

# JTB FlexReport Report Service and Client

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## Instructions

JTB FlexReport Report **Service** and JTB FlexReport Report **Client** provide reporting functionality of JTB FlexReport.

The Service and Client installations do not include the functionality to record license usage. You need to have JTB FlexReport Core software installed for that purpose. Optionally JTB Process Monitor is needed.

It is recommended to install the JTB FlexReport Report Service on the same machine as JTB FlexReport Core is installed on and if MS Access is used, install on same machine as the main database JTBFlexReport.NET.mdb (default name) is located.

The JTB FlexReport Report Client can be installed on the same machine as the Report Service or it can be installed on one or many clients or PCs.

SQL Server recommendation:

If you can, use Windows authentication. Windows authentication offers the following security advantages as compared to SQL authentication:

- Accounts are centralized and managed by your Active Directory or local authority store.

- Strong password policies can be controlled and enforced by your domain or local security policy.
- Passwords are not transmitted over the network.
- User IDs and passwords are not specified in database connection strings.

If you use SQL Server authentication, make sure that you use a least-privileged account with a strong password.

## Report Service installation

.NET Framework 4.6 or later required.

The Report Service (JTB FlexReport Report Service) can be installed on a server or on the same Server/PC as the client. It is recommended to install it on the same machine as JTB FlexReport Core, especially if an Access database is used as backend database.

The recommended, default and most common option is having windows service running on the server with static IP, another option is by having an IIS Hosted service (ISS service installer is available upon request). If the service and the client are on different machines you need to use a static IP instead of the machine name or the machine name must be found from the client machine. The IP or server name (of the machine where JTB FlexReport Report Service is installed) should be used to configure both the service and the client.

Run JTB FlexReport Service <version> Setup.exe.

At the end of the installation the Service Configurator will optionally show up. You can configure it during the installation or later.

## JTB FlexReport Service Configurator

Service Configurator is found in Windows Start Menu>All Programs>JTB FlexReport Service> JTB FlexReport Service Configurator or run JTB FlexReport Service Configurator.exe in the JTB FlexReport Service folder. Typically in this folder:

32-bit OS: **C:\Program Files\JTB World\JTB FlexReport Service**

64-bit OS: **C:\Program Files (x86)\JTB World\JTB FlexReport Service**

It is also available to start from JTB FlexReport Core Configurator (JTB FlexReport Config) on the General tab.

### General Configuration tab

The screenshot shows the 'General Configuration' tab of the 'JTB FlexReport Service Configurator' application. The window title is 'JTB FlexReport Service Configurator'. The 'General Configuration' tab is selected, with 'Email Configuration' also visible. The 'Server Machine' section includes fields for 'Computer Name or IP Address' (Windows10), 'JTB FlexReport Report Service Running On Port' (2003), and 'JTB FlexReport Auto Service Running On Port' (2004). The 'SQL Server' section has fields for 'Server Name', 'Database Name', 'Authentication' (radio buttons for 'SQL Authentication' and 'Windows Authentication'), 'User ID', and 'Password', along with 'Load SQL Servers' and 'Load DB Names' buttons. The 'Database' section has radio buttons for 'SQL Server' and 'MS Access', and an 'MS Access' section with a 'Database Name' field (C:\Temp\JTBFlexReport.NET-Sample.mdb) and a browse button. The 'Service Process Priority' section has a 'Process Priority' dropdown (Normal). The 'Sampling to Cache' section has a 'Precision Value' dropdown (10 minutes), 'Clear' and 'Stop' buttons, and a 'Sampling All Records' button. The 'JTB Services' section has three checked checkboxes: 'JTB FlexReport Report Service', 'JTB FlexReport Sampling Service', and 'JTB FlexReport Auto Service'. At the bottom, there are buttons for 'License Activation', 'Update DB', 'Configure', 'Start Services', 'Stop Services', 'Test DB Connection', 'Test Service Engines', and 'Exit'.

Click on License Activation and activate JTB FlexReport unless it is already done in JTB FlexReport Core.

Decide to use SQL Server or MS Access as database. This depends on what database is used in JTB FlexReport Core.

You might need to specify the static IP instead of the server machine name. Note that this IP or name should be for the machine where the JTB FlexReport Service is installed.

Use port number 2003 and 2004 as first choice or increment it higher. The two services need to run on different ports.

Make sure the ports selected are open through firewalls.

Browse for the MS Access database (normally named JTBFlexReport.NET.mdb) or configure the SQL Server settings. Use the button Load SQL Servers to update the list of SQL Servers. Use Load DB Names button to update the list of Database Names. Sometimes the Server Name is not populated and needs to be added manually. For example SQL Server Express sometimes needs to be added manually like this .\sqlexpress or (local)\sqlexpress if the instance name is sqlexpress.

Notice that if the MS Access database is located on another server/computer you need to give the user that runs the service rights to access other computers on the network. UNC path should be used instead of mapped folder. How this is done is described in the JTB FlexReport Core documentation.

**Update DB** is usually only needed after upgrading from an older version than version 11.

Click on Configure.

Click on Start Services. This starts the services “JTB FlexReport Report Service” and/or “JTB FlexReport Sampling Service” and/or “JTB FlexReport Auto Report Service”.

Take note of the “server machine” name or IP, and the ports in “Running On Port” as it is needed when configuring the client.

Optionally test the connection and the service engine using the two separate buttons.

An error message about “The remote name could not be resolved: 'localhost'” can indicate a Host name problem that needs to be fixed, a workaround is to use the IP address. It can also be a conflict with a VPN client. Try disable the VPN client and try if it works. Disabling the use of a pac file whilst connected to the domain can also help. A pac file is a script file that is used to automatically configure LAN settings.

### **Sampling to Cache**

To improve performance of reporting on the raw data “JTB FlexReport Sampling Service.exe” runs as a Windows service and updates the raw data to a format that the reports quicker can make use of. This is normally done automatically every 30<sup>th</sup> minute. The lower Precision Value the more correct result but the longer the sampling will take and the larger the cache temp table will be. If MS Access is used as back end database the cache will be saved in a separate database with the suffix “-temp.mdb” containing the UserDetailedLogTemp table. If SQL Server is used there is a table named UserDetailedLogTemp that holds this cache data.

“Sampling All Records” can be used if you want to change “Precision Value”. You don’t have to keep the Service Configurator open during sampling as it can take quite a while if there is lots of data to process. But if it is kept open a dialog box will tell when the sampling is ready.

Here are the services showing up among Windows Services.

Name	Description	Status	Startup Type	Log On As
JTB FlexReport Auto Service	Automatical...	Running	Automatic	Local System
JTB FlexReport Core Service		Running	Automatic	Local System
JTB FlexReport Report Service	Provides dat...	Running	Automatic	Local System
JTB FlexReport Sampling Service	Sampling da...	Running	Automatic	Local System

If you want to have the service running with lower priority, select **Process Priority**.

### Email Configuration tab

Only needed if email with reports needs to be sent. Specify email settings to have the ability to get automatically created reports by email. Use it together with the [Auto Reports tab](#) in the client.

You may need to contact your email server admin or manager to learn what settings to use.

The “To” email here is only used for sending the test email. Further configuration needs to be done in the client as different reports can be sent to different emails.

When ready and/or before pressing “Send test email” press “Configure email”.

JTB FlexReport Service Configurator

General Configuration | **Email Configuration**

Email settings

From:

To:

SMTP:

User name:

Password:

SMTP port:   Use default credential

This server requires an encrypted connection (SSL)

## Client installation

.NET Framework 4.6 or later required.

The client can be installed on any server or PC that have network contact with the server or PC where the Report Service is running. The client can also be installed on the same computer as the service.

Run JTB FlexReport Client <version> Setup.exe.

## JTB FlexReport Client Configurator

Run JTB FlexReport Client Configurator from Windows start menu or run “JTB FlexReport Client Configurator.exe” located in the installation folder.

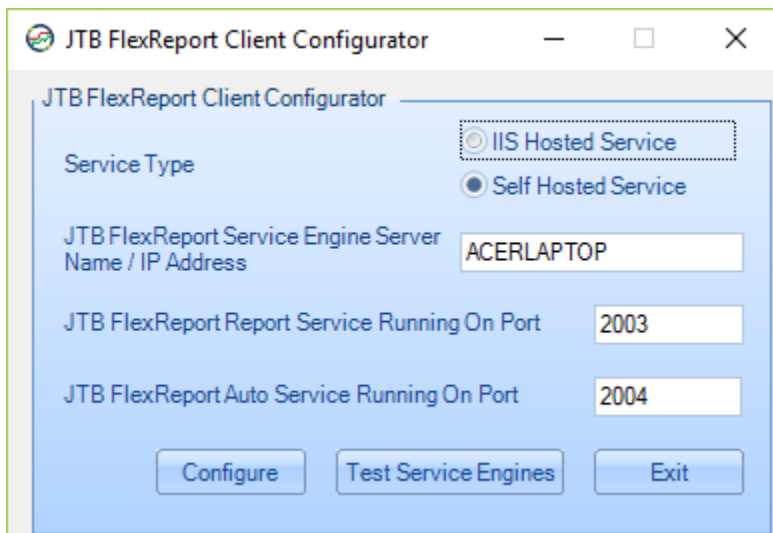
Typically in this folder:

32-bit OS: **C:\Program Files\JTB World\JTB FlexReport Client**

64-bit OS: **C:\Program Files (x86)\JTB World\JTB FlexReport Client**

It is also available to start from JTB FlexReport Core Configurator (JTB FlexReport Config) on the General tab.

In the client configurator add the server name or IP and ports that the Report Service uses. If unsure check in the JTB FlexReport Service Configurator what ports the settings are.





## JTB FlexReport Client

Start the client application from Windows start menu or run “JTB FlexReportClient.exe” located in the installation folder.

Typically in this folder:

32-bit OS: **C:\Program Files\JTB World\JTB FlexReport Client**

64-bit OS: **C:\Program Files (x86)\JTB World\JTB FlexReport Client**

It is also available to start from JTB FlexReport Core Configurator (JTB FlexReport Config) on the General tab.

## How to quickly create a report

Start by selecting Report Type from the Report Settings tab.

Then select a Date Range.

Optionally select other Report Settings.

Depending on Report Type select the appropriate tab and make further selection there. If only feature and server data should be included in the report typically use the Feature Server tab. For reports filtered on users or hosts and other combinations use the Detailed tab. For hours charts use the Hours Chart tab.

Press the Generate Report button.

See sample reports and settings [here](#).

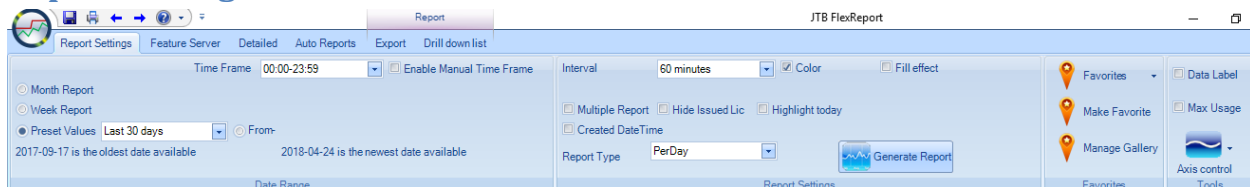
## Ribbon tips

Click on a Ribbon tab if the Ribbon is minimized to show that Ribbon tab.

Double click on a Ribbon tab to switch between minimized and maximized Ribbon.

The whole Ribbon can be resized in height to make it easier to select from list boxes.

## Report Settings tab



Here you start by specifying the date range and time frame to be used for the reports.

Before you can generate a report you need to use either of the tabs “Feature Server”, “Detailed”, “Hours Chart” or “List Report” (depending upon Report Type selected) and make selections there on what to report on.

On the Date Range area specify the date range for your report.

Select Date 2017-12-14 Time Frame 00:00-23:59  Enable Manual Time Frame

Month Report

Week Report

Preset Values  From-

2017-09-17 is the oldest date available 2018-04-24 is the newest date available

Date Range

Notice the oldest and newest dates available at the bottom of the date range area.

For Week Reports it is possible to select what week days to include in the reports. This will only work for PerDay, Stacked Line, Stacked Percentage, Histogram, Hours Chart and List Reports report types.

Select Date 2017-12-14 Time Frame 00:00-23:59  Enable Manual Time Frame

Month Report

Week Report  Monday  Tuesday  Wednesday  Thursday  Friday  Saturday  Sunday

Preset Values  From-

2017-09-17 is the oldest date available 2018-04-24 is the newest date available

Date Range

### Select Date

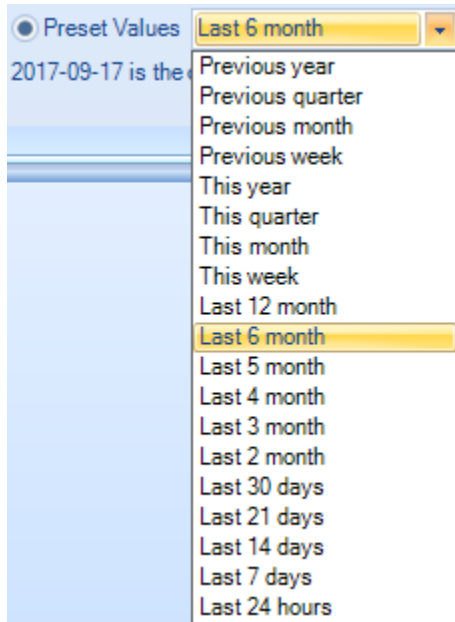
This will be used when either of the radio buttons “Month Report” or “Week Report” are used. Select any day within the month or week you want to report on.

Select Date 2017-12-14

	Mo	Tu	We	Th	Fr	Sa	Su
49	27	28	29	30	1	2	3
50	4	5	6	7	8	9	10
51	11	12	13	14	15	16	17
52	18	19	20	21	22	23	24
53	25	26	27	28	29	30	31
	1	2	3	4	5	6	7

Today Clear

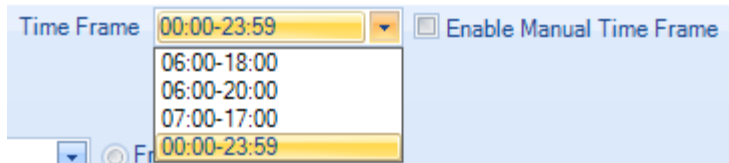
## Preset Values



“Preset Values” needs to be used for the automatically created reports but can also be used for manual reports.

## Time Frame

This setting is used for PerDay, Stacked Line, Stacked Percentage, Histogram, Hours Chart and List Reports reports only.



Either use the standard time frames from the dropdown or enable the manual setting and select from and to times.



## Report Settings

On “Report Settings” there are several settings that determine how the reports are created. If the Wizard is activated you only see the settings that are available based on the Report Type selected.

Report Settings

## Interval

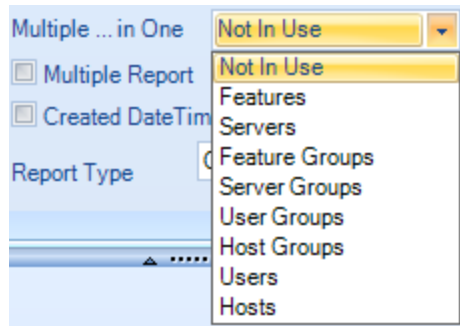
If a large date range is used like a year an interval of 10 minutes will be too small and generate too many points to reasonable show on a chart so a larger interval can be used. If the data in the database is saved at an interval of 10 minutes and the charting interval is set to 60 minutes the max value in that interval will be used. Selecting interval can also make the chart more readable.

Interval

- 60 minutes
- 1 minute
- 2 minutes
- 3 minutes
- 4 minutes
- 5 minutes
- 6 minutes
- 10 minutes
- 12 minutes
- 15 minutes
- 20 minutes
- 30 minutes
- 60 minutes
- 1 day
- 1 week
- 1 month
- 1 year

## Multiple ... in One Chart

If multiple of the items in a list (like the features list) are used they can be plotted as separate lines in the chart or separate bars in the hour chart report type. This option is not available for all Report Types.



### Multiple report

When “Multiple Report” is checked and you for example selected multiple features on the Feature Server tab, one report per feature will be generated on a separate tab.

### New tab

If this is selected a new tab will be used for the new report instead of replacing the existing report. This can be useful if you want to quickly compare data from one month to another.

### Include concurrent overlap usage

If this checkbox is selected the generated report will remove duplicates if there are two or more concurrent usages at the same time. Used also for the database discrepancy reports.

Example of concurrent overlap usage is with data from Process Monitor. Say one session of AutoCAD LT was run between 8:00 and 9:00 and another session was run between 8:30 and 9:30. With the checkbox checked the result would be that 2 licenses was running at 8:45 but when not checked it would report as 1 licenses was running and this also affects the hour charts so in the first place 2 hours are reported and in the second place 1,5 hour.

### Differences

Show only the differences. Used for the database discrepancy report only.

### Color

Either colors can be used for the charts or they can be in black and white.

### Borrowed line

Include a separate line showing the borrowed usage. The borrowed usage is still included in the used line.

### Hide Issued Lic

If you don't want to include the Issued Lic line.

### Fill effect

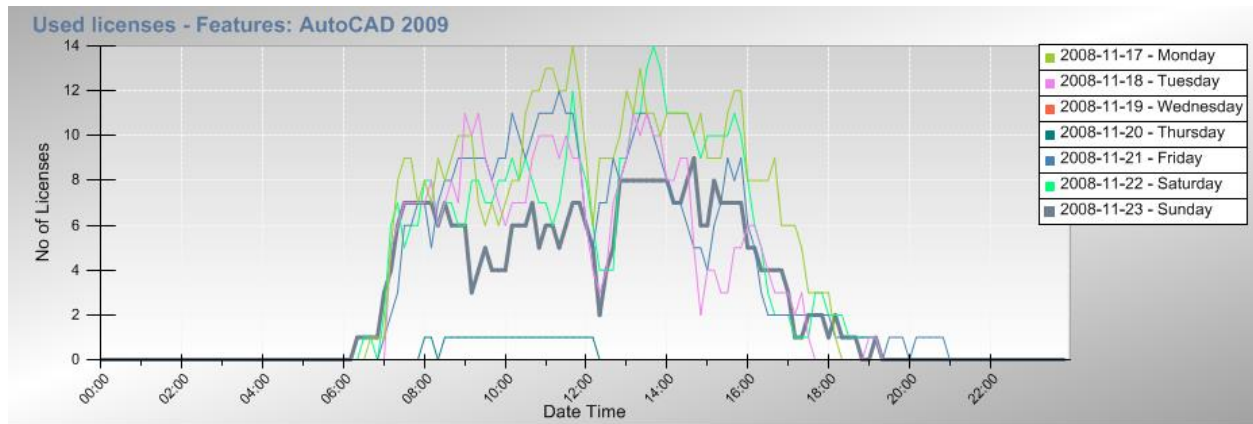
Useful for bar charts. For some other reports like Per Day and Continuous Line it can make the report not readable.

## Denials

Include denials in the some of the reports. Requires that denials have been saved to the database. For example for FlexNet licenses, by specifying FlexNet debug log files in JTB FlexReport Config. Not all license systems supports denials.

## Highlight today

Highlight (line is bolder) the line that is for the current day. Typically used for monthly or weekly charts and PerDay report type.



## Create Date Time

Show created date time in report.

## Summation

This is for histogram reports when multiple features are selected the license counts are summed up in the calculation. See examples of [histogram reports](#).

Summation can be useful when features and licenses overlap—you may have Building Design Suite Premium, Building Design Suite Advanced, and Architecture Engineering Construction Collection...someone who opens Revit could get any one of the three features depending on what's available.

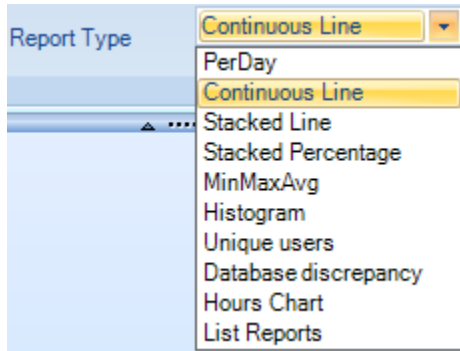
The 'Report Settings' dialog box contains the following configuration options:

- Interval: 10 minutes
- Color
- Fill effect
- Multiple Report
- Created DateTime
- Summation
- Report Type: Histogram
- Generate Report button

## Report Type

Select among the report types available: PerDay, Continuous Line, Stacked Line, Stacked Percentage, MinMaxAvg, Histogram, Unique users, Database discrepancy, Hours Chart and List Reports.

Different Ribbon tabs will show or hide depending on the Report Type.

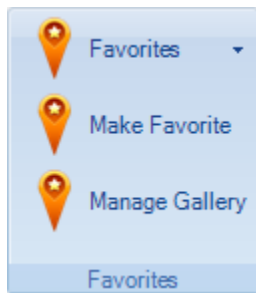


### Favorites

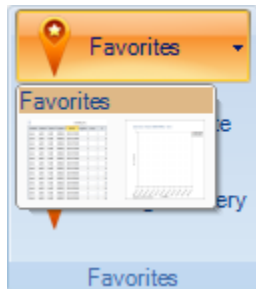
In the Favorites area you can create and access favorites.

Create the report you want to use.

It is recommended to use Preset Values for the date range so it is dynamic.



When a favorite is created it can be accessed and generated by selecting from Favorites



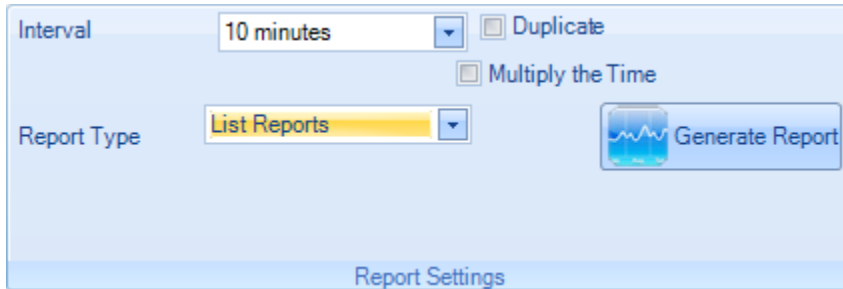
Manage Gallery is used to edit or delete favorites.

## Duplicate and Multiply the Time

These checkboxes are available only for List Reports.

Duplicate will include duplicate usage. Normally this should be unchecked.

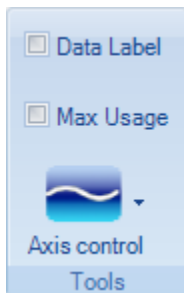
Multiply the Time when checked will multiply the time with the number of licenses if more than 1 license is taken per checked out features. This is mainly useful for token based features.



## Tools

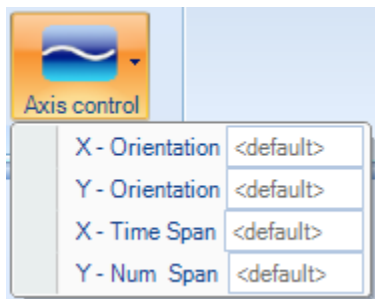
Data Label will show data labels for all points or bars in a chart.

Max Usage will show a data label for only the point with highest value in a line.



On Axis control add a custom value or delete an existing value to restore to the default value.

Orientation is in degrees.





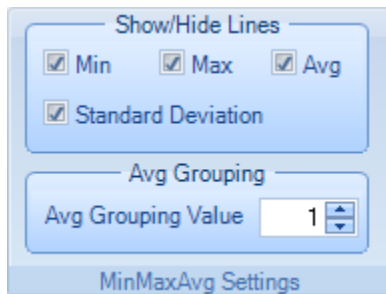
## MinMaxAvg

When the MinMaxAvg report type is selected the MinMaxAvg Setting panel shows up allowing you to select what lines to be showed on the report and for average line the grouping value.

Avg is short for average.

Standard Deviation. Learn more about it at [http://en.wikipedia.org/wiki/Standard\\_deviation](http://en.wikipedia.org/wiki/Standard_deviation) or <http://www.mathsisfun.com/data/standard-deviation.html>.

If the interval is 1 day and the grouping value is 7 you will get the average based on groups of 7 days.



MinMaxAvg Settings

Show/Hide Lines

Min  Max  Avg

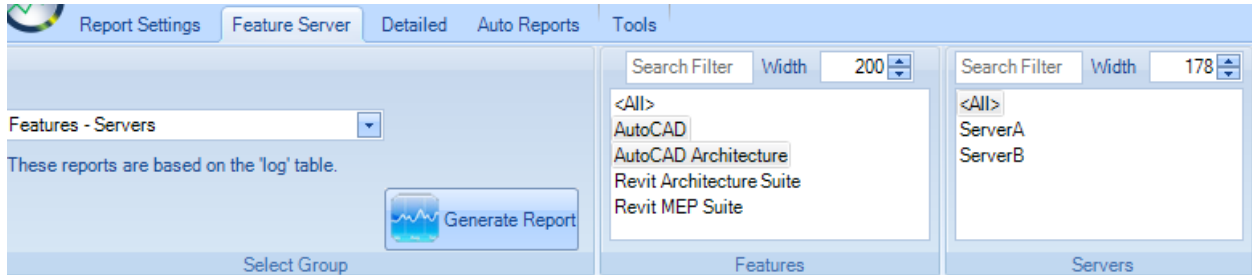
Standard Deviation

Avg Grouping

Avg Grouping Value

## Feature Server tab

Reports on this tab are based on the 'log' table that does not contain any user or host details. Normally this tab should be used for these combinations "Features – Servers", "Features – Server Groups", "Feature Groups – Servers" or "Feature Groups – Server Groups". For JTB Process Monitor and some license systems use the Detailed tab.

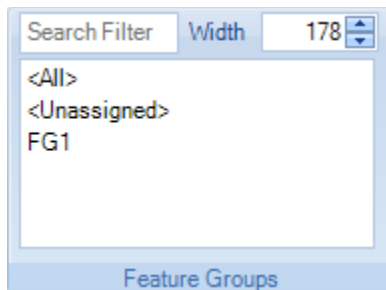


### Combination drop down



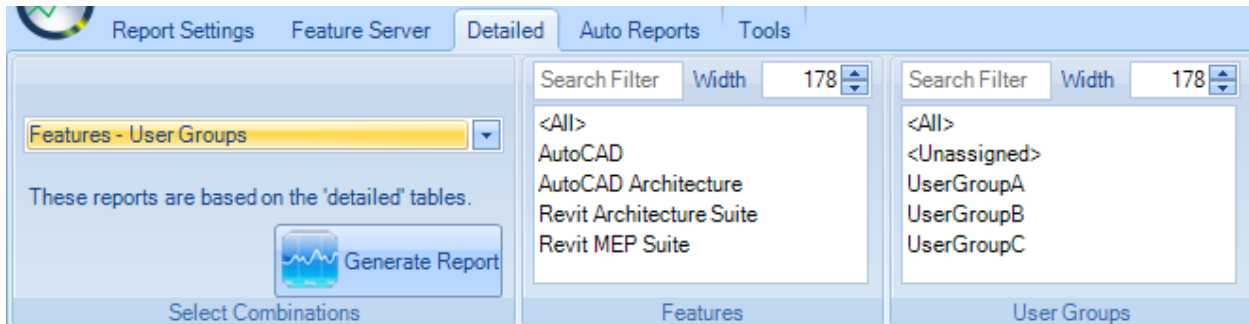
To select all items in a list like all feature groups it is enough to select <All>.

To select all items that belong to a group select <Unassigned>. In the below example selecting <Unassigned> will select all features that does not belong to any of the groups or in this case FG1.

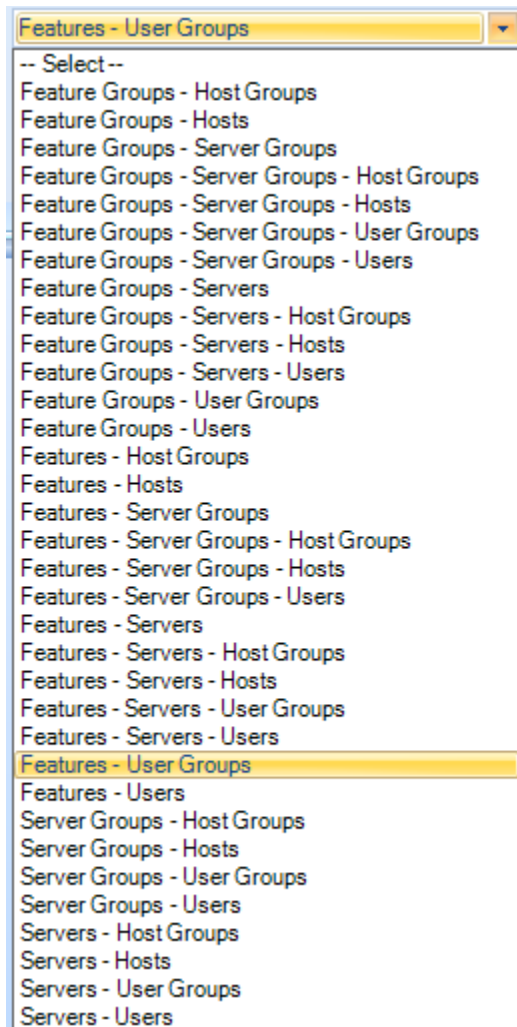


## Detailed tab

Reports on this tab are based on the 'detailed' tables 'tblUserDetailedLog' and 'tblUserDetailedLogPrev' that contain user or host details. Use <All> to select all items like all User Groups and <Unassigned> to select all items not in a group like all users not belonging to a user group. Normally if the Feature Server tab can be used, it's preferred to use it.



Select Combinations in the drop down.

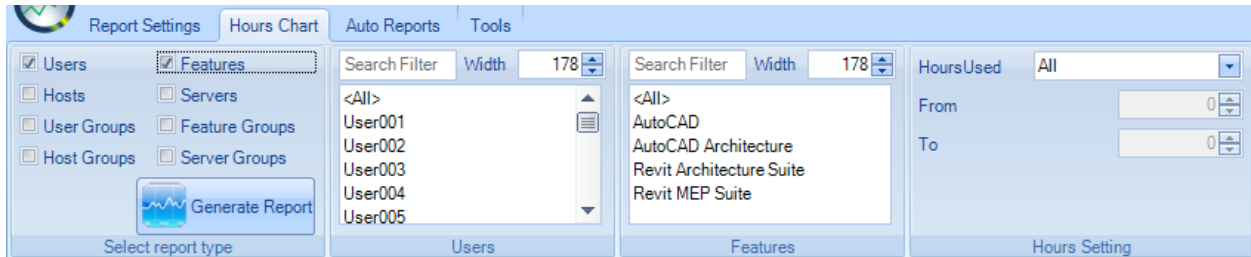


## Hours chart tab

Use the Report type Hours Chart on the Report Settings tab. Reports on this tab are based on the 'detailed' tables 'tblUserDetailedLog' and 'tblUserDetailedLogPrev' that contain user or host details.

Report on hours used by selecting different combinations like User-Feature or User Groups-Feature.

It is possible to filter out columns of hours for example showing only hours more than specified number.



Hours Used in the reports includes borrowed hours but it is possible to show borrowed hours also in a separate bar by using the Borrowed checkbox on Report Settings tab. The borrowed usage is still included in the used bar.

Use <All> to select all items like all User Groups and <Unassigned> to select all items not in a group like all users not belonging to a user group.

## List report

File Report Settings List Report Auto Reports

List Report Type Used Licenses

Selection Server - Feature - User - Host

Aggregate Interval Day

Generate Report

Preview Report Print Report Export to Excel...

Report Settings Print and Export Reports

### List Report Type

Select what type of list report to generate.

List Report Type Used Licenses

Used Licenses

Borrowed Licenses

Used and Borrowed Licenses

Min/Max/Avg Usage

User Groups

Host Groups

Denied Requests

Raw data Report

Raw Sampled data Report

Pinged Host Report

Features List Report

### Selection

Make a selection depending on type of report.

List Report Type Used Licenses

Selection Server - Feature - User - Host

Aggregate Interval Server - Feature - User - Host

Server - Feature - User

Server - Feature - Host

Server - Feature

Feature - User - Host

Feature - User

Feature - Host

Feature

User

Server - Feature - User - Host - Project

Server - Feature - User - Project

### Aggregate Interval

Select if the data in the report should be aggregated or summed up per day, per month or per year.

List Report Type	Used Licenses
Selection	Server - Feature - User - Host
Aggregate Interval	Day
	Day
	Month
	Year

## Auto Reports tab

With this functionality you can have reports automatically created as PNG image files at specified recurrence pattern.

Auto Reports can also be used to quickly get access to different saved reports. Just click on the saved report in the Reports List and then go to the Report Settings tab and click on Generate Report. If you don't want to save a lot of image files created, make sure to use a fixed file name and have them created only monthly.

On Report Settings tab the date selection must make use of "Preset Values".

This functionality requires that the JTB FlexReport Auto Report Service is running.

To set up a report start by manually creating the report you like to use. Settings on the Tools tab will not affect the created images.

When the report is created click on Auto Reports tab and specify the recurrence pattern if the report should be created on an hourly, daily or monthly basis.

Hourly settings allow a report to be created multiple times per hour or day.

Daily settings allow a report to be created at specified days and time.

<input type="radio"/> Hourly <input checked="" type="radio"/> Daily <input type="radio"/> Monthly	Auto GenerateTime 15:43 <input type="text"/> <input type="button" value="X"/> <input checked="" type="checkbox"/> Monday <input checked="" type="checkbox"/> Tuesday <input checked="" type="checkbox"/> Wednesday <input checked="" type="checkbox"/> Thursday <input checked="" type="checkbox"/> Friday <input checked="" type="checkbox"/> Saturday <input checked="" type="checkbox"/> Sunday
Recurrence Pattern	Daily Settings

Monthly settings allow a report to be created on a monthly basis.

<input type="radio"/> Hourly <input type="radio"/> Daily <input checked="" type="radio"/> Monthly	Auto GenerateTime 15:43 <input type="text"/> <input type="button" value="X"/> <input checked="" type="radio"/> Day 30 of every month. <input type="radio"/> The First Monday
Recurrence Pattern	Monthly Settings

The **Settings panel** explained.

File Save Path is a path located where the Auto Report Service is running. You can run this client on any computer but the report file (.PNG) will be created locally on the server.

It is possible to save to a network path (UNC) with some setting changes. JTB FlexReport Auto Report Service needs to be changed so it logs on as another account than the Local System Account. You might need to set "Log on as" to either a user account or another special account with access to the other location. Then for the folder where the images should be saved you need to share the network path with everyone or with a special user with read/write permission level. Finally you can use a UNC path as path where the images will be saved.

If the report should overwrite itself each time, use the fixed file name checkbox. This can be useful if you like to have a web page with the image being updated automatically.

Enter a file name that is the basis for the report file. If fixed file name is not used the file name will have a suffix with the date and time. For example AutoCADperDay (2012-02-13 08.52.12).png where AutoCADperDay is the file name.

Specify also the size for the image.

When ready press Save Settings. If all goes well a PNG file will directly be created based on the settings used.

The image shows a 'Settings' dialog box with the following elements:

- File Save Path:** A text input field with a browse button (three dots) to its right.
- Fixed File Name:** A checkbox that is currently unchecked, with an 'Email' button to its right.
- File Name:** A text input field.
- Image Resolution:** A section containing two spinners: 'Width' set to 802 and 'Height' set to 1154.
- Save Settings:** A button with a floppy disk icon and the text 'Save Settings'.
- Settings:** The label at the bottom center of the dialog box.

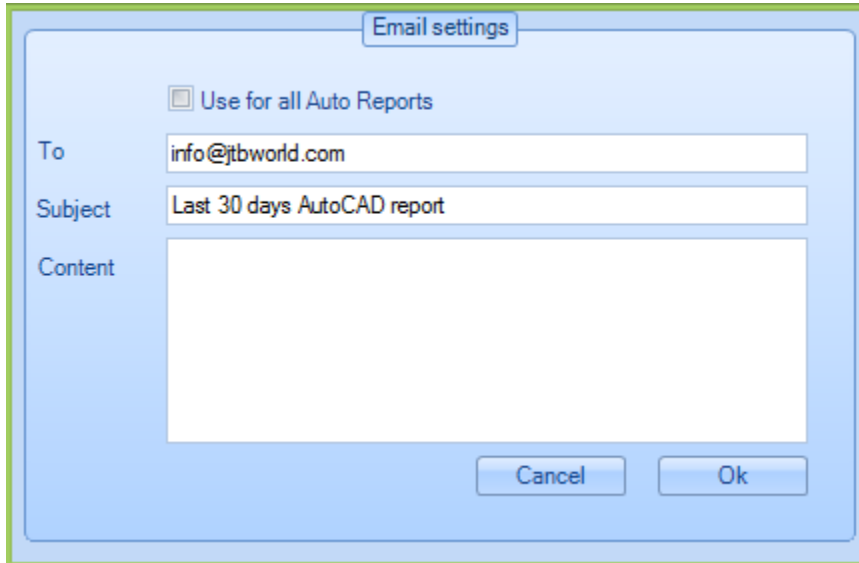
The report will show up on the **Report List** panel and can also be deleted or edited from there.



## Email

Make sure first that email settings are done in the JTB FlexReport Service Configurator > [Email Configuration](#).

To get the created PNG files emailed use the Email button and specify the settings of where to send the email and with what subject and content.



The screenshot shows a dialog box titled "Email settings". At the top, there is a checkbox labeled "Use for all Auto Reports" which is currently unchecked. Below this, there are three input fields: "To" containing the email address "info@jtbworld.com", "Subject" containing the text "Last 30 days AutoCAD report", and "Content" which is an empty text area. At the bottom right of the dialog, there are two buttons: "Cancel" and "Ok".

The setting files are saved on the computer where JTB FlexReport Service is installed in this folder:  
%ALLUSERSPROFILE%\JTB World\JTB FlexReport Service

%ALLUSERSPROFILE% location:

XP: C:\Documents and Settings\All Users

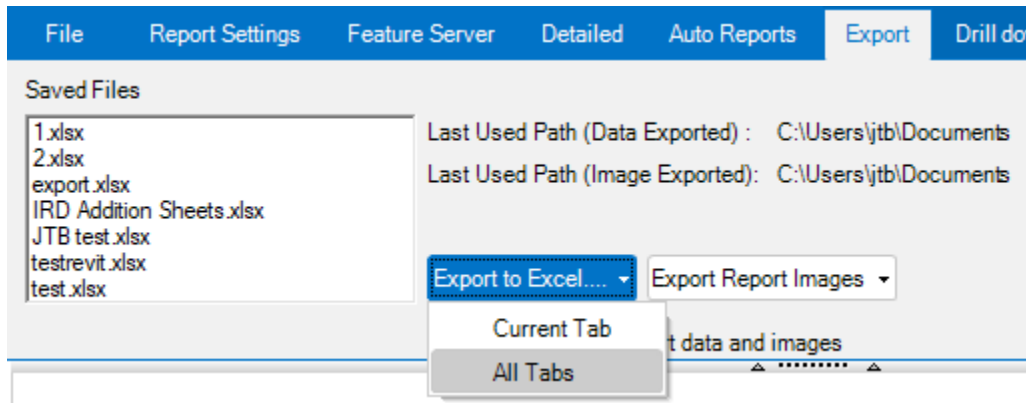
Vista, Windows 7, Windows 8, Windows 8.1, Windows 10: C:\ProgramData

## Export tab

This is a contextual tab that shows up when there is a report available to be exported.

Export the current report or all reports to Excel. If a chart is exported the data for the chart will be exported, not the chart.

Export the current report or all reports to images. You will be asked for a folder where the images are saved.



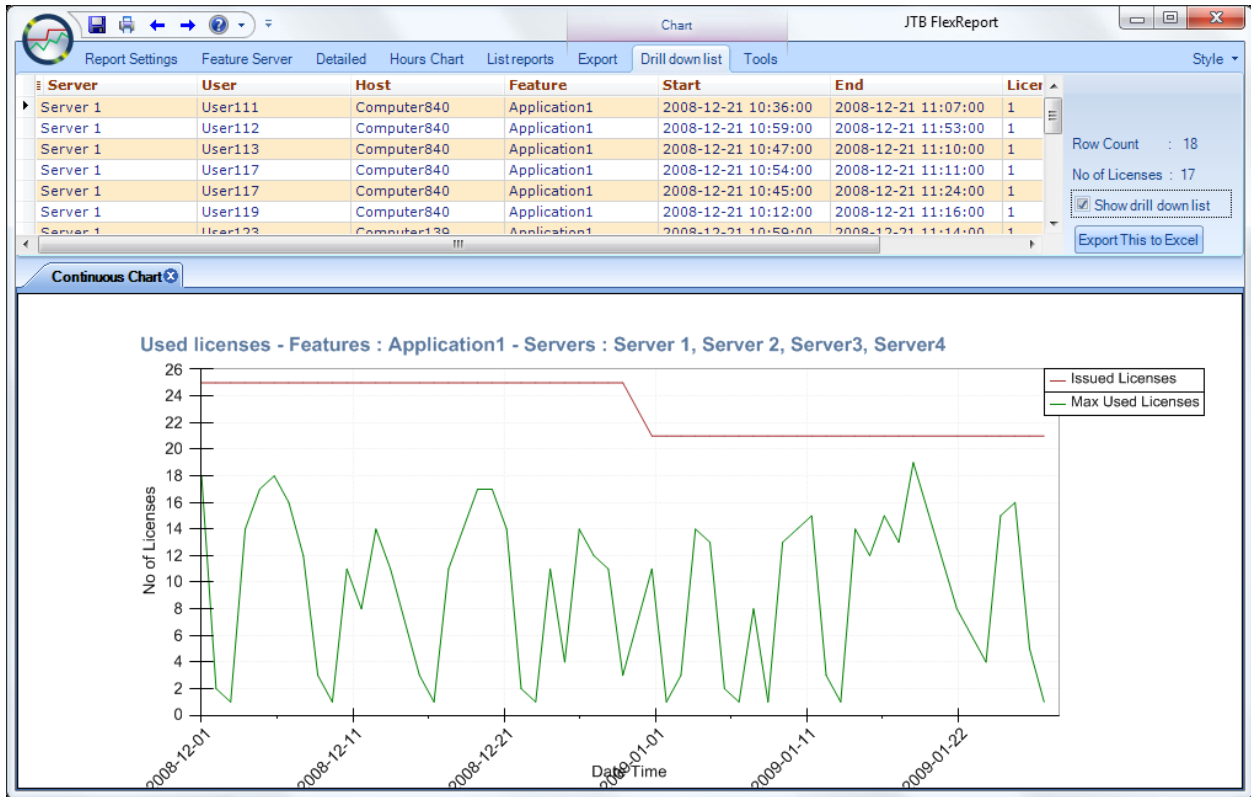
Click on the file in the list to open it.

## Drilldown list

This tab is a contextual tab and is only visible when a chart has been created.

In some charts you can click on a point and a drilldown list will show up showing what users that were using licenses at that point in time. If the chart is based on a larger interval like 1 day there might be multiple times that has the same amount of licenses issued but it is the first one found that is showed.

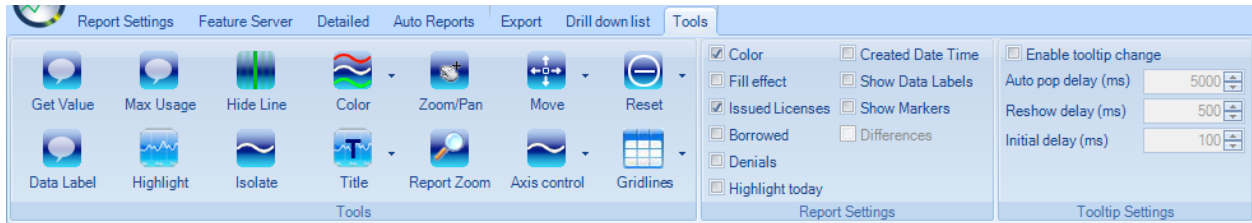
Depending on how the chart was created and based on what settings, the drill down row count might not match the point on the chart. This can also be affected by the precision value set for the sampling in JTB FlexReport Service Configurator. The larger precision value the less accurate this is.



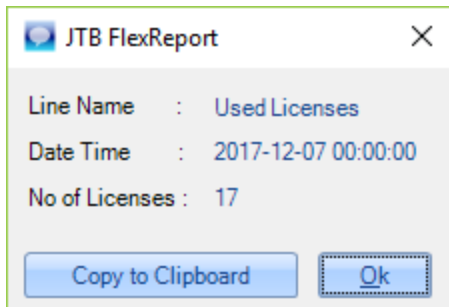
## Tools tab

This tab is a contextual tab and is only visible when a chart has been created.

Changes using this tab only affects the currently showing chart and are not saved.



**Get value** shows information on a point on a line in a dialog box. The result can also be copied to the clipboard



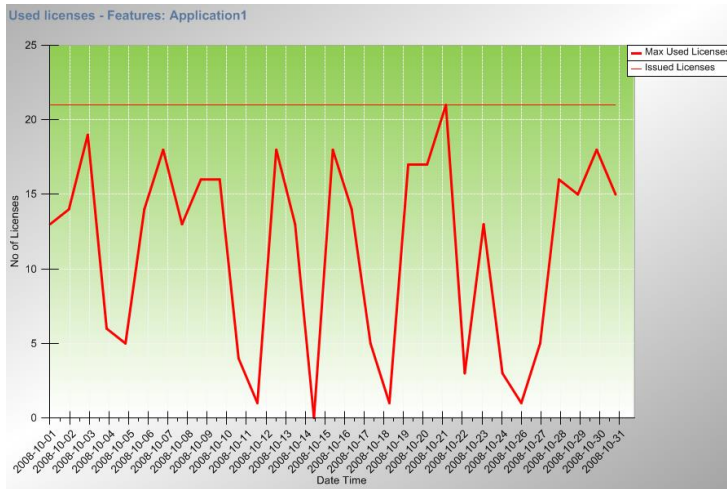
**Show Value** add the value directly on the chart for the point you click on.



**Show Max usage** – shows the highest value for each line in the chart.



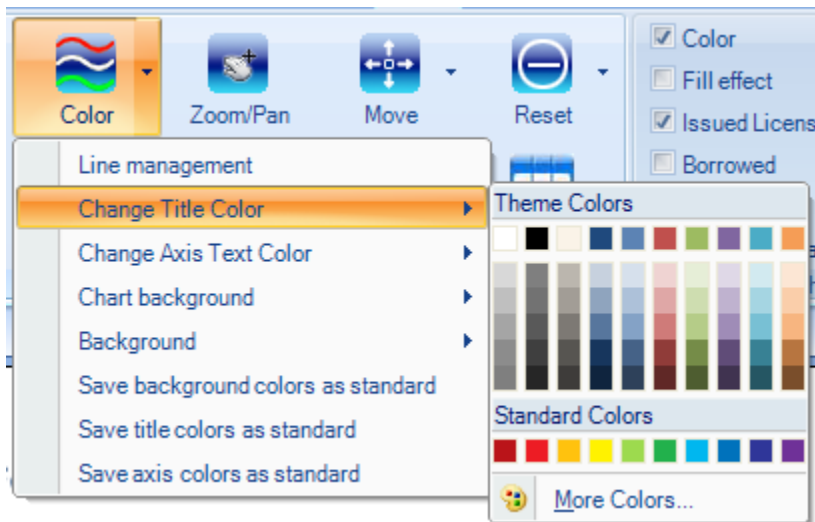
**Highlight** selected line makes the selected line red and bold.



**Hide Line** – click on a line to hide it.

**Isolate** selected line and all other lines will be hidden.

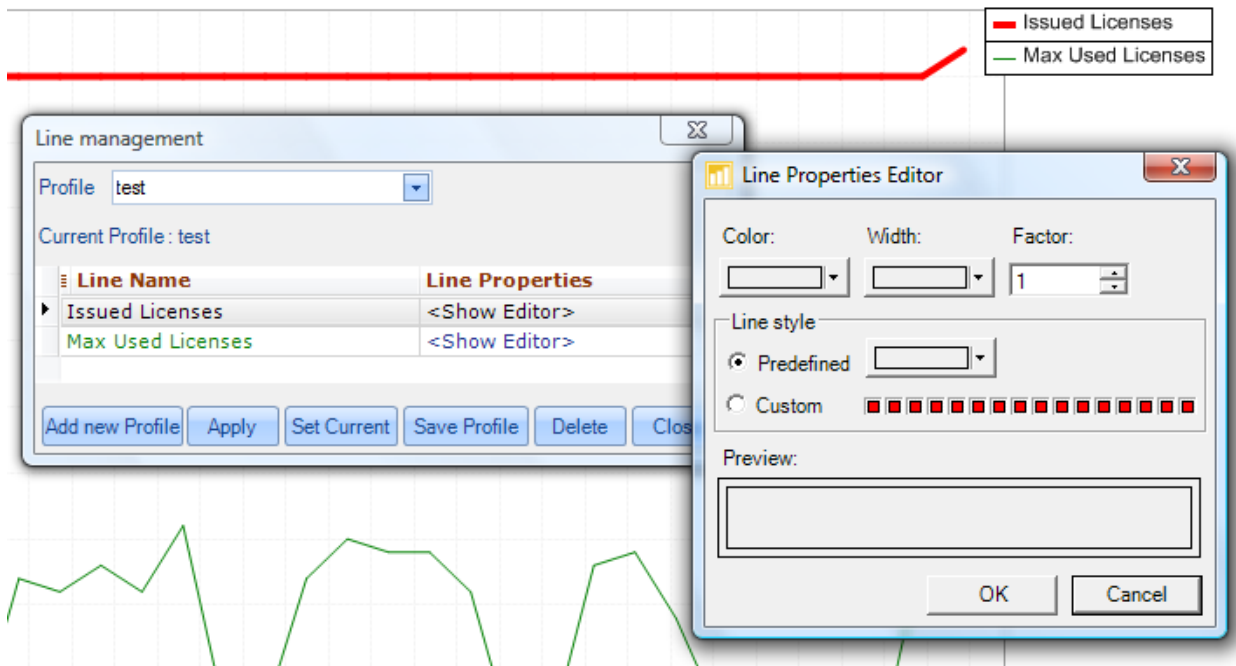
**Color** - Change the color of selected line if you want another color on it. Just click on the button, not on the arrow.



Or click on the arrow to do the following changes.

- Line management  
Custom settings can be specified and profiles for them can be saved, applied and used.

Line Color, Width, Factor and Style can be specified for each line.



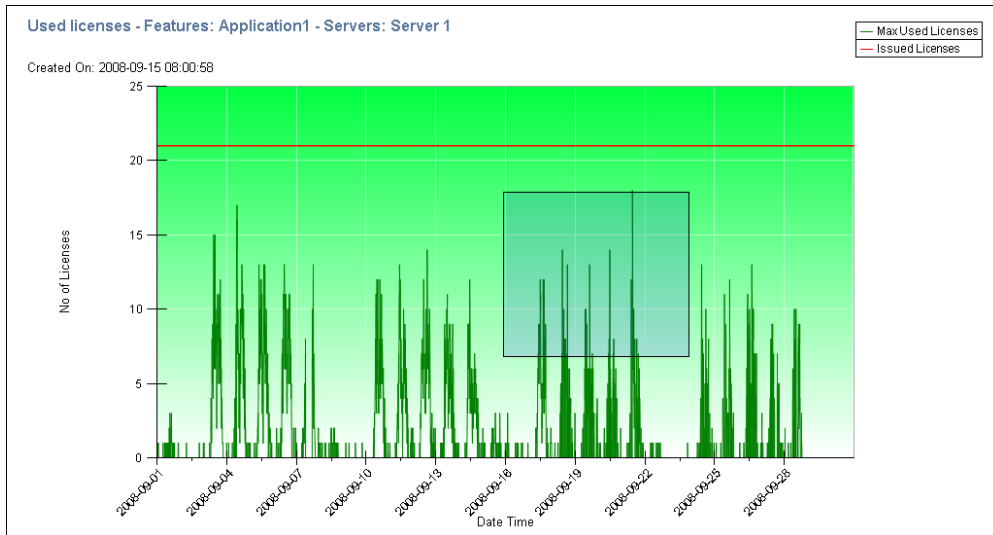
- Change Title Color
- Change Axis Text Color
- Chart background – This is for the area within the chart. If the colors are different it will be gradient.
- Background – This is for the area around the chart. If the colors are different it will be gradient.

And to save the colors as your standard there are the following options.

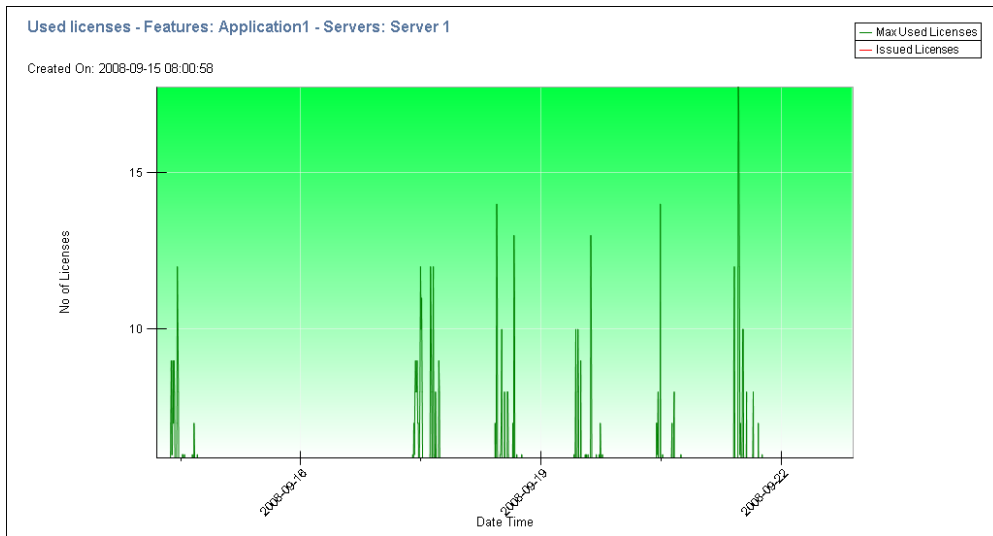
- Save background colors as standard
- Save title colors as standard
- Save axis colors as standard

**Title** is useful if you want to add a custom title for the report.

**Zoom/Pan** – use your mouse left click and make a rectangle from top left to bottom right in the chart to zoom in. Click one time with the left button to zoom out or make a rectangle from right to left to zoom out a bit.

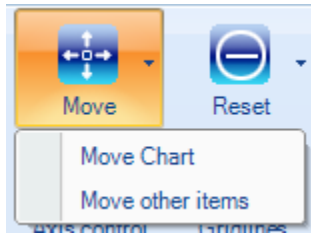


The result after zooming in:

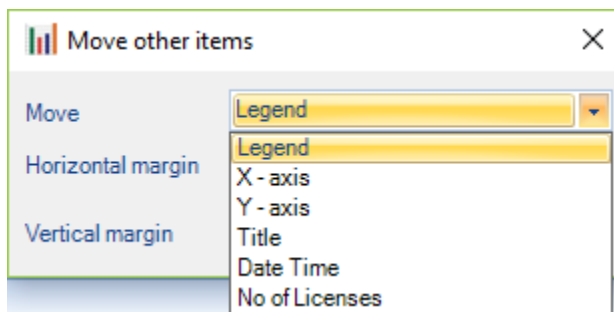


**Chart Zoom** acts on the chart area so you can adjust the size of it.

## Move



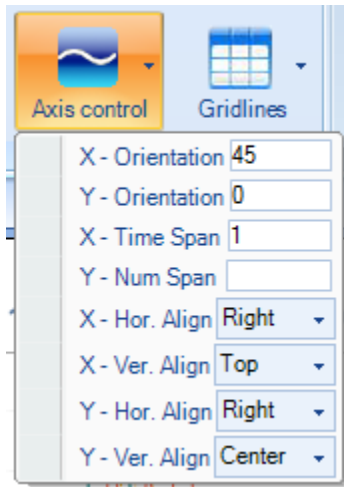
- Move Chart – relocate the chart
- Move other items  
Allow you to move the Legend, X-axis, Y-axis, Title, Date Time and No of Licenses individually.





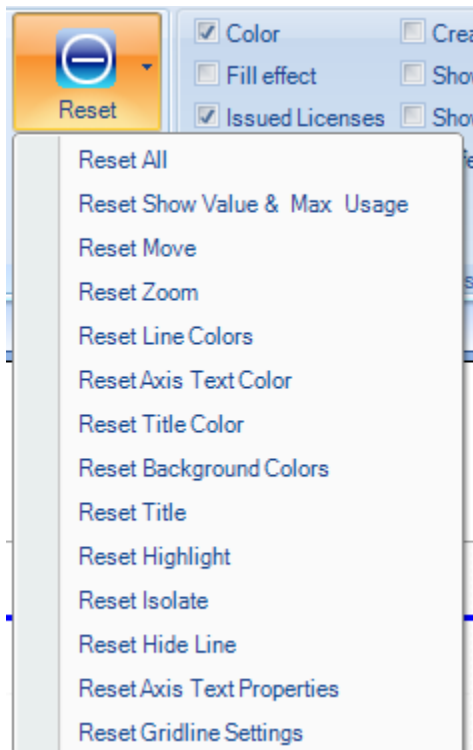
## Axis controller

Allow you to make changes to the axis text.

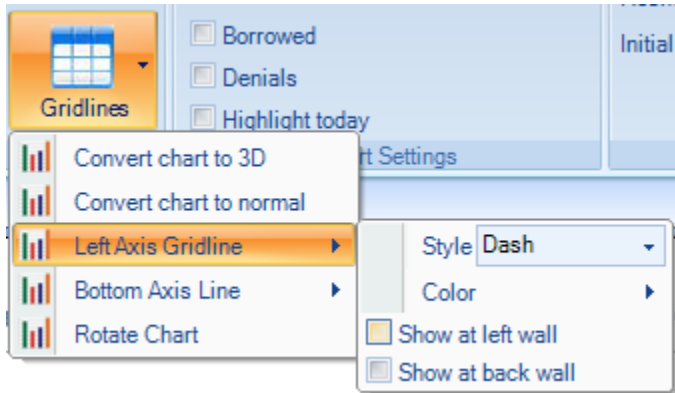


## Reset

Most changes can be reset All at the same time or individually.

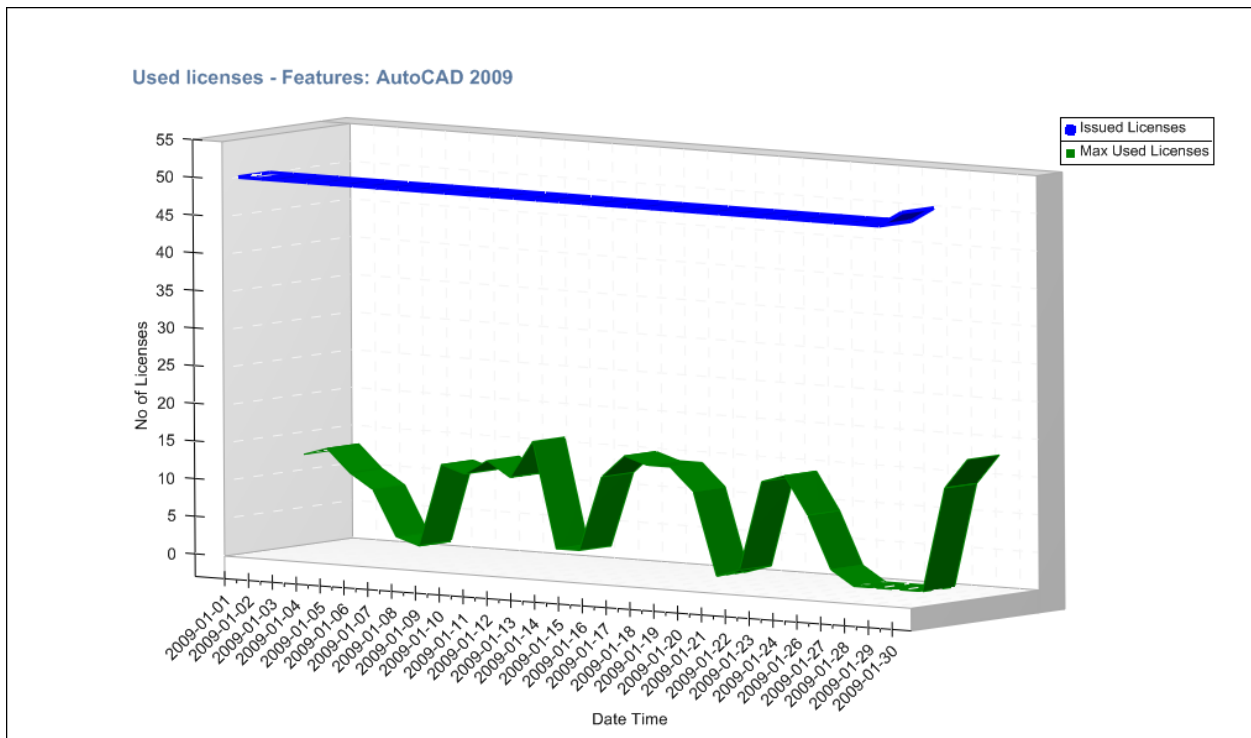


## Gridlines

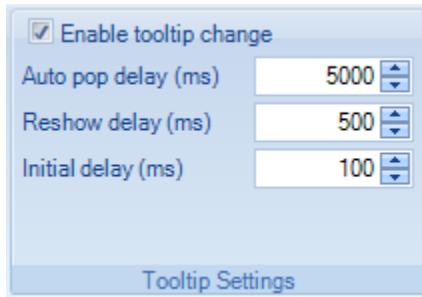


Besides being able to change the appearance of the grid lines you can set the chart to be viewed in 3D.

The trick to get the depth of the lines is to click on "Fill effect" twice.



## Chart Tooltip Settings



Enable tooltip change

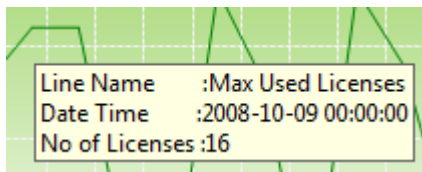
Auto pop delay (ms) 5000

Reshow delay (ms) 500

Initial delay (ms) 100

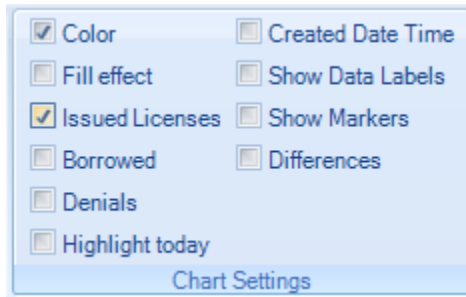
Tooltip Settings

- When **enable tooltip change** is checked a tooltip shows when you hold the cursor above a point on a line.



- **Auto pop delay** is in milliseconds how long the tooltip will show.
- **Reshow delay** is in milliseconds how long before showing another tooltip when you move the cursor.
- **Initial delay** is in milliseconds how long before the tooltip will show up.

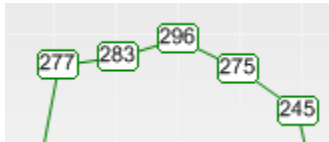
## Chart Settings



Toggles the settings on the currently visible chart.

- **Color**
- **Fill effect**
- **Issued Licenses**
- **Borrowed**
- **Denials**
- **Highlight today**
- **Create Date Time**
- **Show Data Labels**

Show or hide the data labels



- **Show Markers**

Show or hide the markers

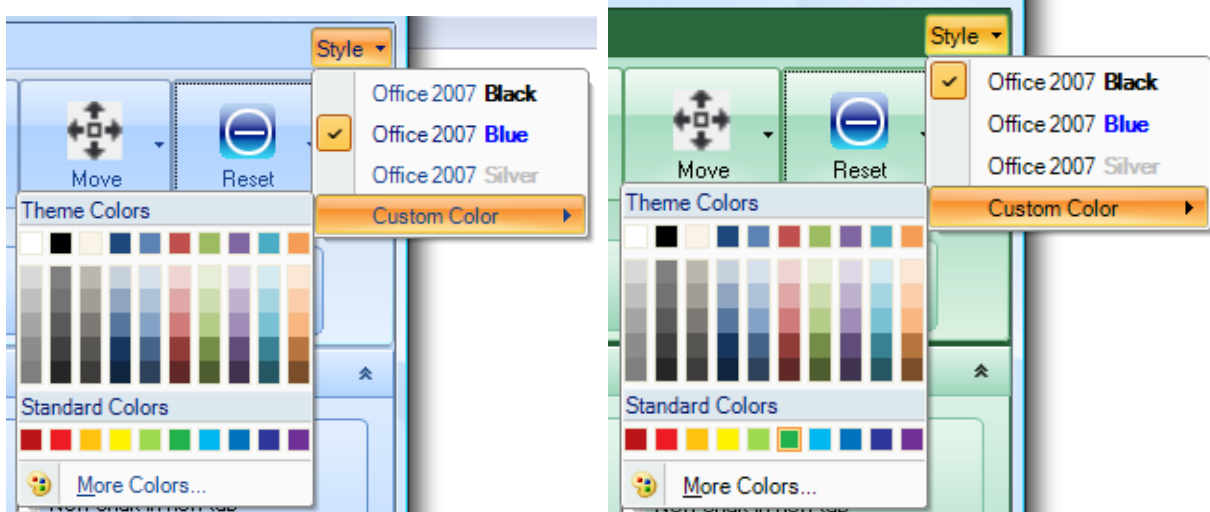


- **Differences**  
Used for the database discrepancy report only.

## Style

Select your preferred color theme.

First select the base style Black, Blue or Silver. Then you can select a custom color that will adjust this style further.



## Application menu

Copy report image to clipboard.

Reports can be saved/exported to file and printed.

Close current or all reports.

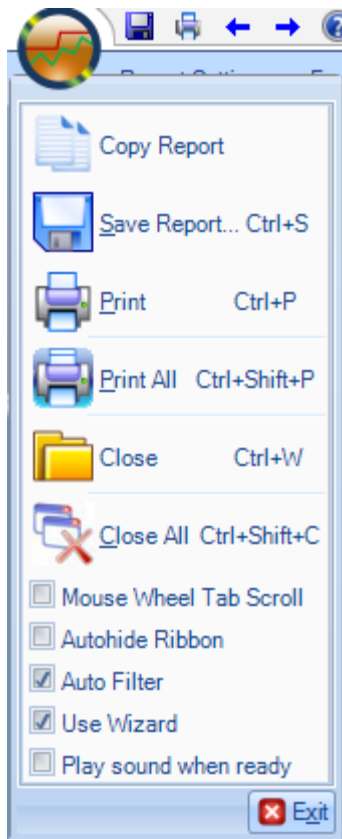
Determine if the mouse wheel should scroll among the tabs or not.

Determine if the Ribbon should be hidden automatically.

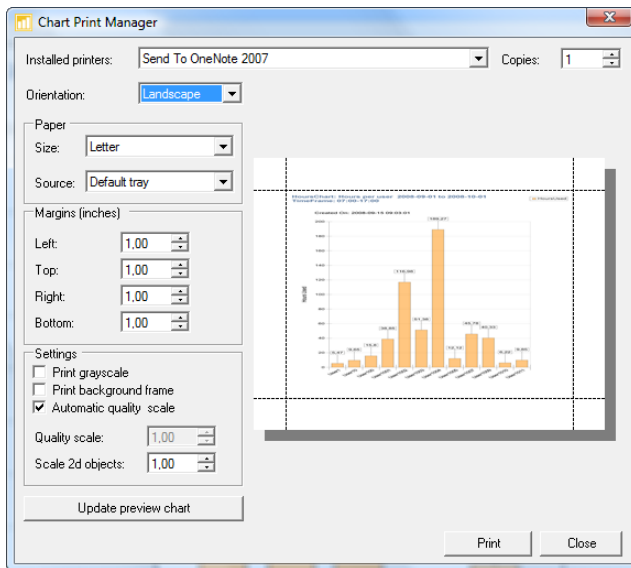
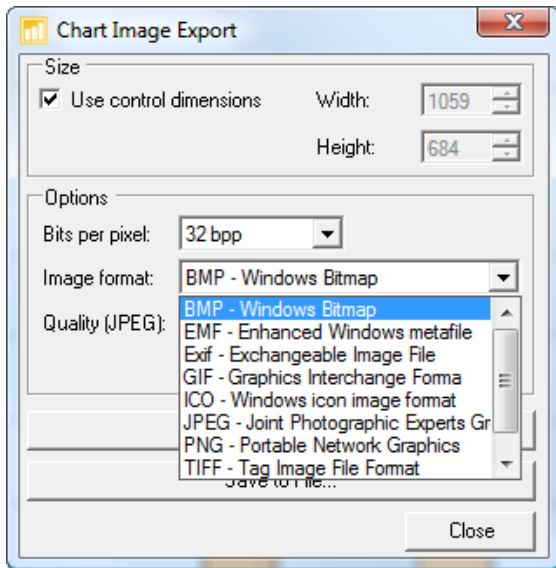
Auto Filter: This applies to simplify making selections in the list boxes of features, servers, users, hosts, etc. Note: If the database is large and with many rows in the tables this can cause the Client to take a long time to open so you might want to disable this feature for this reason.

Use Wizard: The Wizard is activated by default and makes it easier to make selections of settings by hiding those that are not available depending on report type selected.

Play sound when ready: If you want to hear when the report(s) is ready.



Save Report opens up this dialog box making it possible to save to different image formats.

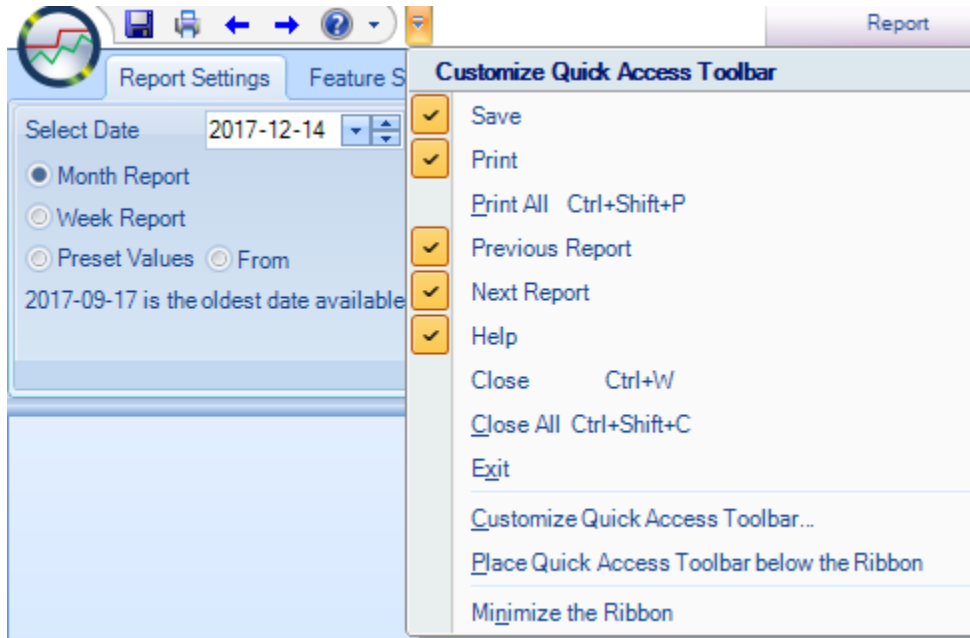


To be able to export all chart tabs to images see the Export tab.

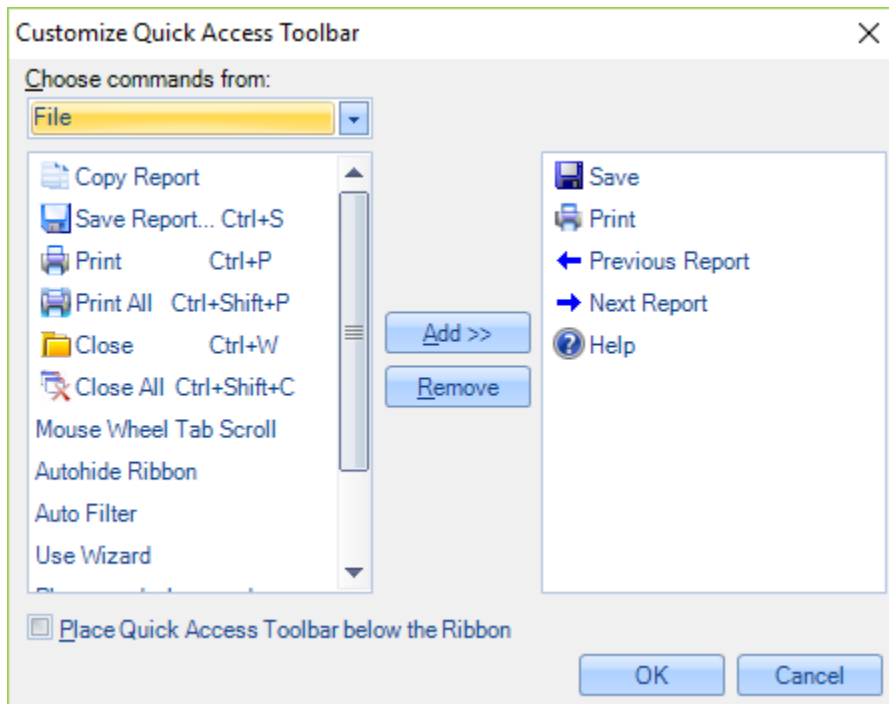
## Quick Access Toolbar

Use the arrows to move among multiple reports that have been created.

The Ribbon can be minimized and maximized also by right-clicking on the arrow to the right in the Quick Access Toolbar (QAT).

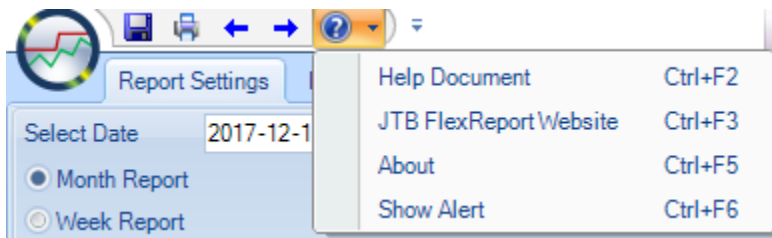


Command can be added to the Quick Access Toolbar

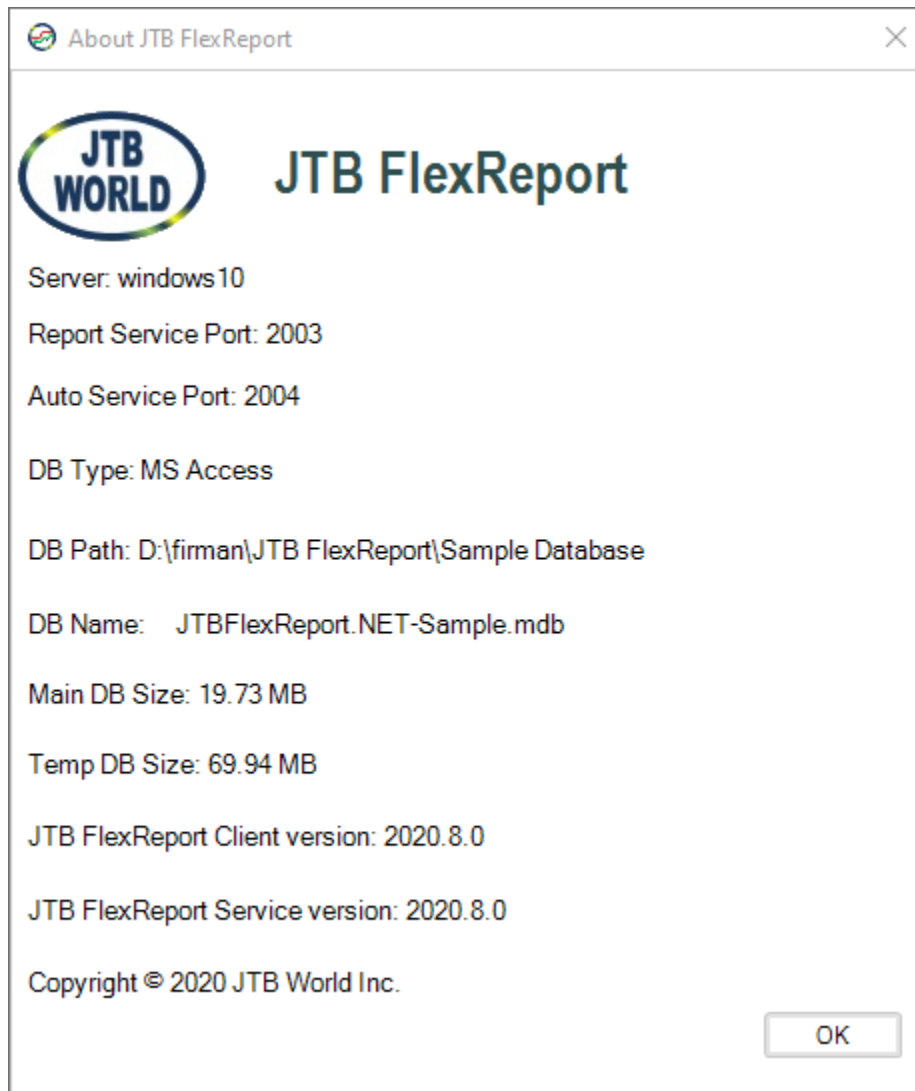




Click on the arrow on QAT to access these options.



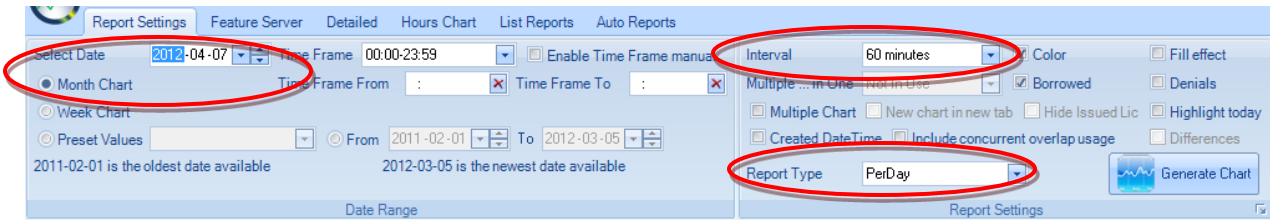
About dialog box shows besides versions information on the connection settings and database.



**Show Alert** will activate that the dialog box is shown when there is a need to select further data from other tabs.

# Sample reports

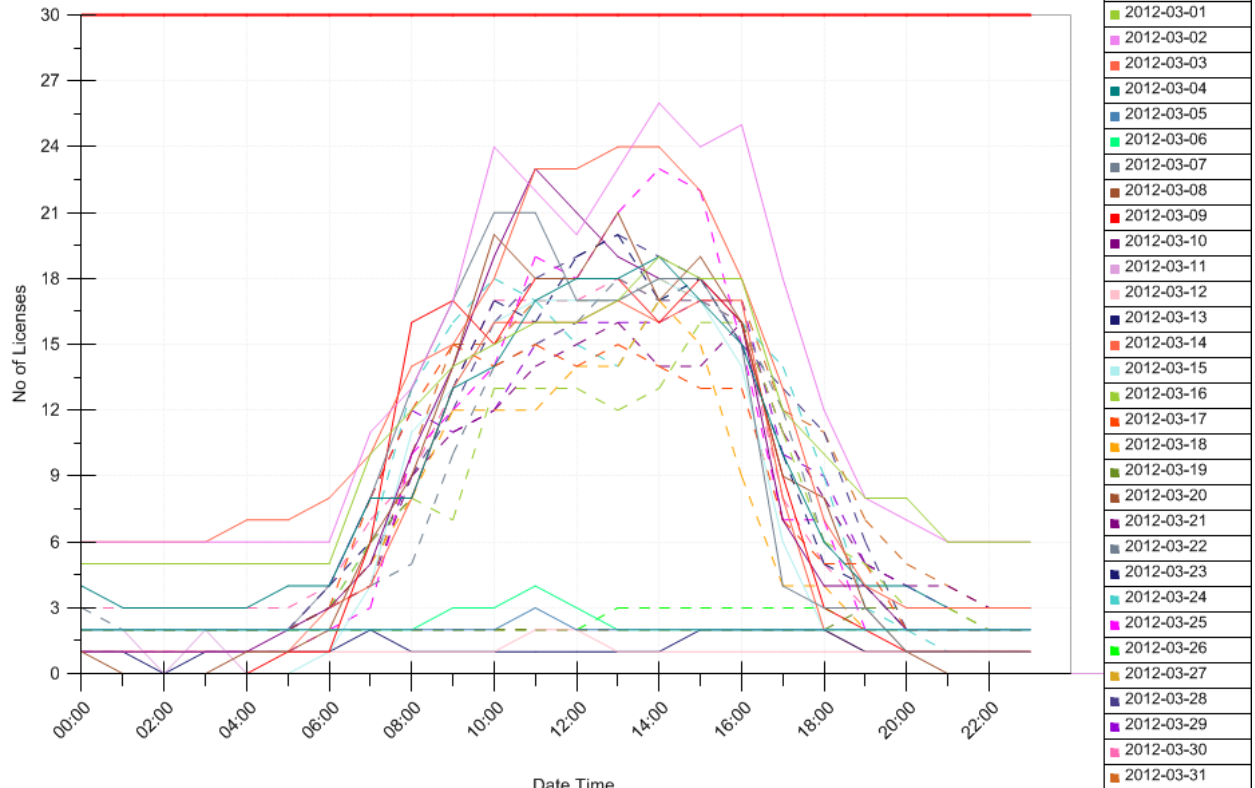
## Monthly chart on a per day basis



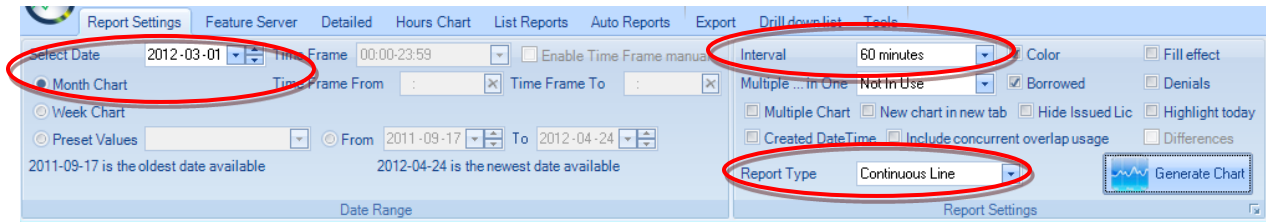
Select Report Type PerDay. Select Month Chart radio button and any date within the month you want to include in the report. Use lower interval than 1 day.

Use in combination with the Feature Server or Detailed tab.

Used licenses - Features : AutoCAD - Servers : ServerA;  
Date range: 2012-03-01 to 2012-03-31; TimeFrame: 00:00-23:59



## Monthly chart as a continuous line

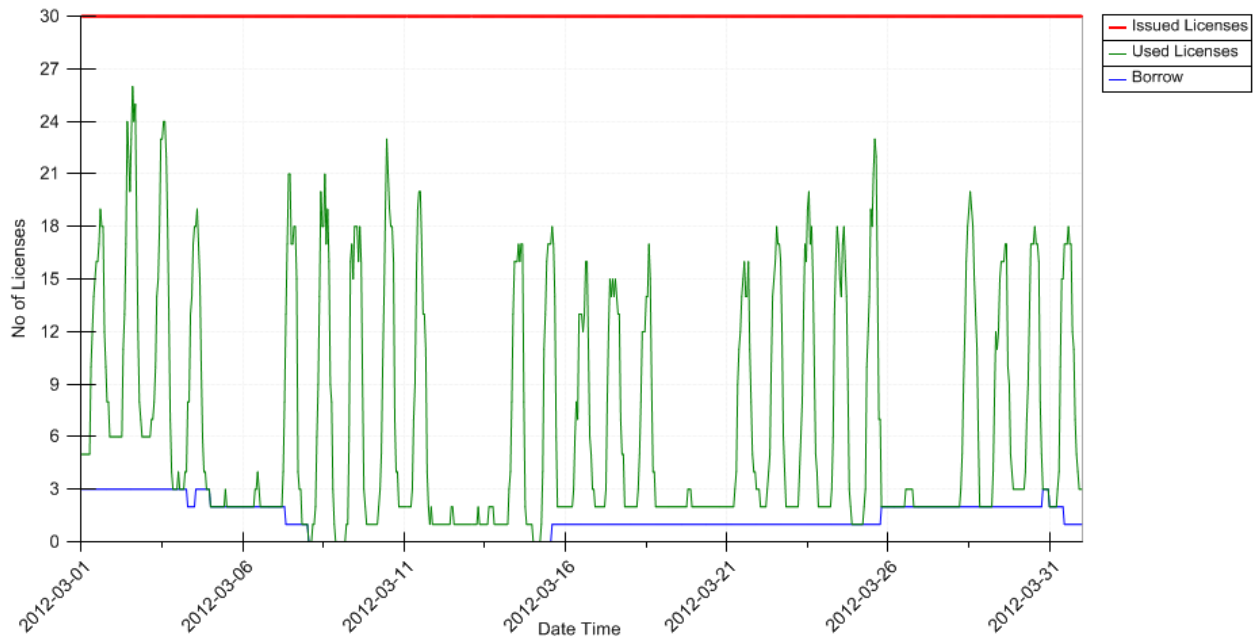


Select Report Type Continuous Line. Select Month Chart radio button and any date within the month you want to include in the report. You can also select month using Preset Values dropdown or From and To dates. Interval can be any interval larger than how the sampling interval or snapshot interval is set.

Use in combination with the Feature Server or Detailed tab.

Optionally use checkboxes like Color, Borrowed, Hide Issued Lic, Fill effect, Denials.

### Used licenses - Features : AutoCAD - Servers : ServerA



## Chart as a continuous line including borrowed usage and with interval set to 1 day

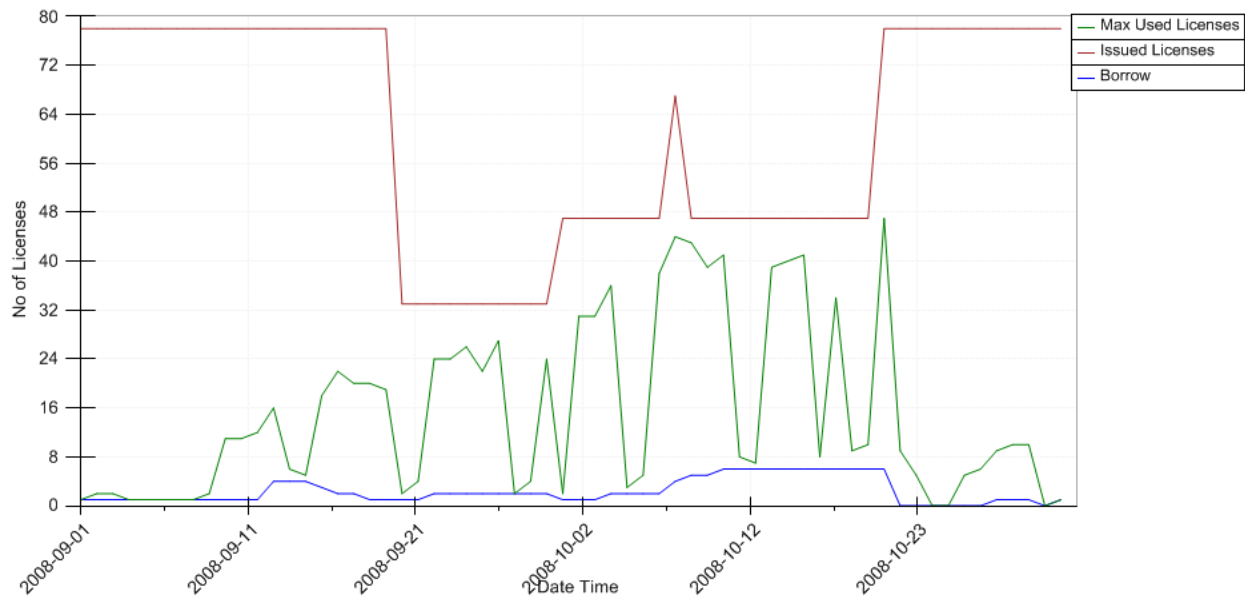
Report Type used is Continuous Line. A custom date range has been used and Interval set to 1 day.

Use in combination with the Feature Server or Detailed tab.

Borrowed usage is still included in the Max Used Licenses line.

The screenshot shows a configuration panel for a report. On the left, the 'Frame' is set to '06:00-18:00' with an 'Enable Time Frame manual' checkbox. Below it, 'Frame From' is '08:00' and 'Time Frame To' is '16:00'. The date range is 'From 2008-09-01' to 'To 2008-11-01', with a note that '2009-01-30 is the newest date available'. On the right, the 'Interval' is '1 day', and 'Report Type' is 'Continuous Line'. Other options include 'Color', 'Borrowed', 'Multiple Chart', 'New chart in new tab', 'Hide Ma', 'Include concurrent overlap usage', and 'Created DateT'.

Used licenses - Features: Application4



## Denials showing on charts

Select Date: 2008-06-11

Month Chart

Interval: 1 day

Multiple ... in One: Not In Use

Report Type: Continuous Line

Color  Fill effect  
 Borrowed  Denials  
 Multiple Chart  New chart in new tab  Hide MaxLic  Highlight today  
 Include concurrent overlap usage  Created DateTime

Generate Chart

Use the Denials checkbox on the Report Settings tab together with the Continuous Line report type.

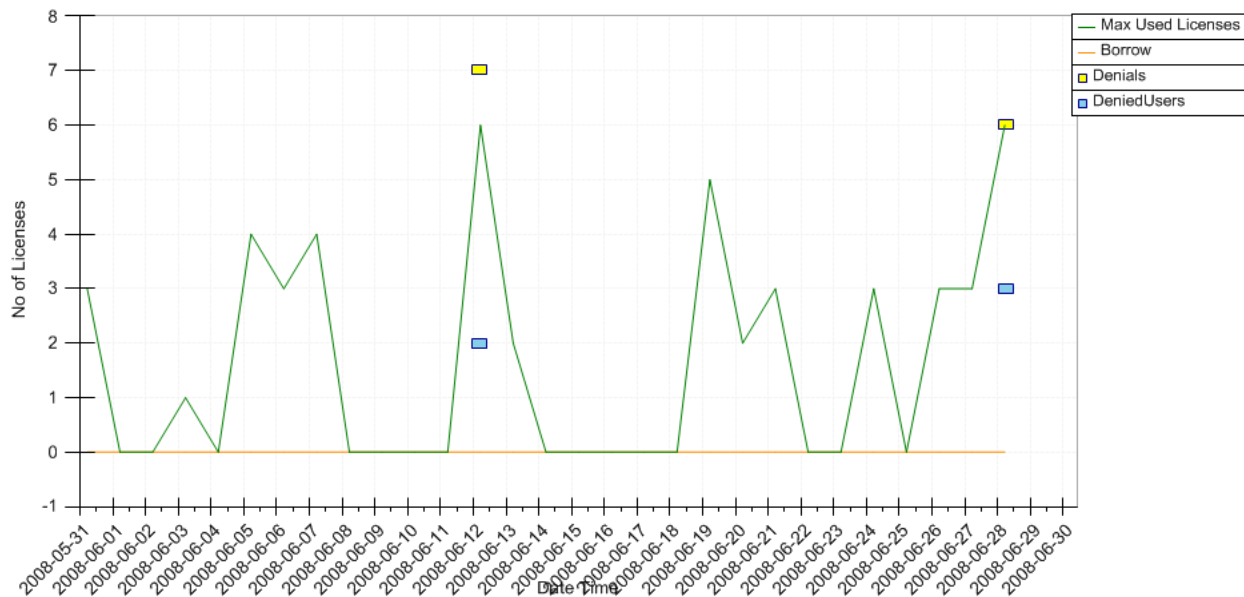
The points Denials are showing how many denials happed that day.

The points for DeniedUsers show how many different users had denials that day.

Denials is only available for Flex-enabled features and when having added FlexNet debug log in JTB FlexReport Config>Properties.

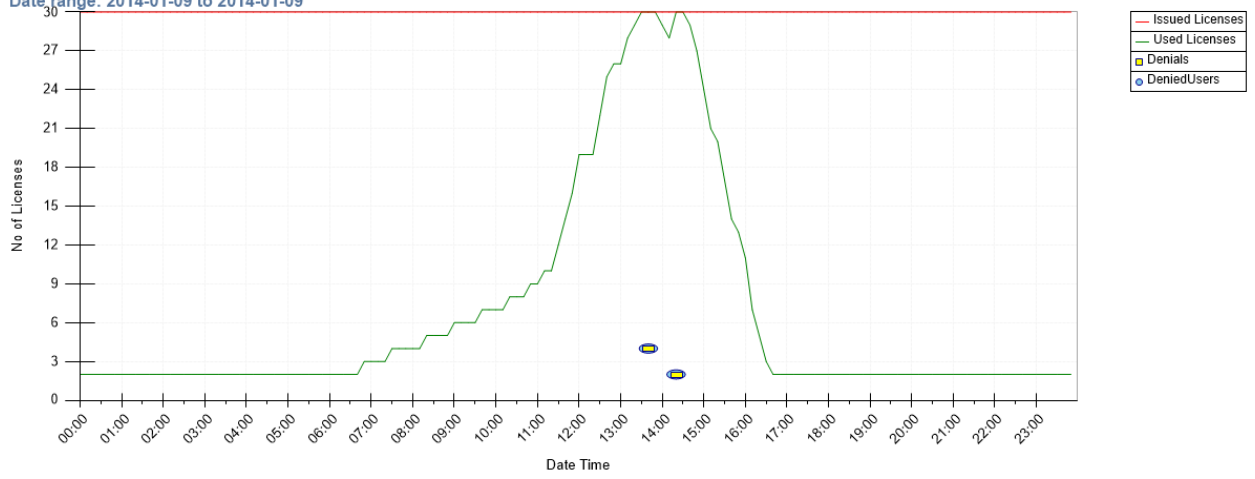
Use in combination with the Feature Server or Detailed tab.

Used licenses - Features: Application3



Here is another example of chart showing denials.

Used licenses - Feature: AutoCAD - Server: All Servers  
Date range: 2014-01-09 to 2014-01-09



## Stacked line

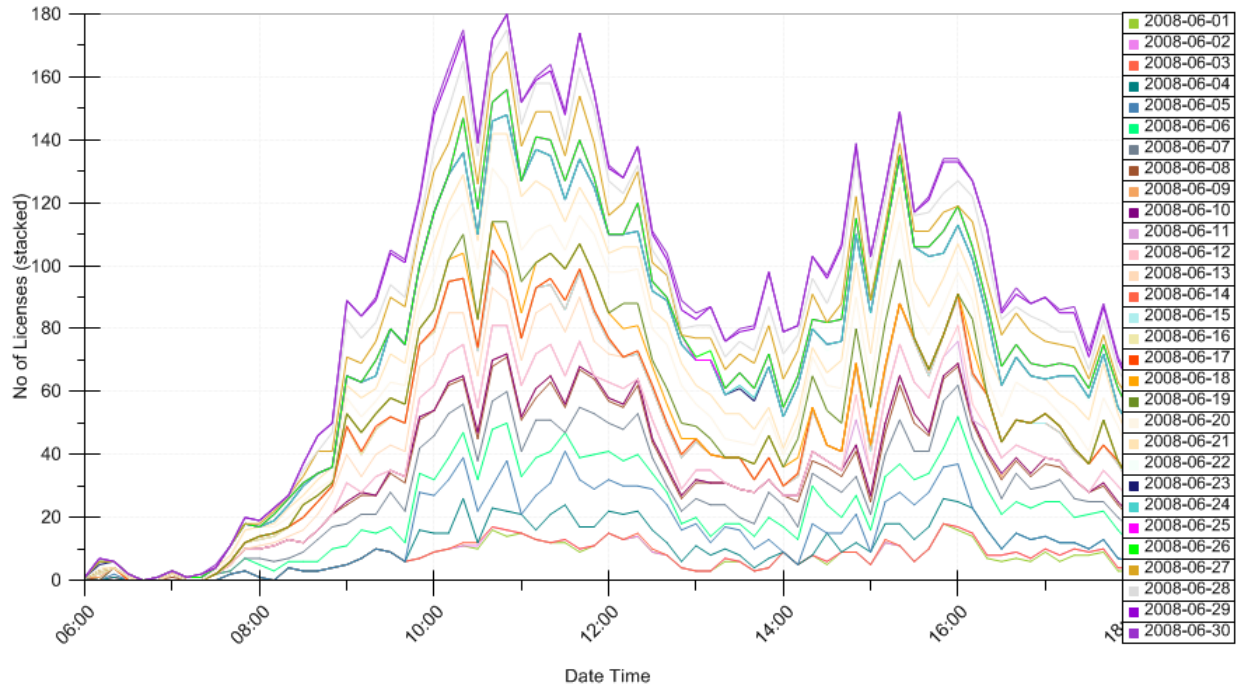
Select Date  Time Frame   
 Month Chart Time Frame From

Select Report Type Stacked Line.

Interval   Color  
Multiple ... in One   Borrower  
 Multiple Chart  New chart in new tab  Hide M  
 Include concurrent overlap usage  Created Date  
Report Type

Use in combination with the Feature Server or Detailed tab.

Used licenses - Features: Application1; Date range: 2008-06-01 to 2008-06-30; TimeFrame: 06:00-18:00

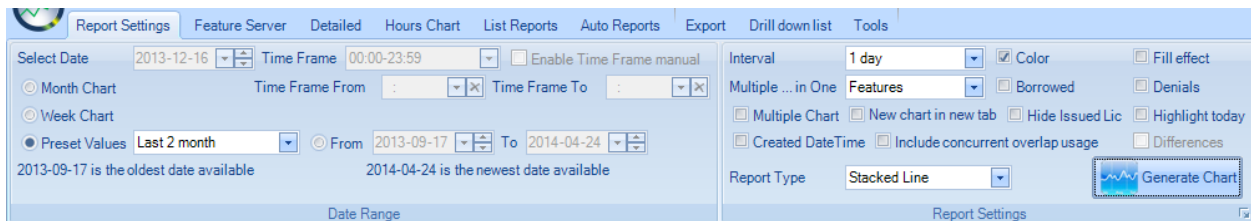


## Stacked Line with multiple features in one chart

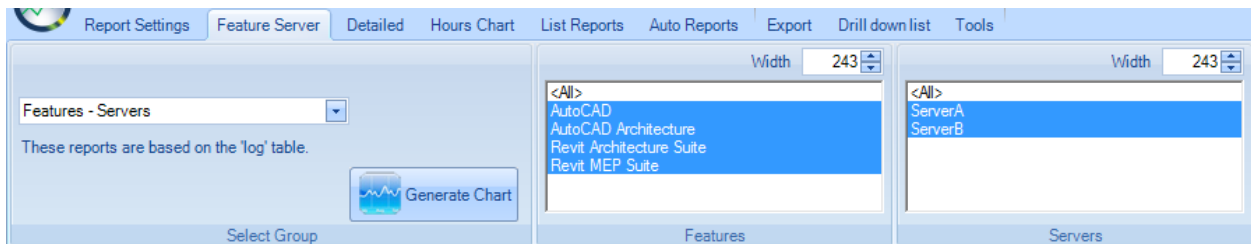
To create this chart select Report Type “Stacked Line”, interval 1 day or higher, “Multiple...in One” set to Features.

Use in combination with the Feature Server or Detailed tab.

This can be useful if you are phasing out one version and starting to use a new version at a company and want to follow the progress for the users to switch using version.

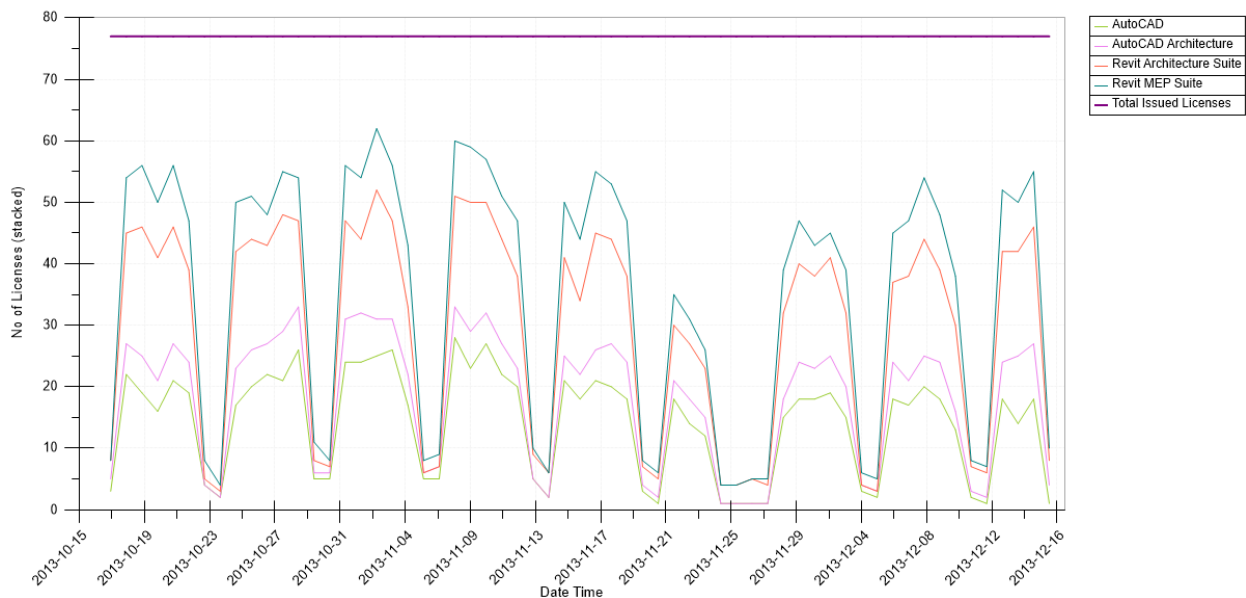


Then select multiple features.



Below are the multiple features stacked on top of each other with each feature as a separate line.

Used licenses - Features: AutoCAD,AutoCAD Architecture,Revit Architecture Suite,Revit MEP Suite - Servers: ServerA, ServerB  
Date range: 2013-10-16 to 2013-12-16; Time Frame: 00:00-23:59





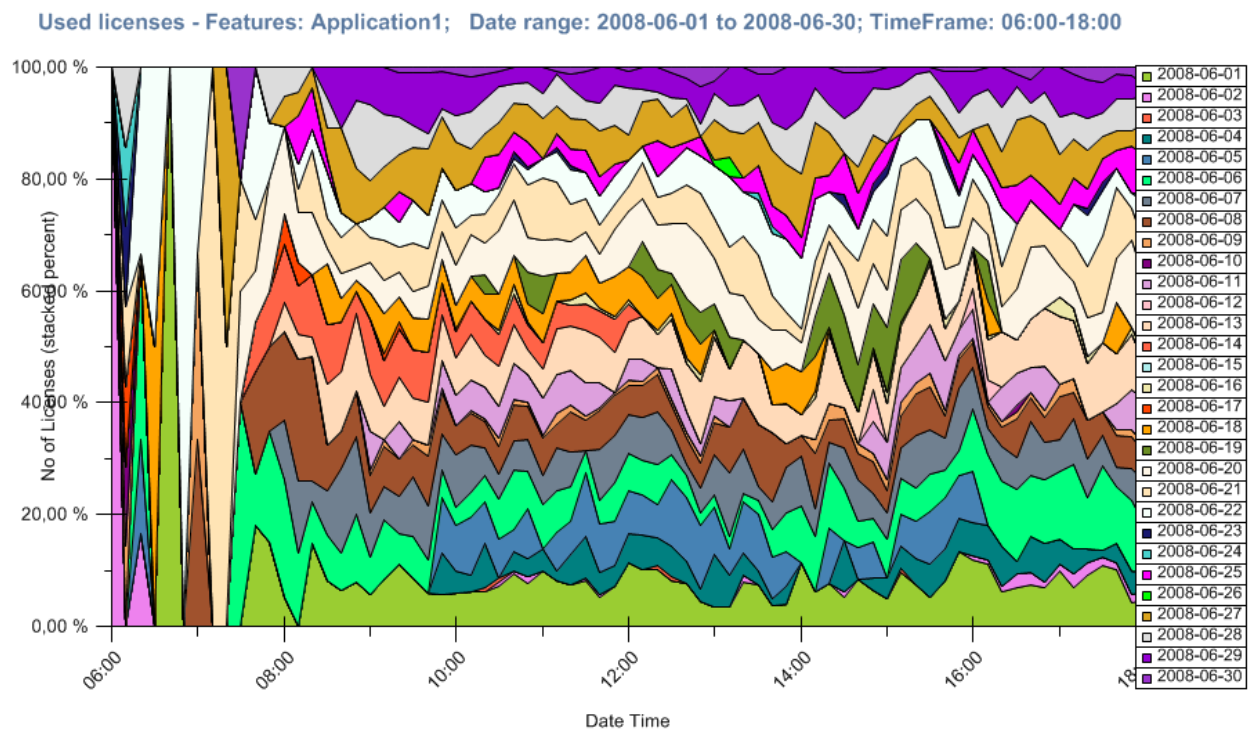
## Stacked percentage with fill effect

Select Date  Time Frame   
 Month Chart Time Frame From

Select Report Type Stacked Line and the Fill effect checkbox.

Interval   Color  Fill effect  
Multiple ... in One   Borrowed  Denials  
 Multiple Chart  New chart in new tab  Hide MaxLic  Highlight to  
 Include concurrent overlap usage  Created DateTime  
Report Type

Use in combination with the Feature Server or Detailed tab.



## MinMaxAvg showing Max, Min, Avg used licenses and Standard deviation

Select Date

Month Chart

Select Report Type MinMaxAvg and then select what lines to show or hide in the MinMaxAv Settings area. Use a larger interval like 1 day is recommended.

Interval   Color  Fill effect

Multiple ... in One   Borrowed  Denials

Multiple Chart  New chart in new tab  Hide Issued Lic  Highlight today

Created DateTime  Include concurrent overlap usage  Differences

Report Type

Report Settings

Show/Hide Lines

Min  Max  Avg

Standard Deviation

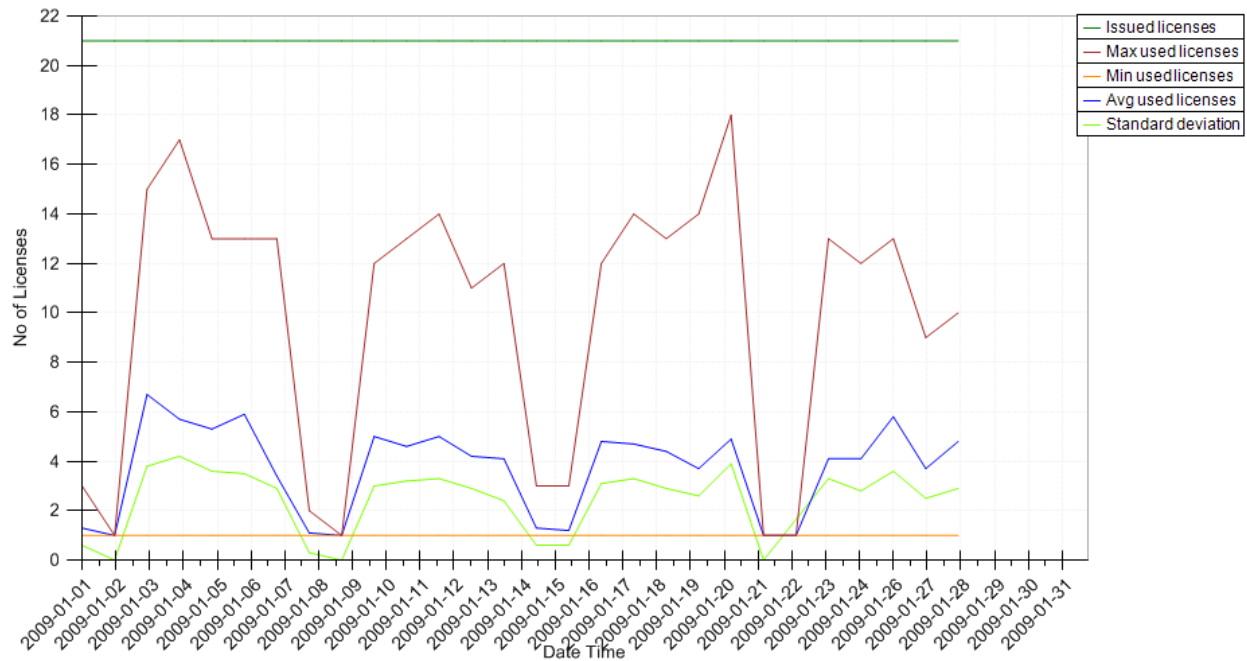
Avg Grouping

Avg Grouping Value

MinMaxAvg Settings

Use in combination with the Feature Server or Detailed tab.

Used licenses - Features: Application1



## Histogram

Select Date Range and Report Type Histogram.

File Report Settings Feature Server Detailed Auto Reports Export Drill down list

Time Frame 06:00-18:00  Enable Manual Time Frame

Month Report

Week Report  Monday  Tuesday  Wednesday  Thursday  Friday  Saturday  Sunday

Preset Values  From 2019-10-24 To 2019-11-26

2019-11-20 is the oldest date available 2019-11-20 is the newest date available

Date Range

Interval 10 minutes  Color  Fill effect

Multiple Report

Created DateTime  Summation

Report Type Histogram Generate Report

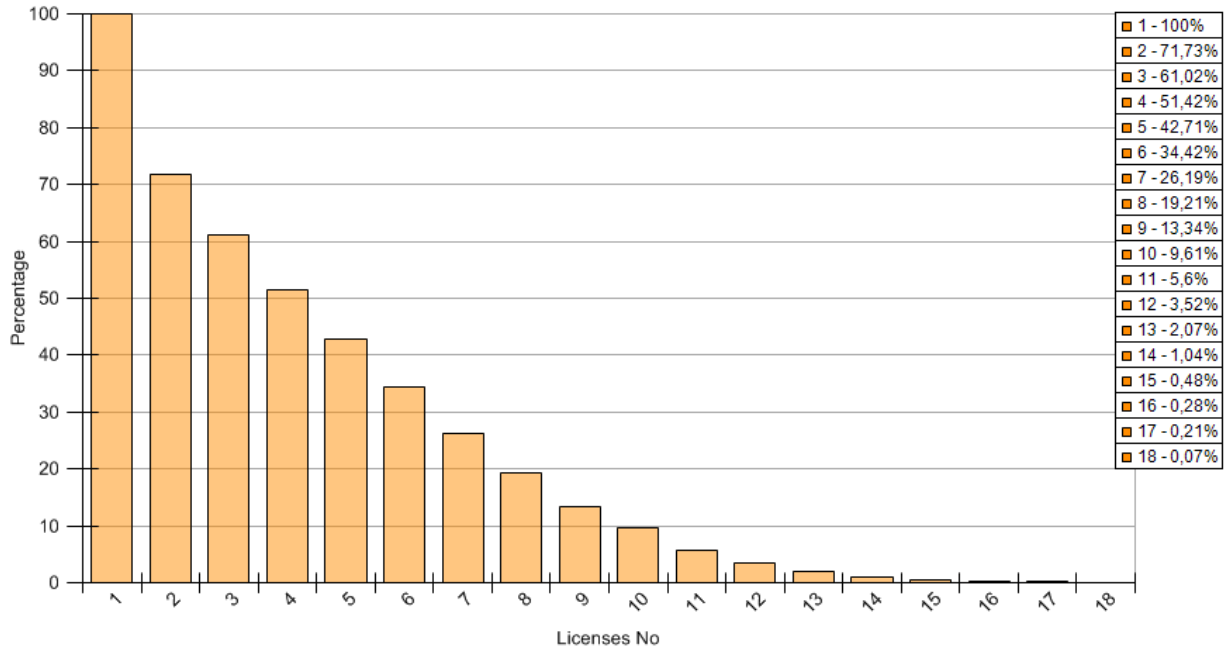
Report Settings

Use in combination with the Feature Server or Detailed tab.

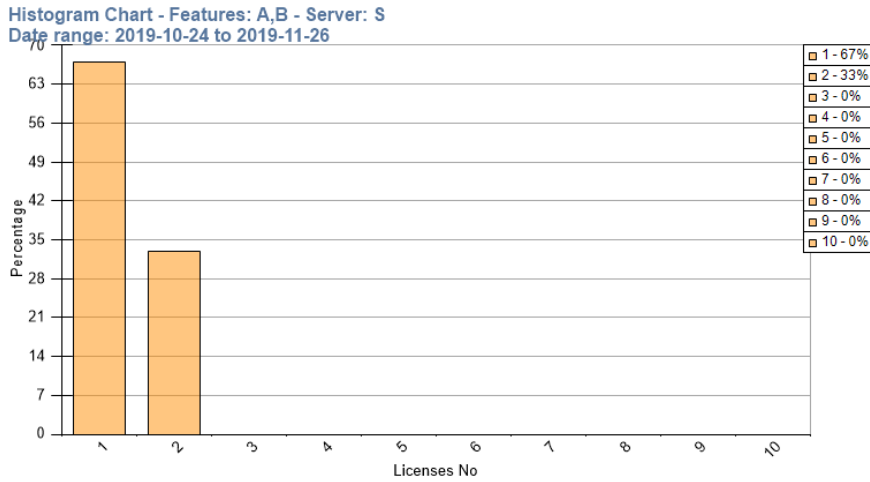
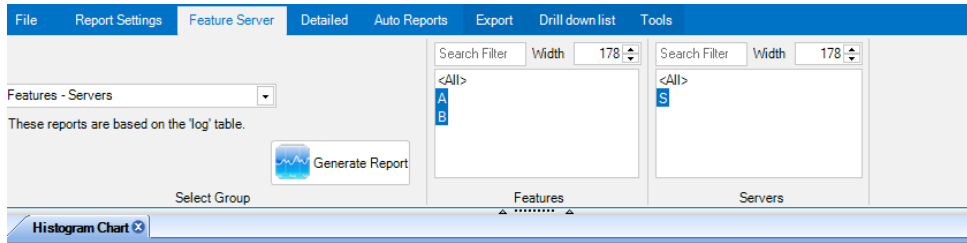
Summation checkbox determines if multiple features are summed or not.

This example below shows that 100% of the time at least 1 license was used. 72% of the time at least 2 licenses was used, etc.

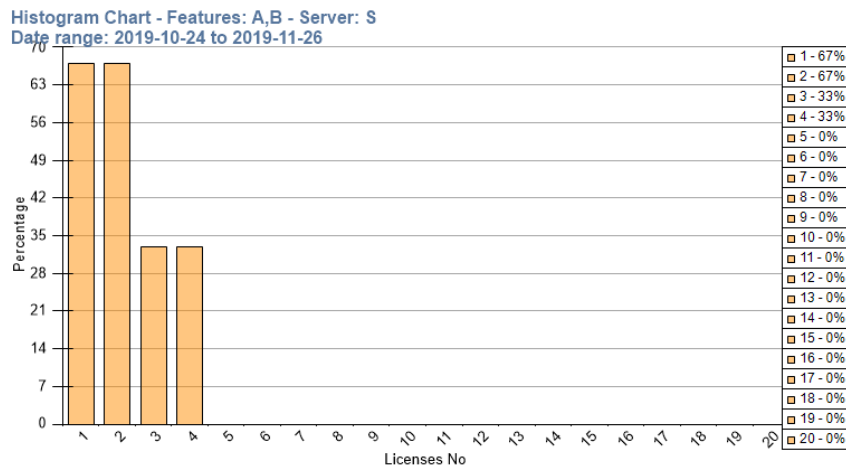
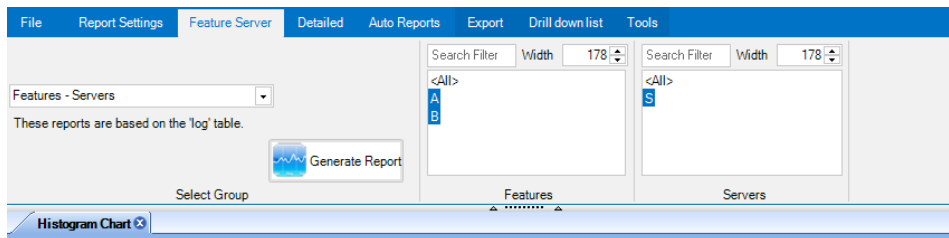
HistoGramChart: Features: Application1; Date range: 2009-01-01 to 2009-01-31



Multiple features without summation selected.



In this case both feature A and B have the same usage so when summation is used this is the result.



## Unique users chart showing how many different users were using the feature per selected interval

Select Report Type Unique users.

This example is created using Interval 1 day.

Use in combination with the Feature Server or Detailed tab.

Select Date: 2009-02-11 Time Frame: 00:00-23:59  Enable Time Frame manual

Month Chart Time Frame From: : Time Frame To: :  Col

Week Chart

Preset Values Previous month  From: 2009-02-11 To: 2009-02-11

2008-06-01 is the oldest date available 2009-01-30 is the newest date available

Interval: 1 day  Col

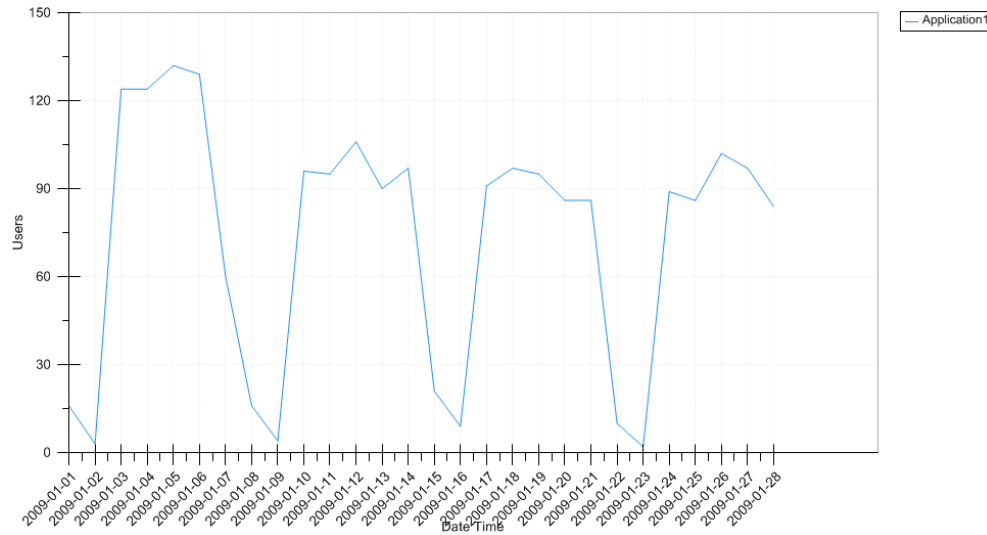
Multiple ... in One: Not In Use  Bor

Multiple Chart  New chart in new tab  H

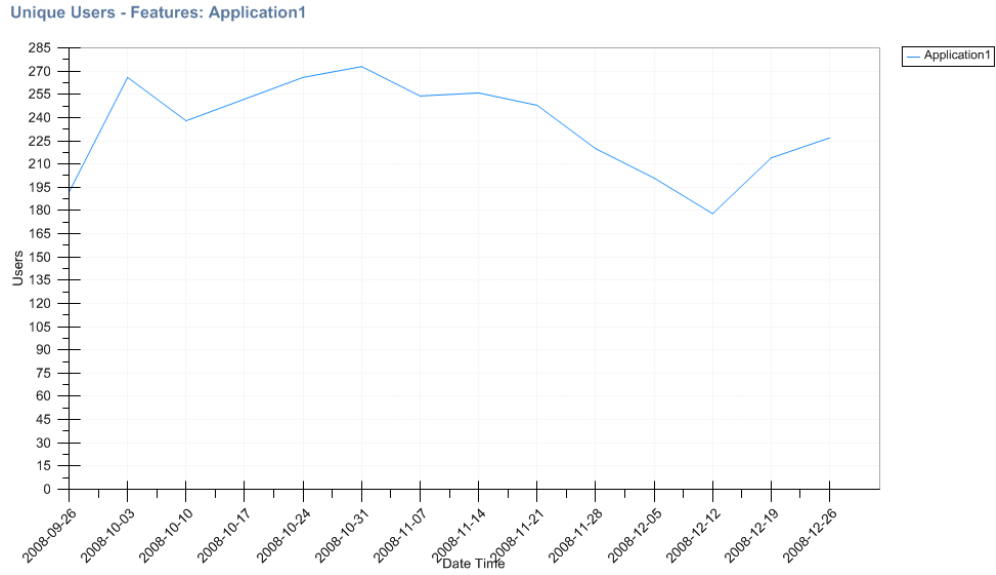
Include concurrent overlap usage  Created

Report Type: Unique users

Unique Users - Features: Application1

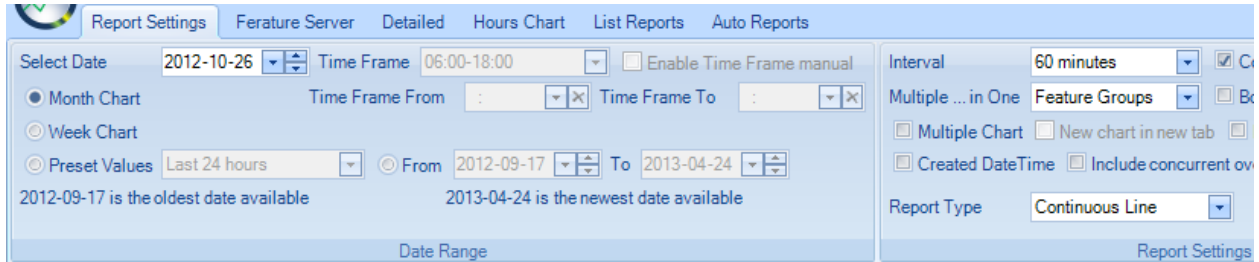


And here per 1 week interval.

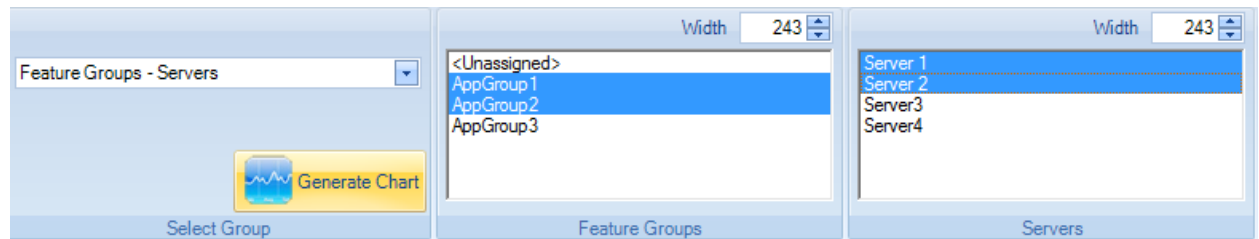


## Multiple feature groups are selected as well as multiple servers and plotted in the same chart

When multiple are selected like this and Multiple...in One is "Feature Groups" the data will be aggregated.

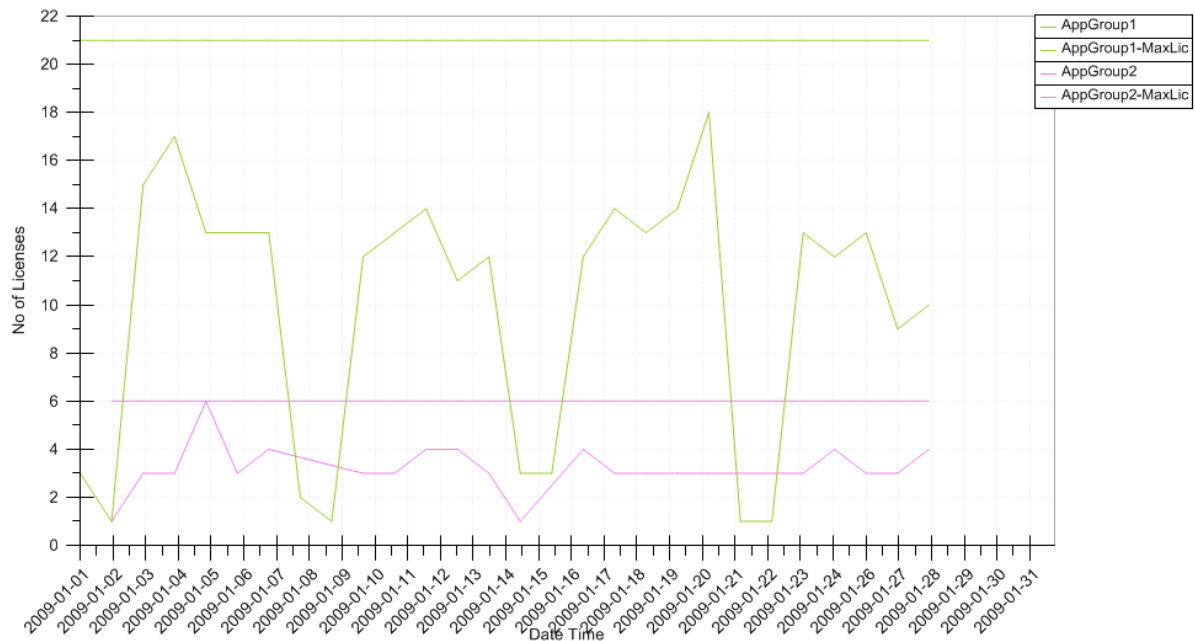


Use in combination with the Feature Server or Detailed tab where one or many feature groups and servers can be selected.



The feature groups will each have one usage line aggregated for all selected servers.

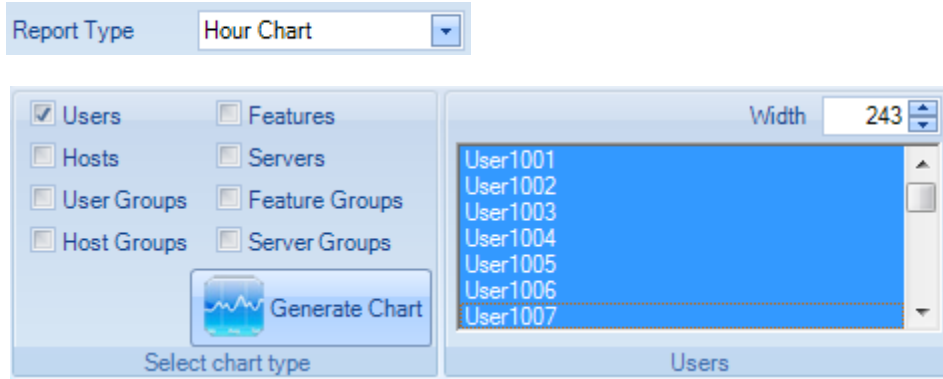
Used licenses - Feature Groups: AppGroup1,AppGroup2 - Servers: Server 1, Server 2



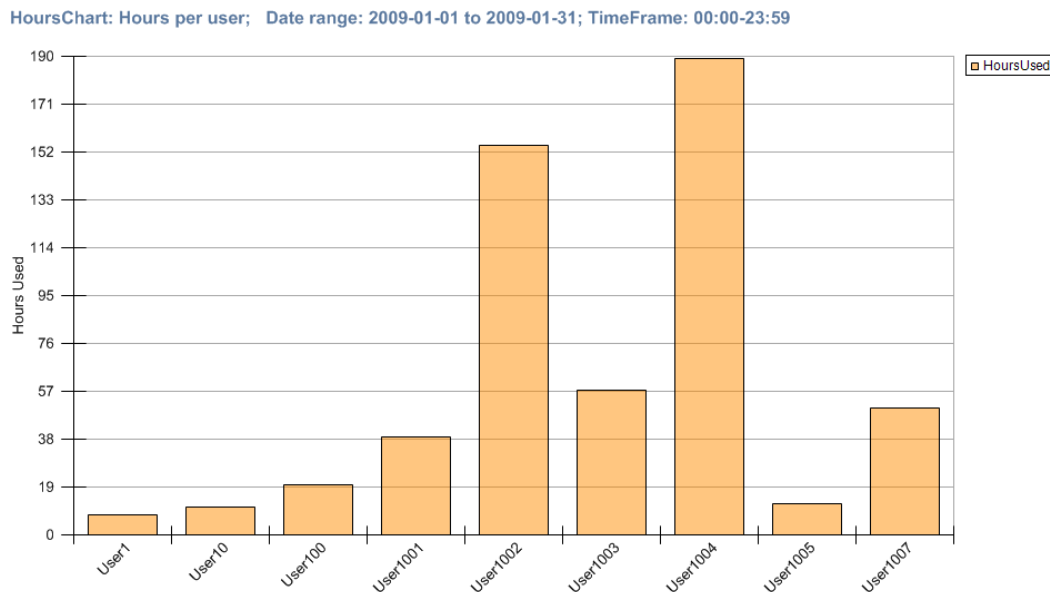
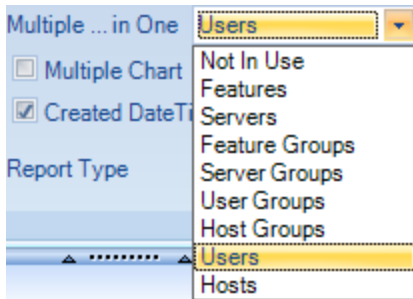


## Hours per user

Select Report Type Hour Chart in Report Settings and use in combination with Hours tab. Hours Used includes borrowed hours. Borrowed hours can be showed separately if needed but Hours Used will still include the borrowed hours.



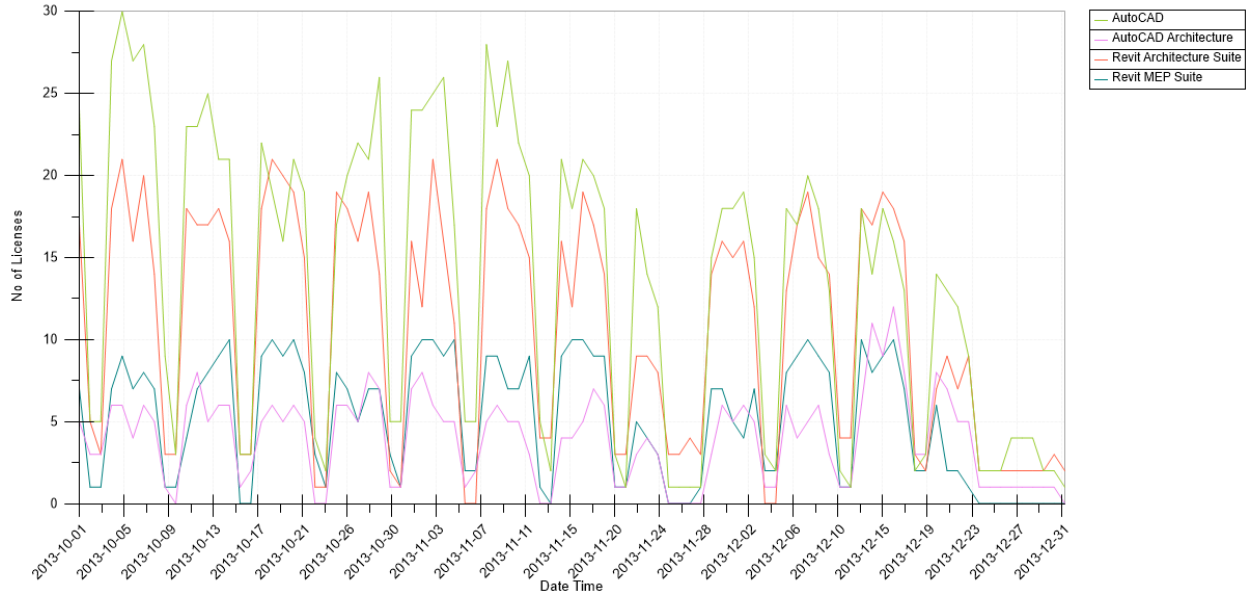
To see one bar per user make use of Multiple ... in One on the Report Settings tab. The same is true for other combinations as well. If Not In Use is selected the time will be aggregated.



## A whole quarter but with interval set to 1 day

A Continuous Line Report Type, with interval set to 1 day used in combination with the Feature Server or Detailed tab. When using a longer time period like a quarter it is best to use a larger interval like 1 day or more. Issued Line checkbox is unchecked.

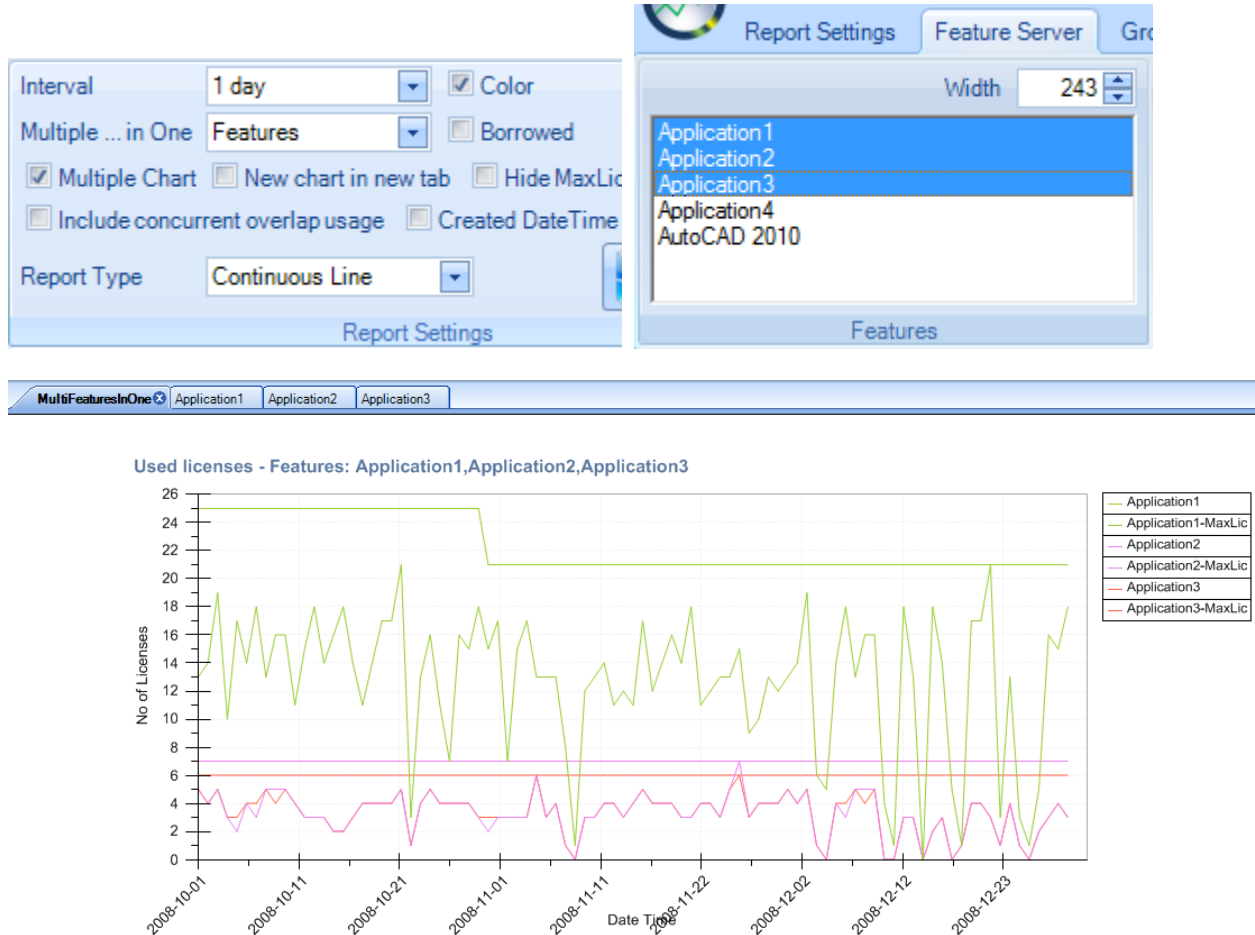
Used licenses - Features: AutoCAD,AutoCAD Architecture,Revit Architecture Suite,Revit MEP Suite - Servers: ServerA, ServerB



## Multiple chart with one chart with all features and then one chart per feature in separate tabs

Use the Multiple Chart check box and optionally in combination with the Multiple...in One dropdown.

Use in combination with the Feature Server or Detailed tab.



## Database discrepancy

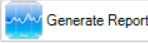
Compares data in the table Log and tables tblUserDetailedLog and tblUserDetailedLogPrev. Purpose with the report is to identify discrepancy between these tables.

File Report Settings Feature Server Detailed Export Drill down list Tools

Month Report  
 Week Report  
 Preset Values Last 14 days  From-To  
 2020-09-17 is the oldest date available 2021-04-24 is the newest date available

Interval 1 day

New Tab  
 Include concurrent overlap usage  Differences

Report Type Database discrepancy 

Date Range Report Settings

Server	Date	Feature	Issued Licenses	Used1	Used2	Borrowed1	Borrowed2
ServerA	2021-01-04 09:00:00	64300ACD_F	150	0	1	0	0
ServerA	2021-01-03 13:00:00	64300ACD_F	150	0	1	0	0
ServerA	2021-01-04 10:00:00	64300ACD_F	150	0	1	0	0
ServerA	2021-01-04 15:00:00	64300ACD_F	150	0	1	0	0
ServerA	2021-01-04 19:00:00	64300ACD_F	150	0	1	0	0

## List Reports

Make selection of date range and interval.

Duplicate and Multiply the Time are normally unchecked.

Select List Report tab and make selections

When ready press Generate Report.

Detailed List Report								
Date	Server	Feature	User	UserGroup	Host	HostGroup	Hours	Hours&Minu...
2017-12-01	ServerA	AutoCAD	User008	UserGroupA	Host003	HostGroupA	5.66	5:40
2017-12-01	ServerA	AutoCAD	User010	UserGroupA	Host008	HostGroupB	3.66	3:40
2017-12-01	ServerA	AutoCAD	User011	UserGroupA	Host011	HostGroupB	0.33	0:20
2017-12-01	ServerA	AutoCAD	User014	UserGroupA	Host215		8.33	8:20
2017-12-01	ServerA	AutoCAD	User025	UserGroupA	Host070		0.16	0:10
2017-12-01	ServerA	AutoCAD	User043	UserGroupB	Host101		1.00	1:00
2017-12-01	ServerA	AutoCAD	User048	UserGroupB	Host195		23.83	23:50
2017-12-01	ServerA	AutoCAD	User059	UserGroupB	Host292		1.16	1:10
2017-12-01	ServerA	AutoCAD	User081		Host014	HostGroupB	3.49	3:30
2017-12-01	ServerA	AutoCAD	User089		Host006	HostGroupA	7.33	7:20
2017-12-01	ServerA	AutoCAD	User090		Host001	HostGroupA	0.16	0:10
2017-12-01	ServerA	AutoCAD	User091		Host029		0.16	0:10
2017-12-01	ServerA	AutoCAD	User105		Host125		0.50	0:30
2017-12-01	ServerA	AutoCAD	User107		Host201		7.99	8:00
2017-12-01	ServerA	AutoCAD	User120		Host142		0.16	0:10
2017-12-01	ServerA	AutoCAD	User124		Host174		1.66	1:40
2017-12-01	ServerA	AutoCAD	User125		Host096		9.33	9:20
2017-12-01	ServerA	AutoCAD	User136	UserGroupC	Host245		2.66	2:40
2017-12-01	ServerA	AutoCAD	User149	UserGroupC	Host085		11.49	11:30
2017-12-01	ServerA	AutoCAD	User160	UserGroupC	Host080		8.00	8:00
2017-12-01	ServerA	AutoCAD	User165	UserGroupC	Host136		1.99	2:00
2017-12-01	ServerA	AutoCAD	User171	UserGroupC	Host274		6.16	6:10
2017-12-01	ServerA	AutoCAD	User177	UserGroupC	Host257		0.83	0:50
2017-12-01	ServerA	AutoCAD	User185	UserGroupC	Host275		0.50	0:30
2017-12-01	ServerA	AutoCAD	User199	UserGroupC	Host268		19.66	19:40
2017-12-01	ServerA	AutoCAD	User206	UserGroupC	Host235		0.16	0:10
2017-12-01	ServerA	AutoCAD	User208	UserGroupC	Host021	HostGroupC	0.66	0:40
2017-12-01	ServerA	AutoCAD	User211	UserGroupC	Host200		8.66	8:40
2017-12-01	ServerA	AutoCAD	User214		Host188		10.66	10:40
2017-12-01	ServerA	AutoCAD	User235		Host082		1.83	1:50

## Used Licenses

This report is only shows usage, not including any borrowed usage of licenses.

Use Selection to determine what columns to see.

List Report Type: Used Licenses

Selection: Feature - User - Host

Aggregate Interval: Day

Date: 2020-03-20

Example of report:

List Report Type: Used Licenses

Selection: Server - Feature - User - Host

Aggregate Interval: Day

Buttons: Preview Report, Print Report, Export to Excel..., Generate Report

Date	Server	Feature	User	UserGroup	Host	HostGroup	Hours	Hours & Min
2020-03-20	ServerB	AutoCAD...	User175	UserGroupC	Host256		23.83	23:50
2020-03-20	ServerA	AutoCAD...	User083		Host005	HostGroupA	23.83	23:50
2020-03-21	ServerB	AutoCAD...	User175	UserGroupC	Host256		23.83	23:50
2020-03-22	ServerB	Revit MEP Suite	User149	UserGroupC	Host085		23.83	23:50
2020-03-22	ServerB	AutoCAD...	User175	UserGroupC	Host256		23.83	23:50
2020-03-22	ServerA	AutoCAD...	User083		Host005	HostGroupA	23.83	23:50

## Borrowed Licenses

This report is only including borrowed usage of licenses.

Use Selection to determine what columns to see.

List Report Type: Borrowed Licenses

Selection: Server - Feature - User - Host

Aggregate Interval: Day

Example of report:

List Report Type: Borrowed Licenses  
 Selection: Server - Feature - User - Host  
 Aggregate Interval: Day

Buttons: Preview Report, Print Report, Export to Excel....  
 Generate Report

Report Settings | Print and Export Reports

Date	Server	Feature	User	UserGroup	Host	HostGroup	Hours	Hours & Min
2020-05-21	ServerA	AutoCAD	User228		Host037		16.16	16:10
2020-05-21	ServerA	AutoCAD	User246		Host145		16.16	16:10
2020-05-21	ServerA	Revit...	User019	UserGroupA	Host060		16.16	16:10
2020-05-21	ServerB	AutoCAD...	User195	UserGroupC	Host263		16.16	16:10
2020-05-21	ServerB	Revit MEP Suite	User067		Host071		16.16	16:10
2020-05-21	ServerB	Revit MEP Suite	User206	UserGroupC	Host079		16.16	16:10

### Used and Borrowed Licenses

This report is including used and borrowed usage of licenses.

Use Selection to determine what columns to see.

List Report Type: Used and Borrowed Licenses  
 Selection: Server - Feature - User - Host  
 Aggregate Interval: Server - Feature - User - Host

Dropdown menu options:  
 Server - Feature - User - Host  
 Server - Feature - User  
 Server - Feature - Host  
 Server - Feature  
 Feature - User - Host  
 Feature - User  
 Feature - Host  
 Feature  
 Server - Feature - User - Host - Project  
 Server - Feature - User - Project

Date	Server	Feature	User
2020-06-19	SERVERA	AUTOCAD	USER135

Example of report:

List Report Type: Used and Borrowed Licenses  
 Selection: Server - Feature - User - Host  
 Aggregate Interval: Day

Buttons: Preview Report, Print Report, Export to Excel....  
 Generate Report

Report Settings | Print and Export Reports

Date	Server	Feature	User	UserGroup	Host	HostGroup	Hours	Hours & Min
2020-06-19	ServerA	AutoCAD	User135	UserGroupC	Host252		17.49	17:30
2020-06-18	ServerA	AutoCAD	User135	UserGroupC	Host252		23.83	23:50
2020-06-17	ServerA	AutoCAD	User135	UserGroupC	Host252		23.83	23:50
2020-06-16	ServerA	AutoCAD	User135	UserGroupC	Host252		23.83	23:50
2020-06-15	ServerA	AutoCAD	User135	UserGroupC	Host252		23.83	23:50

### Min/Max/Avg Usage

This report is to show minimum, maximum and average usage of licenses.

Aggregate options:

List Report Type	Min/Max/Avg Usage
Selection	
Aggregate Interval	Server Sum Per Month Concurrent
	<ul style="list-style-type: none"> <li>Day</li> <li>Month</li> <li>Year</li> <li>Per Day Per Server</li> <li>Per Month Per Server</li> <li>Per Year Per Server</li> <li>Server Sum Per Day</li> <li>Server Sum Per Month</li> <li>Server Sum Per Year</li> <li>Server Sum Per Day Concurrent</li> <li>Server Sum Per Month Concurrent</li> <li>Server Sum Per Year Concurrent</li> </ul>

Day (max/min no matter on what server or time)

Month (max/min no matter on what server, day or time)

Year (max/min no matter on what server, month, day or time)

Per Day Per Server (max/min per server per day)

Per Month Per Server (max/min per server per month)

Per Year Per Server (max/min per server per year)

Server Sum per Day (max/min per day of any time on each server and then

Server Sum per Month (max/min per month of any time on each server and then summed)

Server Sum per Year (max/min per year of any time on each server and then summed)

Server Sum per Day Concurrent (max/min per day of sum at all concurrent times )

Server Sum per Month Concurrent (max/min per month of sum at all concurrent times)

Server Sum per ear Concurrent (max/min per year of sum at all concurrent times)

Example of report:



List Report Type: Min/Max/Avg Usage  
 Selection:   
 Aggregate Interval: Day  
 Generate Report  
 Report Settings | Print and Export Reports

Date	Feature	Total	MaxUsed	MinUsed	AvgUsed	STDDV_Used
2020-03-19	AutoCAD	150	3	2	2.36	0.48
2020-03-19	AutoCAD...	15	3	3	3	0
2020-03-19	Revit..	21	2	2	2	0
2020-03-19	Revit MEP Suite	20	1	1	1	0
2020-03-20	AutoCAD	150	2	2	2	0
2020-03-20	AutoCAD...	15	3	3	3	0
2020-03-20	Revit..	21	2	2	2	0
2020-03-20	Revit MEP Suite	20	1	0	0.29	0.46
2020-03-21	AutoCAD	150	16	2	6.72	4.93
2020-03-21	AutoCAD...	15	6	3	3.78	1.15

### User Groups

This report is showing usage per user group.

Use Selection to determine what columns to see.

List Report Type: User Groups  
 Selection: User Group  
 Aggregate Interval: User Group, Min Max Avg

Example of User Group selection:

List Report Type: User Groups  
 Selection: User Group  
 Aggregate Interval: Per Day  
 Generate Report  
 Report Settings | Print and Export Reports

Date	Feature	UserGroup	Hours...	Hours Borrowed HH:MM	Hours Used	Hours Used HH:MM	Hours Total	Hours Total HH:MM
2020-03-30	AutoCAD Architecture	UserGroupC	40.49	40:30	61.80	61:50	102.29	102:20
2020-04-11	AutoCAD		36.16	36:10	47.60	47:40	83.76	83:50
2020-04-12	Revit MEP Suite		31.83	31:50	54.10	54:10	85.93	86:00
2020-04-22	Revit MEP Suite		31.66	31:40	49.41	49:30	81.07	81:10
2020-03-25	AutoCAD		28.83	28:50	41.77	41:50	70.60	70:40
2020-03-26	AutoCAD Architecture	UserGroupC	25.66	25:40	23.83	23:50	49.49	49:30
2020-04-01	AutoCAD Architecture	UserGroupC	25.66	25:40	44.28	44:20	69.94	70:00
2020-03-20	Revit Architecture Suite	UserGroupB	23.83	23:50			23.83	23:50
2020-03-20	Revit Architecture Suite	UserGroupA	23.83	23:50			23.83	23:50
2020-03-20	AutoCAD Architecture	UserGroupC	23.83	23:50	23.83	23:50	47.66	47:40

Example of Min Max Avg selection:

File Report Settings List Report Auto Reports Export

List Report Type: User Groups  
 Selection: Min Max Avg  
 Aggregate Interval: Per Month

Generate Report

Report Settings

**Detailed List Report**

Date	Feature	UserGroup	Max usage	Min usage	Avg usage	Standard deviation
2020-Mar	Revit MEP Suite	UserGroupC	5	1	1.9	1.1
2020-Mar	Revit MEP Suite	UserGroupB	6	1	2.1	1.1
2020-Mar	Revit MEP Suite	UserGroupA	5	1	1.7	1
2020-Mar	Revit MEP Suite		11	1	3.3	2.4
2020-Mar	Revit Architecture Suite	UserGroupC	2	1	1	0.1
2020-Mar	Revit Architecture Suite	UserGroupB	3	1	1.1	0.3
2020-Mar	Revit Architecture Suite	UserGroupA	5	1	1.6	1
2020-Mar	Revit Architecture Suite		12	1	4	2.8
2020-Mar	AutoCAD Architecture	UserGroupC	9	2	3.9	1.1
2020-Mar	AutoCAD Architecture	UserGroupB	2	1	1	0.2
2020-Mar	AutoCAD Architecture	UserGroupA	3	1	1.2	0.4
2020-Mar	AutoCAD Architecture		3	1	1.1	0.4
2020-Mar	AutoCAD	UserGroupC	10	1	3.3	2.1
2020-Mar	AutoCAD	UserGroupB	7	1	2.3	1
2020-Mar	AutoCAD	UserGroupA	5	1	1.5	0.7
2020-Mar	AutoCAD		15	1	3.4	2.6

### Host Groups

This report is showing usage per host group.

File Report Settings List Report Auto Reports Export

List Report Type: Host Groups  
 Selection: Host Group  
 Aggregate Interval: Host Group  
 Min Max Avg

Generate Report

Example of Host Group report:

List Report Type: Host Groups  
 Selection: Host Group  
 Aggregate Interval: Per Day

Buttons: Preview Report, Print Report, Export to Excel..., Generate Report

Report Settings | Print and Export Reports

Date	Feature	HostGroup	Hours Borrowed	Hours Borrowed HH:MM	Hours Used	Hours Used HH:MM	Hours Total	Hours Total HH:MM
2020-04-07	Revit Architecture Suite		1.83	1:50	42.62	42:40	44.45	44:30
2020-04-10	AutoCAD Architecture		1.83	1:50	23.83	23:50	25.66	25:40
2020-04-11	Revit Architecture Suite		1.83	1:50	61.10	61:10	62.93	63:00
2020-04-21	AutoCAD Architecture		0.66	0:40	71.90	72:00	72.56	72:40
2020-03-19	Revit MEP Suite				6.83	6:50	6.83	6:50
2020-03-19	AutoCAD	HostGroupA			6.83	6:50	6.83	6:50
2020-03-20	Revit MEP Suite				6.83	6:50	6.83	6:50
2020-03-20	AutoCAD	HostGroupA			23.83	23:50	23.83	23:50

Example of Min Max Avg report:

File | Report Settings | List Report | Auto Reports | Export

List Report Type: Host Groups  
 Selection: Min Max Avg  
 Aggregate Interval: Per Day

Buttons: Generate Report

Report Settings

Date	Feature	Host Group	Max usage	Min usage	Avg usage	Standard...
2020-01-31	AutoCAD	HostGroupC	3	1	1.4	0.5
2020-01-30	AutoCAD	HostGroupC	1	1	1	0
2020-01-29	AutoCAD	HostGroupC	1	1	1	0
2020-01-28	AutoCAD	HostGroupC	3	1	1.4	0.7
2020-01-27	AutoCAD	HostGroupC	2	1	1.4	0.5
2020-01-26	AutoCAD	HostGroupC	2	1	1.4	0.5
2020-01-25	AutoCAD	HostGroupC	4	1	1.2	0.6
2020-01-24	AutoCAD	HostGroupC	4	1	1.6	0.7

### Denied Requests

This report is showing denial of licenses. Denials by one user/host/feature combination that happens shortly after each other are grouped and show at what time the first denial happened and the last denial happened and the Denials column shows the number of denials. If a license was found within 10 minutes after the last denial the License Found column shows Yes.

Example of report:

List Report Type: Denied Requests  
 Selection:   
 Aggregate Interval: All  
 Generate Report

Report Settings: Print and Export Reports

Preview Report | Print Report | Export to Excel....

Date	UserName	HostName	Feature	FirstDenial	SecondDenial	License found	Denials
2020-02-03	User003	Host167	AutoCAD	2020-02-03 14:03	2020-02-03 14:04	No	3
2020-02-03	User004	Host221	AutoCAD	2020-02-03 13:58	2020-02-03 14:02	No	3
2020-02-03	User003	Host167	AutoCAD	2020-02-03 13:55	2020-02-03 14:01	No	2
2019-10-05	User003	Host167	AutoCAD	2019-10-05 14:03	2019-10-05 14:04	No	3
2019-10-05	User004	Host221	AutoCAD	2019-10-05 13:58	2019-10-05 14:02	No	3
2019-10-05	User003	Host167	AutoCAD	2019-10-05 13:55	2019-10-05 14:01	No	2

### Raw data Report

This report is showing the raw data from tables tblUserDetailedLog and tblUserDetailedLogPrev. This shows the start and end date/time for each license usage.

Example of report:

List Report Type: Raw data Report  
 Selection:   
 Aggregate Interval:   
 Generate Report

Report Settings: Print and Export Reports

Preview Report | Print Report | Export to Excel....

Date	Server	ServerDes...	Feature	FeatureDescription	User	Host	Start	End	Minutes	Hours	BorrowEnd
2020-04-23	ServerA		64300ACD_F	AutoCAD	User222	Host190	2020-04-23 05:32	2020-04-23 12:20	408	6.80	
2020-04-23	ServerA		64300ACD_F	AutoCAD	User248	Host072	2020-04-23 05:39	2020-04-23 05:50	11	0.18	
2020-04-23	ServerA		64300ACD_F	AutoCAD	User248	Host072	2020-04-23 06:03	2020-04-23 06:20	17	0.28	
2020-04-23	ServerA		64300ACD_F	AutoCAD	User248	Host072	2020-04-23 08:32	2020-04-23 09:00	28	0.47	

### Raw Sampled data Report

This report is showing the raw data from table UserDetailedLogTemp. This shows the sampled start and end date/time for each license usage. If the sampling service is used UserDetailedLogTemp is populated based on data from tblUserDetailedLog and tblUserDetailedLogPrev.

Example of report:

List Report Type: Raw Sampled data Report  
 Selection: [Dropdown]  
 Aggregate Interval: [Dropdown]

Preview Report | Print Report | Export to Excel....

Generate Report

Report Settings | Print and Export Reports

Date	Server	ServerDescri...	Feature	FeatureDescription	User	Host	Licenses	ID	ProjectID
2020-05-20 09:10:00	ServerA		64300ACD_F	AutoCAD	User135	Host252	1	16883	0
2020-05-20 09:10:00	ServerA		64300ACD_F	AutoCAD	User228	Host037	1	16860	0
2020-05-20 09:10:00	ServerA		64300ACD_F	AutoCAD	User246	Host145	1	16861	0
2020-05-20 09:10:00	ServerB		65300ARCHDESK_F	AutoCAD Architecture	User175	Host256	1	16865	0
2020-05-20 09:10:00	ServerB		65300ARCHDESK_F	AutoCAD Architecture	User195	Host263	1	16866	0
2020-05-20 09:10:00	ServerB		65200REVSYP_F	Revit MEP Suite	User206	Host079	1	16863	0
2020-05-20 09:10:00	ServerB		65200REVSYP_F	Revit MEP Suite	User226	Host065	1	16864	0
2020-05-20 09:10:00	ServerA		65900REVITS_F	Revit Architecture Suite	User019	Host060	1	16859	0
2020-05-20 09:10:00	ServerB		65200REVSYP_F	Revit MEP Suite	User067	Host071	1	16862	0

### Pinged Host Report

If correctly set up in JTB FlexReport Config hosts (computers) borrowing a license can be monitored to see if they are connected to the network and maybe should return the borrowed license earlier.

Example of report:

List Report Type: Pinged Host Report  
 Selection: Report  
 Aggregate Interval: [Dropdown]

Preview Report | Print Report | Export to Excel....

Generate Report

Report Settings | Print and Export Reports

CheckedOutDate	Server Name	User Name	User Host	Feature	FirstOnline	LastOnline	BorrowedUntil
2019-02-01	ServerA	User001	Host001	64300ACD_F	2019-02-01 10:00	2019-02-01 10:00	2019-02-28 00:00

Example of Raw Report showing all borrowed licenses and PingResult showing OK if you they cash be pinged, otherwise ERR.

List Report Type: Pinged Host Report  
 Selection: Raw Report  
 Aggregate Interval: [Dropdown]

Preview Report | Print Report | Export to

Generate Report

Report Settings | Print and Export Reports

CheckedOutDate	Server	Feature	User	Host	LingerDate	LicHandle	PingDate	PingResult
2019-02-01	ServerA	64300ACD_F	User002	Host002	2019-02-16	7	2019-02-02	ERR
2019-02-01	ServerA	64300ACD_F	User001	Host001	2019-02-16	8	2019-02-01	ERR
2019-02-01	ServerA	64300ACD_F	User001	Host001	2019-02-28	5	2019-02-01	OK

### Features List Report

The "Features List Report" is useful to find information on what data exists in the database for each feature. The dates for the date 'A' columns are from the 'log' database table and the dates for the date

'B' columns are from a union of the database tables 'tblUserDetailedLog' and 'tblUserDetailedLogPrev'.

'A' is used for reports created with the Feature Server tab and the Detailed tab.

'B' is used for reports created with the Detailed tab and Hours Chart tabs where users or hosts are involved.

The Count columns show how many rows of data there is for each feature.

Features List Report									
Features	FeatureNameDescription	First date A	Last date A	CountA	First date B	Last date B	CountB	ServerName	ServerNameDescription
64300ACD_F	AutoCAD	2019-09-17 14:50:00	2020-08-31 23:50:00	49680	2019-09-17 14:50:00	2020-08-24 13:50:00	7131	ServerA	ServerA
65300ARCHDESK_F	AutoCAD Architecture	2019-09-17 14:50:00	2020-08-31 23:50:00	49680	2019-09-17 14:50:00	2020-05-21 16:20:00	2084	ServerB	ServerB
65900REVITS_F	Revit Architecture Suite	2019-09-17 14:50:00	2020-08-31 23:50:00	49680	2019-09-17 14:40:00	2020-05-21 16:20:00	3898	ServerA	ServerA
65200REVSYP_F	Revit MEP Suite	2019-09-17 14:50:00	2020-08-31 23:50:00	49680	2019-09-17 14:50:00	2020-05-21 16:20:00	3778	ServerB	ServerB

This report can be previewed and printed with "Report Preview".

A custom report can be created with "Create Grid Report", printed or exported to PDF or an image file.

## Miscellaneous questions answered

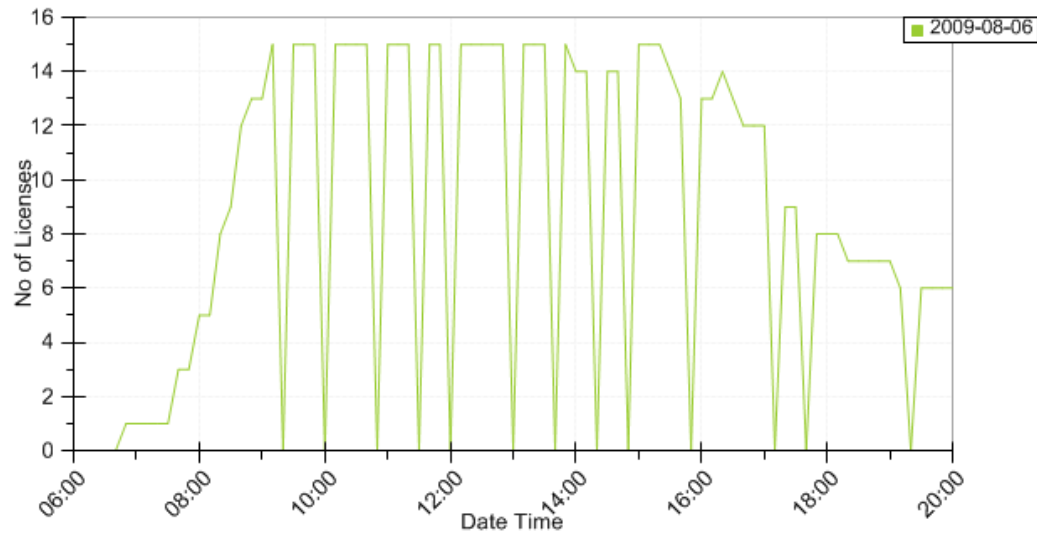
### Why are there dips in the charts?

The reason for this can be that the interval is set too low for the data that exists in the database.

You might have specified JTB FlexReport to save data with a 20 minute interval and you try to create the chart with a 10 minute interval.

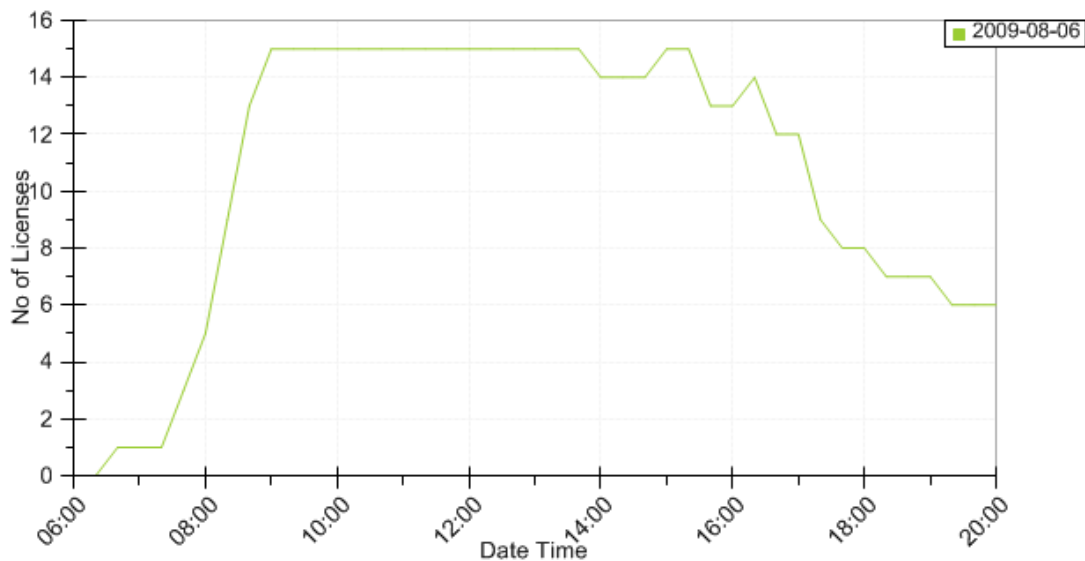
In this example the database mostly contain data with an interval of 10 minutes, but for some reasons like lack of server connections there are sometimes data missing and resulting in dips like this.

#### Used licenses



The solution is to increase the interval for the chart creation and it will look better.

#### Used licenses



## How to move the JTB FlexReport Report Service installation to another server?

Install JTB FlexReport Report Service on the new server. You can optionally copy all .config files in the JTB FlexReport old folder to the new location as this will keep your database configurations or run JTB FlexReport Service Configurator and make sure all settings are ok and then configure and start the services.

The setting files are saved on the computer where JTB FlexReport Service is installed in this folder and can be moved to the new server:

%ALLUSERSPROFILE%\JTB World\JTB FlexReport Service

%ALLUSERSPROFILE% location:

XP: C:\Documents and Settings\All Users

Vista, Windows 7, Windows 8, Windows 8.1, Windows 10: C:\ProgramData

## What discrepancies in the reports should I be aware of?

Data that is saved to the “log” table is saved at the snapshot interval specified in JTB FlexReport Config. Say you have an interval of 10 minutes. The charts might show that you have not reach your maximum usage but still you have found that licenses have been denied.

Here is an example showing why.

11:30 49 licenses are used.

11:40 49 licenses are used.

11:50 48 licenses are used.

But it might happen that at 11:35 50 licenses were used. Because of the interval setting you will not see this in reports based on the “log” table.

On the other hand, the data saved into tblUserDetailedLog and tblUserDetailedLogPrev saved data on a lower level with both start and stop time for each user using a license. As there are much more data in these tables it will take much longer time to produce reports based on them, but it might show a slightly more correct picture of the usage.

But reports based on the detailed logs can also in some cases show too much usage because the time when a license is returned (checked in) to the license server is not known. Example.

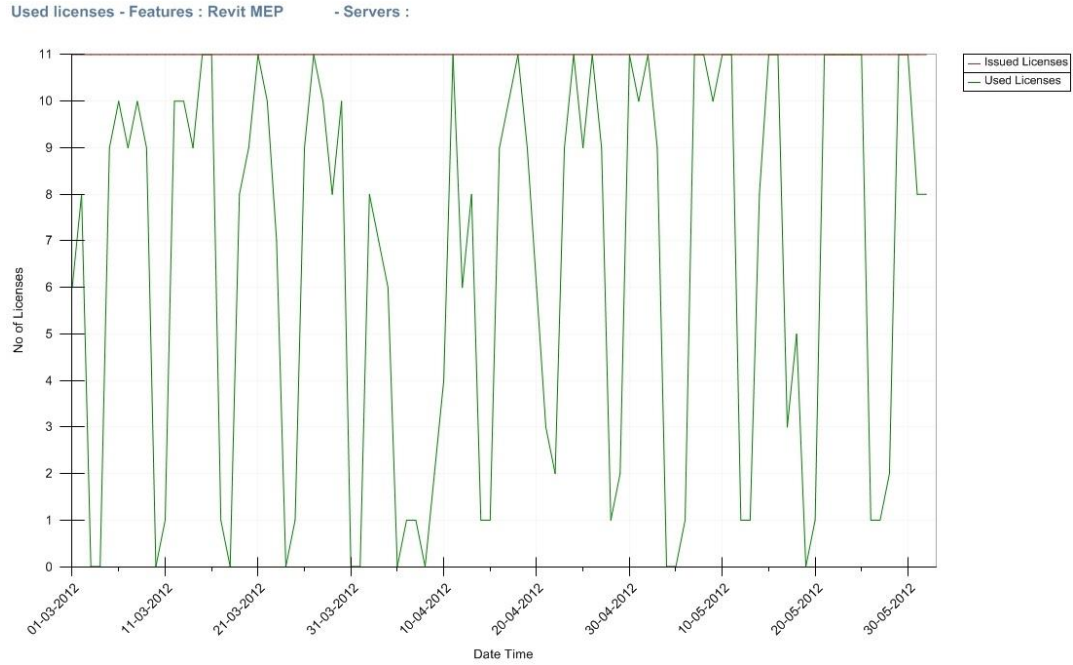
Say a license is checked out at 11:30 and it is checked in at 11:57. If the snapshot setting is at 10 minutes the time is saved as 12:00 instead of 11:57. Because of this you might find that when data is aggregated to find concurrent licenses used based on the detailed logs compared to the log table there is a discrepancy. It can even result in a chart showing that more licenses are used than what you have.

There is a second interval that is used for the detailed tables. It is a sampling interval that can be anything from 1 minute up to 60 minutes but not lower than the snapshot interval. The lower sampling interval the more correct result but the time to produce the reports will take longer. Usage between



11:30 and 11:34 will not be sampled if the interval is 10 minutes as the time is rounded to nearest half of the interval.

Here is a chart created using the Feature Server tab.



And here is a chart created using the Detailed tab. Notice how the number of licenses used exceeds the number of licenses available. Normally if only feature and server info should be reported on it is best to use the Feature Server tab whenever possible.



Hours reported using the hour chart report type is not making use of the Interval on the Report Settings tab. It is only using the sampling interval specified in JTB FlexReport Service Configurator. The lower interval the more correct result. Example: A license is used between 8:16 and 9:49. If the sampling interval is 10 minutes it will create a usage between 8:10 and 9:40. It is rounding down the start time to nearest value rounded by the interval, in this case from 8:16 to 8:10 and the end time from 9:49 to 9:40. But if the sampling is at 1 minute the result will be between 8:16 and 9:49. Conclusion is that to lower the sampling interval for best accuracy and especially if applications are used for quite short time (less than 30 min) per session. In case like this it is also recommended to lower the snapshot interval in JTB FlexReport Config to lower than the default 10 minutes.

### Other tips and tricks

In case of errors there are different log files created that can be sent to JTB World for further investigation. "Program Files (x86)" below is "Program Files" on 32-bit Windows.

Client: **%localappdata%\JTB World\JTB FlexReport Client\Logs** and/or the installation folder that by default is **C:\Program Files (x86)\JTB World\JTB FlexReport Client**

Service: **%programdata%\JTB World\JTB FlexReport Service** and/or **%ALLUSERSPROFILE%\JTB World\JTB FlexReport Service\Logs** and/or the installation folder that by default is **C:\Program Files (x86)\JTB World\JTB FlexReport Service**

To get more data in some of the service logs this can be done.

Edit this file in Notepad.

C:\Program Files (x86)\JTB World\JTB FlexReport Service\JTB FlexReport Chart Service.exe.config

Change this row

```
<level value="INFO" />
```

Into

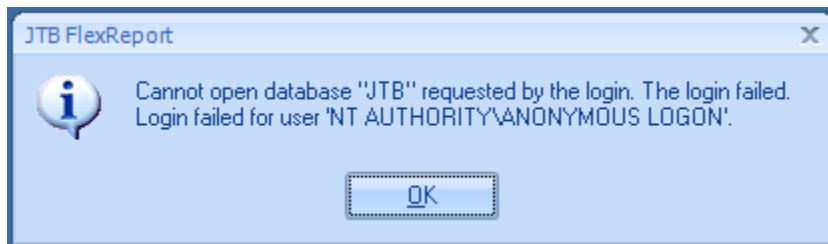
```
<level value="DEBUG" />
```

Same can be done with JTB FlexReport Sampling Service.exe.config and JTB FlexReport Auto Chart Service.exe.config.

After that run reports of let services run for some time and send logs to JTB World.

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If you get the error "Cannot open database"<database name> requested by the login. The login failed. Login failed for user 'NT AUTHORITY\ANONYMOUS LOGON'." To add a Windows Authentication user use NT AUTHORITY\SYSTEM as login name. JTB services are by default running using the "Local System" account. Change them to run with an account that has access to the SQL database. Another solution is to use SQL authentication connection.



The database needs 'db\_backupoperator', 'db\_datareader' and 'db\_datawriter' permissions for the SQL Server database.

Try to use port 2003, 2004 or ports in a series after that. The ports should match between Service and Client Configurators.

Check the Windows Event Viewer for any Application or System errors being logged that are related to JTB FlexReport.

If Test Service Engine gives this error: "The Remote Name Could Not Be Resolved: 'localhost'" and if the Event Viewer has this event (Event ID: 15005 Source: HTTP) you can try to change the port number to next number. Typically try port numbers from 2000 and up. This is also a message that might come up: "Unable to bind to the underlying transport for 0.0.0.0:2000. The IP Listen-Only list may contain a reference to an interface which may not exist on this machine. The data field contains the error number."

"Service connection Failed. The request failed with HTTP status 504: Unknown Host." might show while starting the Configurator. Use IPV4 address or edit the Windows host file.

Try to use IP number instead of host name for the JTB Report Service or Process Service.

Make sure to use the name or IP of the machine in the service configurator where JTB FlexReport Service is installed. The same should be used in the client configurator.

Make sure that there is no firewall blocking any of the JTB FlexReport exe files or ports used. It might be needed to add exceptions for the exe files and the port used.

Check if the service is running in Windows Services.

Make sure that the service address is the same in all the config files in the installation folders for the Service and Client: "JTB FlexReportClient.exe.config", "JTB FlexReport Sampling Service.exe.config" and "JTB FlexReport Service Configurator.exe.config". The address can be for example:

`http://MyServer:2000/Service`

To test from the client if it has contact with the server service you can in the installation folder 'JTB FlexReport Client' locate JTB FlexReportClient.exe.config and locate near the end of the file this row: `<endpoint address="http://MyServer:2000/Service"`. Now try to enter the address in a web browser and see if there are any problems to access the service or not. You can also try to ping the actual server.

Using netstat -o in command prompt window will help to identify ports that are used on the machine. Sometimes the port configured is already used and to solve the conflict you need to change the port in the configuration on the server and the client.

If test of service engine gives this error "Please start the Service before testing. The remote name could not be resolved: 'localhost'" and/or if the Windows Event Viewer with Event Source: JTBFlexReportWCFService has this error it is an indication that an older .NET Framework version is installed or that it needs reinstall. 3.0 or newer is needed. It might help to use IP address or fix the host name problem.

Event error description: Service cannot be started. System.Configuration.ConfigurationErrorsException: Configuration system failed to initialize ---> System.Configuration.ConfigurationErrorsException: Unrecognized configuration section system.serviceModel.

---

Auto Filter: This applies to simplify making selections in the list boxes of features, servers, users, hosts, etc. Note: If the database is large and with many rows in the tables this can cause the Client to take a long time to open so you might want to disable this feature for this reason.

---

If the reports that are using the Details tab or the Hours Chart tab only works partly or not at all it could be because the data sampling is not done or has stopped. Make sure the JTB FlexReport Sampling Service is running and if needed activate it in JTB FlexReport Service Configurator. It can be needed to press the "Clear" button followed by "Sampling All Records" then wait some time. If the database is large it can take some hours. One more thing you can check is that the JTBFlexReport.NET-temp.mdb database is not close to 2GB in size. In that case you can try to delete it and then re-sample the data. If

the size after some time gets close to 2GB again you will need to start with a new core database or backup and delete some old data before re-sample again.

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Favorites data is saved in this folder on the client:

**%LOCALAPPDATA%\JTB World\JTB FlexReport Client\Gallery**

For example: **C:\Users\jtb\AppData\Local\JTB World\JTB FlexReport Client\Gallery**

These can be made backup of or be copied to another computer if need be.

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Auto report settings files are saved as XML files in this folder:

**C:\ProgramData\JTB World\JTB FlexReport Service**

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Q. Why is the Client slow to start?

A. It can be because of the Auto Filter. See the main application menu for its checkbox. If the database is large and with many rows in the tables this can cause the Client to take a long time to open so you might want to disable this feature for this reason. Version 2020.11.0 and newer does not have this problem.

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Q. Why is it taking several minutes to create reports?

A. It could be due to a very large database or it might help to just restart the server.

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Q. How can I check the size of the SQL Server tables?

A. Run SQL Server Management Studio (SSMS).

Right click on the database

Navigate to Reports > Standard Reports > Disk Usage By Table

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Q. I get an error like “The table tblDeniedUserLog contain duplicates resulting in database size and performance issues.” using Update DB. How can I remove the duplicates?

A. If the database is MS Access you can make use of JTBFlexReportMergeDBs.zip that is in JTB FlexReport folder. If SQL Server database is used you might need to use the update script “JTB FlexReport SQL create and copy db version <version>.txt” found under <https://jtbworld.com/jtb-flexreport#download>.

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