3 connector, you should have a thorough knowledge of SAP R/3, and have access to a functional SAP R/3 system (4.6 or later).

## ***System i***

To be able to use the System i Connector component with System i you should install the iBOLT Host Library on a System i computer.

## ***uniPaaS Service***

No prior procedures need be performed to be able to use the iBOLT uniPaaS service.

## ***Validation***

No prior procedures need be performed to be able to use the iBOLT Validation component.

## ***WebSphere MQ***

To be able to use the iBOLT WebSphere MQ component, you need to have the WebSphere MQ server/client installed on your network, where iBOLT can access it.

## ***W4***

To use the iBOLT W4 component, ensure that you can access a W4 engine, which includes the W4 Java library. The relevant W4 engine can either be installed on your local machine or you can access it on a remote machine.

## ***XSLT***

To use the XSLT component, ensure that you have the Java Runtime Environment installed on your computer. You must also have the ability to edit Java code using a dedicated Java Editor or text editor.

# *Installing the iBOLT Server on UNIX and Linux Platforms* **4**

---

**T**his chapter describes how to install, configure, and manage the iBOLT Server on Unix and Linux platforms.

In this chapter:

• Prerequisites
• Installing iBOLT
• Verifying Installation and Configuration
• Running a Test Project
• Managing iBOLT
• iBOLT Monitor on Windows
• License Registration

# *Prerequisites*

## *Database Prerequisites*

You need to have a supported database and database client installed either locally or on a remote server. The iBOLT Server supports the following databases for use as the iBOLT Server's internal database:

- Oracle, Versions 9 and 10. Oracle 32-bit client libraries are required.
- DB2 (AIX only)
- MySQL (Linux only). unixODBC libraries and MyODBC ODBC driver are required.

## *Java Prerequisites*

iBOLT requires 32-bit Java 2 Runtime Environment version 1.5 or above.

# *Installing iBOLT*

Carry out the steps below to install the iBOLT Server on your system:

Note: The administrator needs to define a user for iBOLT. In this document, **iboltdev** will be the user name.

1. Login as an iBOLT Unix user (**iboltdev**).
2. Create a directory named **software** and copy the installation file to this folder. For example: **ibolt\_<version>.<os>.tar.Z**.
3. Uncompress the installation file.
4. Change the directory to the **software** directory and run this command:

```
tar xvf software/ibolt_<version>.<os>.tar.Z
```

5. Change the directory to this home directory:

```
run ibinstall
```

The following information describes the user interface of the **ibinstall** script. The text in italics is the information provided by the script. Anything in bold is information that the user needs to input.

### *iBOLT Installation Procedure*

-----

*ibinstall* is an interactive shell script to help you install the iBOLT Server for Unix.

You may press CTRL+C to exit this script at any time and start again.

When asked to type <CR>, press ENTER.

Type <CR> to continue...

The Installation log file is /<Ibolt user home directory>/logs/inst\_log.

### *iBOLT Server Installation*

-----

Enter the iBOLT broker information

(host/port) (default <Host Name>/4400) : **<Host Name>/4400**

Enter license server address (default: 1744@<HOST NAME>):

**/<Ibolt user home directory>/etc/license.dat**

Enter license type (default: IBPRSRV) : **IBPRSRV**

Enter the database name to be used by iBOLT : Oracle

(default: Oracle) : **Oracle**

Enter the Oracle version to be used : 9 or 10 (default 9) : **9**

Enter the Oracle database connection string : oracle\_sid.hostname

(default: ora920.<HOST NAME>) : **<ORA SID>.<HOST NAME>**

Enter the Oracle database home directory : ***/dir/to/oracle/home***  
(default: */opt/oracle/product/9.2.0*) : ***/opt/oracle/product/9.2.0***

Specify locals Oracle Home directory

Enter the Web server alias for accessing the iBOLT CGI Requester  
(default: */cgi-bin*) : ***/iboltdev***

Enter the file path to */iboltdev* alias

(default: */usr/local/httpd/cgi-bin*) : ***/usr/local/apache2/cgi-bin/iboltdev***

Enter the destination directory for the iBOLT utility files

(default: */usr/local/httpd/iboltutils*) :

***/usr/local/apache2/cgi-bin/ibolt\_utils/iboltdev***

iBOLT will use broker/port: *<HOST NAME>/4400* with the supervisor password IFS.

Oracle Database connection string *<ORA SID>.<HOST NAME>*

Oracle Home */opt/oracle/product/9.2.0*

Would you like to proceed using the above information (Y or N)? **Y**

To configure the Apache Web Server, append the file */<Ibolt user home directory>/web\_utils/magic.conf* to the Apache configuration file (*httpd.conf*).

To complete the iBOLT installation, run *sbin/mgroot.sh* script as the root user.

## ***Database Gateway***

The *\$HOME/etc/mgenv* file lists the server gateway information. Gateways with a **#** at the beginning of the line are not activated. The gateway for the database that you selected when you installed iBOLT is always active. To activate database gateways, remove the **#** from the line.

Note: When you use the Oracle gateway, make sure that the *\$ORACLE\_HOME* and *\$ORACLE\_SID* parameters are defined in the *\$HOME/etc/mgenv* file. Also, make sure that the *\$LD\_LIBRARY\_PATH* environment variable includes the *\$ORACLE\_HOME/lib* directory. Additional libraries are located under the *\$ORACLE\_HOME* directory structure.

If you are using Oracle, make sure the library path points to the Oracle 32-bit libraries.

For Oracle and DB2 databases you must enter the connection string and then the home directory. For MySQL databases, you must enter the unixODBC installation directory.

unixODBC must be preinstalled on your machine for MySQL to work. You must also install the MyODBC ODBC driver.

Note: If ODBC is not installed on your machine, you need to do the following:

- For MySQL databases, install unixODBC-2.2.11. You can download this from <http://www.unixodbc.org/>
- For MySQL, you must also install the myodbc driver. You can download this from <http://dev.mysql.com>

## ***Web Server Configuration***

To install the Web components, such as CGI and Apache-related, the system administrator should run the following script:

```
/<iBOLT user home directory>/sbin/mgroot.sh
```

## ***Java-related Configuration***

To configure iBOLT to load the Java VM:

- Edit the user logon file to `.profile`, `.cshrc`, or `.bash_profile`.
- Add `<local JRE home>/lib/sparc` to the `LD_LIBRARY_PATH`.
- Remove `<iBOLT user home>/lib/stub`.
- Logout and login again as an iBOLT user.

## *License Information*

- Edit the license file `license.dat`, located in `/<iBOLT user home directory>/etc`, and copy your license information into this file.
- Log out and then log back on to the system as the iBOLT user.

## *iBOLT Internal Database Configuration*

Depending on the database server that you configured iBOLT to use, follow the instructions in the **Readme.txt** file in the folder `<iBOLT user home directory>/db/<database type>`. This should be carried out by a Database Administrator.

## *Verifying Installation and Configuration*

To verify that the configuration was done properly, and that all required libraries can be accessed by iBOLT, use the **ldd** command using these commands:

- `cd $HOME/bin`
- `ldd iboltserver`
- You should also use `ldd` on the database gateway. For example: `ldd mgoracle9`

If all the libraries are found, you have completed the installation successfully. If the `ldd` utility reports that there are missing libraries, this indicates an incomplete configuration.

## *Running a Test Project*

You should prepare an iBOLT project for testing purposes. It can be a simple project with a single auto start flow that writes a BAM message. Call it **TEST1**.

1. Copy the **TEST1** project folder to the Unix **/<iBOLT user home directory>/projects** directory.
2. Use the **ibsetup** script.
3. Start the Server using the **ibstart.projectname**, and verify that the project was executed correctly.

## *Managing iBOLT*

You can find the iBOLT scripts in the **/<iBOLT user home directory>/sbin** folder. Use the scripts as follows:

- Start the iBOLT Server's Broker. You only need to start the Broker if it is not already running (the Broker process name is **mgrqmr**):

```
startb
```

- Start the iBOLT Server:

```
ibstart.projectname
```

- Stop the iBOLT Server:

```
ibstop.projectname
```

## *iBOLT Monitor on Windows*

The iBOLT Monitor on Windows should be configured to access the iBOLT Server Activity Log. You need access to the Oracle database.

You should verify that the iBOLT Server is running using the iBOLT Monitor and the **checkm** command.

## *License Registration*

You should make sure that you have a permanent iBOLT license. The steps described above will ensure that a temporary license is installed. When you receive your permanent license, copy the file to the **\$MAGIC\_HOME/etc/** directory. If you do not have the permanent license, you can use the **license.dat** evaluation license temporarily, which you can find in **\$MAGIC\_HOME/etc/**.

# 5 *iBOLT Licenses*

---

**T**his chapter describes iBOLT licenses, and explains how they are managed.

**In this chapter:**

- License Management
- Working with the License Server

# License Management

iBOLT is designed to work with a separate license for each part of the product:

License	Description
<b>Studio</b>	This license allows you to: <ul style="list-style-type: none"><li>• Open the iBOLT Studio.</li><li>• Develop iBOLT projects.</li><li>• Run the Debugger for testing purposes.</li></ul>
<b>Server</b>	This license allows you to run the iBOLT Server. The licenses are different for Windows and non-Windows operating systems. The default iBOLT installation includes an evaluation version of the Server license.
<b>Monitor</b>	This license allows you to use the iBOLT Monitor.

## Evaluation Licenses

An evaluation license gives you access to a fully functional iBOLT version for up-to a 90-day period from the product's initial installation date. When you access an evaluation product, a message indicates when the evaluation license expires.

## License Types

The following table shows the various parts of the iBOLT license file.

Name	Description
<b>IBNPSTD</b>	The Studio license.
<b>IBMON</b>	The Monitor license. Note: You cannot open the Studio using the Monitor license.
<b>IBNPSRV</b>	The license for the non-production Server. (When using this license, the Server will stop running after 24 hours.)
<b>IBPRSRVI</b>	The production license for the Server in an Intel environment.
<b>IBPRSRVN</b>	The production license for the Server in a non-Intel environment.

## Installing iBOLT License Files

A default evaluation license is installed when you install iBOLT.

### To replace the evaluation license:

1. Extract your license **ZIP** file, and copy the **.txt** file to your iBOLT root directory.
2. Open the **Magic.ini** file, and locate the **LicenseFile** entry. This tells iBOLT which license file to read. Modify this entry to point to your license, for example: **LicenseFile=c:\iBOLT3\MyLicense.txt**.
3. Verify that the following license names are correctly set in the [MAGIC\_ENV]LicenseName section of the respective .ini files:
  - In the Server's **ifs.ini** file: [MAGIC\_ENV]LicenseName=IBPRSRVI **or** IBNPSRV **or** IBPRSRVN
  - In the Studio's **ife.ini** file: [MAGIC\_ENV]LicenseName=IBNPSTD
  - In the Monitor's **ifm.ini** file: [MAGIC\_ENV]LicenseName=IBMON

If the license name in the .ini file is not identical to the license's name in the license itself, the following error appears in the relevant log file:

"Failed to set the license file parameters."

## ***License Features***

The following license features are optional. You can purchase them separately and add them to the existing license file.

- **IBA1** – The license for the SAP A1 environment.
- **IBHL7** – The license for the HL7 environment.
- **IBJDE** – The license for the JD Edwards environment.
- **IBNotes** – The license for the Lotus Notes environment. This feature grants access to Notes databases using the Notes DB connector.
- **IBR3** – The license for the SAP R/3 environment.
- **IBSBO** – The license for the SAP Business One environment. The iBOLT SAP Business One license can only be used for projects that use the SAP B1 component and connect to the SAP Business One system.
- **IBSFDC** – The license for the Salesforce environment.
- **IBSystemi** – The license for the System i environment. The Data Mapper can access DB2/400 on System i regardless of this keyword.
- **IBWebMon** – The license for the Web Monitor.

**Note:** License features are only required in the Deployment environment. All features are available during project development (in the Studio environment).

# *Working with the License Server*

## *Finding a HOST ID*

An iBOLT license may be restricted for use on a specific computer or server. The iBOLT license checks the computer's HOST ID for the machine where the license server is installed. When you install the license server, a file called **LicenseInfo.txt** is installed in the FlexLM folder. This file contains the HOST ID for the computer where the license server is installed. Report the HOST ID to your system integrator or iBOLT sales representative.

Although you can only use the license on one machine, you can use more than one machine in your iBOLT deployment. The license server machine manages all the users in your system, regardless of which machine they are using.

## *License Server Files*

When you install the license server, a folder called FlexLM is installed on the root of your computer's **C:\** drive. This folder contains these files:

- LMG.exe
- LMGRD.exe
- LM Tools.exe
- LMUTIL.exe
- Makekey.exe
- LMGR327A.dll
- LicenseInfo.txt

In addition, the following files are installed in the iBOLT installation's root directory:

- LMUTIL.exe
- Makekey.exe
- LMGR327A.dll

## ***License File Location***

When you install the license server, the license file called **license.dat** is installed in the FlexLM folder. If you do not install the license server, the license is installed on your root iBOLT directory. Check with your sales representative to be sure that the correct license file is installed on your computer and all machines with the iBOLT Server installed in your project deployment.

The location of the license file is indicated in the **magic.ini** configuration file in the [Magic\_Env] section in the **LicenseFile** line. If iBOLT cannot find your license file, make sure that the path to the license file is indicated on this line. For example:

```
LicenseFile=C:\iBOLT3\License.dat
```

# A *System Requirements*

---

**T**his appendix describes the minimum system and database requirements for installing the iBOLT server on your computer.

## *System Requirements*

- **Processor:** At least one Pentium 4, 1.8GHz and upwards
- **RAM:** At least 2GB for deployment, 1GB for development
- **Free disk space:** At least 1GB
- **Windows Server:**
  - **For deployment:** Use Windows 2000 Server or Windows 2003 Server
  - **For development:** Use Windows 2000
- **Web Server:** A Web Server is required

### **Notes:**

- When installing iBOLT with the Windows 2000 operating system, the following warning message may appear: "The installation package cannot be installed by the Windows installer service. You must install a Windows service pack that contains a newer version of Windows installer service."

You need to install Windows Installer 3.1 before installing iBOLT. Please use the following link:

<http://www.microsoft.com/downloads/details.aspx?familyid=889482fc-5f56-4a38-b838-de776fd4138c&displaylang=en>

- A security enhancement for Internet Information Services (IIS) 6.0 on Windows® 2003 restricts DLL files and executables from working, unless they are explicitly allowed. Therefore, some security settings in the IIS need to be changed to allow the ISAPI/CGI requester to work. For more information, see the *iBOLT Help* to access a technical note about this subject.
- The system requirements above are only for the installation of the iBOLT Server on your machine. These requirements do not include the installation of other iBOLT modules.
- The deployment requirements are for an iBOLT Server running up to 35 concurrent flows.
- The minimum system requirements do not take into consideration any project-specific requirements.
- The information above does not refer to additional requirements for running iBOLT components, such as component configuration or additional software.

## ***Database Requirements***

You must use one of the following databases when you install the iBOLT Server on the Windows platform:

- Oracle Database Server 9i or 10g
- Microsoft SQL Server 2000 or 2005
- DB2 and DB2/400
- MySQL

The database does not have to be on the same machine as the iBOLT Server, but if not, you will need the client software for your database on the machine where the iBOLT Server is installed.

# B *Running Database Scripts*

---

**Y**ou should read this appendix if, during the iBOLT installation, you postpone running database scripts, the database must be recreated, or you are using DB2 or DB2/400 as your internal database.

This appendix explains the procedures for setting up the respective databases to work with iBOLT.

The iBOLT installation wizard creates the following sub-folders in the **iBOLT\db** folder:

- |           |
|-----------|
| • MSSQL   |
| • Oracle  |
| • DB2     |
| • DB2/400 |
| • MySQL   |

# ***MSSQL***

This section explains the procedures for installing the Microsoft SQL server.

The iBOLT installation wizard creates these two files in the MSSQL folder, which is in the iBOLT\db folder:

- Mssqlrun.bat
- Mssql.bat

The steps below explain how you use these files to set up the MSSQL database:

1. Open the **Mssqlrun.bat** file in a text editor.
2. Do not modify the lines that start with **rem**.
3. In the main line, replace the % characters as follows:
  - %1: with the name of the database administrator
  - %2: with the name of the machine where the server is located
  - %3: replace with the password, or delete if there is no password
4. Close the file and save the changes.
5. Select the **Mssqlrun.bat** file again, and double-click to run the database.

When you run the file, the process creates a log file called Mssql.log.

## ***Oracle***

This section explains the procedures for the Oracle 9i and 10g databases. The setup procedure is the same for both database types. The iBOLT installation creates these three files:

- ora\_create\_tb.sql
- ora\_create\_tables.sql
- ora\_insert.sql

Run each of these scripts in the order listed above.

When you run the file, the process creates these log files:

- create\_db\_ora.log
- create\_tables.log
- insert\_into.log

## ***DB2***

This section explains how to set up the DB2 database to run as the iBOLT internal database.

You must first create a DB2 database. The value of the environment variable DB\_NAME must be the same as the alias that you used when you installed iBOLT.

Make sure to update the database scripts in the installation's database directory with the alias you defined during installation.

The iBOLT installation creates these two files in the DB2 folder, which is in the iBOLT\db folder:

- db2\_insert.sql
- db2\_create\_tables.sql

You should run the scripts after you create the database.

**Note:** After the DB create script is manually executed, the INI entry environment variables should also be updated.

## ***DB2/400***

This section explains how to set up the DB2/400 database to run as the iBOLT internal database.

You must first create a DB2/400 database. Your Database name, User name and Password for the database you create must be the same as what you entered in the iBOLT installation. If you forgot any of this information, see the bottom of the **Readme** file in the **iBOLTx.x\db\DB2400** folder.

The iBOLT installation creates these two files in the DB2/400 folder, which is in the iBOLT db folder:

- 400insert\_table.sql
- 400create\_table.sql

Run these scripts after you create the database

- iseriesftp.exe

This is an executable which is used to execute iseries commands and is used internally in INSTALL\_DB400.BAT.

- Readmedb2400.txt

This is a readme file that contains information related to other files.

- INSTALL\_DB400.BAT

The extract from the "Readmedb2400.txt" file can be taken as information for this file.

# MySQL

This section explains how to set up the MySQL database to run as the iBOLT internal database.

1. Install MySQL and create a MySQL database and user (if you do not know how to create a MySQL database, see the MySQL documentation).
2. Run the following scripts from **iBOLT\db** folder:
  - mysql\_create.sql
  - mysql\_insert.sql
3. Create an ODBC Data Source for your MySQL database.

iBOLT lets you access data from various database management systems using ODBC data sources.

iBOLT lets you set up data sources for:

- User DSN (Data Source Name): A User data source is local to a computer and available only to you.
- System DSN: System data sources are local to a computer but are not user dedicated. Any user with privileges can access a system DSN.

To create an ODBC data source, set up a compatible ODBC driver in Microsoft Window's ODBC **Data Source Administrator**.