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System Requirements for Acumatica ERP 4.2

Learning Objects:

- Learn about system requirements for Acumatica ERP.

Listed below are the minimum system requirements for installing and running Acumatica ERP 4.2.

Acumatica ERP includes the following components:

- Server Software
- Database

Acumatica ERP is a fully web-based application and uses web browser as the user interface. No other client software is required.

Listed below are the system requirements for installing and running Acumatica ERP.

**Web Browser**

Acumatica ERP supports the following web browsers:

- Microsoft Internet Explorer 9 and 11 with Compatibility View turned off.
- Microsoft Internet Explorer 10 with Compatibility View turned off and the hotfix for the ASP.NET browser definition files in the Microsoft .NET Framework 4.0 installed. For more information, see [http://support.microsoft.com/kb/2600088](http://support.microsoft.com/kb/2600088).
- Mozilla Firefox 26.
- Apple Safari 7.
- Google Chrome 31.

**Server Software**

Acumatica ERP server software can be installed on a computer running one of the following operating systems:

- Microsoft Windows Server 2012, any edition for the x64 (64-bit) platform
- Microsoft Windows Server 2008 R2, any edition for x64 (64-bit) platform
- Microsoft Windows Server 2008, any edition for x64 (64-bit) platform
- Microsoft Windows 8, any edition for the x64 (64-bit) platform
- Microsoft Windows 7, any edition for the x64 (64-bit) platform
- Microsoft Windows Vista, any edition for x64 (64-bit) platform
You can install Acumatica ERP only in a Microsoft Windows Vista system running IIS 7.0 or later.

The following hardware requirements apply:

- Minimum: 4 GB of RAM
- 1 GB of available hard disk space plus 200 MB per each additional instance of Acumatica ERP

Before installing Acumatica ERP server software, make sure that the following software is installed and enabled:

- Microsoft .NET framework version 4.0 or later
- Microsoft Internet Information Services (IIS) 7.0 or later, depending on the underlying operating system
- Microsoft Windows Installer version 3.1 or later
- Critical system patches and updates for Microsoft products

**Database**

Acumatica ERP database can be hosted by:

- Microsoft SQL Server 2012, any edition
- Microsoft SQL Server 2008 R2, any edition
- Microsoft SQL Server 2008, any edition
- Microsoft SQL Server 2005, any edition

The following hardware requirements apply:

- 4 GB RAM
- For each database, 1 GB available hard disk space. Depending on the number of transactions, additional hard disk space may be required to store large numbers of transactions.

Note that if database server is in virtual environment, ensure you are running Windows 2008 R2 and SQL Server 2008 R2 or above.

**Other Software**

For access to additional features, we recommend the following applications:

- Adobe Reader X is required to open some Acumatica ERP PDF documents.
• Microsoft Office 2007, 2010, or 2013—or Microsoft Office 2003 with the Microsoft Office 2007 compatibility pack—is required to view documents exported from Acumatica ERP.

Before you start the installation process, it is recommended that you install at least all critical updates (desirably, all available updates) for the operating system and software components. You should also make sure that all required third-party components listed earlier in this article are properly installed and configured on your computer.

**Configuration of IIS Features**

Before you install the Acumatica ERP server software, make sure that the following IIS features are turned on:

• Web Management Tools > IIS Management Console
• World Wide Web Services > Application Development Features > .NET Extensibility
• World Wide Web Services > Application Development Features > ASP.NET
• World Wide Web Services > Application Development Features > ISAPI Extensions
• World Wide Web Services > Application Development Features > ISAPI Filters
• Common HTTP Features > Default Document
• Common HTTP Features > Static Content
• Security > Request Filtering

**Questions**

1. Discuss in brief system requirements for Acumatica 4.2

2. Compare and contrast on Acumatica 4.2 system requirements to other ERP systems you know.

3. Discuss how choice of client browsers and security policies can affect Acumatica 4.2.
Installing Acumatica ERP

Learning Objects:

- Learn how to install Acumatica ERP.

Because Acumatica ERP is a web-based application, users with appropriate privileges can access the system from any computer using a web browser. The server software can be installed on client premises or hosted in a data center.

The overall process to install Acumatica includes these simple steps:

1. Install Acumatica ERP software components on a server
2. Deploy Acumatica ERP application instance on the server by using the Acumatica ERP Configuration Wizard. When deploying an application instance, you need to specify the following:
   - Database server.
   - Database configuration and connection options.
   - Company options.
   - Web site configuration options.

Installation files

![Installation files screenshot]

Typical deployment configurations:

1. Separate Application server and Database server (most common configuration)
2. Multiple Application servers and Database server
3. Application and Database on the same server (development configuration)
Installing Acumatica ERP Software Components

To install Acumatica ERP software components, run Acumatica ERP installation package, and follow the instructions of the Acumatica ERP Installer wizard:

1. On the Welcome page, click **Next**.
2. On the License Agreement page, read the license agreement. To accept the license agreement, click **I Agree**, and then click **Next**.
3. On the Main Software Configuration page, specify the following options that you want, and then click **Next**:
   - **Launch the Acumatica ERP Configuration wizard**: Select this check box to continue deploying the Acumatica ERP application instance once the Acumatica ERP software components are installed. If you clear this check box, you can run the Acumatica ERP Configuration wizard at a later time by launching the wizard from the Windows Start menu.
   - **Install Report Designer**: Select this check box to install the Report Designer component. If you clear this check box, you can install the Report Designer at a later time by running the installation package.
   - **Install Debugger Tools**: Select this check box to install the Debugger Tools component. This installs debug version of Acumatica core libraries.
4. On the Confirm Installation page, click **Next**.

Deploying Acumatica ERP Application Instance

This wizard runs automatically once the software components of Acumatica are installed, or you can run it anytime from the Windows Start menu.

The following screenshot shows the Welcome page of the Acumatica ERP Configuration wizard.
This options displayed on the Welcome page of the wizard are described in the following table.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deploy New Application Instance</strong></td>
<td>Select this option to deploy a new application instance of Acumatica ERP. Use this option if you are running the Configuration wizard for the first time. By using this option, you can perform the following tasks: configure a database, set up companies to configure a multi-company site, configure a Web site, and specify the user account that will be used to access the database.</td>
</tr>
<tr>
<td><strong>Perform Database Maintenance</strong></td>
<td>Select this option to create a new application database or to upgrade an existing database with a current version of the database schema. This option allows you to specify the database server, configure the database, and set up companies. For additional information, see Upgrading Acumatica ERP.</td>
</tr>
<tr>
<td><strong>Perform Application Maintenance</strong></td>
<td>Select this option to upgrade an existing application instance of Acumatica, or Web Portal, with the current software version, modify or delete an existing application instance, or rename an instance. Also, you can change properties of existing companies and add new companies for a multi-company instance. To upgrade an existing Acumatica ERP instance, update or change databases, configure companies for a site, delete a site, or launch a site, see Upgrading Acumatica ERP.</td>
</tr>
<tr>
<td><strong>Generate Azure Configuration File</strong></td>
<td>Select this option to deploy new instance of the Acumatica ERP application to Microsoft Azure platform.</td>
</tr>
</tbody>
</table>

To deploy a new application instance of Acumatica ERP, do the following:

1. Run the Acumatica ERP Configuration wizard.
2. On the Welcome page of the Acumatica ERP Configuration wizard, click **Deploy New Application Instance**.
3. On the Database Server Connection page, specify the Microsoft SQL Server that will be used by the application instance being deployed, and then click **Next**:
   - In the Available servers list, select a server to connect to. If the list doesn't show the server you want to use, you can type either a NetBIOS name or the host name or IP address of the Microsoft SQL Server.
   - Select the authentication method used to connect to the database server. The **Login** and **Password** must be filled in only if you have selected SQL Server authentication. In this case, be sure this account has sufficient rights to create a new database.

If the server list does not include the server you are looking for, click **Update the List** to rescan your network. The list of database servers may not have a particular Microsoft SQL Server even after your network is rescanned (if, for instance, the server blocks broadcasts). If the problem persists, contact your network administrator for assistance. If you use Microsoft SQL Server Express, the **(local)** option will not work even if the database server is running on the same machine. To use the server, you need to start the SQL Browser service.
first, and then update the list of servers and select your server. Note that Microsoft SQL Server Express should not be used in a production environment due to its limitations. The selected authentication method must be supported by the database server. Note that the default installation of Microsoft SQL Server 2005 has Windows authentication disabled. Windows authentication will work only for a local Microsoft SQL Server or when both application and database servers are members of the same Windows domain.

4. On the Database Configuration page, specify the following options, and then click Next:
   - Create a new database: Select this option to create a new database, and then enter a database name in the New database name field.
   - Connect to an existing database: Select this option to select an existing database, and then click on a server name in the server list below.

   If the schema of the database you have specified is outdated, a message will be displayed next to the list of available servers saying that the database must be updated before you can continue. Then, select the Update database check box below this message. Alternatively, you can leave this check box cleared and select a current version database.

5. On the Company Setup page, specify the appropriate options to add companies for a multi-company application instance of Acumatica ERP. By default, the Configuration wizard creates a single company named Company. More companies can be added if necessary (for example, to serve multiple offices). For each newly created company, you can configure the following fields under the Installed companies label:
   - Login Company Name: The name that will be assigned to the company on the login screen. (This is used only when there are multiple companies; otherwise, the login screen will not have an option to select a company at logon.)
   - Insert Data: Specify whether you want to fill the database with demo data or template data.
   - Visible: Select this check box to have the company displayed on the login screen.
   - Parent Company ID: Select a parent company ID#

The following view-only fields are also displayed for each company:

1. ID: The numerical identifier for the company.
   - New: A check box that, if selected, indicates the company is newly created.
   - Additional Info: The company name in the database.

   If you select the Advanced Settings check box, the Company Setup screen also shows a company without a name in the list of installed companies. This company is automatically created by the system under ID 1, and is used for internal purposes, such as for storing
Help files and default settings. With the Advanced Settings check box selected, you can change and even delete an existing company. But since a company you see here can be a live company, you may consider it necessary to create backups before making any changes.

If you select the **Secure Company on Login Form** check box, the application login screen does not show dropdown for company selection. This helps when you don’t want users to know about other companies’ existence unless they have access to those companies.

There is also a web.config level option that allows to login to a specific company without showing dropdown for company selection. This option is helpful in Self-Service portal deployments with multiple companies. Follow these steps to configure the login company:

1. Open the `web.config` file for the Acumatica ERP or Self-Service Portal instance. This file is usually located in `%Program Files%\Acumatica ERP\<instance name>`, where `<instance name>` is the name of the Acumatica ERP or Self-Service Portal instance site.

2. In the file, find the providers section, which has the following settings:

   ```xml
   3. <add name="PXSqlDatabaseProvider" ... companyID="" .../>
   ```

3. Change the following key value:
   ```xml
   4. companyID=""x"
   ```
   where x is the ID of the company you want to users to login.

4. Save the web.config file; this automatically restarts the website.

2. Optional: On the Tables Configuration page, you can specify whether you want the database tables to be shared between different companies, and the click **Next**. This page is displayed only if you have selected the **Advanced Settings** check box on the previous page.

3. On the Database Connection page, specify the authentication method used by this application instance of Acumatica ERP to connect to the database, and then click **Next**.

   If you choose **Windows Authentication**, the Configuration wizard will use the default anonymous user account utilized by Internet Information Services (IIS). If you select **SQL Server Authentication**, the Configuration wizard will either create a new account with read, write, execute, and ddl_admin rights, or use an existing account (if you select **Use existing login** and fill in the appropriate information). Note that this existing account should have the above-mentioned rights for the database used by Acumatica ERP.

4. On the Instance Configuration page, specify the following options, and then click **Next**:
   - **Instance Name**: Enter a name for this application instance of Acumatica ERP.
- **Local Path to the Instance**: Enter a path on the local computer to this application instance.
- **Select an account to access ASP.NET application**: Specify whether you want the Anonymous user account to be used to access ASP.NET, or specify another user account.

5. On the Web Site Configuration page, configure the list of Web sites and create a virtual directory. To use the URL of the IIS default site (that is, `http://www.domain.com`), clear the **Create Virtual Directory** check box not to create a virtual directory.

If this application instance of Acumatica ERP is deployed on IIS 6 or above, the Configuration wizard allows you to create a dedicated application pool. You may want to use a dedicated application pool for better isolation between instances and for fine-tuning resources that are allocated for the instance by IIS. For the application pool, you can use default values on this page.

Ensure application pool chosen for Acumatica ERP is configured to run in 64-bit mode.

6. On the Confirm Configuration page, view the configuration settings you have specified, and then click **Finish** to deploy this application instance. To save the configuration settings in an .XML file on your computer that you can use later for an unattended installation from the command line, click the **Save Configuration** button.

Once installed, navigate to `http://localhost/AcumaticaSite/` in your browser (assuming the default name was used for virtual directory during deployment of the instance). Alternatively, you can use the link created automatically in the Acumatica ERP program group. The default user name is admin, and the default password is setup.

Once you have entered the default credentials, you must change the default password to a new one.
Changing the Password at the First Logon

Every Acumatica ERP instance comes with the active default user account you use to log on to the system. You start working with Acumatica ERP by changing the password for the default user.

To Change the Password for the Default User:

1. Launch the application instance you have deployed
2. On the Login page, enter the default credentials:
   - User name: admin
   - Password: setup
3. To change the default password, type the new password in the New Password and Confirm Password boxes.
4. Click Login.

The http://localhost/AcumaticaSite/ URL works only on the local computer where you have installed Acumatica ERP software components, and provided that the Virtual Directory Name parameter specified on the Web Site Configuration page has not been modified during the configuration. To access the application instance remotely, use the server’s fully qualified domain name (FQDN) instead of localhost in the URL, and in the case if you have changed the default virtual directory name, you need to use the new name instead of AcumaticaSite.
Setting Up Acumatica Self-Service Portal

Acumatica Self-Service Portal is designed to be the site where your customers can view all the relevant information about their interaction with your company as a vendor and perform common activities online. The process of setting up Acumatica Self-Service portal is similar to that of creating a new Acumatica instance. It slightly differs in the following ways:

2. On the Welcome page, click Deploy New Application Instance.
3. On the Database Server Connection page, specify the database server that is used by the Acumatica ERP instance.
4. Click Next.
5. On the Database Configuration page, connect to the database that is used by the Acumatica ERP instance:
   1. Click Connect to an existing database.
   2. In the Available databases on server list, select the database that is used by the Acumatica ERP instance.
   3. If the schema of the database you have specified is outdated, select the Update database check box.
   4. If you want to shrink data after the database maintenance, select the Shrink data check box.
6. Click Next.
7. On the Company Setup page, check the companies used by the Acumatica ERP instance and click Next.
8. On the Database Connection page, specify the authentication method that the instance of Self-Service Portal will use to connect to the database.
9. Click Next.
10. On the Instance Configuration page, specify the following options:
    1. Instance Name: Type a name for this Self-Service Portal instance.
    2. Create Portal: Select this check box.
    3. Local Path to the Instance: Enter the path on the local computer to this application instance.
    4. Select an account to access ASP.NET application: Select one of the following accounts to be used to access the ASP.NET application:
       1. Default (anonymous user): The user account that IIS uses by default.
2. **Specify**: Another user account. Specify the login and password of the user account.

11. Click **Next**.

12. On the Web Site Configuration page, do the following:

   1. In the **Web Site Settings** section, configure the list of websites and create a virtual directory. To use the URL of the IIS default site (that is, http://www.domain.com), clear the **Create Virtual Directory** check box.

   2. In the **Application Pool Settings** section, specify the application pool. You may want to use a dedicated application pool to better isolate instances and fine-tune resources that are allocated for the instance by IIS. To specify the dedicated application pool, select one of the following options:

      1. To create a new application pool, click **Create New Application Pool** and type the name in the **Application Pool Name** box.

      2. To use an existing application pool, click **Use Existing Application Pool** and select the name of the application pool in the list of available application pools.

13. Click **Next**.

14. On the Confirm Configuration page, Click **Finish**.

To give your customers limited access to your Acumatica ERP instance, you deploy a Self-Service Portal instance connected to your Acumatica ERP instance. If you deploy a multi-company Acumatica ERP instance, after you deploy the Self-Service Portal instance, you must specify the company that the Self-Service Portal users can access.

💡 If you want different companies to be available through Self-Service Portal, you must deploy a Self-Service Portal instance for each company.

### Questions

1. Install Acumatica ERP on your system. Write down your experience.

2. What is the purpose of Acumatica ERP Configuration tool?

3. How do you obtain Acumatica ERP Configuration tool?

4. Discuss various components of Acumatica ERP that gets installed.

5. Discuss installation of different versions of Acumatica side-by-side.
6. What do Advance Options and Secure Company on Login Form checkboxes in Acumatica ERP Configuration tool do?

Licensing Acumatica ERP

Learning Objects:

- Learn how to activate a full-product Acumatica ERP license.

By default, Acumatica ERP is installed in trial mode, which allows only two users to concurrently use the system. Each time a third user logs on to Acumatica ERP, one of the current users is forcibly logged off. This results in significant performance impairment when multiple users try to use the system at the same time.

In order to activate a fully licensed version of Acumatica ERP application instance you must purchase the full-product license, and then convert the trial version of the application instance you are using to a full-product version. You can activate a fully licensed product version anytime during the trial period.

**To Activate a Full-Product License**

After you have purchased the full product license, use the step-by-step procedure outlined below to activate the fully licensed application instance.

Before proceeding with activation, make sure that all Acumatica ERP users have saved their work and logged out of the system. During the activation operation, the Acumatica ERP instance is restarted and all unsaved work is lost.

1. Obtain a product key by submitting the following information to your Acumatica ERP sales representative:
   - **Installation ID** - The ID is available on the About screen of the Acumatica ERP application instance. To open the About screen, on any Acumatica ERP form, select Help > About.
   - **Contract ID** - You can find this ID on your Acumatica ERP sales invoice.
2. On the **Configuration** tab, click **Common Settings**. In the left pane, navigate to **Licensing**.

3. Depending on the license type you obtained from your sales representative, do one of the following:
   - If you obtained a license key, click **Enter License Key** and enter the license key in the **Activate New License** dialog box.
   - The system will contact the activation server and validate the license.
   - If you obtained a license file, click **Upload License File** and select and upload the license file by using the **Upload New License From File** dialog box.
   - If you use a license file, the system does not require to contact the activation server to validate the license.

4. In the table, review the features license supports and check that the feature list is correct.

5. Click **Apply License** to activate your instance.

Individual Acumatica ERP suites can be activated or reactivated using **Configuration > Common Settings > Licensing > Enable/Disable Features** (CS10.00.00) screen. Full product license should be activated before individual suites can be activated.

To validate your license, the licensing server requires port 443 to be opened on the computer running the Acumatica ERP instance you use to enter the key. You may have to open port 443 if the computer has a firewall enabled.
Questions

1. List steps to register full-product license in Acumatica ERP
2. Why registering Acumatica ERP is important?
3. Does Self-Service portal needs to register separately?
Upgrading Acumatica ERP

Learning Objects:

- Learn how to upgrade Acumatica ERP using
  - local install, and
  - directly from the web interface

You can upgrade to a newer version of Acumatica ERP by installing software components of a newer product version. The upgrade procedures must be performed on the server where the current version software components are installed.

💡 It is highly recommended to backup all configuration files and databases used by the application instances of Acumatica ERP prior to upgrading to a newer product version.

There are two methods you can use to upgrade to a new product version or build:

- Upgrade by running the Acumatica installation package on the local server computer
- Upgrade from Acumatica’s web interface

**Upgrading Locally by Running Acumatica ERP Installation Package**

Use this upgrade method if you have the installation package file available on your computer or a CD, and you are upgrading to a newer product version locally on the server where the previous version of Acumatica is installed. This method also applies if for some reason you cannot use Acumatica’s web interface to perform the upgrade procedures. When using this method, you first install the product’s software components on the server by running the installation package, and then update the application instances and their databases using the Acumatica ERP Configuration wizard. To run the installation package, you must have the Administrator role on the local computer.

To upgrade the software components, proceed as follows:

1. Back up the Acumatica configuration files and databases maintained by the application instances, if necessary.
2. Run the latest version of Acumatica ERP installation
After you have upgraded the software components, you need to update the application instances and all relevant databases with updated versions. To verify whether an application instance or a database must be updated, do the following:

1. Run the Acumatica ERP Configuration wizard on the server where Acumatica software components are installed.
2. On the Welcome page, click Perform Application Maintenance.
3. On the Application Maintenance page, you may see the following system flags in the list of installed sites, as shown on the screenshot below this procedure:
   - **Yellow Exclamation icon**: Indicates that the current version of the application instance is older than that of the newly installed software components, and must be upgraded.
   - **Red Error icon**: Indicates that the database is outdated and must be upgraded.

**Upgrading From the Web Interface of Acumatica**

You can use this method to upgrade to a newer product version remotely or locally, by using Acumatica's web interface.

When a new product update (a major version or a build) has been approved by Acumatica Quality Assurance team and released, a notification appears on the About Acumatica dialog, which you access
by selecting About from the Help menu. This notification appears only when Check for Updates is set in Update Preferences (SM.20.35.05). You can also view a list of available product updates on the Updates tab of the Apply Updates (SM.20.35.10) form. This tab displays the product updates that are available for download from the update server. The update server is specified in Acumatica by default, but you can also modify the default update server and update lookup settings.

To upgrade to a newer product version or build, do the following:

1. Log in to Acumatica.
3. On the Updates tab, do the following:
   - In the Major Version field, select the product version to which you want to upgrade.
   - In the list of available updates, select the latest product build of the selected version, and then, in the tab actions area, click Download Package. When the download is complete, the Ready to Install check box is automatically selected:
     - In the tab actions area, click Install Update. A background process starts that copies Acumatica software components to the server computer, and then updates the application instances and the databases.
Using the Apply Updates form, you can also view the update history, install a custom package, or request a restriction key to install a package that has not yet been approved.

### Questions

1. Upgrade Acumatica ERP and write down your experience.
2. Compare and contrast upgrading using local install v/s using web interface
3. How will you upgrade Self-Service portal?
Maintaining Acumatica ERP

Learning Objects:

- Learn how to
  - Create new application instance
  - Viewing details of existing application instance
  - Update existing application instance
  - Update database of an existing application instance
  - Change database of an existing application instance
  - Modify company setup options
  - Delete an application instance
  - Perform database maintenance

You perform maintenance tasks associated with application instances and their databases by using Acumatica ERP Configuration Wizard. You can also perform database and application maintenance tasks by using command-line tools.

Welcome to the Acumatica ERP Configuration Wizard

Please select one of the options below to continue:

Deploy New Application Instance
Select this option if you are running this wizard for the first time or if you need to deploy a new instance of the Acumatica ERP application.

Perform Database Maintenance
Select this option if you need to create a new application database or upgrade an existing database with a current version of the database scheme.

Perform Application Maintenance
Select this option if you need to upgrade an existing instance of the Acumatica ERP application with the current version of the software.

Generate Azure Configuration File
Select this option if you need to deploy a new instance of the Acumatica ERP application to Microsoft Azure platform.
Creating a New Application Instance

2. On the Application Maintenance page, click the New button.
3. Follow the steps outlined in the Deploying Acumatica Application Instance section of this guide.

Viewing Details of an Application Instance

You can view such details of an application instance as the local path to configuration files, the current version, the virtual directory name, and the Web site name.

To view details of an instance, do the following:

2. On the Application Maintenance page, click the Instance Info button.

Updating an Application Instance

Updating an application instance is required after you have upgraded Acumatica ERP components. Do the following:
1. Run Acumatica ERP Configuration Wizard on the server where the Acumatica ERP components are installed.
2. On the Welcome page, click **Perform Application Maintenance**.
3. On the Application Maintenance page, do the following:
   - In the list of installed sites, click the application instance whose version you want to update. You can see the current version in the **Site Version** field.
   - In the bottom area of the page, click **Upgrade Sites**.
4. Click **Yes** to continue with the upgrade. The upgrade process will take a few minutes, depending on the hardware configuration and the current system load. When the instance upgrade is finished, Acumatica ERP Configuration Wizard will update the list of instances.

**Updating a Database of an Application Instance**

To update an application database, which is required after you have upgraded the Acumatica ERP components, do the following:

1. Run Acumatica ERP Configuration Wizard on the server where Acumatica ERP is installed.
2. On the Welcome page, click **Perform Application Maintenance**.
3. On the Application Maintenance page, do the following:
   - In the list of installed sites, click the application instance whose database you want to update. You can see the current version in the **DB Version** field.
   - In the bottom area of the page, click **Update Databases**.

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4. Click Yes to continue with the update.
5. In the SQL Server Authentication dialog, specify the authentication method used to connect to the database. Make sure that you specify a user account that has sufficient permissions to modify the database.

   The time required for the update depends upon your database server's performance and the differences between the old and current versions of the database schema.

**Changing a Database for an Application Instance**

1. Run Acumatica ERP Configuration Wizard on the server where Acumatica ERP is installed.
2. On the Welcome page, click Perform Application Maintenance.
3. On the Application Maintenance page, do the following:
   - In the list of installed sites, click the application instance for which you want to specify another database.
   - In the bottom area of the page, click Change Database.
4. On the Database Server Connection page, specify the Microsoft SQL server that will be used by the application instance being deployed, and then click **Next**:
   - In the **Available servers** list, select a server to connect to. If the list doesn't show the server you want to use, you can type either a NetBIOS name or the host name or IP address of the Microsoft SQL server.
   - Select the authentication method used to connect to the database server. The **Login** and **Password** must be filled in only if you have selected SQL Server authentication. In this case, be sure this account has sufficient rights to create a new database.

5. On the Database Configuration page, specify the following options, and then click **Next**:
   - **Create a new database** - Select this option to create a new database, and then enter a database name in the **New database name** field.
   - **Connect to an existing database** - Select this option to select an existing database, and then click on a server name in the server list below.

6. On the Company Setup page, specify the appropriate options to add companies for a multi-company application instance of Acumatica ERP. By default, Acumatica ERP Configuration Wizard creates a single company named **Company**. More companies can be added if necessary (for example, to serve multiple offices).

7. On the Database Connection page, specify the authentication method used by this application instance of Acumatica ERP to connect to the database, and then click **Next**.

8. On the Confirm Configuration page, view the configuration settings you have specified, and then click **Finish** to deploy this application instance. To save the configuration settings in an .XML file on your computer, you can click the **Save Configuration** button.
### Modifying Company Setup Options

1. Run Acumatica ERP Configuration Wizard on the server where Acumatica ERP is installed.
2. On the Welcome page, click **Perform Application Maintenance**.
3. On the Application Maintenance page, do the following:
   - In the list of installed sites, click the application instance for which you want to modify the company options.
   - In the bottom area of the page, click **Company Maintenance**.
4. In the SQL Server Authentication, specify an authentication method used to connect to the database, and then click **OK**.
5. On the Company Setup page, specify the appropriate options to add companies for a multi-company application instance of Acumatica ERP. By default, Acumatica ERP Configuration Wizard creates a single company named **Company**. More companies can be added if necessary (for example, to serve multiple offices). For each newly created company, you can configure the following fields under the **Installed companies** label:
   1. **Login Company Name** - The name that will be assigned to the company on the login screen. (This is used only when there are multiple companies; otherwise, the login screen will not have an option to select a company at logon.)
      - **Insert Data** - Specify whether you want to fill the database with demo data or template data.
Visible - Select this check box to have the company displayed on the login screen.
Parent Company ID - Select a parent company ID. #:

The following view-only fields are also displayed for each company:

1. ID - The numerical identifier for the company.
   - New - A check box that, if selected, indicates the company is newly created.
   - Additional Info - The company name in the database.

6. Optional: On the Tables Configuration page, you can specify whether you want the database tables to be shared between different companies, and the click Next. This page is displayed only if you have selected the Advanced Settings check box on the previous page.

7. On the Confirm Configuration page, view the configuration settings you have specified, and then click Finish to deploy this application instance. To save the configuration settings in an .XML file on your computer, you can click the Save Configuration button.

Deleting an Application Instance

1. Run Acumatica ERP Configuration Wizard on the server where Acumatica ERP is installed.
2. On the Welcome page, click Perform Application Maintenance.
3. On the Application Maintenance page, do the following:
In the list of installed sites, click the application instance that you want to delete.

In the bottom area of the page, click **Delete**.

The instance files are deleted from the file system, its virtual directory is removed from IIS configuration, and its registry entries are cleaned as well. The instance database remains untouched when you delete the instance; if you want to delete the database, you must do it manually.

**Performing Database Maintenance**

You can perform database maintenance tasks by clicking Perform Database Management on the Welcome page of Acumatica ERP Configuration Wizard. You then follow the wizard steps to create a new database, upgrade an existing database with a current version of the database schema, specify the database server, configure the database, and set up companies.
Questions

1. Create new application instance and write down your experience.

2. When one will require performing Application maintenance and Database maintenance operations?

3. Discuss various maintenance tasks that can be performed using Acumatica ERP Configuration tool.

4. What is the purpose of Tables Configuration and various options available?

5. Discuss deleting Acumatica website and what does it mean for the SQL database?
Uninstalling Acumatica ERP

**Learning Objects:**
- Learn how to uninstall Acumatica ERP

To uninstall Acumatica ERP, use the standard Windows procedure:

1. Open Control Panel.
2. Open the Add or Remove Programs.
3. In the list of installed programs, select Acumatica ERP.
4. Click the Remove button.
5. Click Yes when prompted.

The above procedure does not affect the following entities:

- Databases created by the application
- Any applications under the default site in IIS
- Directories on the file system used by the application
- Some of the program group items

If you need to delete a database, do so manually using SQL Server tools.

To delete applications created under the default site in IIS when installing Acumatica ERP, follow the Deleting an Application Instance procedure outlined earlier prior to uninstalling Acumatica ERP by using the Add or Remove Programs tool. Once you perform this procedure, the configuration files of the Acumatica ERP instance are deleted from the file system, its virtual directory is removed from IIS configuration, and the relevant registry data are cleaned.

If need, you must manually delete the empty directories on the file system and the program group items

**Questions**

1. Discuss why uninstall process does not perform a “clean” uninstall.
2. What are the steps to perform a clean uninstall?
Deploying Acumatica ERP on Windows Azure

Learning Objects:
- Learn to deploy Acumatica ERP on Windows Azure

Acumatica ERP can be deployed on the Windows Azure platform, which is a cloud services platform hosted through Microsoft data centers. The platform includes the Windows Azure operating system and a rich set of developer services. The Windows Azure storage services provide persistent, durable storage in the cloud. To access the storage services, you must have a storage account, which is provided through the Windows Azure Platform Management Portal.

To deploy an Acumatica ERP Service on the Windows Azure platform, you perform these steps, each of which is described in a later section:

1. Prepare for deployment on Windows Azure.
2. Set up the database options and create an Acumatica ERP Service package configuration file on your local computer.
3. Deploy the Acumatica ERP Service package on Windows Azure.

Preparing for Deployment on Windows Azure

Before you deploy an Acumatica ERP instance on Windows Azure, you must purchase or create an SSL certificate, purchase services on Windows Azure, and perform the installation process described below.

To purchase Windows Azure, go to www.windowsazure.com and sing up for an account. You will need to purchase a “Cloud Service” on Windows Azure, a SQL database, and bandwidth to communicate with your service. With Acumatica, the size of the Web and Worker Role Instance that you select is contractually linked to the Acumatica edition that you choose. External storage is not required unless you want to store files outside the SQL database using the external file storage feature in Acumatica.

1. Create a new cloud service on Windows Azure.
   - In the Management Portal, click New, click Cloud Service, and then click Quick Create.
In URL, enter your company name to use in the public URL for accessing your cloud service in production deployments.

In the Region/Affinity Group, select the location nearest to where the majority of the site’s traffic will originate.

Click **Create Cloud Service**

2. **Add an SSL service certificate to the certificate store on Windows Azure.**

   Before you can use a Windows Azure service certificate, you must upload it to a cloud service. Export a new certificate into a .pfx file using either IIS Manager or OpenSSL command-line tools, and then upload this file to Windows Azure using the Windows Azure Management Portal or the Windows Azure Service Management API. The uploaded certificate can then be used by a service or simply stored in the hosted services certificate store.

   In the Management Portal, click Cloud Services. Then click the name of the cloud service you’ve created in step 1 to open the dashboard.

   - Open the Certificates page and click Add new certificate. Add a Certificate opens.
   - In Certificate file, use Browse to select the certificate (.pfx file) to use.
   - In Password, enter the private key for the certificate.
   - Click OK.
   - Copy and paste the thumbprint of the certificate into a file, you will need it at a later step when configuring database settings.
3. Configure remote access to role instance. (Optional for partners who want to make changes to web.config and modify other IIS settings directly through Windows Server)

   In the Management Portal, click Cloud Services. Then click the name of the cloud service you’ve created in step 1 to open the dashboard.

   - Open the Configure page for the cloud service, and click Remote.
   - In the Configure Remote Desktop Settings page, make the following changes:
     - Select the **Enable remote desktop** check box to enable Remote Desktop.
     - Create an account to use in Remote Desktop connections to the role instances.
     - In the **Certificates**, select the certificate you uploaded in the previous step. When you finish your configuration updates, click OK.
   - Connect to role instance
     - Click Instances to open the Instances page.
     - Click the role instance that has Remote Desktop configured to select the instance.
     - Click Connect, and follow the instructions to open the desktop of the virtual machine.


   - Click +NEW at the bottom of the page.
   - Click Data Services.
   - Click SQL Database.
   - Click Custom Create.
In Name, enter a database name.

Select WEB edition.

Select Subscription depending on your company contract.

In Server, select New SQL Database Server or select existing one from the dropdown.

Following steps are applicable only when you have selected New SQL Database Server

- Click the arrow to go on to the next page.
- In Server Settings, enter a SQL Server authentication login name and password.
- Check the box that says “Allow Windows Azure Services to access this Server” so your firewall will be properly configured to allow access.
- Click the checkmark at the bottom of the page when you are finished.
5. Configure remote access to the database server
   - In the Management Portal, click **SQL Databases**
   - Click the name of your server from the list to get to your **Server Dashboard**
   - Click **Configure** in the top menu
   - You will need to setup two rules to allow access to the database
Allow access from Windows Azure Services (this should already be set to Yes if you allowed it when you set the options to create the server).

Allows access from the IP address of your deployment machine. This machine will be writing data to the SQL database and will therefore need access to the server. By default Windows Azure provides access from the IP address from your computer, so you will not have to add an addition IP address if you are deploying from the same machine you used to create your Windows Azure services.

After completing these steps, you have created an empty database and captured the administrative login and password for accessing the server.

**Download Acumatica**

You can download the Acumatica application from the partner portal. Contact your Partner Account Manager if you need to gain access to the Partner Portal.

In addition to the Acumatica application, you should also download the Windows Azure package file. The package file should correspond to the version of Azure that you intend to purchase. The package files are about 150MB.

<table>
<thead>
<tr>
<th>Acumatica Edition</th>
<th>Azure Deployment</th>
<th>Acumatica Config Package</th>
</tr>
</thead>
<tbody>
<tr>
<td>Departmental</td>
<td>Small</td>
<td>SmallService.cspkg</td>
</tr>
<tr>
<td>Divisional</td>
<td>Medium</td>
<td>MediumService.cspkg</td>
</tr>
<tr>
<td>Enterprise</td>
<td>Large</td>
<td>LargeService.cspkg</td>
</tr>
<tr>
<td>Unlicensed</td>
<td>90 day free trial</td>
<td>ExtraSmallService.cspkg</td>
</tr>
</tbody>
</table>
Next, you will install the Acumatica application to create the database tables and deploy the Acumatica application to the cloud service.

**Setting Up Database Options and Creating Acumatica ERP Service Package**

You must install the Acumatica ERP Tools on the local computer and use the Acumatica ERP Configuration Wizard to set up database options and create an Acumatica ERP Service package. Unlike a local deployment, you do not need to install SQL Server or IIS on your deployment machine.


2. On the Database Server Connection page, enter the host name of the Microsoft Azure SQL server and the administrator account credentials from the earlier steps of *Create SQL database on Windows Azure*, and then click *Next.*
3. On the Database Configuration page, select **Create a new database or Connect to an existing database** and select one from the **Available databases on server** list, click **Next**. (Ensure you have **Setup database** option checked)
4. On the Company Setup page, you can setup companies for the Acumatica ERP instance. By default, the Acumatica ERP Configuration Wizard creates a single company named Company. If necessary, you can add more companies (for example, to serve multiple offices). Once done on this page, click Next.

5. On the Instance Configuration page, specify the following options and then click Next.
   - Instance Name: Enter a name for this application instance of Acumatica ERP.
   - Local Path to the Instance:
     - Enter a local path to the configuration files folder.
   - Select an account to access ASP.NET application:
     - Specify whether you want the Anonymous user account to be used to access ASP.NET application, or specify another user account.
   - SSL Certificate Thumbprint:
     - Enter the thumbprint of the SSL service certificate you have saved to a text file earlier in *Preparing for Deployment on Windows Azure* section
6. On the Confirm configuration page, verify the configuration settings, and then click Finish.

Once you begin the deployment, Acumatica updates the SQL database with the file structures needed for the application and generates the service configuration file (.cscfg) for the next step. You will also need the service package file (.cspkg) that you previously downloaded. Deploying the Packaged Acumatica ERP Service on Windows Azure

To deploy the Acumatica ERP Service on Windows Azure, upload the service package (.cspkg) file and the service configuration file (.cscfg) using the Windows Azure Management Portal.

1. In the Management Portal, click Cloud Services. Then click the name of the cloud service to open the dashboard.
2. Click Quick Start to open the Quick Start page.
3. Click either New Production Deployment or New Staging Deployment.
4. In the Upload a Package, make the following changes:
   o In Deployment name, enter a name for the new deployment.
   o In Package, use Browse to select the service package file (.cspkg) to use.
   o In Configuration, use Browse to select the service configure file (.cscfg) to use.
5. Click OK to begin the cloud service deployment.
Uploading the service package file and the service configuration file may take several minutes. You can track the upload progress on the Management Portal.

When you create an application in Windows Azure, Windows Azure provides a friendly subdomain on the cloudapp.net domain so your users can access your application on a URL like http://<myUrl>.cloudapp.net. However, you can also expose your application and data on your own domain name.

Questions

1. Compare and contrast deployment of Acumatica ERP on Windows Azure over local install.

2. How are web.config settings are accessed in Windows Azure?

3. Discuss optimal configuration for Acumatica ERP on Windows Azure.
4. Why would you deploy a customer on Azure using this process instead of purchasing the Acumatica SaaS solution?
Installing Acumatica ERP on Amazon Web Services

Learning Objects:
- Learn to deploy Acumatica ERP on Amazon Web Services

You can deploy Acumatica ERP on Amazon Web Services (AWS). In this case, you use the Amazon Elastic Compute Cloud (Amazon EC2) to host the web server and Amazon Relational Database Service (Amazon RDS) to host the databases. This section includes our recommendations for configuring the EC2 and RDS instances and the details about deploying Acumatica ERP on AWS.

Before you start deploying Acumatica ERP on Amazon Web Services, make sure you have completed the following tasks:

- Sign up for Amazon Web Services.
- Create a key pair.
- Create a security group that will specify your EC2 instance, which can access your RDS instance.

Steps required to deploy Acumatica ERP on AWS are:

1. Launch an Amazon EC2 instance.
2. Create a database instance by using Amazon RDS.
3. Install Acumatica ERP Tools and deploy a new application instance.

**Launching an Amazon EC2 Instance**

When you launch your Amazon EC2 instance, you secure it by specifying a key pair and security group. When you connect to your instance, you must specify the private key of the key pair that you specified when launching your instance.

Here are the steps to create Amazon EC2 instance:

1. Sign in to the AWS Management Console and open the Amazon EC2 console.
2. In the top right corner of the Amazon EC2 console, select the region for your EC2 instance.

You must select the same region for your EC2 and RDS instances and for the key pair you use to log in to your instances.
3. From the console dashboard, click **Launch Instance**.

4. On the Select an Amazon Machine Image (AMI) page, select the **Windows Server 2012 Base 64-bit AMI**.
5. On the Select an Instance Type page, select the \textit{m1.medium} hardware configuration for your instance.

6. On the Security Groups page, select the security group that you’ve prepared to launch Acumatica ERP.

7. On the Review Instance Launch page, review the settings for your instance, and then click \textit{Launch}. 

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8. In the **Select an existing key pair or create a new key pair** dialog box, select *Choose an existing key pair*, and then select the prepared key pair.

9. When you are ready, select the acknowledgment check box, and then click **Launch Instances**. A confirmation page lets you know that your instance is launching.

10. Click **View Instances** to close the confirmation page and return to the console.

11. On the Instances page, view the status of your instance. It takes a short time for an instance to launch. When you launch an instance, its initial state is *pending*. After the instance starts, its state changes to *running*, and it receives a public DNS name.

12. On the Instances screen, select the instance and click **Connect**.

13. In the **Connect to Your Instance** dialog box:

   1. Select the prepared key.
2. Download the Remote Desktop file.

14. Run the Remote Desktop file you’ve downloaded to access the web server you have launched.

15. For the operating system of the virtual machine, turn on the Microsoft Internet Information Services (IIS) and make sure the required IIS features are turned on, as described in System Requirements for Acumatica ERP 4.11.

**Creating a Database Instance on Amazon RDS**

After you set up the EC2 instance, you can create a database instance by using the RDS console.

Here are the steps to create Amazon database instance:

1. Sign in to the AWS Management Console and open the Amazon RDS console.

2. In the top right corner of the Amazon RDS console, select the region in which you want to create the database instance.

3. In the navigation pane, click **Instances**.

4. Click **Launch DB Instance** to start the Launch DB Instance wizard.

   The wizard opens on the Engine Selection page.

5. If you want to use MS SQL database, do the following:

   1. In the **Launch DB Instance Wizard** window, click the **Select** button for the **MS SQL Server Web Edition**.
2. On the DB Instance Details page, specify your database instance information, including the following settings:
   - **DB Instance Class**: `db.m1.medium`
   - **Allocated Storage**: `20 GB`
   - **DB Instance Identifier**
   - **Master User Name**
   - **Master Password**

6. Click **Next Step**.

7. On the Additional Configuration page, provide the additional information that RDS uses to launch the SQL Server database instance, including the following setting:
   - **DB Security Groups**: Select the prepared security group you used when launching the EC2 instance.

8. Click **Next Step**.


10. Click **Next Step**.

11. On the Review page, review the options for your database instance. When you’re certain of all the settings, click **Launch DB Instance**.

12. On the final page of the wizard, click **Close**.

13. On the RDS console, the new database instance appears in the list of instances. The database instance will have a status of `creating` until it is created and ready for use. When the state changes to `available`, you can connect to the database instance. Depending on the database instance class and store allocated, it could take several minutes for the new instance to be available.

14. On the RDS console, select the database and check the DNS name of the instance in the **Endpoint** box; you will need this name during Acumatica ERP installation.

---

**Deploying Acumatica ERP on Amazon EC2**

After you launch the Amazon EC2 and RDS instances, you can install Acumatica ERP Tools and deploy application instances.

Here are the steps to install Acumatica ERP on the Amazon EC2 instance:

1. Use the Remote Desktop Connection to connect to the web server running on your Amazon EC2 instance.

2. Copy the Acumatica ERP installation package to the web server and complete the installation as usual. This will install Acumatica ERP Configuration wizard.
3. Launch the Acumatica ERP Configuration wizard and on the Welcome page, click **Deploy New Application Instance**.

4. On the Database Server Connection page, specify the database server that will be used by the Acumatica ERP instance:
   1. In the **Server Name** box, enter the DNS name of the Amazon RDS database instance you’ve launched. Also, you can specify a custom port number after a colon.
   
   ![Tip icon] If you cannot connect to the server, check the security groups you’ve selected for the EC2 and RDS instances: You must select the same group for both services.
   
   ![Database Server Connection Wizard]
   
   2. Select the **SQL Server Authentication** method, and specify the login that you created while you set up the Amazon RDS database instance:
      - **Login**: Master User Name
      - **Password**: Master Password

5. Click **Next**.

6. On the Database Configuration page, connect to the database that you’ve launched on Amazon RDS. Do the following:
1. Click **Connect to an existing database**.
2. In the **Available databases on server** list, enter the database name.
3. Depending on the schema of the database you have selected, select the relevant check box to update, repair, or set up the database, if required.
4. If you want to shrink data after the database maintenance, select the **Shrink data** check box.

7. Click **Next**.

8. On the Company Setup page, do the following:
   1. Configure the new company, named **Company**, that the Acumatica ERP Configuration wizard created by default:
      - To rename the company, double-click the company name in the **Login Company Name** column, type a new company name, and press Enter.
      - If you want to fill the database with demo data or template data, select **Demo** or **Template** in the **Insert Data** column.
   2. Optional: Add more companies if you want to create a multi-company Acumatica ERP instance.
   3. Optional: For a multi-company Acumatica ERP instance, if you want users to select the company they will be working with after they log on to the Acumatica ERP instance, select the **Secure Company on Login Form** check box.
   4. Optional: For a multi-company Acumatica ERP instance, if you want to configure data sharing between companies, select the **Advanced Settings** check box.

9. Click **Next**.

10. Optional: On the Tables Configuration page (which is displayed only if you have selected the **Advanced Settings** check box on the Company Setup page), configure data sharing between companies, and then click **Next**.

   Table configuration is a dangerous operation that can result in database corruption. Any changes you make are at your own risk. If you configure tables, be sure to first back up the database.

11. On the Database Connection page, specify the authentication method that this instance of Acumatica ERP will use to connect to the database. Do the following:
   1. Select the **SQL Server Authentication** authentication method.
   2. Select **Use Existing Login** option and specify the login you created while you set up the Amazon RDS database instance:
      - **Login**: Master User Name
      - **Password**: Master Password
12. Click Next.

13. On the Instance Configuration page, specify the following options:
   - **Instance Name**: Type a name for this Acumatica ERP instance.
   - **Create Portal**: Leave the check box cleared.
   - **Local Path to the Instance**: Enter the path on the local computer to this application instance.
   - **Select an account to access ASP.NET application**: Specify whether you want the Anonymous user account to be used to access the ASP.NET application, or specify another user account.

14. Click Next.

15. On the Web Site Configuration page, do the following:
   0. In the **Web Site Settings** section, configure the list of websites and create a virtual directory. To use the URL of the Internet Information Services (IIS) default site (that is, http://www.domain.com), clear the **Create Virtual Directory** check box.
   1. In the **Application Pool Settings** section, specify the application pool. You may want to use a dedicated application pool to better isolate instances and fine-tune resources that are allocated for the instance by IIS. To specify the dedicated application pool, select one of the following options:
      - To create a new application pool, click **Create New Application Pool** and type the name in the **Application Pool Name** box.
      - To use an existing application pool, click **Use Existing Application Pool** and select the name of the application pool in the list of available application pools.

   Acumatica ERP employs the application pools that use .NET Framework 4.0.

16. Click Next.

17. On the Confirm Configuration page, do the following:
   0. Check the configuration settings you have specified.
   1. Optional: To make any changes, click Back to return to the required wizard page, and then make necessary changes.
   2. If you want to save the configuration settings in an XML file on your computer, click **Save Configuration**.
   3. Click **Finish** to deploy this Acumatica ERP instance.

---

**Questions**
1. Discuss AWS. Understand EC2 and RDS instances and how Acumatica ERP can be deployed in AWS.
Using the Command-Line Tool

Learning Objects:

- Learn to deploy and maintain Acumatica ERP using command-line tool

You can use the ac.exe command-line tool to deploy a new application instance of Acumatica ERP, as well as to perform database and application maintenance. By default, this program is located in the folder on the computer that has Acumatica ERP installed, which is C:\Program Files (x86)\Acumatica ERP\Data\.

Running the Command-Line Tool

When you run ac.exe, you supply a set of command-line parameters where each parameter must be presented in the following form:

- parameter: "parameter value"
The `ac.exe` utility uses the following syntax:

```
ac.exe [-f|--file:"path to configuration file"] [-cm|--configmode:"main scenario"] [-s|--dbsrvname:"server name"]
[-sw|--dbsrvwinauth:"True|False"] [-u|--dbsrvuser:"user name"] [-p|--dbsrvpass:"user password"]
[-d|--dbname:"database name"] [-n|--dbnew:"True|False"] [-b|--
dbupdate:"True|False"]
[-dm|--dbmode:"Regular|Template|Demo"] [-dz|--dbsize:"database size in GB"] [-ds|--dbskip:"skip database setup"]
[-dc|--dbshrink:"shrink database"] [-i|--iname:"instance name"] [-io|--
iodname:"old instance name"]
[-h|--ipath:"instance directory"] [-is|--
vmsize:"Small|Medium|Large|ExtraLarge"] [-it|--trumbprint:"X.509 thumbprint"]
[-ip|--project:"VS project name"] [-w|--swebsite:"Web site name"] [-v|--
svirtdir:"virtual directory"]
[-po|--spool:"application pool"] [-a|--sactions:"AnonymousUser|SelectedUser"]
[-k|--user:"user name"]
[-mi|--spass:"user password"] [-dw|--dbwinauth:"True or False"] [-dn|--
dbnewuser:"True|False"] [-du|--dbuser:"user name"]
[-dp|--dbpass:"user password"] [-wc|--wscompany:"company ID"] [-wu|--
wsuser:"user account"] [-wp|--wsvirt:|"virtual directory"]
[-cs|--securemode:"True|False"] [-sp|--split:[t|Table=table
name];[o|Option=Separate|Split|Shared]]; 
[-c|--company:"[ci|CompanyID=company ID];[cp|ParentID=parent company
ID];[cv|Visible=True];[ct|CompanyType=True];
[cn|LoginName:|user name];[cd|Delete:|True]"; [-vst|--vstemplates:"True|False"]
[-vsc|--vscontrols:"True|False"]
[-op|--output:"Normal|Quiet|Forced"]
```

All parameter values are case-sensitive and must be enclosed in quotation marks. Each parameter for
the command line also has a short form that you can use instead of the full parameter name. If you have
specified a parameter more than once in a command line, the last parameter value will be used.

You can run the `ac.exe` utility in one of three modes:

- **Command-line**: Parameters are passed to `ac.exe` from the command line.
- **Batch**: The path to the configuration file with parameters is passed to `ac.exe` from the
  command line.
- **Mixed**: Some of the parameters are passed to `ac.exe` via the configuration file and some
  parameters are passed from the command line. In this mode, command-line parameters have a
  priority over those specified in the configuration file.

### Possible Parameters and Values

The following table lists all available command-line parameters and their values, and briefly describes
each parameter.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Values</th>
<th>Description</th>
</tr>
</thead>
</table>

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<table>
<thead>
<tr>
<th><code>-file</code> or <code>-f</code></th>
<th><code>path to configuration file</code></th>
<th>Specifies the directory where the XML configuration file is stored. By default, the file is stored in <code>C:\Program Files (x86)\Acumatica ERP\Data\</code>. Example: <code>-file:&quot;C:\Program Files (x86)\Acumatica ERP\Data\&quot;</code></th>
</tr>
</thead>
<tbody>
<tr>
<td><code>-configmode</code> or <code>-cm</code></td>
<td>NewInstance</td>
<td>(Mandatory) Specifies the maintenance scenario for which you are using the command-line tool. The possible values and the applicable scenarios are listed below.</td>
</tr>
<tr>
<td></td>
<td>DBMaint</td>
<td>- <code>NewInstance</code>—Installs a new application instance. You can also use the following command-line parameters in this scenario:</td>
</tr>
<tr>
<td></td>
<td>DBConnection</td>
<td><code>-company</code></td>
</tr>
<tr>
<td></td>
<td>CompanyConfig</td>
<td><code>-dbname</code></td>
</tr>
<tr>
<td></td>
<td>ToolsInstall</td>
<td><code>-dbnew</code></td>
</tr>
<tr>
<td></td>
<td>NewCompanyPortal</td>
<td><code>-dbnameuser</code></td>
</tr>
<tr>
<td></td>
<td>DeleteSite</td>
<td><code>-dbpass</code></td>
</tr>
<tr>
<td></td>
<td>RenameSite</td>
<td><code>-dbsrvname</code></td>
</tr>
<tr>
<td></td>
<td>UpgradeSite</td>
<td><code>-dbsrvpass</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>-dbsrvuser</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>-dbsrvwinauth</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>-dbupdate</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>-dbuser</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>-dbwinauth</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>-iname</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>-ipath</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>-sactions</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>-spass</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>-split</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>-spool</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>-suser</code></td>
</tr>
</tbody>
</table>
-svirtdir
-swebsite

- **DBMaint**—Creates a new database or updates an existing database with a current version of the database schema. You can also use the following command-line parameters in this scenario:

- -company
- -dbname
- -dbnew
- -dbsrvname
- -dbsrvpass
- -dbsrvuser
- -dbsrvwinauth
- -dbupdate
- -split

- **DBConection**—Modifies database connection settings. You can also use the following command-line parameters in this scenario:

- -company
- -dbname
- -dbnew
- -dbnewuser
- -dbpass
- -dbsrvname
- -dbsrvpass
- -dbsrvuser
- -dbsrvwinauth
- -dbupdate
-dbuser
-dbwinauth
-split

- CompanyConfig—Adds new companies or deletes existing ones. You can also use the following command-line parameters in this scenario:

- company
- dbname
- dbnew
- dbsrvname
- dbsrvpass
- dbsrvuser
- dbsrvwinauth
- dbupdate
- split

- ToolsInstall—Installs Acumatica ERP controls and templates for Microsoft Visual Studio. This option is available in Acumatica ERP Configuration Wizard. You can also use the following command-line parameters in this scenario:

- vscontrols
- vstemplates

- NewCompanyPortal—Installs a new Acumatica company portal. This option is available in Acumatica ERP Configuration Wizard. You can also use the following command-line parameters in this scenario:

- dbname
- dbnew
-dbnewuser
-dbpass
-dbsrvname
-dbsrvpass
-dbsrvuser
-dbsrvwinauth
-dbupdate
-dbuser
-dbwinauth
-iname
-ipath
-sactions
-spass
-spool
-suser
-svirdir
-swebsite
-wscompany
-wsuser
-wswiki

- **DeleteSite**—Deletes an existing Acumatica ERP instance. You can also use the -iname parameter in this scenario.

- **RenameSite**—Renames an existing Acumatica ERP instance. You can also use the following command-line parameters in this scenario:

  -iname
  -ioldname
- **UpgradeSite**—Upgrades the files of an existing Acumatica ERP instance. You can also use the -iname command-line parameter in this scenario.

Example:
```
-configmode:"NewInstance"
```

- **-dbsrvname** or **-s**

  server name

  Specifies the name of the SQL server that will be accessed by this application instance of Acumatica ERP. The default setting is *(local)*. Example:

  ```
  -dbsrvname:"(local)"
  ```

- **-dbsrvwinauth** or **-sw**

  True
  False

  Specifies whether Windows or SQL Server authentication will be used by the configuration tools to access SQL Server. You can select one of the following possible values:

  - **True**—Uses Windows authentication. This is the default value.
  - **False**—Uses SQL Server authentication.

Example:
```
-dbsrvwinauth:"True"
```

- **-dbsrvuser** or **-u**

  user name

  Specifies the user name of the account used to access SQL Server. You must add this parameter if the SQL Server authentication method is used (and the `dbsrvwinauth` parameter value is set to *False*). Example:

  ```
  -dbsrvuser:"SQLAdmin"
  ```

- **-dbsrvpass** or **-p**

  user password

  Specifies the user password for the account used to access SQL Server. You must specify this parameter if the SQL Server authentication method is used (and the `dbsrvwinauth` parameter value is set to *False*). Example:

  ```
  -dbsrvpass:"<user_password>"
  ```

- **-dbname** or **-d**

  database name

  (Mandatory) Specifies the name of the database maintained by this application instance of Acumatica ERP. Example:

  ```
  -dbname:"HSBC_DB"
  ```

- **-dbnew** or **-n**

  True
  False

  Specifies whether you want to create a new database in SQL Server. The default setting is *True*. Example:

  ```
  -dbnew:"False"
  ```

- **-dbupdate**

  True
  False

  Specifies whether you want to update an earlier version of the database with a newer one. You can also use this parameter to repair an existing database of the current version. The default setting is *True*. Example:

  ```
  -dbupdate:"False"
  ```
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>-dbmode or -dm</td>
<td>Specifies the database creation mode. This parameter is valid for Acumatica Studio only. Choose one of the following possible values:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Regular</strong>—Creates a regular Acumatica Studio application.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Template</strong>— Creates a template for an Acumatica Studio training application.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Demo</strong>— Creates an Acumatica Studio training application.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Example:-dbmode:&quot;Demo&quot;</td>
<td></td>
</tr>
<tr>
<td>-dbsize or -dz</td>
<td>Specifies the maximum size of the database on Azure SQL and therefore is used only for Acumatica ERP deployed on Windows Azure. The available values correspond to the standard database size values in GB. The default setting is 1.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Example:-dsize:&quot;50&quot;</td>
<td></td>
</tr>
<tr>
<td>-dbskip or -ds</td>
<td>Specifies whether the database setup steps are skipped. If they are, the database will be set up by the Acumatica ERP instance in runtime. The default setting is <em>False</em>.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Example:-dbskip:&quot;False&quot;</td>
<td></td>
</tr>
<tr>
<td>-dbshrink or -dc</td>
<td>Specifies whether you want the utility to shrink the database once it has been configured. This parameter is used only for Acumatica ERP deployed on Windows Azure. The default setting is <em>False</em>.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Example:-dbshrink:&quot;True&quot;</td>
<td></td>
</tr>
<tr>
<td>-iname or -i</td>
<td>(Mandatory) Specifies the name of the Acumatica ERP instance.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Example:-iname:&quot;HSBC Main ERP&quot;</td>
<td></td>
</tr>
<tr>
<td>-ioldname Or -io</td>
<td>Specifies the current name of an Acumatica ERP instance when you rename this instance.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Example:-ioldname:&quot;HSBC_HQ&quot;</td>
<td></td>
</tr>
<tr>
<td>-ipath or -h</td>
<td>(Mandatory) Specifies the directory where the application instance files will be stored. The default setting is C:\Program Files\Acumatica ERP.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Example:-ipath:&quot;C:\Acumatica&quot;</td>
<td></td>
</tr>
<tr>
<td>Parameter</td>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>------------</td>
<td>--------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>-vmsize or -is</td>
<td>Small</td>
<td>Specifies the relative size of the Windows Azure Virtual Machine. This parameter is used only for Acumatica ERP deployed on Windows Azure. The default setting is Small. Example: <code>-vmsize: &quot;ExtraLarge&quot;</code></td>
</tr>
<tr>
<td></td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Large</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ExtraLarge</td>
<td></td>
</tr>
<tr>
<td>-trumbprint or -it</td>
<td>X.509 thumbprint</td>
<td>Specifies the thumbprint of the maintenance certificate uploaded to the hosted service on Windows Azure. For more information on finding the thumbprint, see Deploying Acumatica ERP on Windows Azure.</td>
</tr>
<tr>
<td>-project or -ip</td>
<td>Visual Studio project name</td>
<td>Specifies the name of the Visual Studio project. This parameter is used in Acumatica Studio only. Example: <code>-project: &quot;&lt;project_name&gt;&quot;</code></td>
</tr>
<tr>
<td>-swebsite or -w</td>
<td>website name</td>
<td>Specifies the name of the existing IIS website on the local computer.</td>
</tr>
<tr>
<td>-svirtdir or -v</td>
<td>virtual directory</td>
<td>Specifies the name of the IIS virtual directory. If there is no such virtual directory in IIS, this directory will be created on the local IIS. Example: <code>-svirtdir: &quot;&lt;virtual_directory_name&gt;&quot;</code></td>
</tr>
<tr>
<td>-spool or -po</td>
<td>applicaton pool</td>
<td>Specifies the name of the IIS application pool. If there is no such application pool in IIS, this pool will be created on the local IIS. Example: <code>-spool: &quot;&lt;application_pool_name&gt;&quot;</code></td>
</tr>
<tr>
<td>-sactions or -a</td>
<td>Anonymo usUser</td>
<td>Specifies the user account used to run the ASP.NET application. The possible values are the following:</td>
</tr>
<tr>
<td></td>
<td>Selected User</td>
<td>• AnonymousUser: Use the default IIS account to run the ASP.NET application pool.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• SelectedUser: Use a specific Windows user account with sufficient access rights to run the ASP.NET application. In this case, you must also specify the <code>-suser</code> and <code>-spass</code> parameters.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Example: <code>-sactions: &quot;SelectedUser&quot;</code></td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Example</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td><code>-suser</code> or <code>-k</code></td>
<td>Specifies the user name of the account used to access an ASP.NET application. This parameter must be added if you have specified the <code>SelectedUser</code> value for the <code>-sactions</code> parameter. Example: <code>-suser: &lt;user_name&gt;</code></td>
<td></td>
</tr>
<tr>
<td><code>-spass</code> or <code>-m</code></td>
<td>Specifies the user password of the account used to access an ASP.NET application. This parameter must be added if you have specified the <code>SelectedUser</code> value for the <code>-sactions</code> parameter. Example: <code>-spass: &lt;user_password&gt;</code></td>
<td></td>
</tr>
</tbody>
</table>
| `-dbwinauth` or `-dw` | Specifies whether Windows or SQL Server authentication will be used by this Acumatica ERP instance to access SQL Server. These are the possible values:  
  - `True`—Use Windows authentication. (This is the default value.)  
  - `False`—Use SQL Server authentication.  
  Example: `-dbwinauth: True` |
<p>| <code>-dbnewuser</code> or <code>-dn</code> | Specifies whether a new SQL Server account must be created. The default setting is <code>True</code>. Example: <code>-dbnewuser: True</code> |
| <code>-dbuser</code> or <code>-du</code> | Specifies the name of the user account used by this Acumatica ERP instance to access SQL Server. You must add this parameter if the SQL Server authentication method is used (and the <code>dbwinauth</code> parameter value is set to <code>False</code>). Example: <code>-dbuser: SQLAdmin</code> |
| <code>-dbpass</code> or <code>-dp</code> | Specifies the password of the user account used by this Acumatica ERP instance to access SQL Server. You must add this parameter if the SQL Server authentication method is used (and the <code>dbwinauth</code> parameter value is set to <code>False</code>). Example: <code>-dbpass: SQLAdmin</code> |
| <code>-wscompany</code> or <code>-wc</code> | Specifies the ID of the company that will be used for the company portal. This parameter is used only in the Company Portal configuration mode. Example: <code>-wscompany: &lt;company_ID&gt;</code> |
| <code>-wsuser</code> or <code>-wu</code> | Specifies the user account that will be used for the company portal. This parameter is used only in the Company Portal configuration mode. Example: <code>-wsuser: &lt;company_ID&gt;</code> |
| <code>-wswiki</code> or <code>-ww</code> | Specifies the Wiki article that will be used for the company portal. This parameter is used only in the Company Portal configuration mode. Example: <code>-wswiki: &lt;company_ID&gt;</code> |</p>
<table>
<thead>
<tr>
<th>Command</th>
<th>Subparameter</th>
<th>Description</th>
</tr>
</thead>
</table>
| `-securemode` or `-cs` | `True` | Specifies whether the company ID is displayed on the login screen. The default setting is `False`. Select one of these possible values:  
- `True`—Hides the company ID.  
- `False`—Displays the company ID.  
Example: `-securemode:"False"` |
| `-split` or `-sp` | `table split options` | Specifies split options for a table stored in an existing database. If you want to configure more than one table, you need to specify this parameter for each of the tables. This parameter contains two subparameters: Table (short form: t) and Option (short form: o). For the Table subparameter, you specify the name of the database table.  
For the Option subparameter, you specify one of the three values that indicate the available split modes:  
- `Separate`—all rows are separate for each company  
- `Split`—all rows are same to begin with but gets separated when a change is made in the given company  
- `Shared`—all rows are same for all the companies  
Example: `-Split:"Table=AccountClass;Option=Shared;" -Split:"Table=AccessInfo; Option=Split;" -Split:"Table=APContact;Option=Separate;"` |
| `-company` or `-c` | `company options` | Specifies company options. If you want to configure options for more than one company, you need to specify this parameter for each of the companies. This parameter contains the following subparameters:  
- `CompanyID`—Specifies the company's ID value. To modify the settings of an existing company, specify its ID here.  
- `ParentID`—Specifies the ID value of the company's parent company.  
- `Visible`—Allows users to log in to the company if you specify the `True` value.  
- `CompanyType`—Inserts demo data to the company's database if you specify the `True` value.  
- `LoginName`—Displays the company name on the Acumatica ERP login screen.  
- `Delete`—Deletes the company if you specify the `True` value.  
Example: `company:"CompanyID=KFC;ParentID=1;Visible=True;CompanyType=True; LoginName=Company;Delete=True"` |
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-vstemplates or -vst</td>
<td>True</td>
<td>Specifies whether Acumatica Studio Templates for Microsoft Visual Studio must be installed. This parameter is used with Acumatica Studio only. To install the templates, add this parameter and specify the True value. Example: <code>-vstemplates:&quot;True&quot;</code></td>
</tr>
<tr>
<td>-vstemplates or -vst</td>
<td>False</td>
<td></td>
</tr>
<tr>
<td>-vscontrols or -vsc</td>
<td>True</td>
<td>Specifies whether Acumatica Studio Controls for Microsoft Visual Studio must be installed. This parameter is used with Acumatica Studio only. To install the controls, add this parameter and specify the True value. Example: <code>-vscontrols:&quot;True&quot;</code></td>
</tr>
<tr>
<td>-vscontrols or -vsc</td>
<td>False</td>
<td></td>
</tr>
<tr>
<td>-output or -op</td>
<td>Normal</td>
<td>Specifies the command-line execution mode. Select one of the following possible values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Normal — The command line acts as a dialog. When you run the <code>ac.exe</code> utility, you will answer questions related to the parameters.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Quiet — All warnings are ignored. Any error forces the <code>ac.exe</code> utility to stop and exit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Forced — All warnings are ignored. If you do not specify any mandatory parameters, they are automatically configured with default values. Minor errors are ignored while critical errors force the <code>ac.exe</code> utility to stop and exit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Example: <code>-output:&quot;Forced&quot;</code></td>
</tr>
<tr>
<td></td>
<td>Quiet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Forced</td>
<td></td>
</tr>
</tbody>
</table>

For all command-line parameters that have the False and True values, you can also use No for False, and Yes for True.

**Creating a Configuration File**

Using the command-line syntax, you can create a configuration file for unattended deployment and maintenance of application instances. You can create a configuration file manually or automatically, by running Acumatica ERP Configuration Wizard. To create the configuration file by using Acumatica ERP Configuration Wizard, do the following:

1. Run Acumatica ERP Configuration Wizard from the Windows Start menu.
2. Use the wizard to specify all the options that you want.
3. On the final page of the wizard, click **Save Configuration** to save the configuration file.
The configuration data is saved in this file as XML code and as a command-line command using both the short and full forms of the parameters.

Examples

The following command-line command creates an application instance.

```
ac.exe -configmode:"NewInstance" -dbsrvname:"GP" -dbname:"JPMorgan" -company:"CompanyID=1;CompanyType=;LoginName=;" -company:"CompanyID=2;CompanyType=;ParentID=1;Visible=Yes;LoginName=JPMorgan" -iname:"JP Morgan" -ipath:"C:\Program Files\Acumatica ERP\JP Morgan\" -swebsite:"Default Web Site" -svirtdir:"JPMorgan" -spool:"JPMorgan" -sactions:"SelectedUser" -suser:"GP\Administrator"
```

The following command also creates an application instance. The short forms of the command-line parameters are used.

```
ac.exe -cm:"NewInstance" -s:"SM" -d:"AcumaticaDB" -c:"ci=1;" -c:"ci=2;cp=1;ct=Demo;cv=True;cn=Company;" -i:"AcumaticaERP" -h:"C:\Program Files (x86)\Acumatica ERP\AcumaticaERP" -w:"Default Web Site" -v:"AcumaticaERP" -po:"Classic .NET AppPool" -a:"AnonymousUser"
```

The following command-line command updates an existing database.

```
ac.exe -configmode:"DBMaint" -dbsrvname:"SM" -dbnew:"False" -dbname:"DotNet4" -dbupdate:"True"
```

The following command updates an existing application instance.
Questions

2. Discuss usefulness of command line tool.

3. Create new application instance.

4. Delete existing application instance.