ALTAIR

Altair® Monarch® License Server v15.1.1

USER GUIDE

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INTRODUCTION TO ALTAIR MONARCH LICENSE SERVER

Altair Monarch License Server v15.1.1 is a licensing management application for Monarch.

Licenses for users are managed through instances. An instance defines the product and the license to which a user is entitled access. When a user attempts to log into Monarch, the application calls Monarch License Server by instance name and checks whether or not this user exists within this instance. If the user does exist, he or she is authorized to log in and the license that this user is entitled to is automatically applied.

The Monarch License Server v15.1.1 application consists of two components:

❑ **License Service** – The service that handles all interactions between Monarch and the application database that stores data about the instances, licenses, and users.

❑ **Configuration Utility** – The desktop application that allows managing instances, licenses, and users.

The following topics describe how to start Monarch License Server and how to use Server Explorer. This guide also provides information about Monarch License Server settings and troubleshooting.

Monarch License Server is a distributable application, which means that you can install both components onto one machine or you can install them separately onto different machines within a network. For information about installation of the application, refer to Monarch License Server v15.1.1 Installation Guide.

Note that this version of License Server supports Monarch versions 14.1 and later, including Monarch versions 15+.

NEW FEATURES IN THIS VERSION
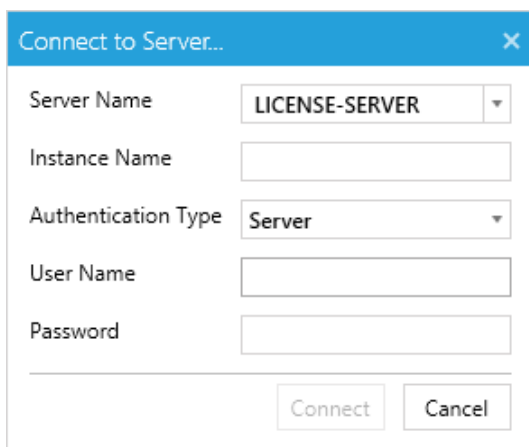
❑ Implementation of Administrative Policy Settings

❑ Cross-instance administration (for user management and reporting)

❑ Automatic license check-out

❑ Generation of checked-out users reports

❑ "Pure" instance administrators no longer consume a license

❑ Implementation of a "Require AD Authentication" option

❑ Wildcard support for ConfigMachineNames in the license file

❑ Check Machine Name functionality for license creation

STARTING AND CONNECTING TO MONARCH LICENSE SERVER

To begin working with Monarch License Server, you first launch the Monarch License Server Configuration Utility and then connect it to a license server, i.e., a computer with the License Service component installed in it. The license server may be either the local machine or a machine in your network.

Steps:

1. From the **Windows Start** menu, run **License Server Configuration Utility**. The *Connect to Server* dialog box appears.

2. In the *Server Name* drop-down list, select **Browse for all** to find the name of the server on which the Monarch License Server component had been installed that you want to connect to.

3. Select the required server name from the window that appears and click **OK**.

4. In the *Instance Name* field, do either of the following:

   - If you are connecting as the system admin user, leave the field empty. The system admin user account is not attached to any instance.

   - If you are connecting as a license instance administrator user, enter the name of the required instance.

5. In the *Authentication Type* field, select either of the following:

- **Server** – Select to specify the user credentials that will be stored in the License Server database.

- **Active Directory** – Select to specify the user credentials from Windows Active Directory.

NOTE	If you are the system administrator user, you can only connect with the **Server** authentication type.

6. In the *User Name* field, enter your user name or leave the domain user name auto-populated from Active Directory.

7. In the *Password* field, enter your password.

   If you are connecting to a license server as the system admin user for the first time, you must use the default user name "**admin**" and password "**password**," which were created during installation of the application. For details about default system admin credentials, refer to Monarch License Server v15.1.1 Installation Guide. You can change credentials for the system administrator after you have connected to the license server.

NOTE	If the system administrator username or password are changed, please make sure that you record the details securely, as they cannot be recovered if they are forgotten.
	For gMSA accounts, the username should be formatted as **domain\username$**. The dollar sign must be included in the string.

8. If you are using the **Active Directory** authentication type, enter your domain name.

9. Click **Connect**.

   When the connection has been successfully established, the server information will be displayed in Server Explorer.

To disconnect from the Monarch License Server, simply launch the Monarch License Server Configuration Utility and then click **File** > **Disconnect**.

After you disconnect from the license server, you can connect back at any time by selecting **File** > **Connect to server**. If you are currently connected to any license server, you can initiate a connection by clicking **Connect to server** in Server Explorer.

ABOUT ALTAIR MONARCH LICENSES

The license specifies information that Monarch uses for granting access and features to users.

There are two types of licenses used in Monarch License Server:

❑ **Global license** – The Monarch global license used with the Monarch License Server installation. This license is used as the default license for servers and instances until you load a custom license for them.

❑ **Custom license** – A different license that you load for specific servers or instances. If you load a custom license to a license server, this license is used as the global license for each new instance created on this server.

Let's assume that you have been provided a global license that allows 3 instances and Monarch Classic. When a new instance is added, the application will automatically configure the instance to be licensed for Monarch Classic with all other attributes of that global license. If new users who use Monarch Complete need to be added, then an additional (custom) license file must be provided, and this license can be used to create a new instance, separate from the other instances.

License information is displayed in the content pane when you select a server or an instance in Server Explorer. All license fields are based on the specific Monarch product for which the license is intended.

To help ensure that licenses do not expire inadvertently, a warning level color indicator and tooltip is configured for each instance to show the number of days remaining until a license expires. If you disable the license expiry messages for clients, ensure you log in to License Server regularly to see these indicators.
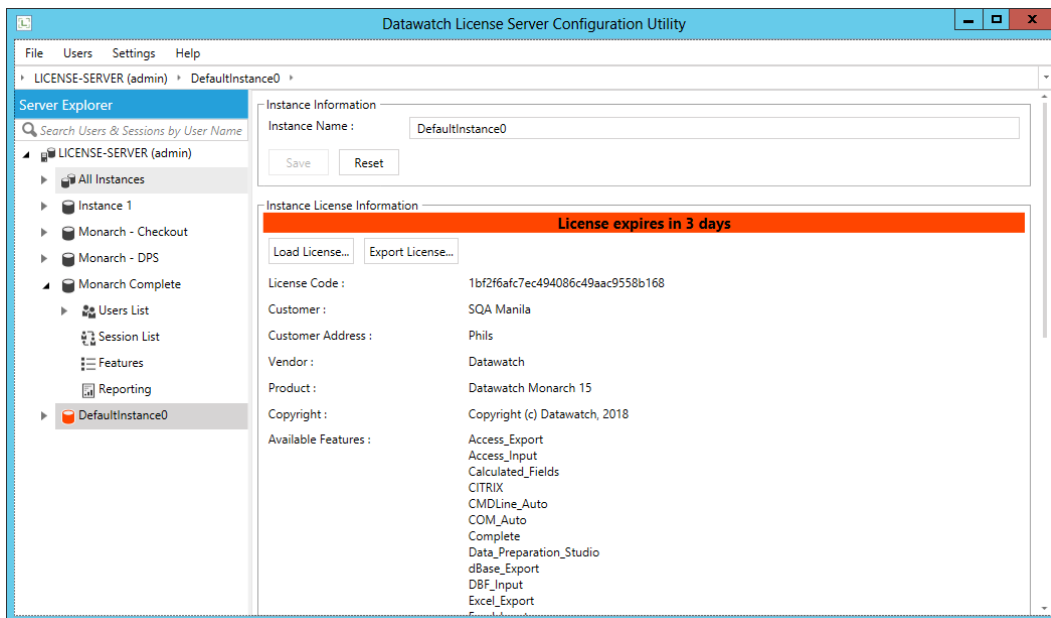
Whereas previous versions of the application required fully defined ConfigNames and MachineNames, License Server v15.1.1 now accepts licenses with wildcards in these license options.

Supported wildcards:

❑ **Asterisk (*)**

The asterisk in a wildcard matches any character zero or more times. For example, "comp*" matches anything beginning with "comp" which means "comp," "complete," and "computer" are all matched.

❑ **Question mark (?)**

A question mark matches a single character once. For example, "c?mp" matches "camp" and "comp." The question mark can also be used more than once. For example, "c??p" would match both of the above examples, as well as "coop."

Common cases for wildcards for 'MachineNames' license options:

❑ ***.domain.com** - License could be used on any machine that belongs to 'domain.com';

❑ **machineName??.domain.com** - License could be used on machines that belong to 'domain.com' with names starting with "machineName" + any 2 symbols.
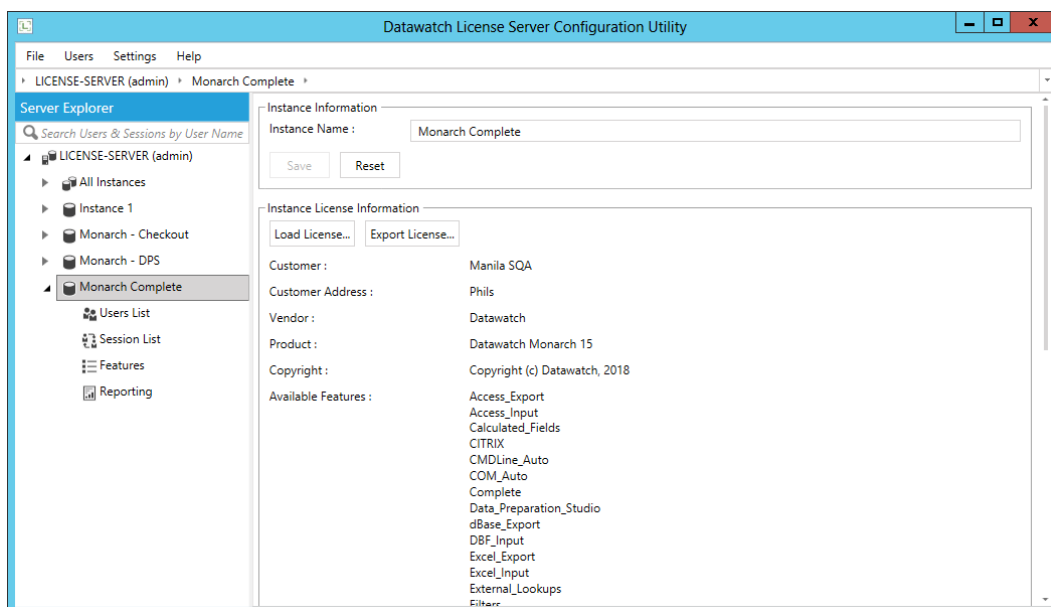
USING SERVER EXPLORER

When you are connected to License Server, the Server Explorer pane on the left displays the following information as shown in the figure below:

❑ Server name

❑ Instance name – For a licensed-instance administrator user
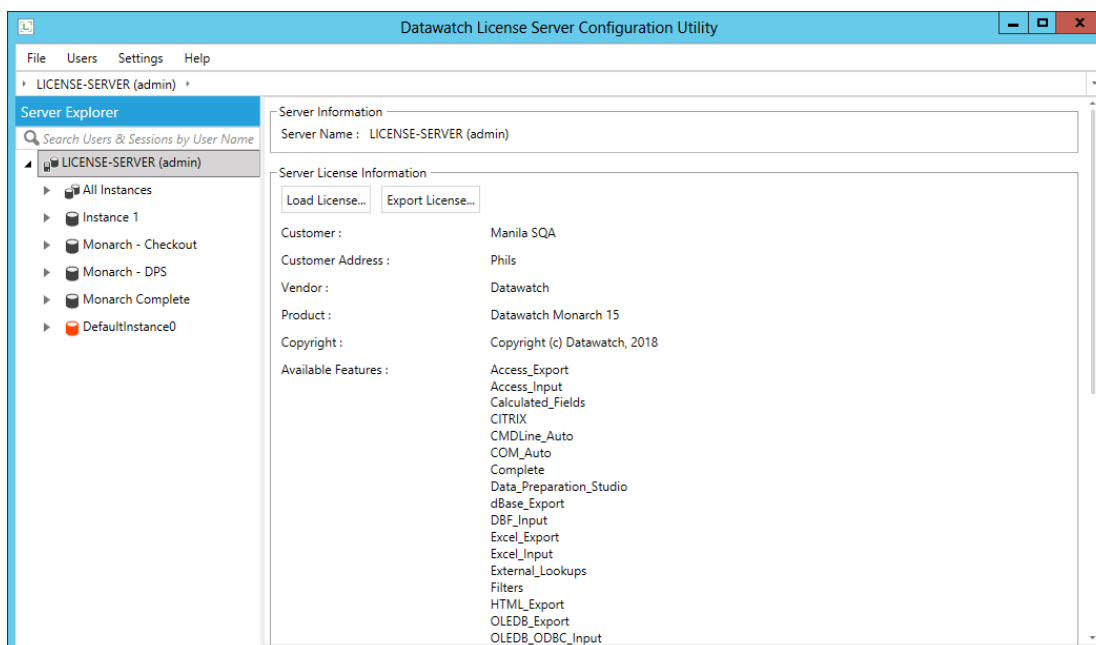
To expand an item in Server Explorer, click the arrow icon next to the item.

In the *Search* field located at the top of the left-hand pane of the Server Explorer, you can search for the following items on currently connected license servers:

❑ **Users** – You can run a search for existing users by user name

❑ **Sessions** – You can run a search for active sessions by user name

❑ **Features** – You can run a search for existing features by feature name

The content pane on the right-hand side of the Explorer displays the contents of the item selected in the left-hand side. If it displays a table, for example, a user table, you can sort the table content by clicking the column names. If your table has several pages, you can use the page navigation options found below the table.


CROSS-INSTANCE ADMINISTRATION

License Server v15.1.1 provides an "all instances" view of the application. This view provides administrators with the ability to manage users and sessions on a global scale, as well as generate reports for a single or all server instances. This view is accessed by clicking **All Instances** on the left-hand pane of the explorer.

Server information, including whether the server is running, the number of valid and invalid instances, total number of enabled users, total number of instance administrators, and the like, is displayed in the right-hand pane of the explorer.
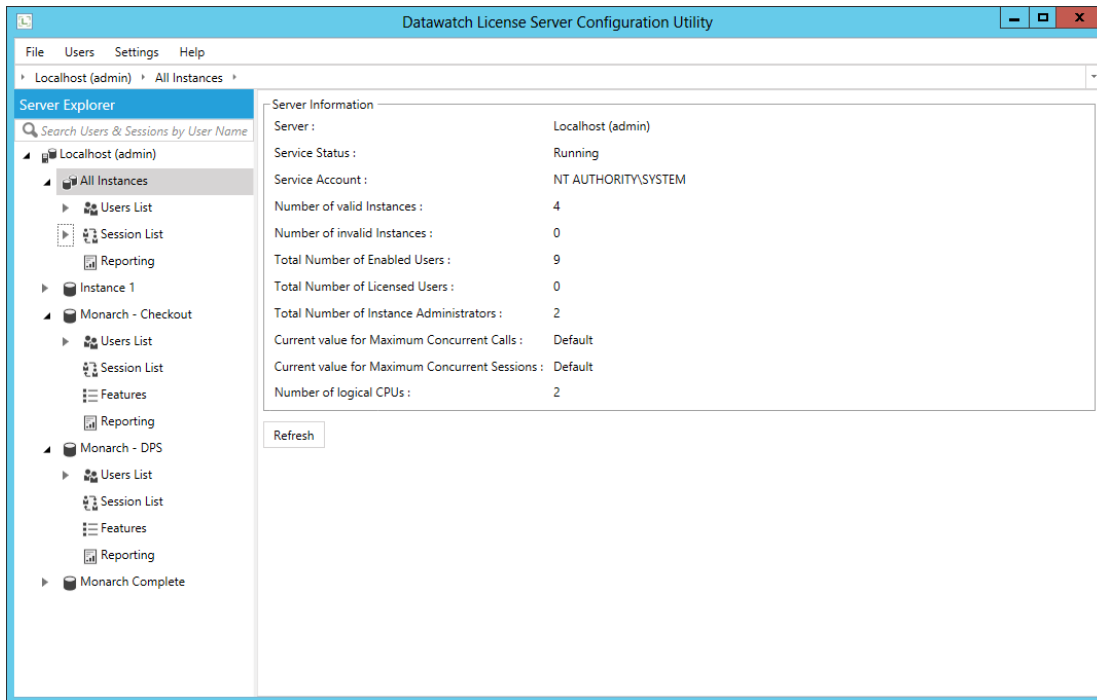

Clicking on the **Users List** link under **All Instances** displays all active users in all server instances.
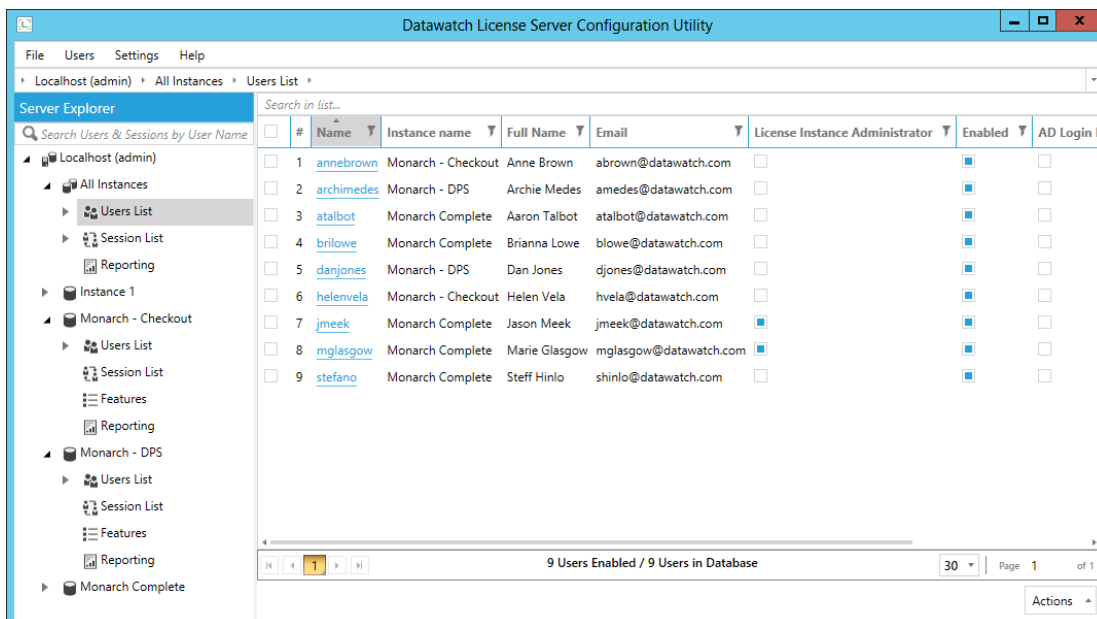
Likewise, clicking on the **Session List** link under **All Instances** displays all active sessions in all server instances.
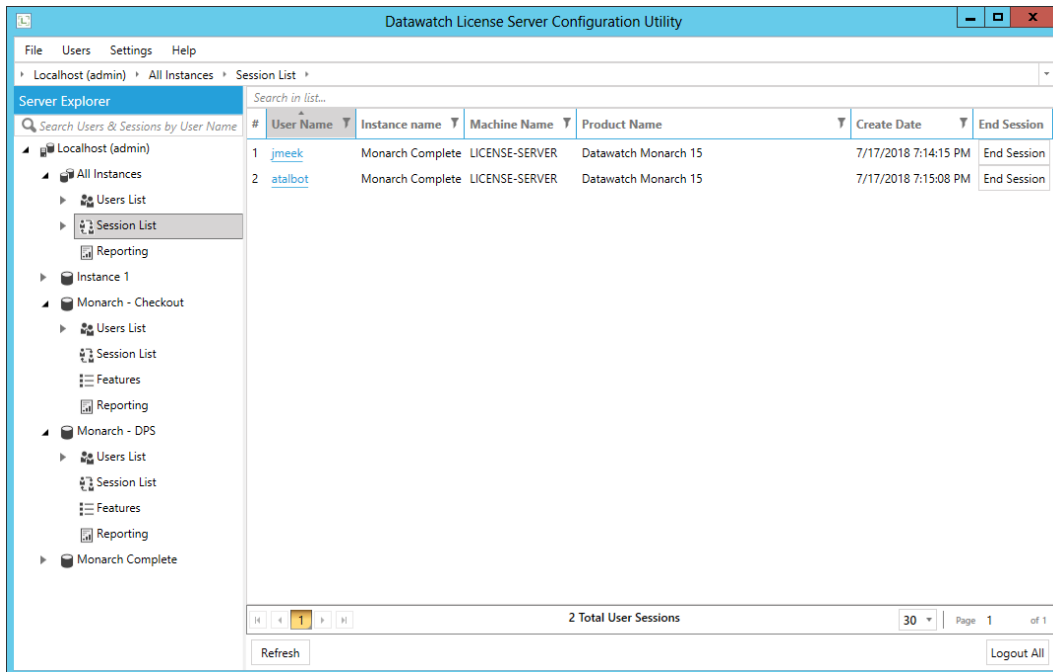
In the **All Instances** view, administrators may generate reports for a single or *n* number of server instances. This selection is made by clicking the **Instance** selector drop-down, as shown in the figure below, and then ticking the boxes of instances from which you wish to generate a report. The selector below the instance selector allows you to choose what type of report to generate.
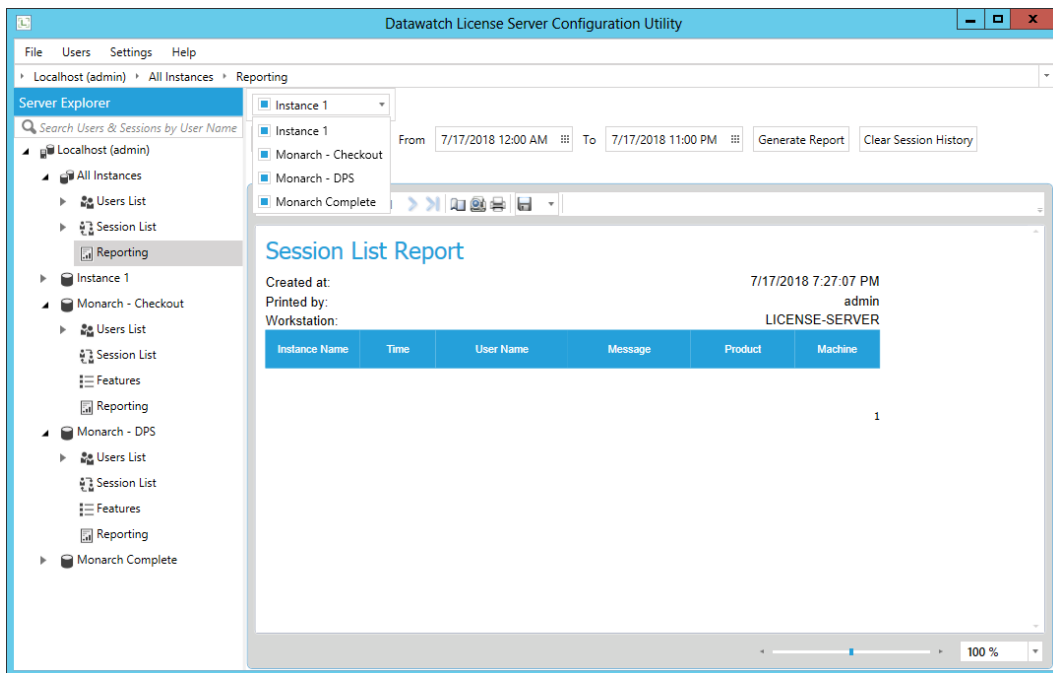
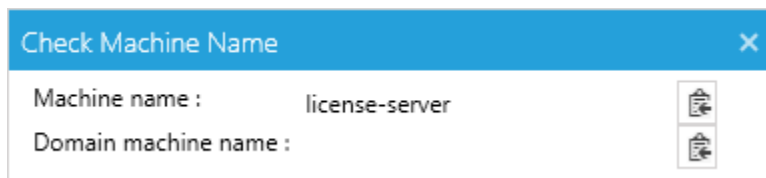The example below shows a session list report for all server instances available.
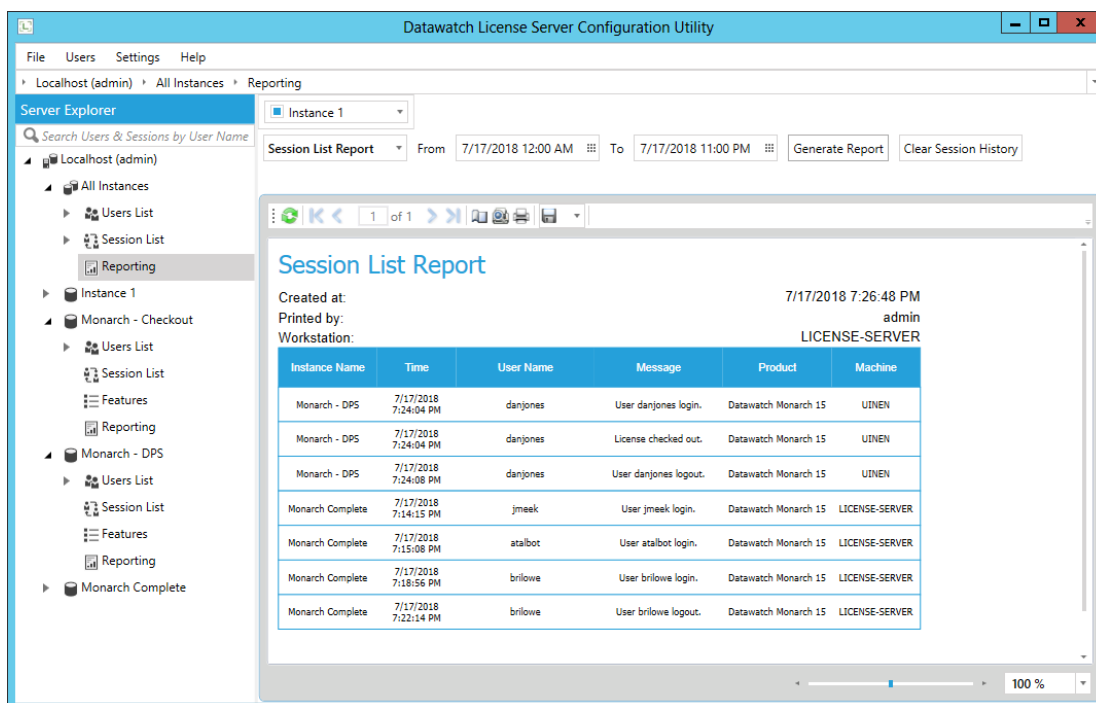
System administrators may also easily check the name of a server for license creation. To do so, right-click on the server name and, from the options that display, select **Check Machine Name**.

The machine and/or domain machine names display in a dialog. Clicking on the **Copy to Clipboard** icon located to the right of the **Machine name** or **Domain machine name** fields copies the name to the clipboard for easy pasting during license generation.

MANAGING INSTANCES

An instance determines which users can use Monarch. Each instance contains a license specifying product features that are granted to users upon log in to the application.
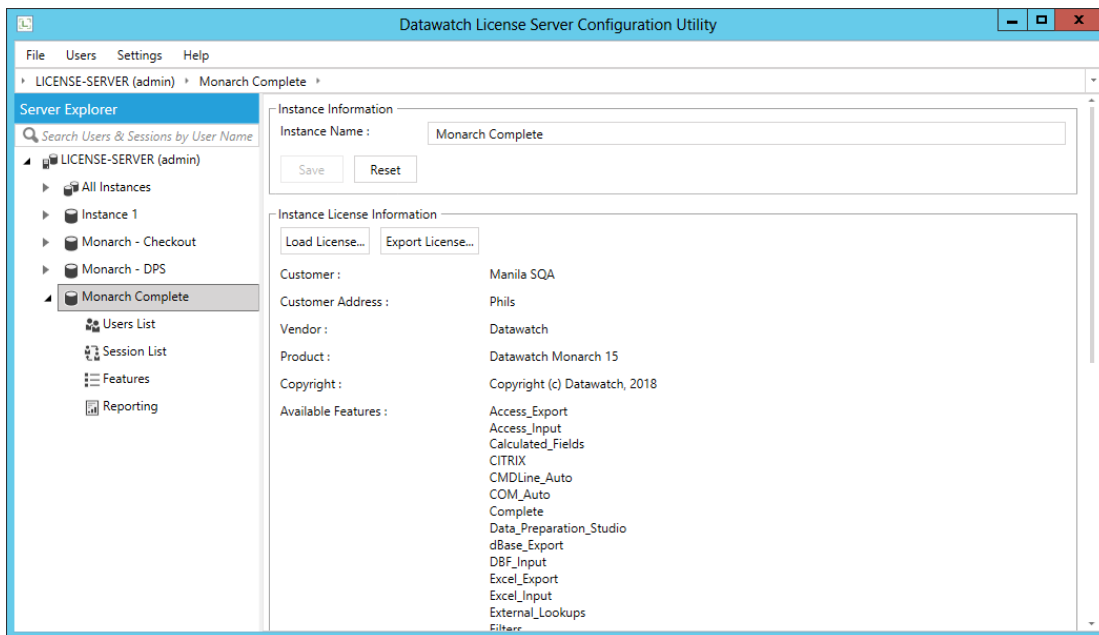
In Server Explorer, the following elements may be viewed for each instance:

❑ Users List

❑ Session List

❑ Features

❑ Reporting

You can add new instances, as well as edit and delete existing ones. What you can do with instances also depends on your user type.

| NOTE	Monarch License Server supports simultaneous work of users in an instance. To update the status of instance elements, right-click the required instance element or the instance item itself in Server Explorer and then click **Refresh**.

ADDING AN INSTANCE

When you add an instance, it is created with a default name on the currently selected license server. The new instances are numbered incrementally as you add them, for example, DefaultInstance0, DefaultInstance1, and so on. You can rename the created instance later.

The default Monarch global license that you used with the Monarch License Server installation is automatically applied to each newly created instance. You can load a new license for a specific instance. This license will be applied to this instance only. You can also export the license from an instance to your computer.

Steps:

1. In Server Explorer, click the license server on which you want to add a new instance.

2. Do either of the following:

   - Right-click the server name and then select **Add Instance**.

   - On the **File** menu, select **Add** > **Add Instance**.

   The new instance item appears in Server Explorer; by default, this new instance is named **DefaultInstance0**. The instance license information appears in the content pane on the right.
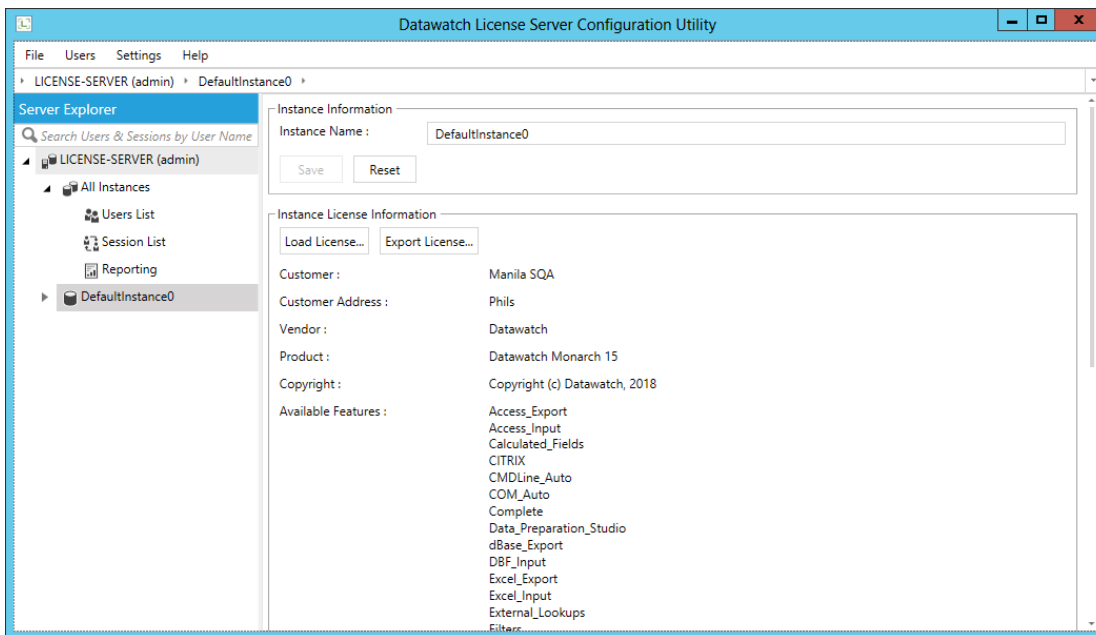
3. In the *Instance Name* field, enter a new meaningful name for the instance. If you want to clear the entered name, click **Reset** and provide another name.

4. Click **Save**.

5. If you want to load a different license for this instance, click **Load License**.

6. In the *Open* dialog box that appears, select the required license file in the .lic format and then click **Open**. The updated instance license information is displayed in the content pane. The loaded license applies to this instance only.

NOTE	You can create instances and load licenses only if you are the system admin user.

EDITING AN INSTANCE

Steps:

1. In Server Explorer, select the instance that you want to edit. The instance details are displayed in the content pane on the right.

2. If so desired, modify the instance name and then click **Save**.

3. If necessary, click **Load License** and load a new license for the current instance.

| NOTE	Always refresh the modified instance in the Server Explorer after you make changes to it. To do so, right-click on the modified instance and then select **Refresh.**

DELETING AN INSTANCE

Steps:

1. In Server Explorer, select the instance that you want to delete.

2. Right-click the instance and select **Delete Instance**.

3. Click **OK** to confirm the deletion. The instance is deleted from the Monarch License Server database together with all users and other instance elements.

MANAGING USER SESSIONS

The session list displays the active sessions of users who are currently logged in to Monarch. It also shows the license instance of admin users who are currently logged in to Monarch License Server.

To view the session list for a specific instance, navigate to the required session list in Server Explorer and click the arrow next to this session list to expand it. Users currently logged in are displayed under *Session List* in Server Explorer and in the *Sessions* table in the content pane.
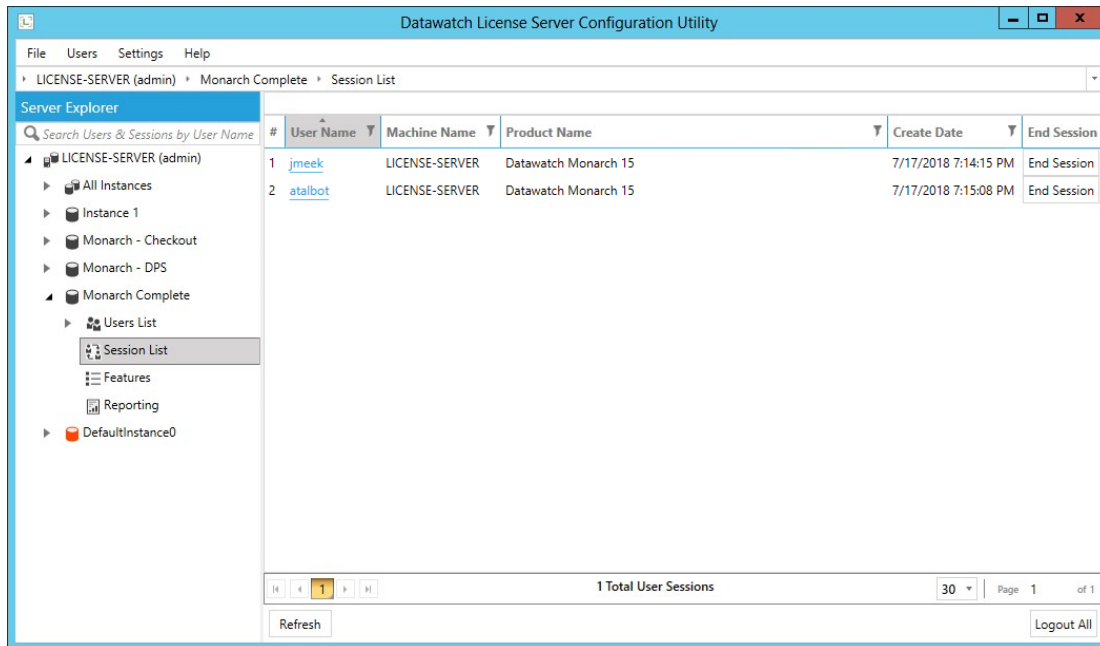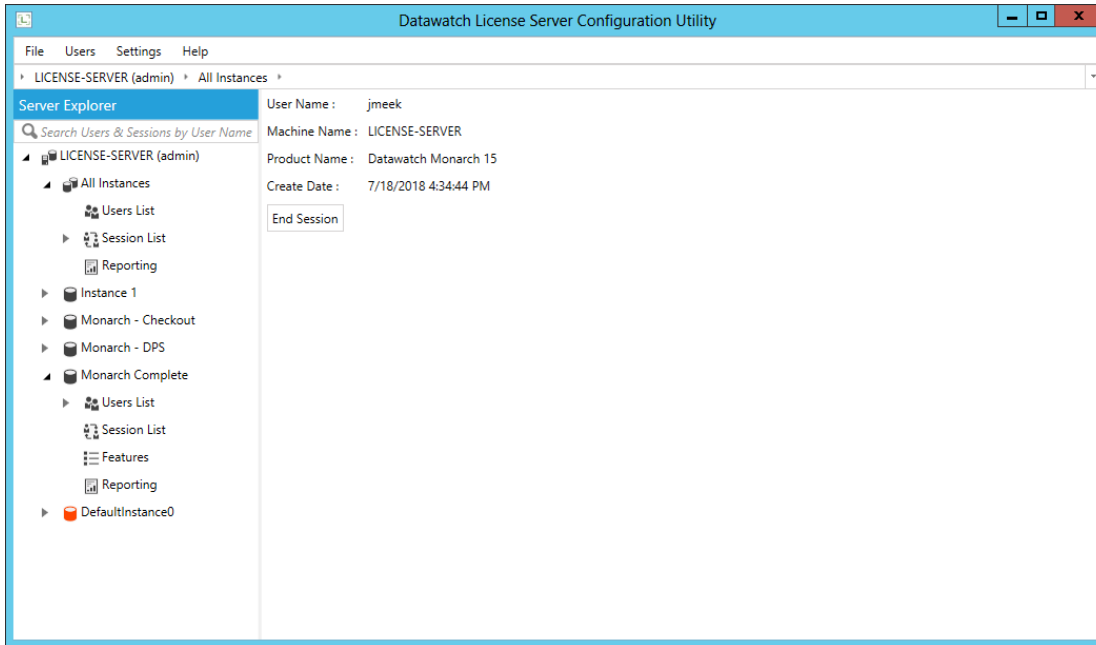

You can run a search in the session list by user name. Information on the total number of active sessions is displayed at the bottom of the Session list.

Viewing Session Details for a User

Steps:

1. Click the user name in the **Sessions** table. The session details are displayed in the content pane.

2. You can end the current session for users in any of the following ways:

- **Individually for specific users** – Click **End Session** either in the session details or in the *Sessions* table.

- **For all logged in users at once** – Click **Logout All** below the *Sessions* table in the content pane.

Updating the Active Sessions List

Steps:

1. Click **Refresh** below the *Sessions* table.

2. Right-click **Session List** in Server Explorer and select **Refresh**.

MANAGING FEATURES

The features available to users depend on the Monarch product defined in the license file for a specific instance.

To view a list of features available in the license for a specific instance, navigate to the **Features** element of the required instance in Server Explorer. Click the arrow next to **Features** to expand the list. The list of all features available in the license file is displayed in Server Explorer.
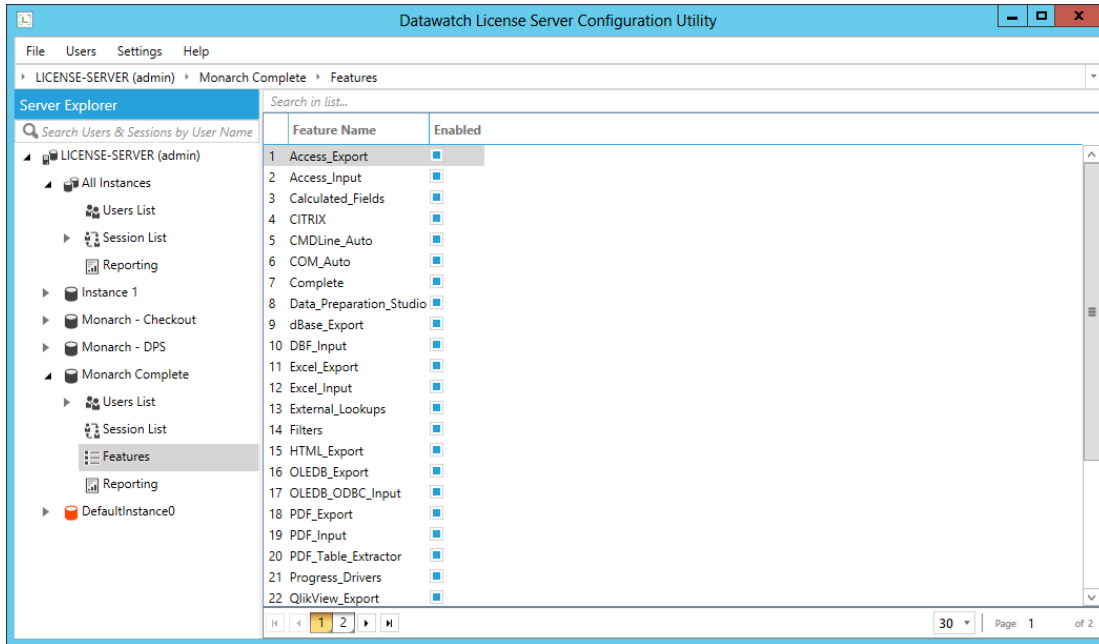

You can run a search in the feature list by feature name.

To enable features, select the check-box by the feature name.

NOTE	By default, all features are disabled for all users.

REPORTING

You can generate three types of reports in Monarch License Server: a session list report, which includes information on all users using a specific instance over a specific period of time; a user history report, which lists all users who have logged into Monarch, as well as their first and last login times; or a checked-out user report, which includes a list of all users who have checked out their license to work offline.
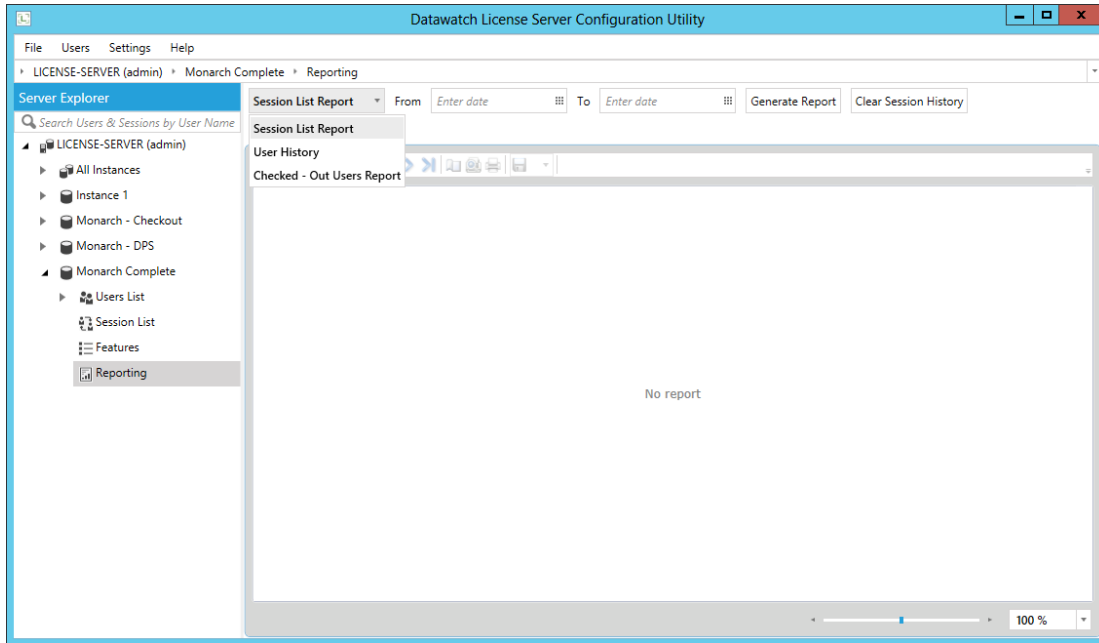
These reports are displayed under Reporting in Server Explorer until you disconnect from the license server. You can go back to a report at any time and regenerate or refresh it. Using the toolbar above the report, you can:

❑ Refresh the report

❑ Browse report pages

❑ Display the report in print preview mode

❑ Print the report

❑ Export the report to a number of formats

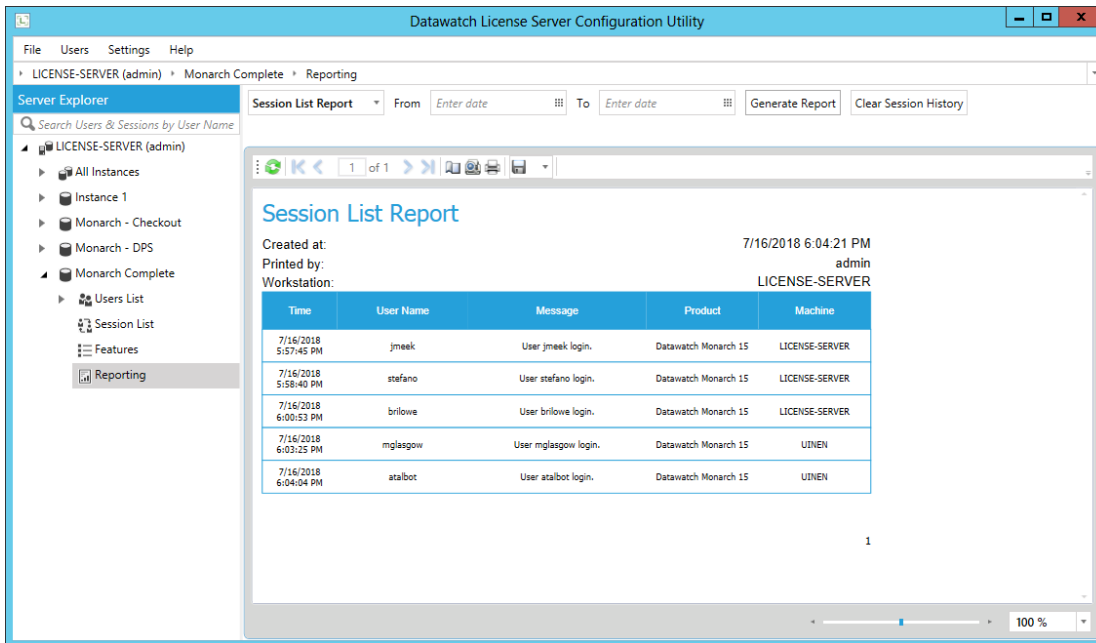❑ Change the page setup for the report

You can also adjust the report display by using the zoom tools at the bottom of the window.

Generating a Session List Report

Steps:

1. In Server Explorer, navigate to the instance for which you want to run a session list report.

2. Click **Reporting**.

3. In the *Report Type* drop-down, ensure that **Session List Report** is selected.

4. In the content pane, specify the required date and time in the **From** and **To** fields.

5. Click **Generate Report**.

   The generated report is displayed in the content pane.

6. To clear the session list report and begin generating a new report, click **Clear Session History**.
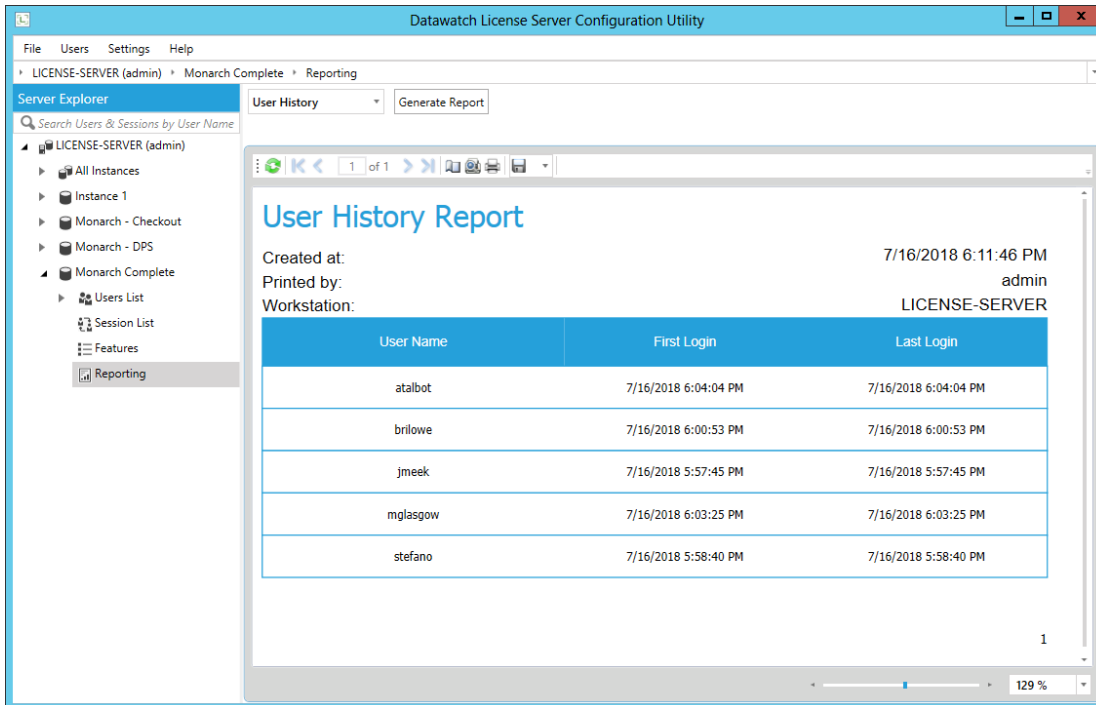
NOTE	If you do not specify a time span for the session list report, then all the entire session history will be extracted for the report. This may take a long time.

Generating a User History Report

Steps:

1. In Server Explorer, navigate to the instance for which you want to run a user history report.

2. Click **Reporting**.

3. In the *Report Type* drop-down, ensure that **User History** is selected.

4. Click **Generate Report**.

    The generated report is displayed in the content pane.

Generating a Checked-out Users Report

Steps:

1. In Server Explorer, navigate to the instance for which you want to run a checked-out users report.

2. Click **Reporting**.

3. In the *Report Type* drop-down, ensure that **Checked-Out Users** is selected.

4. Click **Generate Report**.

The generated report is displayed in the content pane.
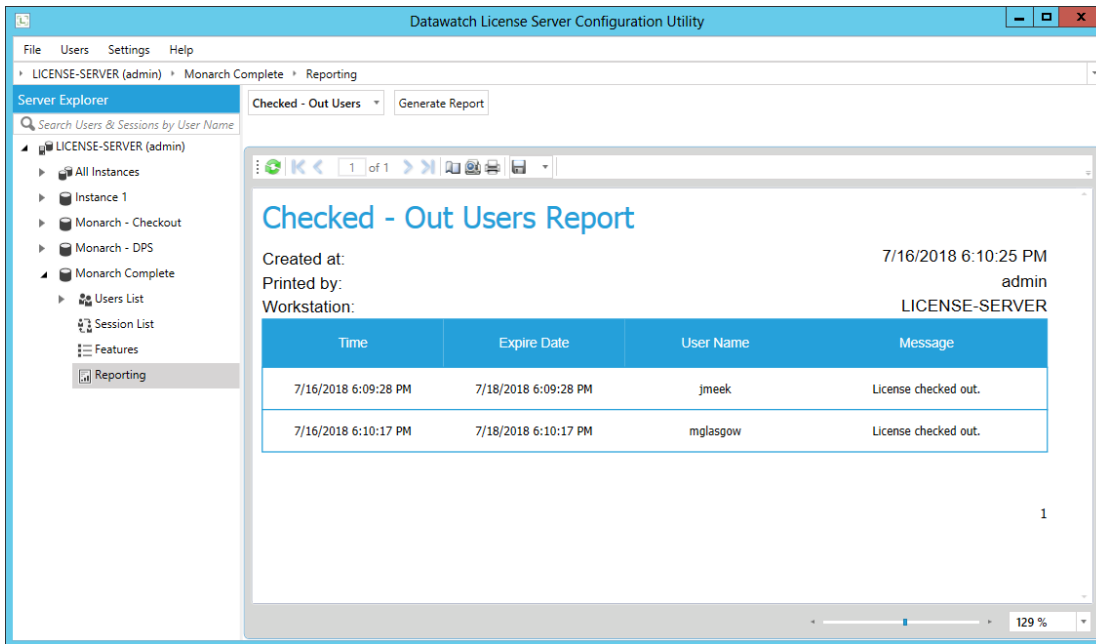
Once a user checks his/her license back in, the user's name is removed from this list.

MANAGING USERS

To access all users available within an instance, click the server name in Server Explorer, click the instance name, and then click **Users List** as shown in the image below.
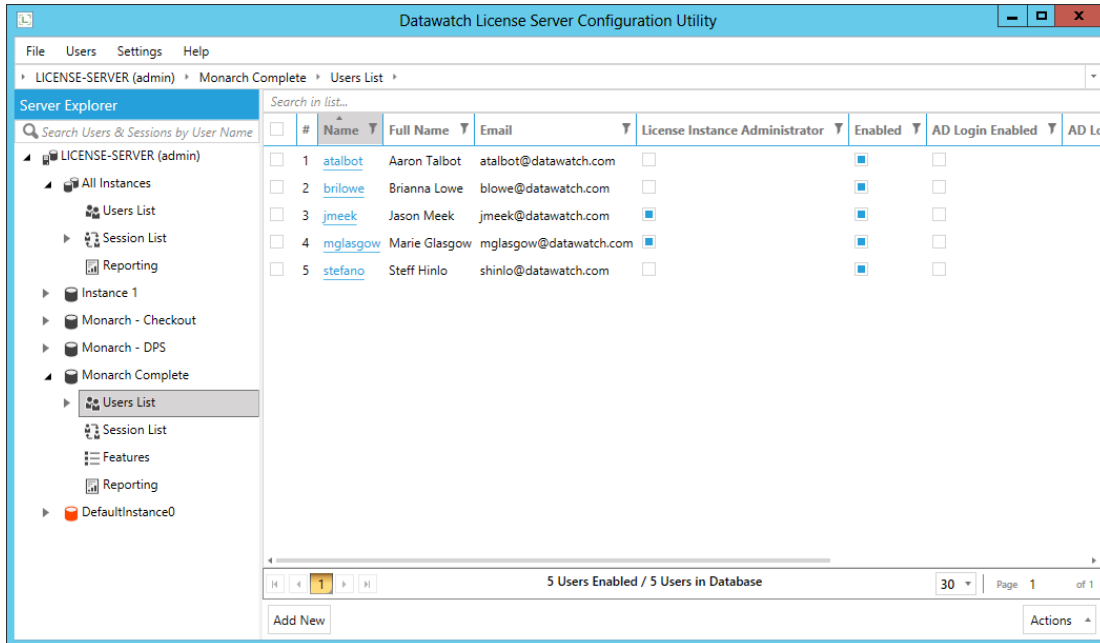
You can sort the Users table in the content pane by clicking on a column name. If you click on the Email column, for example, users will be sorted in ascending or descending order according to their email addresses. You can also run a search among the existing users by typing a user name in the Search in list field.

You can add a new user, as well as view, edit, and delete an existing user. You can also import users in a number of ways.

Information on the total number of and enabled users in the License Server database is displayed at the bottom of the Users list.

ABOUT USER TYPES

There are three types of users in Monarch License Server:

❑ **System admin user** – This user is created during the installation of Monarch License Server. Only one system admin user can exist in the application. For more information about the creation of the system admin user, refer to Monarch License Server v15.1.1 Installation Guide.

❑ **Licensed-instance admin users** – These users are created by the system admin user. A licensed-instance admin user can create and manage end users in the instance to which he belongs.

❑ **End users** – These are the end users of Monarch. They cannot log in to Monarch License Server. End users are created by the system and licensed-instance admin users. The system and licensed-instance admins manage product licenses for end users through instances.

The table below shows the differences in permissions that are granted to system admin and licensed-instance admin users.

USER TYPE	CAN CREATE INSTANCES?	CAN LOAD LICENSES?	CAN CREATE SYSTEM ADMIN USERS?	CAN CREATE END USERS?
System admin	Yes	Yes	Yes	Yes
Licensed-instance admin	No	No	No	Yes
End user	No	No	No	No

Before end users can log in to Monarch, the system admin or a licensed-instance admin must add them to the list of users in the corresponding instance in Monarch License Server. The system admin must also add licensed-instance admin users to ensure they are able to log in to Monarch License Server and to Monarch.

The user type also defines which applications are affected when enabling or disabling access for a specific user. For end users, this affects access to Monarch. For licensed-instance admin users, this affects access to Monarch and, additionally, to Monarch License Server itself.

ADDING A NEW USER

You can create users of different types based on your user type permissions in the License Server Configuration Utility:

❑ If you are a system admin user, you can create licensed-instance admin users and end users in any instance that you created.

❑ If you are a licensed-instance admin user, you can create only end users in the instance to which you belong.

Steps:

1. Navigate to the users list in Server Explorer.

2. Do either of the following:

   • Right-click **Users List** and click **Add New**.

   • Click **Add New** under the *Users* table in the content pane.

An empty user addition form appears.
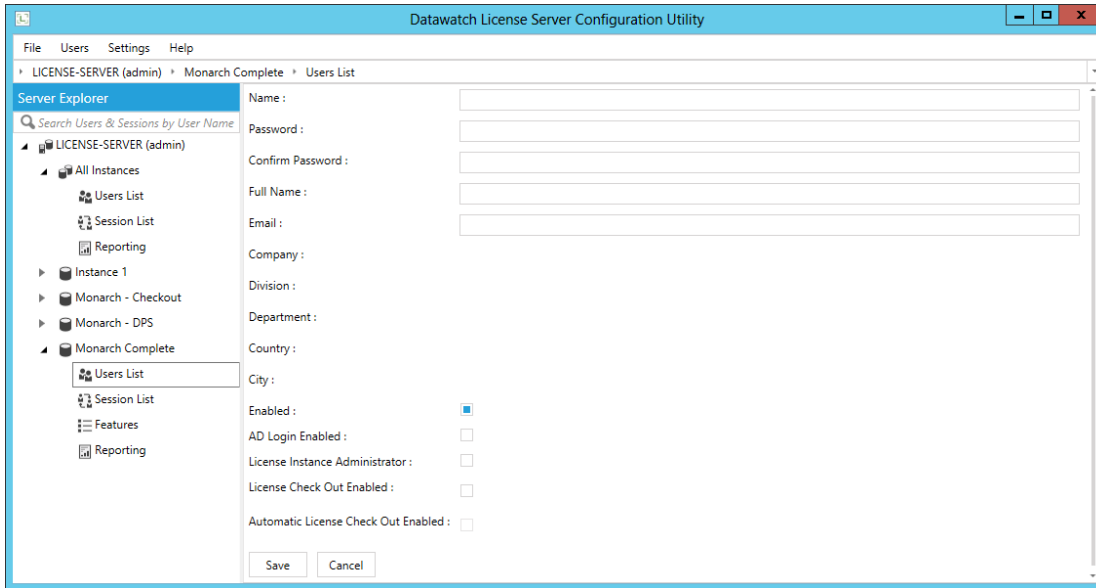
3. Enter the user's name.

4. If you want to enable the Server authentication type for the user at server connection, enter the user's password.

5. Re-enter the user's password in the *Confirm Password* field.

6. Enter the user's full name.

7. Enter the user's email.

8. Select the **Enabled** checkbox to activate the user's account.

9. If you want to enable the Active Directory authentication type for the user, stick the **AD Login Enabled** check box.

10. If you enabled Active Directory login, provide the domain name and user name from Active Directory in the *AD Login Info* field that appears. To do so, carry out the following steps:

   - Click the **Look up** button.

   - In the Import from Active Directory dialog that appears, specify the name of the domain in which to search for the user.

- To filter the list of users returned, tick the box for **LDAP query** and then enter a search string into the field provided. The correct string format is provided below the field as a guide.

- Click **Load**.

- Select the necessary user from the list of loaded users.

- Click **Import**. The domain name and the user name from Active Directory appear in the *AD Login Info* field.

11. Confirm the login information specified by clicking the **Validate** button.

12. If you want the user to be created with the license instance admin permissions, select the **License Instance Administrator** check box.

    In previous versions of License Server, instance administrators also consume a product license but do not necessarily use the product for which the License was created. In License Server v15.1.1, a license instance administrator does not consume a product license, which means this license may be utilized by an actual user.

13. Tick the box for **License Check Out Enabled** if you want the user to be able to check out his/her license and work offline with Monarch.

14. If license check out is enabled, specify a maximum time (in days) allowable for check out in the box provided.

NOTE	In general, when working with a Monarch installation activated via the License Server, a user will require a continuous internet connection.
	When **License Check Out** is enabled, a user may check his/her license out and use Monarch in offline mode. This feature is particularly useful, when, for example, the user is travelling and may not have reliable access to the internet. When the maximum time allowed for check out has elapsed, the user must check in the license and log back into Monarch using License Server authentication. Otherwise, the user's account will be frozen and he/she will be unable to continue working with the application.
	When a user checks out a license, this action is interpreted as a logout when a server report is run.
	The maximum allowed time for checkout depends on the value specified when the license was created.

15. Tick the box for **Automatic License Check Out Enabled** and then specify a number of hours within which the license must be renewed before expiration.
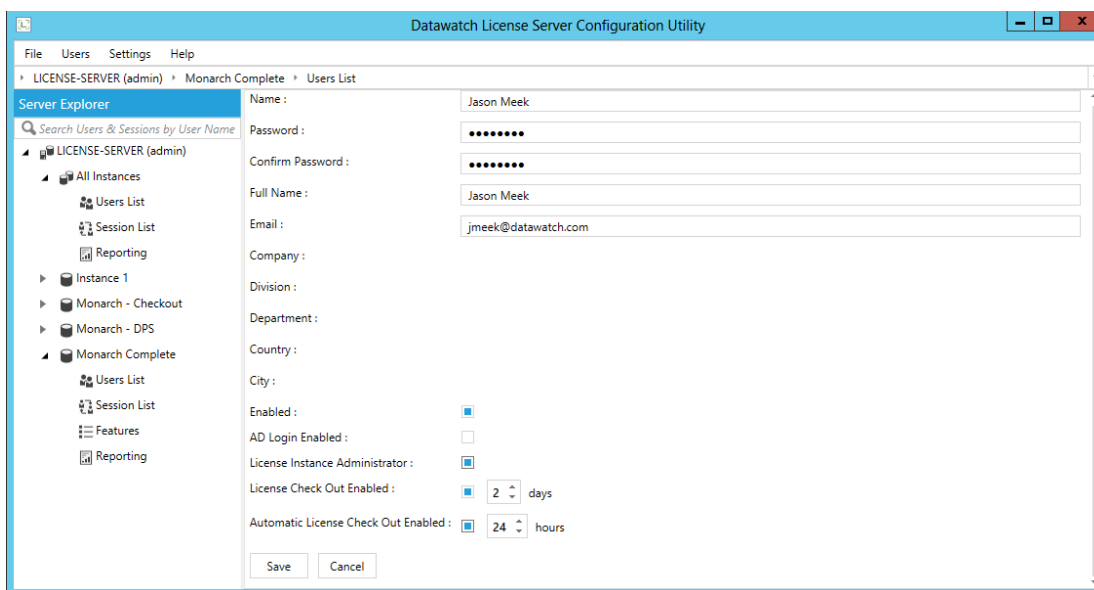
Note that this option is only enabled when the **License Check Out Enabled** option has been selected. This new feature in License Server v15.1.1 is useful in sporadically connected user environments and allows accommodation of massive user traffic. It also minimizes user downtimes due to upgrades, migrations, etc. Automatic license checkout can be enabled at the server, instance, and user levels.

16. Click **Save**. The newly created user appears in the users list in Server Explorer and in the content pane.

| NOTE	You can enable both or only one of the authentication types for the user by completing either both or only one of the fields – **Password** or **AD Login Enabled**.
	Only the Name, Password, and Confirm Password are mandatory fields.

You can also add users by importing them. For more information, see Importing and Exporting Users.

FILTERING USERS

You can filter the Users List for better user management.

Steps:

1. Load the **Users List** of any instance and then click on the filter icon to the left of any column name.

2. Use the drop-down menu that displays to filter the user list. Click **Filter** when you are finished to complete the operation or **Clear Filter** to go back to the users list.
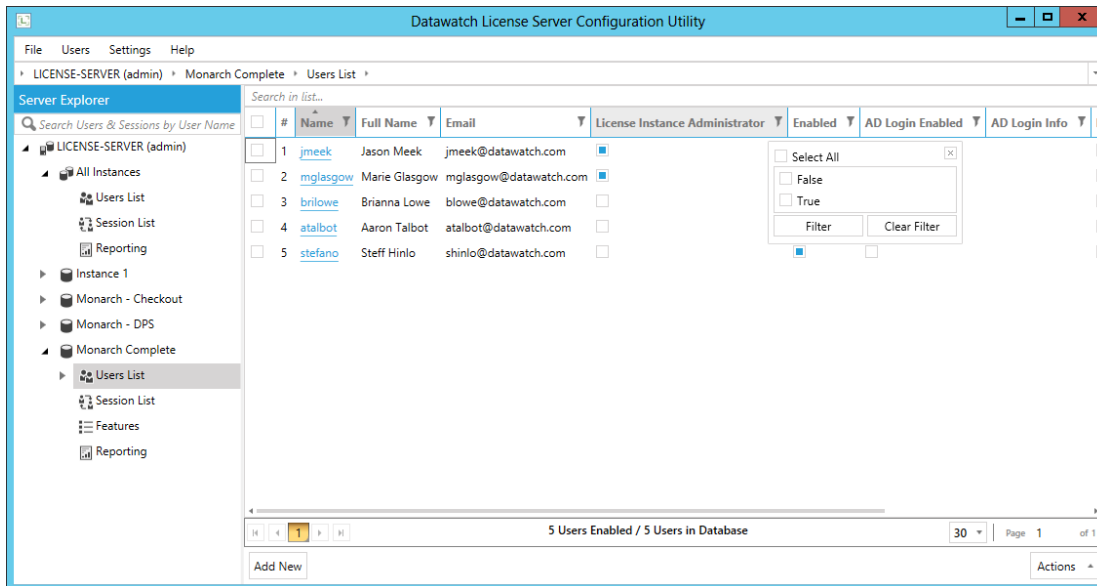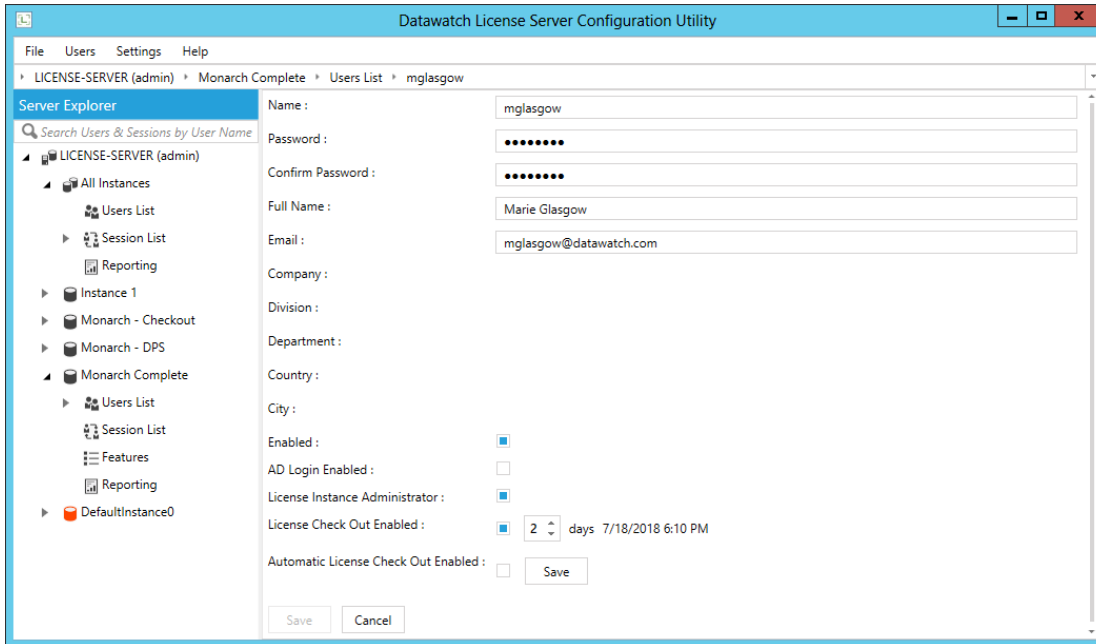

Note that filtered user lists can be exported by selecting **Users** > **Export Filtered to CSV** or **Actions** > **Export Filtered to CSV**.

VIEWING USER DETAILS

Steps:

1. Click the required user in Server Explorer under **Users List** or in the content pane. The user details are displayed in the content pane.

2. You can edit the user in the user details pane or you can click **Cancel** to go back to the users list.

EDITING USER DETAILS

Steps:

1. In Server Explorer, click the required server name, click the name of the instance to which the user belongs, and then click **Users List**. Click the user under **Users List** in Server Explorer.

2. Click the name of the user whose details you wish to modify. The user details are displayed in the content pane.

3. In the User Details pane that displays, make the necessary changes and then click **Save**.

   The modified details of the user are saved, and the updated Users table is displayed in the content pane.

| NOTE	The License Instance admin check box in the user details is shown only to the system admin user.

EDITING USER SETTINGS

User settings (e.g., enable/disable login, delete user, etc.) may be modified via the Actions drop-down.

Steps:

1. In the **User list** panel, tick the box adjacent to the user(s) whose settings you wish to modify.

2. Click the **Actions** ✛ icon located at the lower right-hand corner of the configuration utility.

    The **Actions** menu displays.
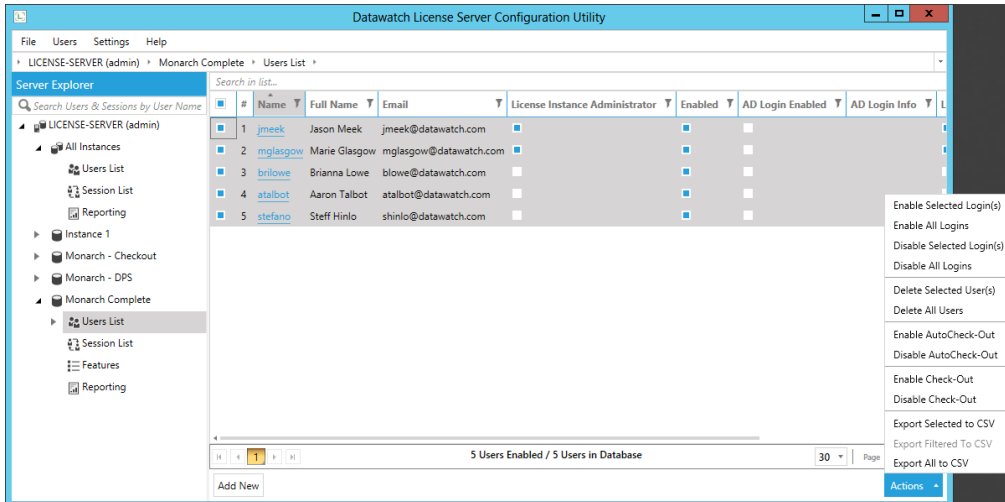
3. Select the action you wish to apply to the user(s) selected.

    You can:

    - Enable the login(s) of selected user(s)

    - Enable all logins

    - Disable the login(s) of selected user(s)

    - Disable all logins

    - Delete user(s)

    - Delete all users

    - Enable automatic license checkout

    - Disable automatic license checkout

    - Enable checkout for selected users

    - Disable checkout for selected users

    - Export selected users to CSV file

    - Export filtered users to a CSV file

    - Export all users to CSV file

IMPORTING AND EXPORTING USERS

You can import users to Monarch License Server in a number of ways, including:

❑   Importing from an old license file (this option is available only for Monarch users)

❑   Importing from Active Directory

If you need to transfer a number of users from one instance to another, you can export users to a CSV file (a Comma-Separated Values file) and then import users from the CSV file.

NOTE	When importing users, a default password (**password**) is set for the users. By default, all product features are assigned to imported users. Roles are not assigned by default to imported users.

Importing Users from an Old License File

You can import users of another license file used previously in Monarch 14.0 or higher.

Steps:

1. In Server Explorer, do either of the following:

   - Select **Users** > **Import from old license file** from the Configuration menu.

   - Navigate to the instance to which you want to import users, right-click on Users List, and then select **Import from old license file** from the menu that displays.

2. In the *Import from old license* window that appears, click **Browse** to locate the old Monarch license file.

3. Click **Load**.

4. Select the necessary users from the list.
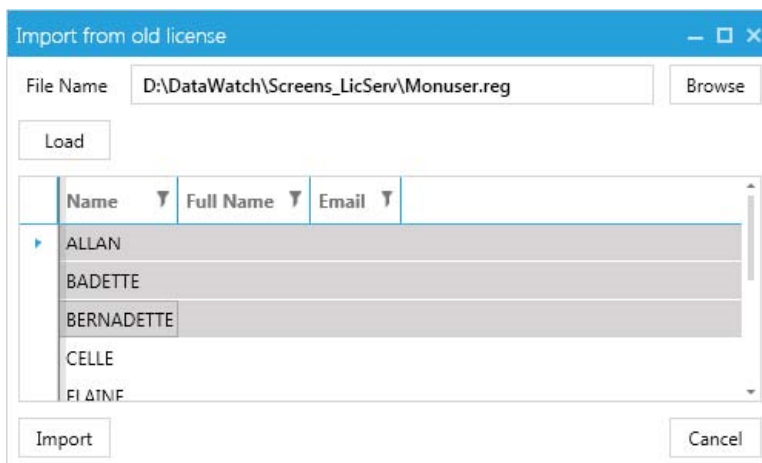
5. Click **Import**. The imported users appear in the users list in Server Explorer and in the content pane.

Importing Users from Active Directory

You can import users from Active Directory of the specified domain within your network.

Steps:

1. In Server Explorer, do either of the following:

   - Select **Users** > **Import from Active Directory** from the Configuration menu.

   - Navigate to the instance to which you want to import users, right-click on Users List, and then select **Import from Active Directory** from the menu that displays.

   The Import from Active Directory dialog displays.

2. Specify the domain name in the field provided.

3. If you wish to perform an LDAP query, tick the box for **LDAP query** and then enter a search string into the field provided. The correct string format is provided below the field as a guide.
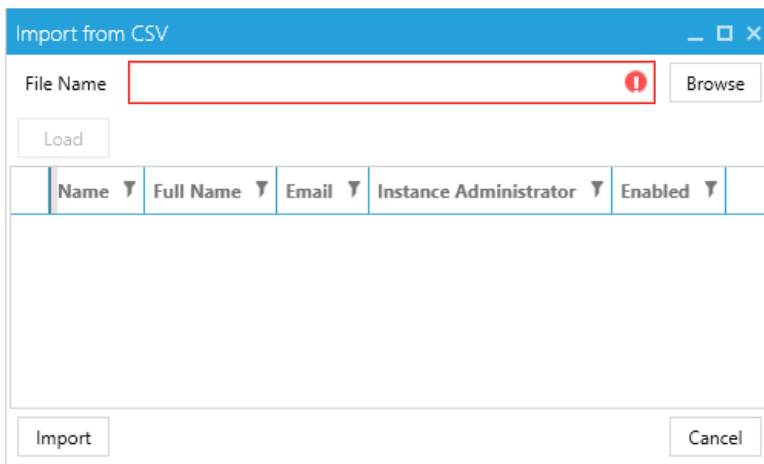

4. Click **Load**.

5. Select the users you wish to import from the list that displays.

6. Click **Import**. The imported users appear in the Users List in Server Explorer and in the content pane.

Importing Users from a CSV File

Steps:

1. In Server Explorer, do either of the following:

    - Select **Users** > **Import from CSV** from the Configuration menu.

    - Navigate to the instance to which you want to import users, right-click on Users List, and then select **Import from CSV** from the menu that displays.

2. In the *Import from CSV* dialog that appears, click **Browse**.

3. Select the necessary file in .csv format and click **Open**. The users from the file appear in the *Import from CSV* window.

4. Click **Load**.

5. Select the necessary users from the list.

6. Click **Import**. The imported users appear in the users list in Server Explorer and in the content pane.

Exporting Users to a CSV File

Steps:

1. In Server Explorer, do either of the following:

    - Select **Users** > **Export to CSV** from the Configuration menu.

    - Navigate to the instance from which you want to export users, right-click on the Users List, and then select **Export to CSV** from the menu that displays.

    - Navigate to the instance from which you want to export users, select specific users to export, and then select **Users** > **Export Selected to CSV** from the menu that displays.

    Note that you can also use the **Actions** drop-down located at the bottom of the Users List to export users.

2. In the *Save As* window that appears, specify the name and location for your CSV file and click **Save**. The file is saved into the specified location.

3. Click **OK** to acknowledge successful export operation.

    After you have exported users to a CSV file, you can import them from this file when required, for example, when you need to transfer a batch of users to another instance.

ENDING USER SESSIONS

Super-administrators may use the following CMD commands to force-end user sessions:

❑ `Altair.LicenseServer.ConfigurationUtility.Shell.exe -instance=Monarch13 -`
    `forceEndAllSessions` `-admin=AAA -password=BBB`

❑ `Altair.LicenseServer.ConfigurationUtility.Shell.exe -instance=Monarch13 -`
    `forceEndSession="User1;User2..."` `-admin=AAA -password=BBB`

    where: AAA = the super-administrator username, BBB = the super-administrator password

NOTE	These commands must be executed from the folder in which the Altair.LicenseServer.ConfigurationUtility.Shell.exe file is located.

Super-administrators may opt to:

❑ **forceEndAllSessions** – Ends all sessions

❑ **forceEndSession=User1** – Ends User1 session

The **forceEndSession** command may include multiple values separated by a semicolon, i.e., **`forceEndSession="User1;User2"`** ends sessions for User1 and User2.

MONARCH LICENSE SERVER SETTINGS

Monarch License Server settings can be modified at the global and instance levels.

Among the global settings License Server administrators can specify are:

❑ **Administrative Settings** – You can specify various policy scopes as well as whether to allow instance administrators to set policies.

❑ **Security Settings** – You can modify various password settings.

❑ **Active Directory Settings** – You can map the DNS name of the AD server to its NetBIOS name.

❑ **Connection Options** – You can specify how the length of time allowable before a user's session times out.

❑ **Licensing Settings** – You can specify whether client-side notifications for licenses about to expire should be displayed as well as license checkout options.

❑ **Language** – You can change the language of your License Server to French or English.

❑ **Credentials** – You can change your password if you are the system admin user.

GLOBAL OPTIONS

To access the Server Options dialog, right-click on the server name and then choose **Options…** from the menu that displays. Alternatively, in the **Settings** menu of the Monarch License Server Configuration Utility, select **Options**.
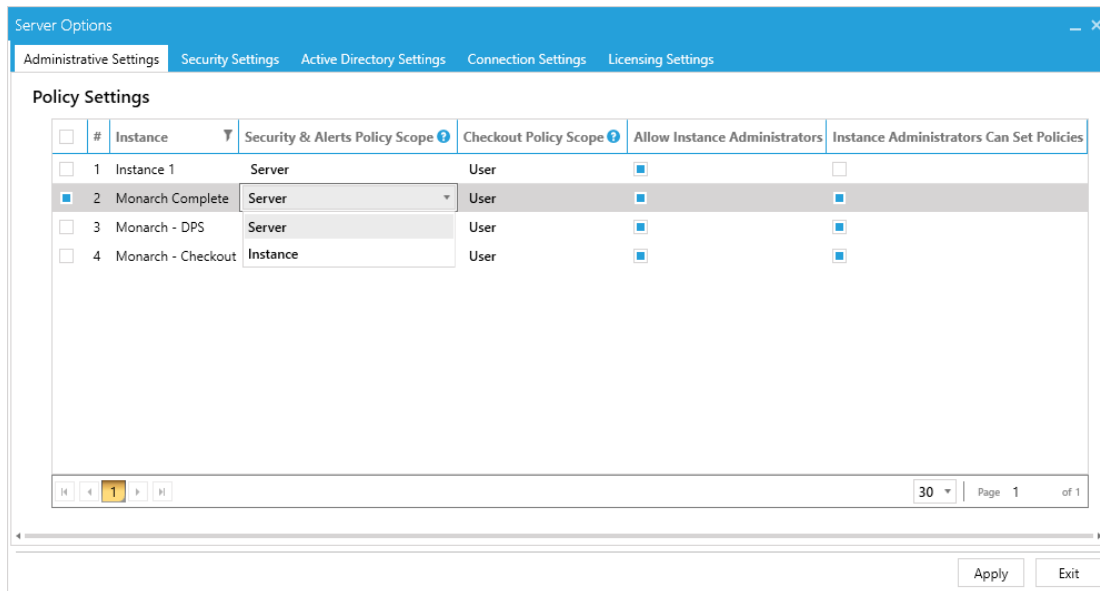
Administrative Policy Settings

In previous versions of the application, users, sessions, and reporting were managed only at the instance levels and certain options were only managed at the server/global level. To accommodate clients with more complex requirements for server administration, in License Server v15.1.1, application administrators may now specify policy settings at the server level and opt to delegate policy-making to instance administrators.

This feature provides the following benefits:

❑ Enables safe defaults when creating new instances

- Initial state for a new instance is server-scope

- Server-scope settings are inherited

❑ Enables multiple administrative approaches

- Single administrator

- Delegated administration

- Delegated user management

Administrative policy settings are specified in the **Administrative Settings** tab of the **Server Options** dialog.


Steps:

1. Tick the box to the left of a server instance for which you wish to specify administrative settings.

2. Click on the field adjacent to the selected server instance name under **Security & Alerts Policy Scope** and then use the drop-down that displays to specify whether these policies should be implemented at the **Server** or **Instance** level.

3. Click on the on the field adjacent to the selected server instance name under **Checkout Policy Scope** and then use the drop-down that displays to specify whether these policies should be implemented at the **Server**, **Instance**, or **User** level.
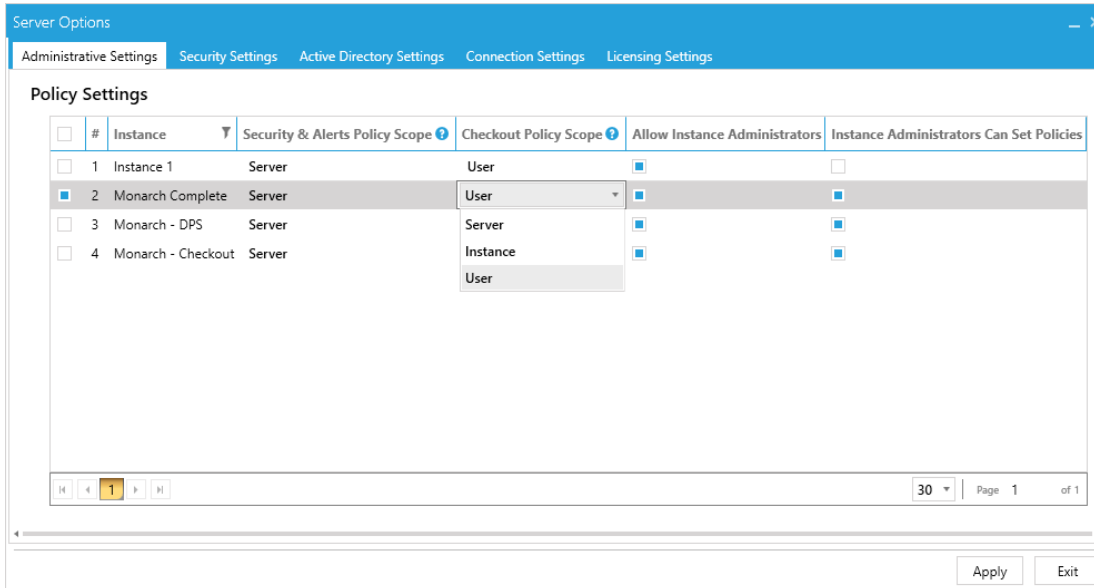
4. Specify whether instance administrators can be created for the selected server instance.
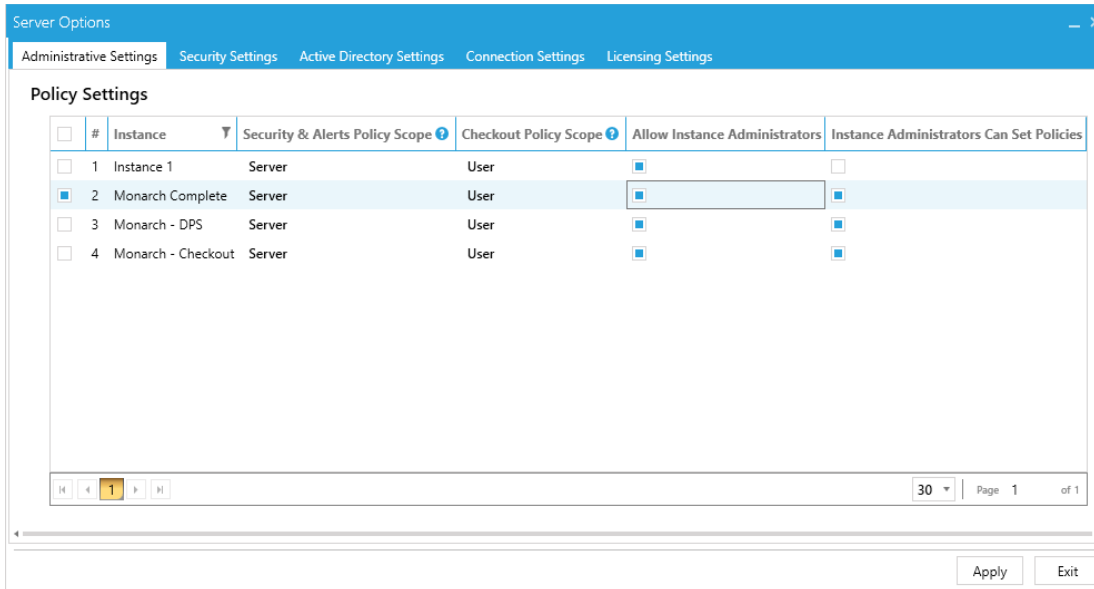
When enabled, the **Allow Instance Administrators** option allows the creation of instance administrators. When disabled, instance administrators cannot be created and the corresponding option is disabled in the new user addition form.

5. Specify whether instance administrators can set policies for the selected server instance.

    When enabled (and instance administrators are allowed), the **Instance Administrators Can Set Policies** option allows instance administrators to change policies on instances that are not set to the Server scope. When disabled, instance administrators are limited to user management.

6. Click **Apply** to save your settings and then **Exit** to close the dialog.

Security Settings

Steps:

1. Click **Security Settings** in the *Server Options* dialog.
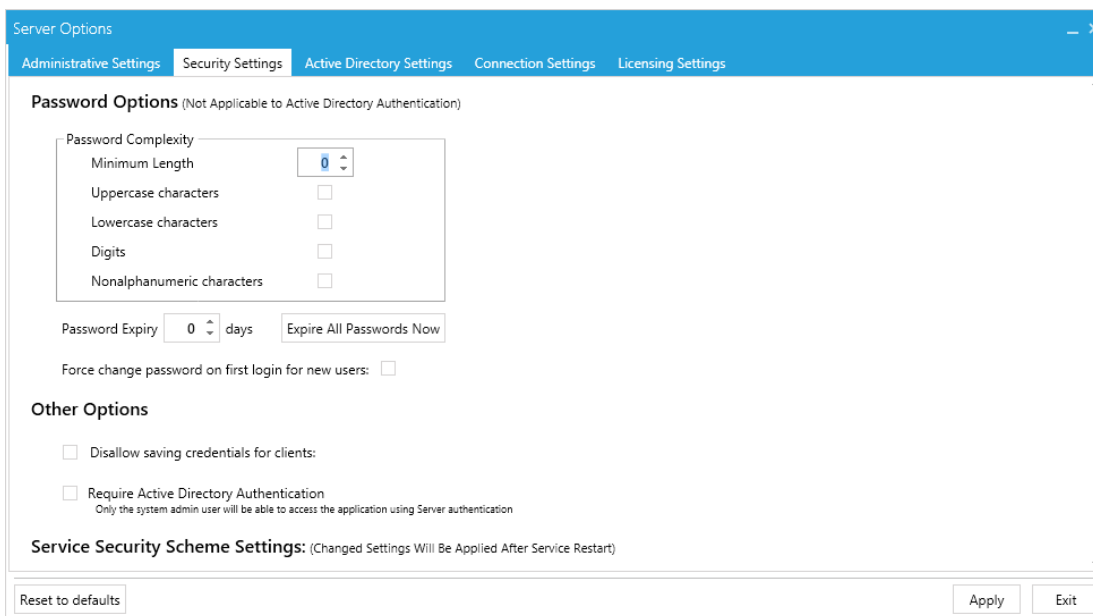
2. In the **Server Authentication Settings** tab of the dialog, specify a password complexity.

    - Choose the minimum number of characters a password must have.

        Note that the maximum password length is 256 characters.

    - Tick the corresponding boxes adjacent to the feature if you'd like password to include uppercase characters, lowercase characters, digits, and nonalphanumeric characters.

3. In the box provided, specify the number of days that must pass before passwords expire.

    Note that the maximum days a password will remain valid before expiring is 365 days.

4. If necessary, click **Expire All Passwords Now** to force all passwords specified for all users to expire immediately. In this case, users must create a new password the next time they log into Monarch.

5. Tick the box for **Force change password on first login for new users** if you want users to change their passwords the first time they log into Monarch.

6. Under **Other** Options, tick the box for **Disallow saving credentials for clients** if you want to prohibit users from saving their credentials when they log into Monarch.

   If this setting is enabled, users logging into Monarch will be unable to save their username and password. Thus, each time they use the application, they must supply this information.

7. Tick the box for **Require Active Directory Authentication** if you wish to force users to authenticate their credentials via Active Directory.

   Note that if this option is enabled, only system administrators will be able to log in using username/password authentication.

8. Service Security Scheme Settings allow administrators to configure the License Server scheme via the License Server Configuration Utility.
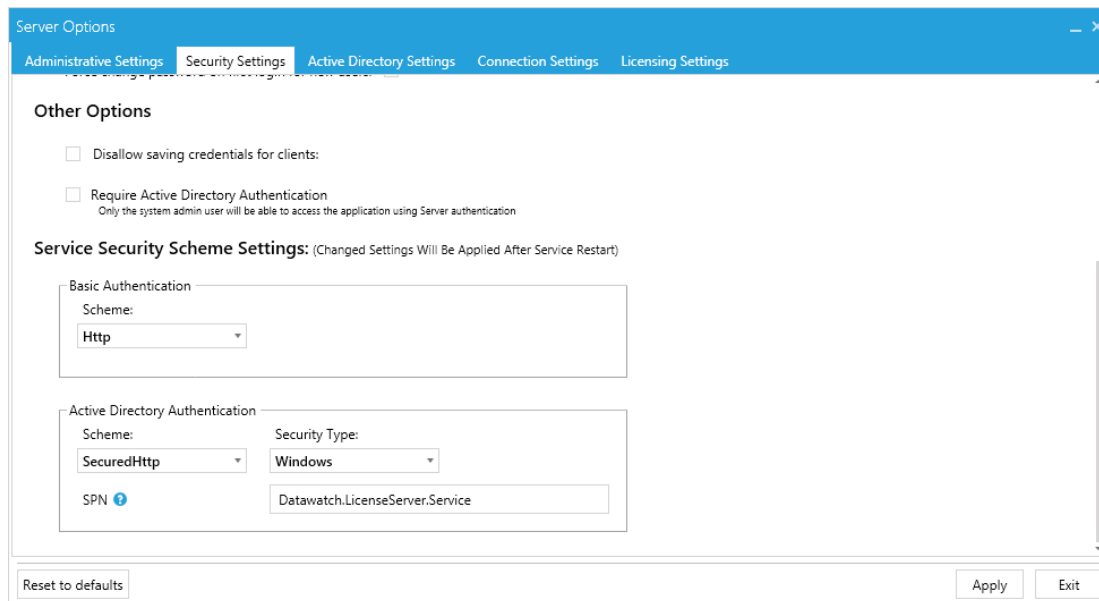
   Under **Basic Authentication**, use the drop-down provided to specify whether basic authentication should be performed via the **HTTP** or **SecuredHTTPS** scheme.

9. If you selected **SecuredHTTPS** in Step 8, provide the subject name of the corresponding SSL certificate.

   - **Windows** – used when License Server and the machine in which the Monarch instance to be licensed belong to the same or trusted domains

   - **Anonymous** - used when License Server and the machine in which the Monarch instance to be licensed do not belong to the same or trusted domains

10. Click **Apply** to save all of your password specifications and then **Exit** to close the dialog.

Active Directory Settings

When importing users from Active Directory, you may need to map the DNS name of the AD server to its NetBIOS name to correctly identify it.

Steps:

1. Click the **Active Directory Settings** tab of the Server Options dialog.

2. Click into the **DNS name** field and then specify a DNS name.

3. In the box adjacent to this field, specify the corresponding **NetBIOS name** to which the DNS name should be mapped.
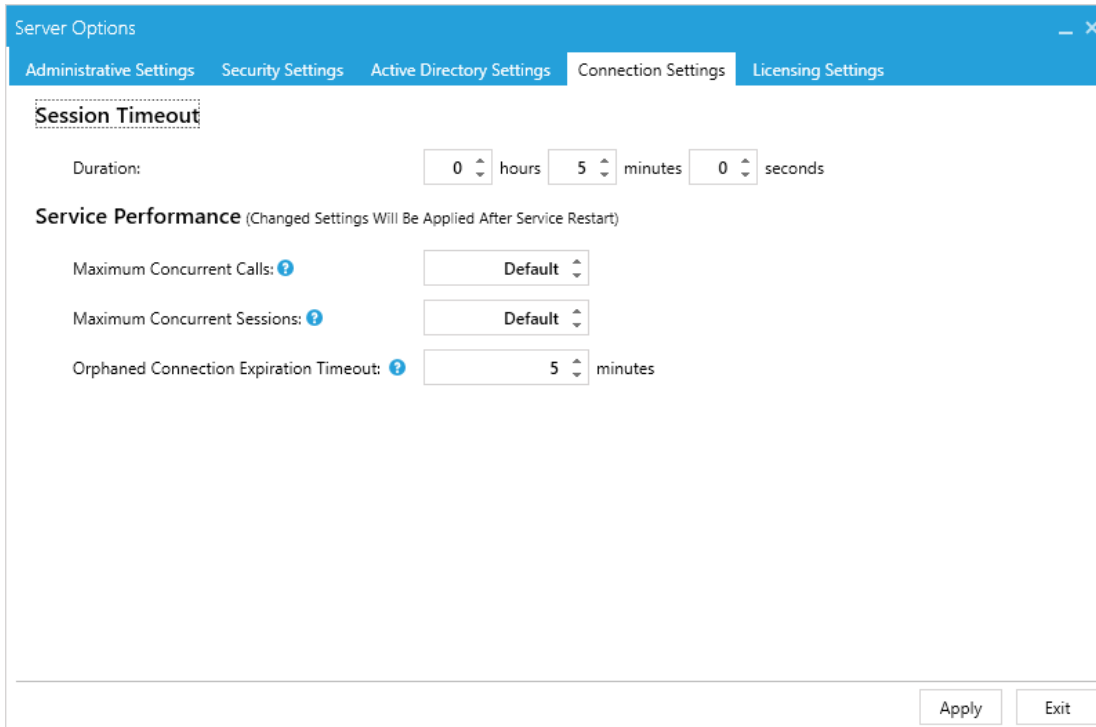
4. Click **Apply** to save your specifications and then **Exit** to close the dialog.

Connection Settings

License Server administrators can specify how long user sessions remain active before timing out and resetting. This feature solves the problem of a user accidentally being locked out of and unable to log into Monarch when it crashes or the service is terminated.

Steps:

1. Click **Connection Settings** in the *Server Options* dialog displays.

2. In the **Connection Settings** tab, specify a number of hours, minutes, and seconds that can pass before a session times out.

Note that by default, sessions will automatically time out after a minimum of 5 minutes and a maximum of 24 hours.

3. Specify **Service Performance** limits.

- **Maximum Concurrent Calls** - This is the limit of concurrent calls from all clients and includes events such as logins, logouts, session heartbeats, check-ins, and checkouts. Once this limit is reached, requests are queued and delays will occur. The default limit is 16 × [Number of logical processors].

- **Maximum Concurrent Sessions** - This is the limit of concurrent sessions and applies to server authentication over SecuredHttp and Active Directory. Once this limit is reached, requests to create further sessions are queued until a slot becomes available. The default limit is 100 × [Number of logical processors].

- **Orphaned Connection Timeout** - This is the period after which the service drops orphaned connections and returns the resources to the pool. The default limit is 5 minutes, and the minimum limit is 1 minute.

4. Click **Apply** and then **Exit** to close the dialog.

The License Server Configuration Utility saves your specifications.

Licensing Settings

License Server administrators can specify whether Monarch should display notification to clients when a license is about to expire as well as license checkout options.

Steps:

1. Click on the **Licensing Settings** tab of the **Server Options** dialog

2. Under **Notification Settings**, tick the box to **suppress client-side license expiration notifications**.
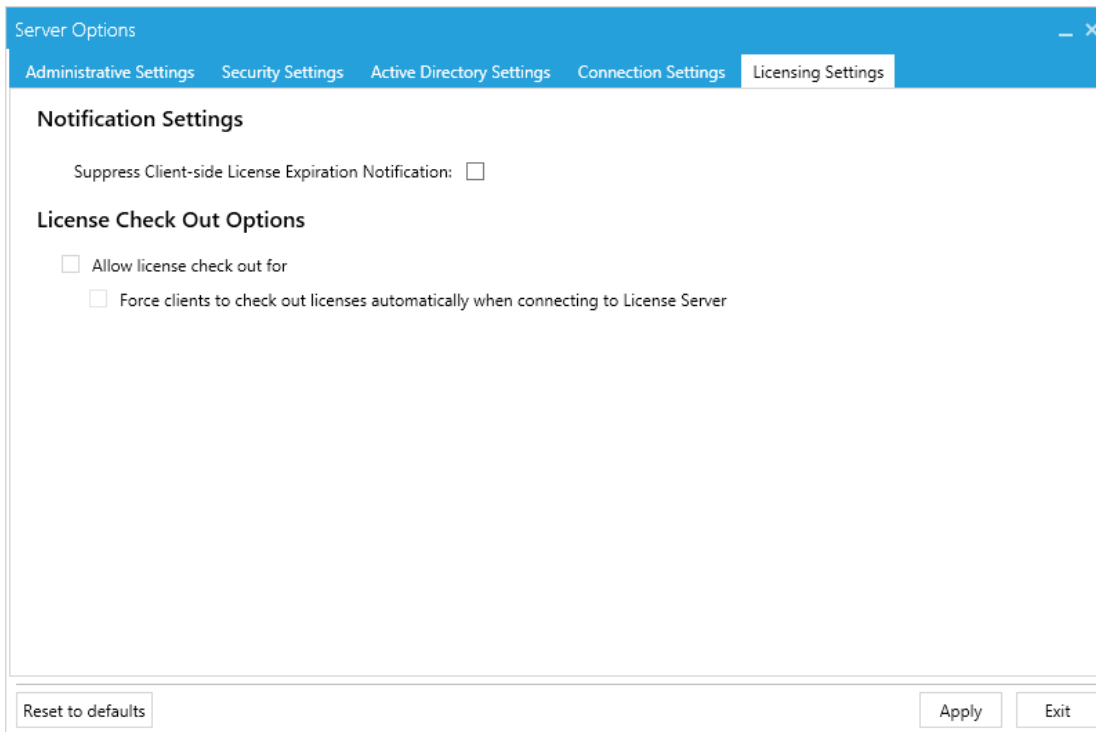
3. Under **License Check Out Options**, tick the box for **Allow license check out for** if you wish to allow license checkout and then specify a **number of days** after which a license will expire in the time field that displays.

   Note that the actual amount of time a license can be checked out may be different from the value indicated in this dialog (e.g., the value specified in this dialog is larger than the value allowed for a specific instance).

4. Tick the box for **Force clients to check out automatically when connecting to License Server** if you wish to force automatic checkout and then specify a **number of hours** within which the license must be renewed before expiration.

5. Select **Apply** and then **Exit** to close the dialog.

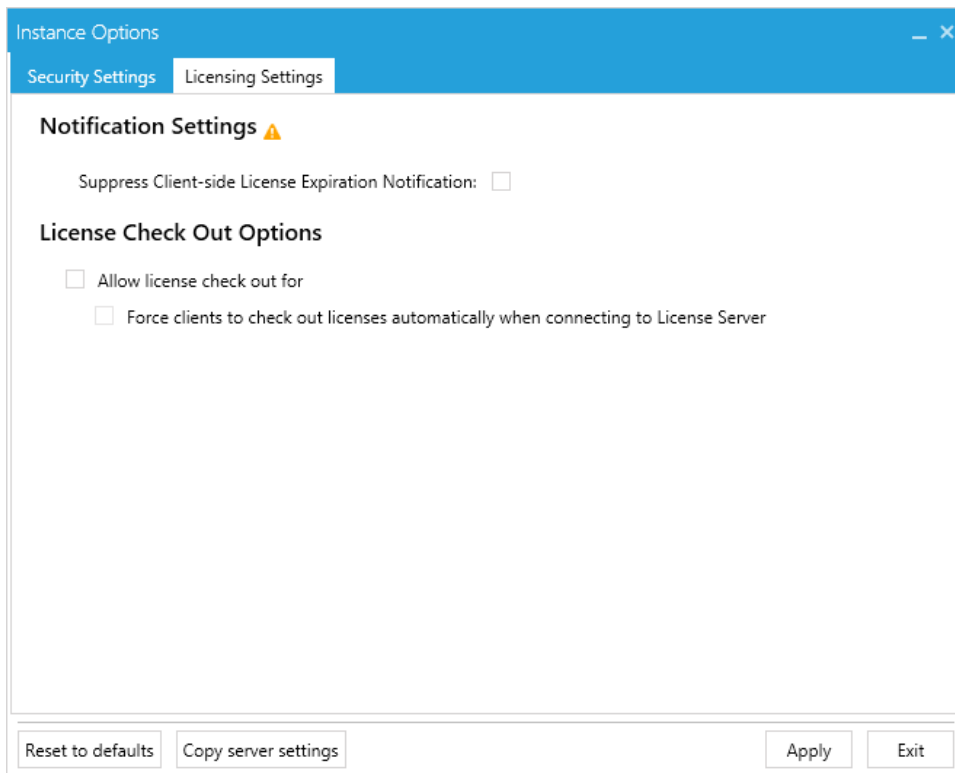   The License Server Configuration Utility saves your licensing settings.

INSTANCE OPTIONS

License Server settings may also be specified at the instance level. To do so, right-click on an instance name and, from the options that display, select **Options**.

The following settings may be specified at the instance level:

❑   Language

❑   Security Settings

❑ Licensing Settings

CREDENTIALS

Users can change their username and password.

Note that only administrators can change the admin password.

Steps:

1. In the Settings menu of the Monarch License Server Configuration Utility, select **Change Credentials**.

2. In the *Change Credentials* window that appears, specify the old and new usernames/passwords.

3. Re-enter the new username/password to confirm.

4. Click **Change**.

LANGUAGE

To change the language applied to the License Server, log into the Monarch License Server Configuration Utility and then select **Settings** > **Language**. In the menu that displays, select the language (i.e., French or English) you wish to apply. The figure below, for example, shows the License Server in French.
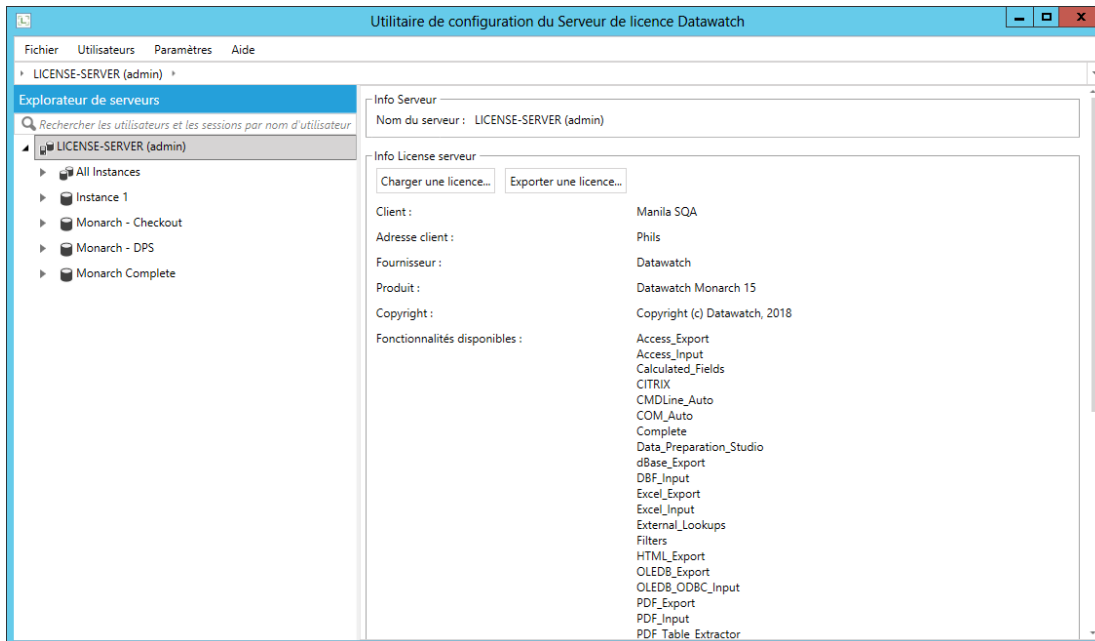
TROUBLESHOOTING

If you are unable to connect to a license server, verify that the License Service component of Monarch License Server is started. To do so, go to **Windows Start** menu > **Administrative Tools** > **Services**, find **Altair Monarch License Service** in the list, and verify the value in the status column. If License Service is not started, right-click **Altair Monarch License Service** and select **Start.**

LOGGING LEVELS

Log files for the License Server Service and Configuration Utility are typically located in C:\Program Files\Altair\Altair Monarch License Server\Service\Log.

The amount of information found in log files may be modified by accessing the corresponding config files:

❑ Altair.LicenseServer.Service.LicenseService.exe.config

❑ Altair.LicenseServer.ConfigurationUtility.Shell.exe.config

Locate the following configuration elements and then alter the value of the switchValue attribute.

```
<loggingConfiguration>

    <categorySources>

        <add switchValue="Information" autoFlush="true" name="General">
```

Acceptable values include the following:

Value	Description
Off	No information is recorded
Critical	Logs unhandled exceptions including: • OutOfMemoryException • ThreadAbortException (the CLR invokes any ThreadAbortExceptionHandler) • StackOverflowException (cannot be caught) • ConfigurationErrorsException • SEHException • Application start errors • Failfast events • System hangs • Poison messages: message traces that cause the application to fail
Error	Logs all exceptions
Warning	Logs events that have occurred or may occur and cause an otherwise normally running application to malfunction. Information is recorded when:

Value	Description
	• The application is receiving more requests than its throttling settings allow. • The receiving queue is near its maximum configured capacity. • Timeout has exceeded. • Credentials are rejected.
Information	Default logging level Logs events indicating successful application execution regardless of whether the application is working properly or not. The application is considered successfully executed when: • Channels are created. • Endpoint listeners are created. • Message enters/leaves transport. • Security token is retrieved. • Configuration setting is read.
Verbose	Logs low-level events for both user code and servicing Used for debugging purposes
ActivityTracing	Logs events that allow administrators/developers to correlate applications in the same application domain. This information includes: • Traces for activity boundaries (e.g., start/stop) • Traces for transfers
All	Logs all previous events

Note that the logging value selected includes the information captured by the logging value above it, except for Off. For example, a logging level of Warning includes Critical, Error, and Warning information. The value All includes events from ActivityTracing to Critical.

The application must be restarted for changes to this setting to take effect.