

# JTB FlexReport Chart Service and Client 9.1

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## Instructions

JTB FlexReport Chart **Service** and JTB FlexReport Chart **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. For most list reports see the Access frontend Detailed Reports that comes with JTB FlexReport Core.

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

The JTB FlexReport Chart Client can be installed on the same machine as the Chart 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.

## Chart Service installation

.NET Framework 4.0 or later required.

The chart service (JTB FlexReport Chart 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 Chart Service is installed) should be used to configure both the service and the client.

Run setup.exe that is in the same folder as JTBFlexReportService.msi.

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

Place a copy of the license file into the installation folder.

Typically in this folder:

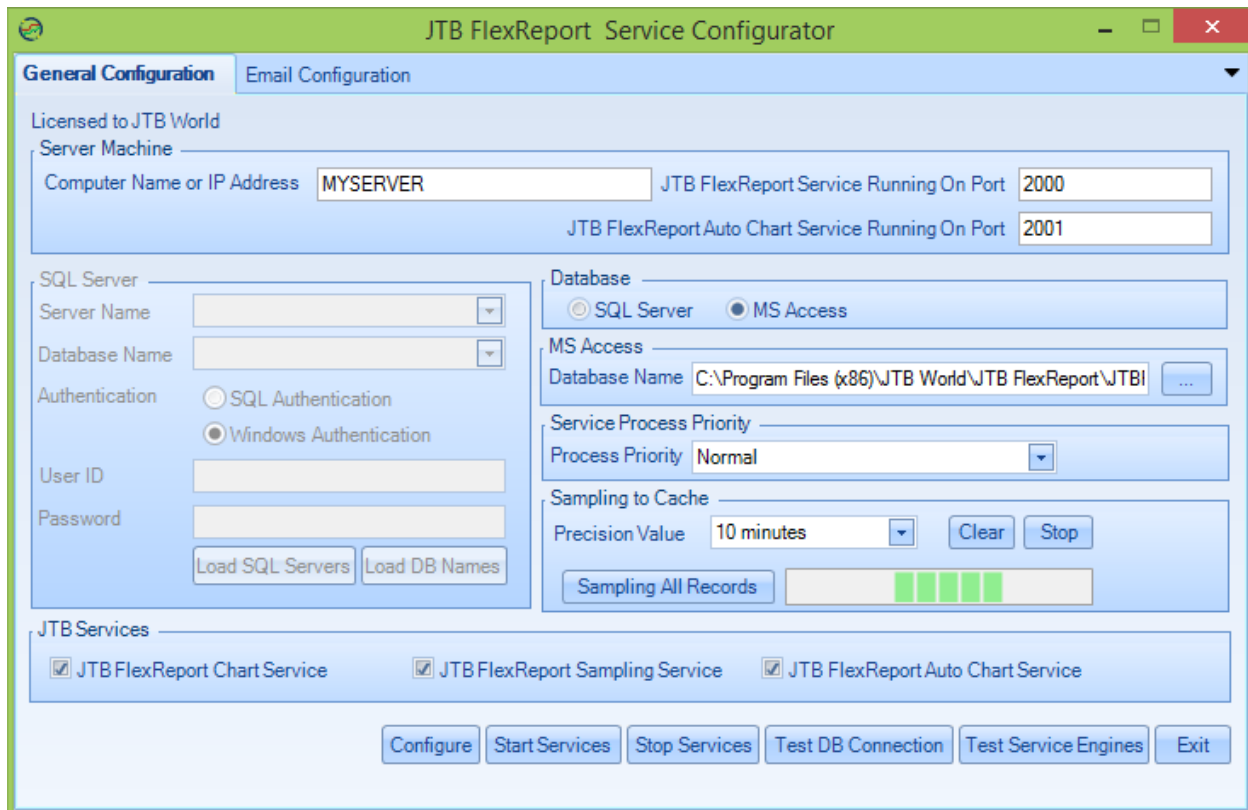
32-bit OS: C:\Program Files\JTB World\JTB FlexReport Service

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

## 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.

### 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 interface is divided into several sections:

- Licensed to JTB World**: A header section.
- Server Machine**: Contains text boxes for 'Computer Name or IP Address' (filled with 'MYSERVER'), 'JTB FlexReport Service Running On Port' (filled with '2000'), and 'JTB FlexReport Auto Chart Service Running On Port' (filled with '2001').
- SQL Server**: Includes a 'Server Name' dropdown, a 'Database Name' dropdown, and radio buttons for 'SQL Authentication' and 'Windows Authentication' (selected). Below these are 'User ID' and 'Password' text boxes, and two buttons: 'Load SQL Servers' and 'Load DB Names'.
- Database**: Features radio buttons for 'SQL Server' and 'MS Access' (selected). Below is an 'MS Access Database Name' text box with a browse button ('...').
- Service Process Priority**: A dropdown menu set to 'Normal'.
- Sampling to Cache**: Includes a 'Precision Value' dropdown set to '10 minutes', 'Clear' and 'Stop' buttons, and a 'Sampling All Records' checkbox with a progress bar.
- JTB Services**: Three checkboxes are checked: 'JTB FlexReport Chart Service', 'JTB FlexReport Sampling Service', and 'JTB FlexReport Auto Chart Service'.
- Buttons**: A row of buttons at the bottom: 'Configure', 'Start Services', 'Stop Services', 'Test DB Connection', 'Test Service Engines', and 'Exit'.

Decide to use SQL Server or MS Access as database.

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 2000, 2001, 2002 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.

Click on Configure.

Click on Start Services. This starts the services “JTB FlexReport Chart Service” and/or “JTB FlexReport Sampling Service” and/or “JTB FlexReport Auto Chart 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 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 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”. 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 Chart Service	Automatically gene...	Started	Automatic	Local Syste...
 JTB FlexReport Chart Service	Provides data from ...	Started	Automatic	Local Syste...
 JTB FlexReport Core Service			Automatic	Local Syste...
 JTB FlexReport Sampling Service	Sampling data for ...	Started	Automatic	Local Syste...

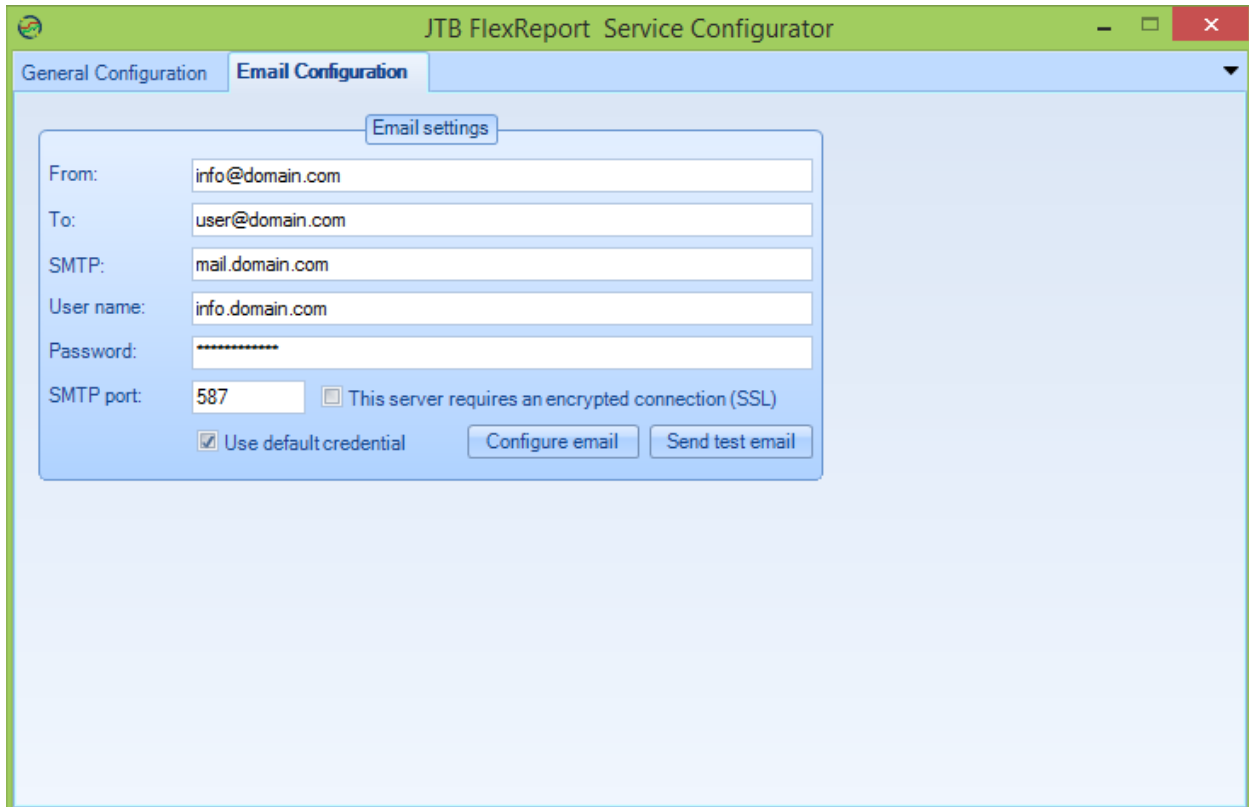
If you want to have the service running with lower priority select **Process Priority**.

## 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.



The screenshot shows the 'Email Configuration' tab of the 'JT B FlexReport Service Configurator'. The window title is 'JT B FlexReport Service Configurator'. The tab is labeled 'Email Configuration' and contains a sub-section titled 'Email settings'. The form includes the following fields and options:

- From: info@domain.com
- To: user@domain.com
- SMTP: mail.domain.com
- User name: info.domain.com
- Password: [masked with asterisks]
- SMTP port: 587
- This server requires an encrypted connection (SSL)
- Use default credential
- Buttons: 'Configure email' and 'Send test email'

## Client installation

.NET Framework 4.0 or later required depending on the setup downloaded.

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

Run setup.exe that is in the same folder as JTBFlexReportClient.msi.

## JTB FlexReport Client Configurator

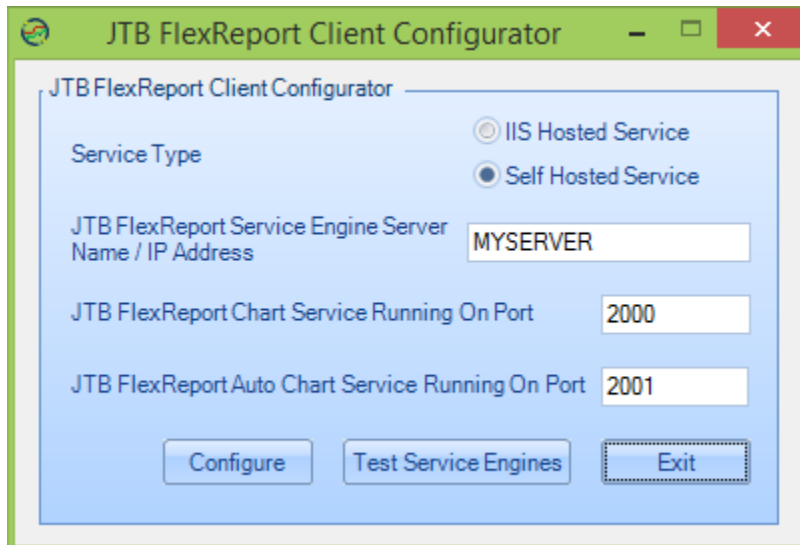
Run JTB FlexReport Client Configurator from Windows start menu or run “JTB FlexReport Client Configurator.exe” located in the installation folder.

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

In the client configurator add the server name or IP and ports that the chart service uses. If unsure check in the JTB FlexReport Service Configurator.





## 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

## How to quickly create a chart 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 Chart button.

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

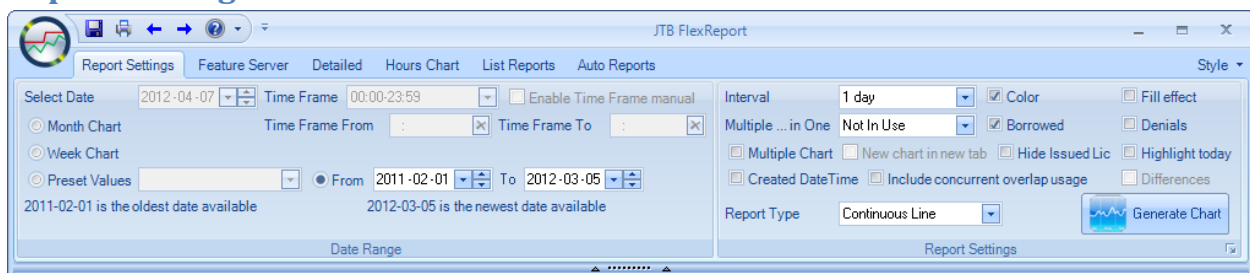
## Ribbon tips

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 chart you need to use either of the tabs “Feature Server”, “Detailed” or “Hours Chart” and make selections there on what to report on.

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

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

Select Date 2012-08-21 Time Frame 06:00-18:00  Enable Time Frame manual

Month Chart Time Frame From : Time Frame To :

Week Chart

Preset Values Last 7 days  From 2011-12-27 To 2012-08-02

2011-12-27 is the oldest date available 2012-08-02 is the newest date available

Date Range

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

Select Date 2012-08-21 Time Frame 06:00-18:00  Enable Time Frame manual

Month Chart Time Frame From : Time Frame To :

Week Chart  Monday  Tuesday  Wednesday  Thursday  Friday  Saturday  Sunday

Preset Values Last 7 days  From 2011-12-27 To 2012-08-02

2011-12-27 is the oldest date available 2012-08-02 is the newest date available

Date Range

### Select Date

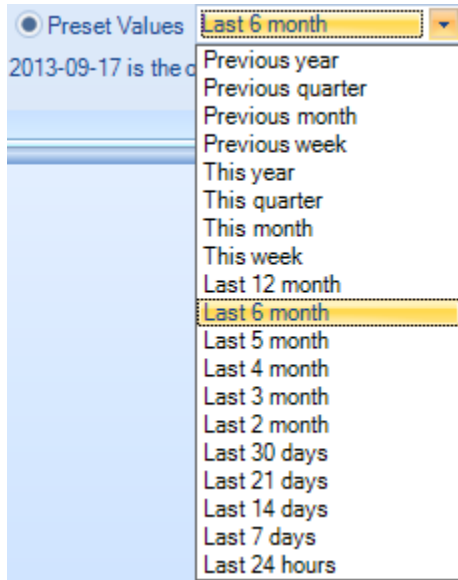
This will be used when either of the radio buttons “Month Chart” or “Week Chart” are used. Select any day within the month or week you want to report on.

Select Date 2009-01-11

	januari			2009			
	må	ti	on	to	fr	lö	sö
1	29	30	31	1	2	3	4
2	5	6	7	8	9	10	11
3	12	13	14	15	16	17	18
4	19	20	21	22	23	24	25
5	26	27	28	29	30	31	1
	2	3	4	5	6	7	8

Today Clear

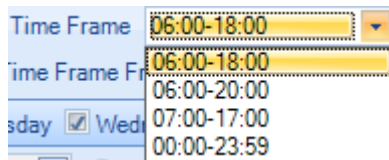
## Preset Values



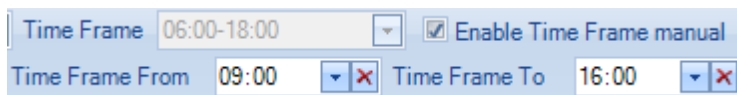
“Preset Values” needs to be used for the automatically created reports but can also be used for manual reports.

## Time Frame

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

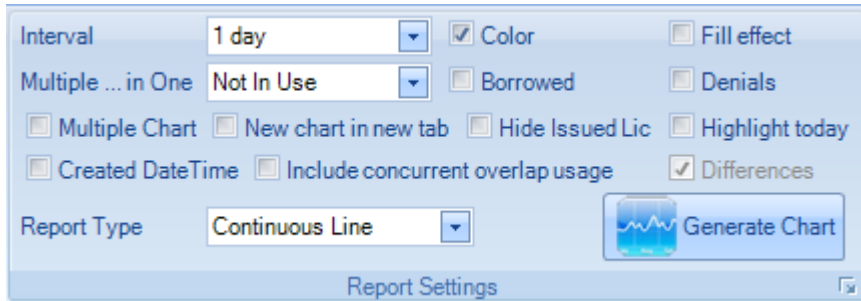


Either use the standard time frames from the dropdown or enable the manual setting and select from and to times.



## Report Settings

On “Report Settings” there are several settings that determine how the reports are created.



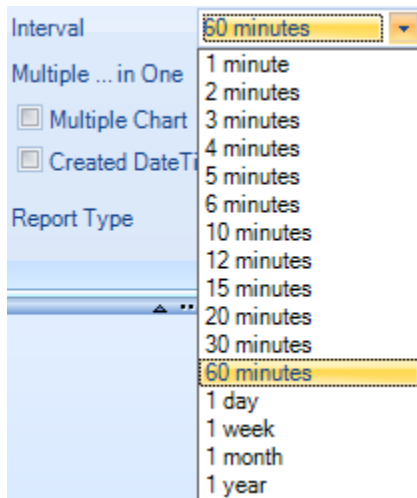
The screenshot shows the 'Report Settings' dialog box. It contains several settings:

- 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 Issued Lic:**
- Highlight today:**
- Created DateTime:**
- Include concurrent overlap usage:**
- Differences:**

There is a 'Generate Chart' button with a chart icon and a 'Report Settings' label at the bottom.

## 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.

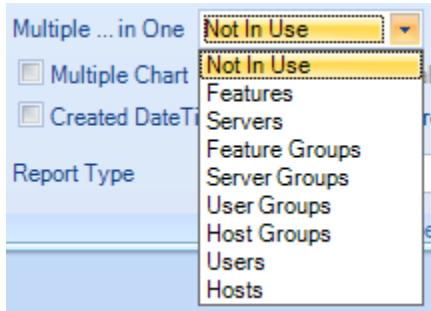


The screenshot shows the 'Interval' dropdown menu open. The selected option is '60 minutes'. The menu lists the following options:

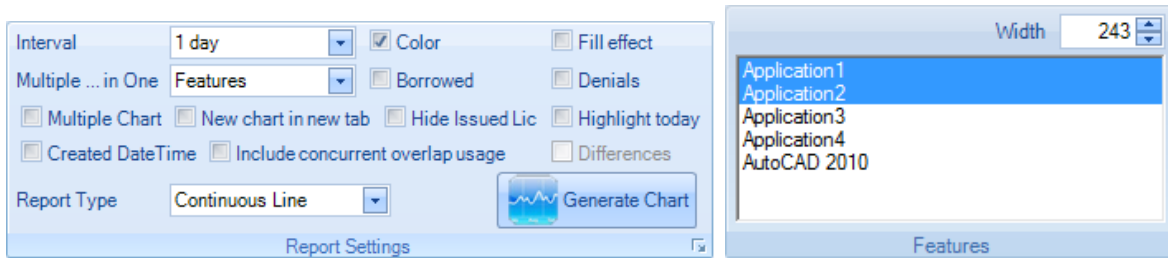
- 1 minute
- 2 minutes
- 3 minutes
- 4 minutes
- 5 minutes
- 6 minutes
- 10 minutes
- 12 minutes
- 15 minutes
- 20 minutes
- 30 minutes
- 60 minutes
- 1 day
- 1 week
- 1 month
- 1 year

## Multiple ... in One Chart

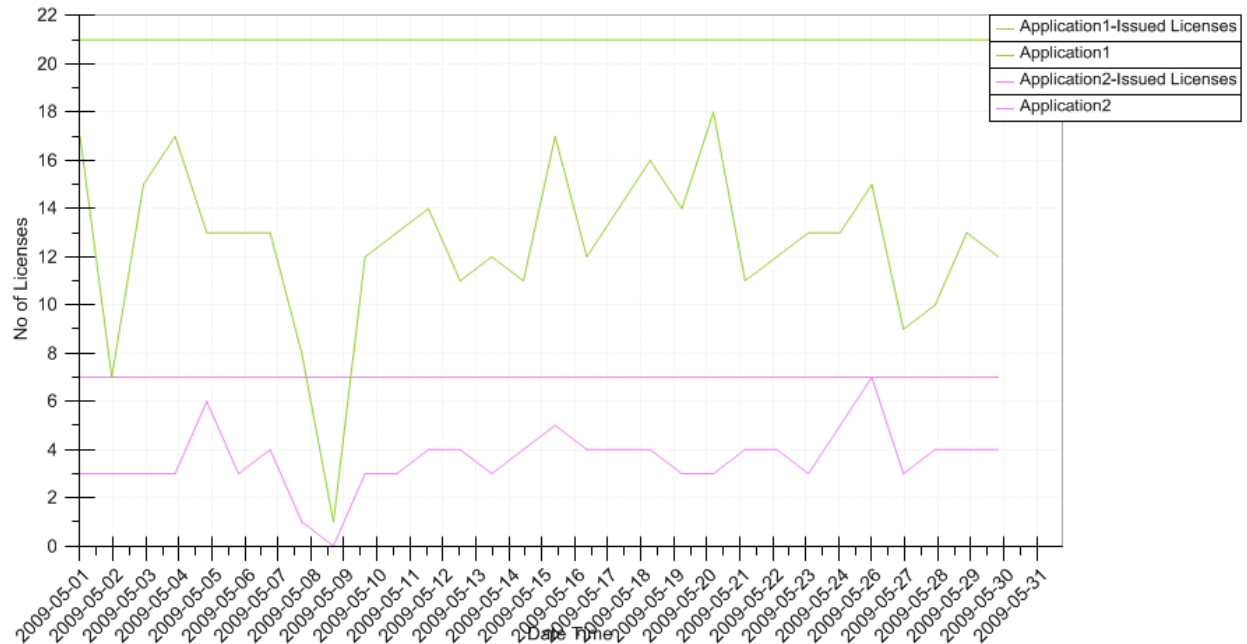
If multiple of the items in a list (like the features list) are used they can be plotted as separate lines in the chart or separate bars in the hour chart report type. This option is not available for all Chart Types.



This example shows two features in one chart.



Used licenses - Features: Application1,Application2



### **Multiple charts**

When multiple charts is checked and you for example selected multiple features on the Feature Server tab, one chart per feature will be generated on a separate tab.

### **New chart in new tab**

If this is selected a new tab will be used for the new chart instead of replacing the existing chart. 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 the doubles 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 license 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 line showing the borrowed usage.

### **Hide Issued Lic**

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

### **Fill effect**

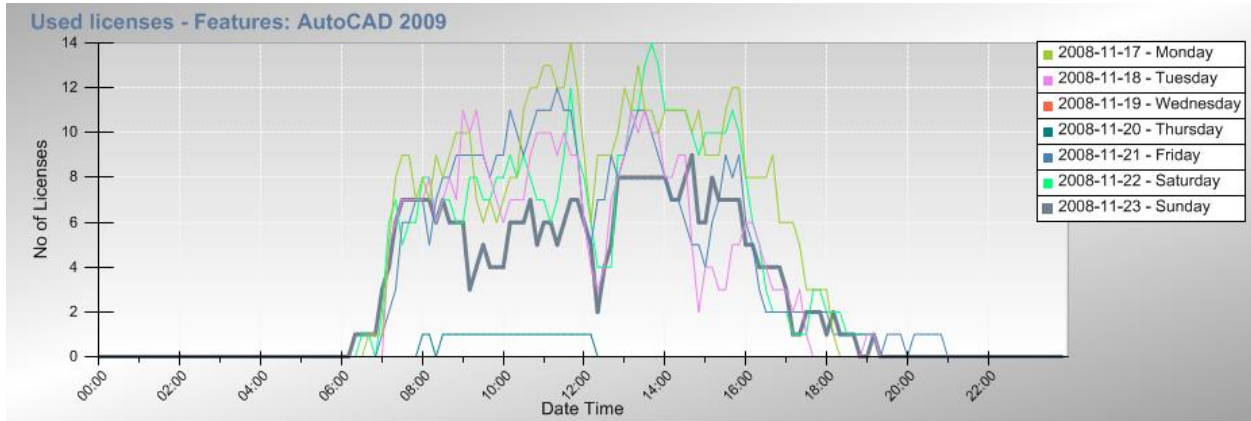
Useful for bar charts.

### **Denials**

Include denials in the chart. Requires that denials have been saved to the database by specifying FlexNet debug log files in JTB FlexReport Config.

### 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.

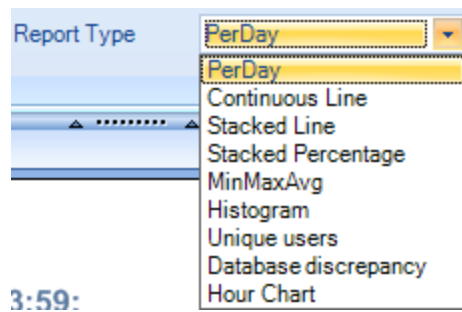


### Create Date Time

Show created date time in chart.

### Report type

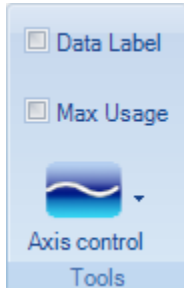
Select among the report types available: PerDay, Continuous Line, Stacked Line, Stacked Percentage, MinMaxAvg, Histogram, Unique users, Database discrepancy and Hour Chart.



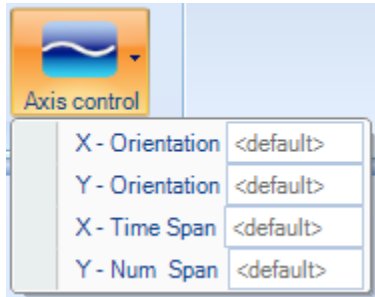
## Tools

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.



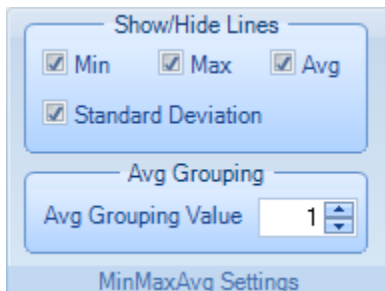
## MinMaxAvg

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>.

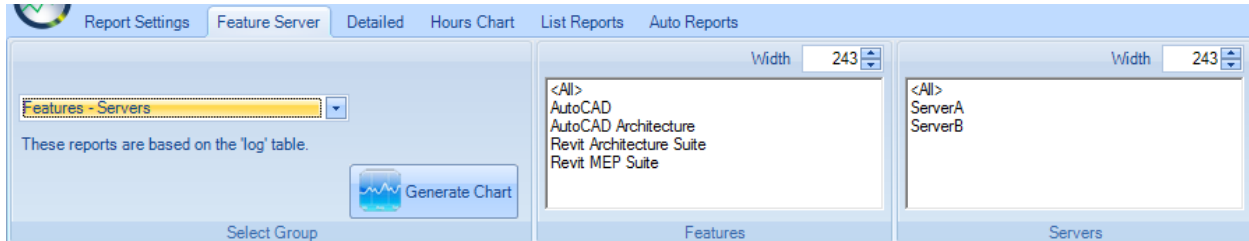
If the interval is 1 day and the grouping value is 7 you will get the average based on groups of 7 days.





## 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".

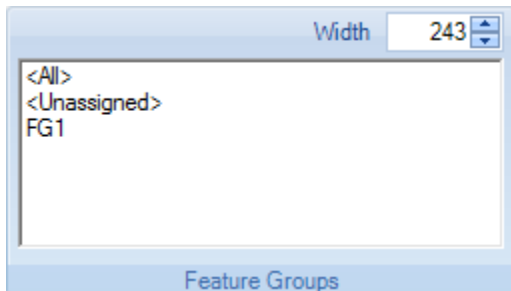


Combination drop down



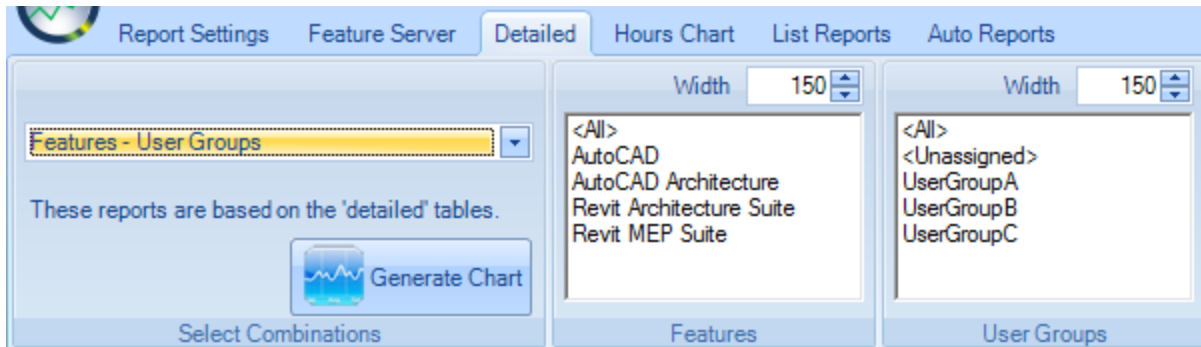
To select all items in a list like all feature groups it is enough to select <All>.

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 us it.



Select Combinations in the drop down.

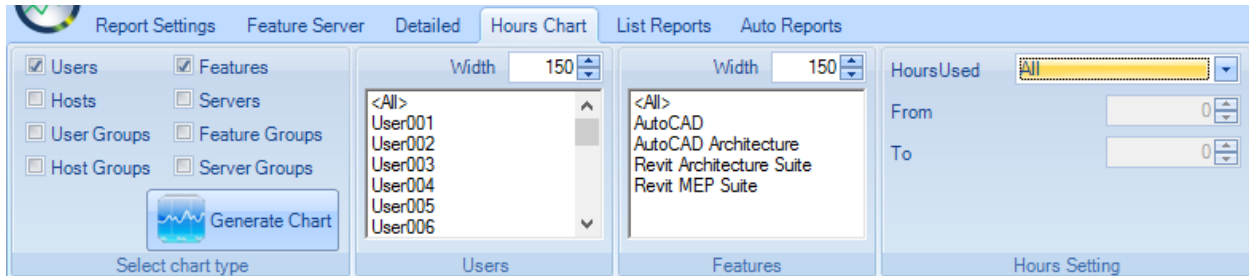
- Select --
- Feature Groups - Host Groups
- Feature Groups - Hosts
- Feature Groups - Server Groups
- Feature Groups - Server Groups - Host Groups
- Feature Groups - Server Groups - Hosts
- Feature Groups - Server Groups - User Groups
- Feature Groups - Server Groups - Users
- Feature Groups - Servers
- Feature Groups - Servers - Host Groups
- Feature Groups - Servers - Hosts
- Feature Groups - Servers - Users
- Feature Groups - User Groups
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- Features - Server Groups
- Features - Server Groups - Host Groups
- Features - Server Groups - Hosts**
- Features - Server Groups - Users
- Features - Servers
- Features - Servers - Host Groups
- Features - Servers - Hosts
- Features - Servers - User Groups
- Features - Servers - Users
- Features - User Groups
- Features - Users
- Server Groups - Host Groups
- Server Groups - Hosts
- Server Groups - User Groups
- Server Groups - Users
- Servers - Host Groups
- Servers - Hosts
- Servers - User Groups
- Servers - Users

## 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.

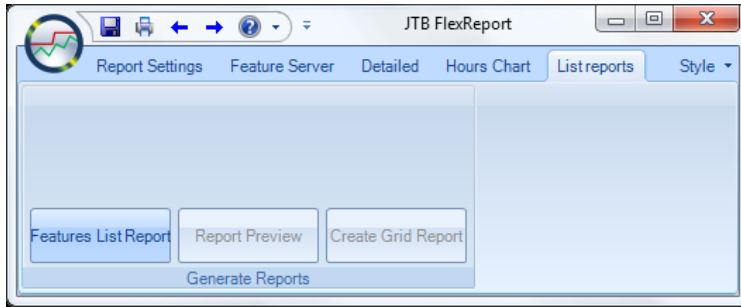
It is possible to filter out columns of hours for example showing only hours more than specified number.



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.

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.

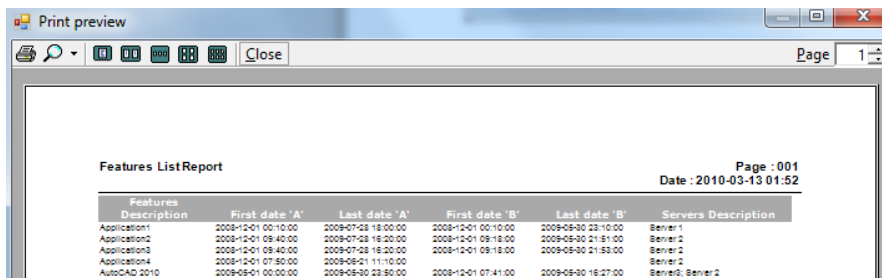
## List reports



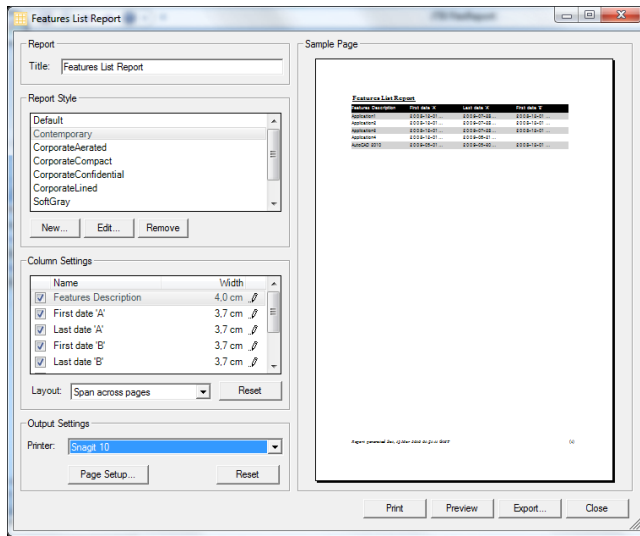
Features List Report is useful to find information on what data exists in the database for each feature. The dates for the date 'A' columns are from the 'log' database table and the dates for the date 'B' columns are from a union of the database tables 'tblUserDetailedLog' and 'tblUserDetailedLogPrev'. 'A' is used for charts created with the Feature Server tab and the Detailed tab. 'B' is used for charts created with the Detailed tab and Hours Chart tabs where users or hosts are involved.

Features Description	First date 'A'	Last date 'A'	First date 'B'	Last date 'B'	Servers Description	Features	Servers
Application1	2008-12-01 00:10:00	2009-07-28 18:00:00	2008-12-01 00:10:00	2009-05-30 23:10:00	Server 1	Application1	Server1
Application2	2008-12-01 09:40:00	2009-07-28 16:20:00	2008-12-01 09:18:00	2009-05-30 21:51:00	Server 2	Application2	Server2
Application3	2008-12-01 09:40:00	2009-07-28 16:20:00	2008-12-01 09:18:00	2009-05-30 21:53:00	Server 2	Application3	Server2
Application4	2008-12-01 07:50:00	2009-06-21 11:10:00			Server 2	Application4	Server2
AutoCAD 2010	2009-05-01 00:00:00	2009-05-30 23:50:00	2008-12-01 07:41:00	2009-05-30 16:27:00	Server3; Server 2	71200ACD_2010_OF	Server3; Server2

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.



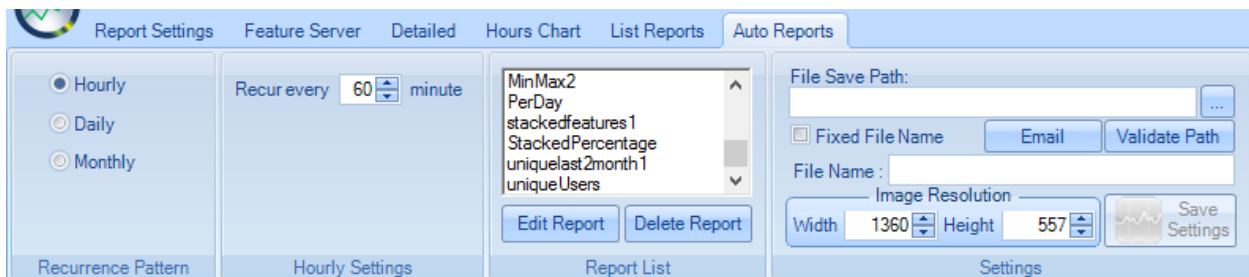
## Auto Reports tab

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 Chart. If you don't want to save a lot of image files make sure to use a fixed file name and have them created only monthly.

This requires that the JTB FlexReport Auto Chart Service is running.

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

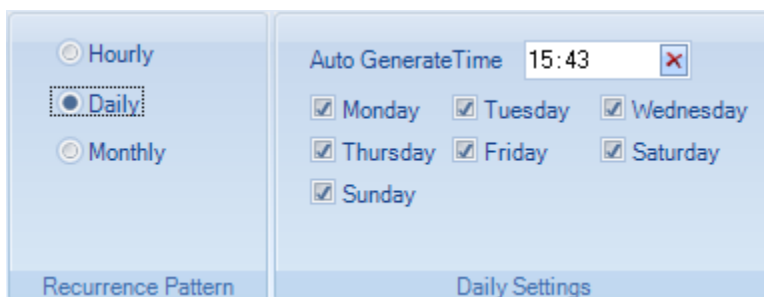


Specify the recurrence pattern if the report should be created on an hourly, daily or monthly basis.

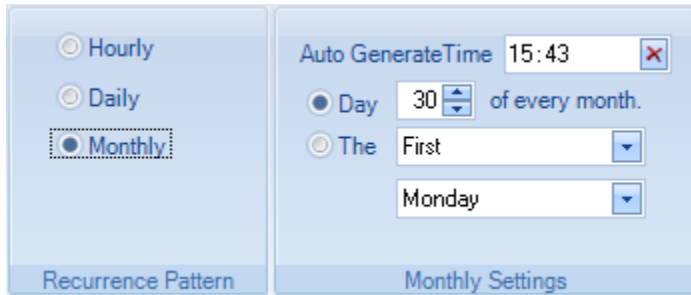
Hourly settings allow a report to be created multiple times per hour.



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



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



The **Settings panel** explained.

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

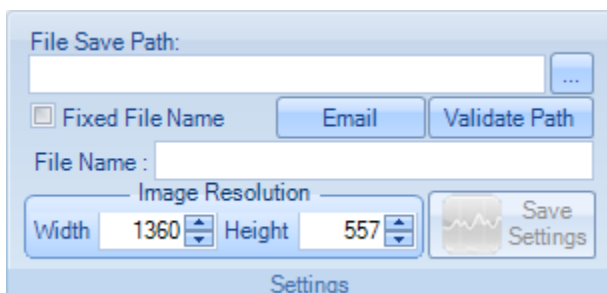
It is possible to save to a network path (UNC) with some setting changes. JTB FlexReport Auto Chart Service needs to be changed so it logs on as another account than the Local System Account. You might need to set "Log on as" to either a user account or another special account with access to the other 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 a 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.

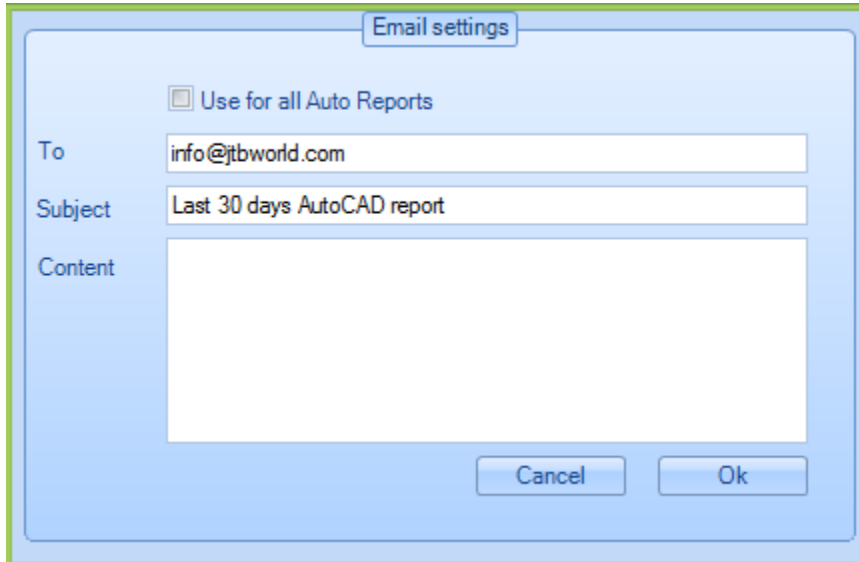
When ready press Save Settings. If all goes well a PNG file will directly be created based on the settings used.



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

## Email

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 "info@jtbworld.com", "Subject" containing "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: C:\ProgramData



## Export tab

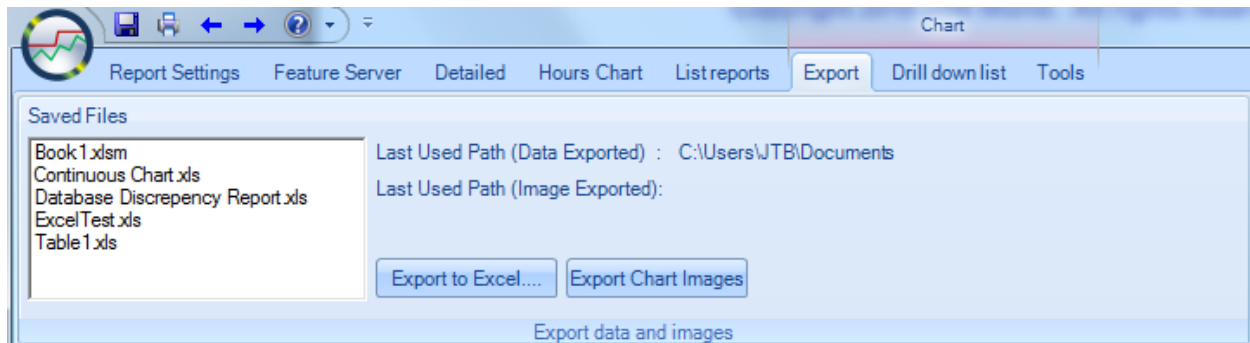
This is a contextual tab that shows up when there is a report available to be exported.

Export the current chart raw data to Excel.

As the file is not a native Excel file you may get a warning in Excel that you need to answer Yes to and then complete the Text Import Wizard.

Click on the file in the list to open it.

Export the all chart tabs to images. You will be asked for a folder where the images are saved.



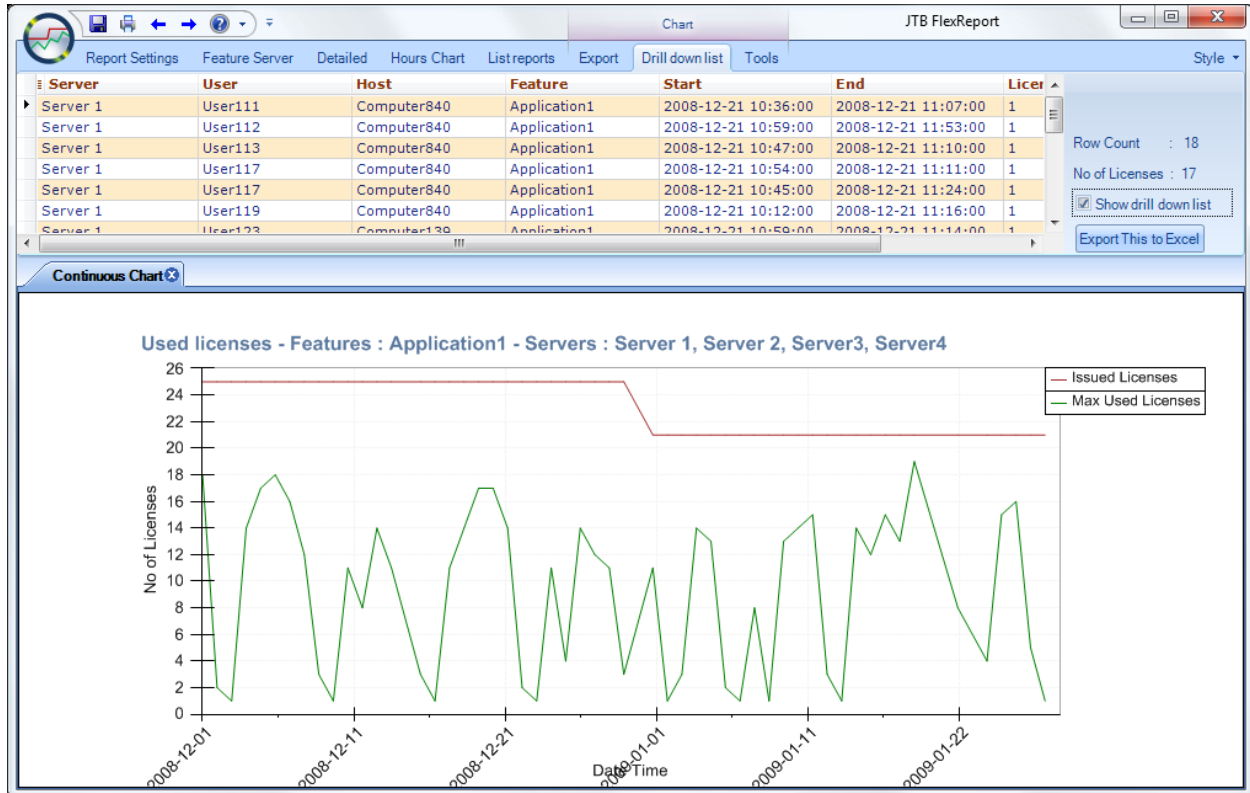
On the application menu there is also the option to save the current chart to an image file.

## 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 shown.

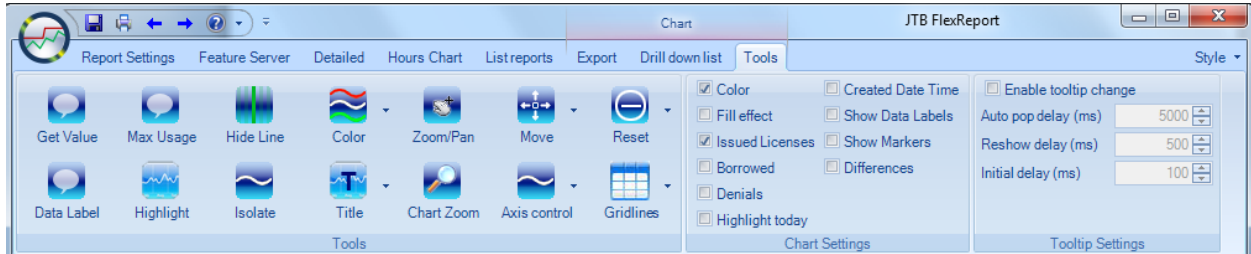
Depending on how the chart was created and based on what settings the drill down row count might not match the point on the chart. Detailed explanation on this will be added.



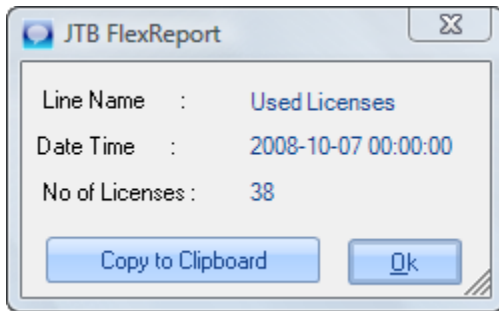
## Tools tab

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.



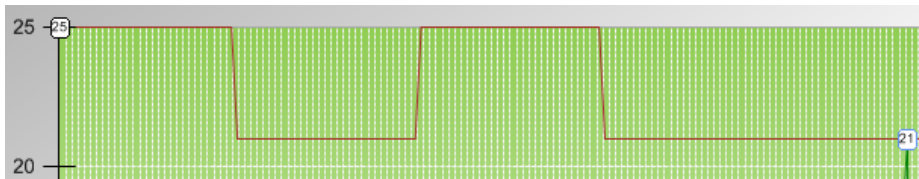
**Get value** shows information on a point on a line in a dialog box. The result can also be copied to the clipboard



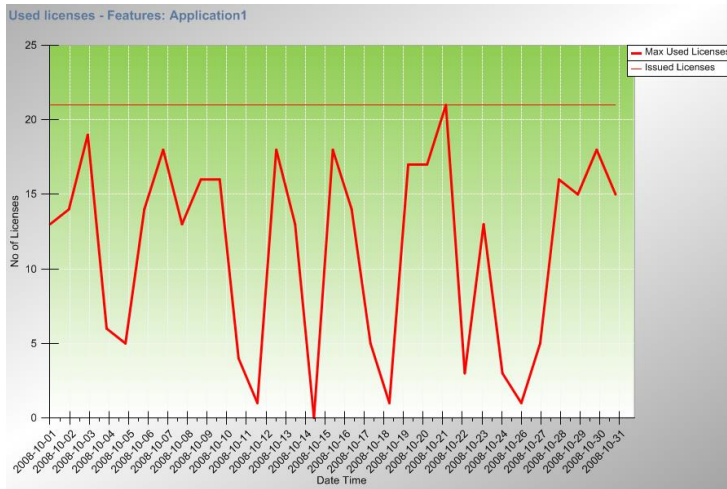
**Show Value** add the value directly on the chart for the point you click on.



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



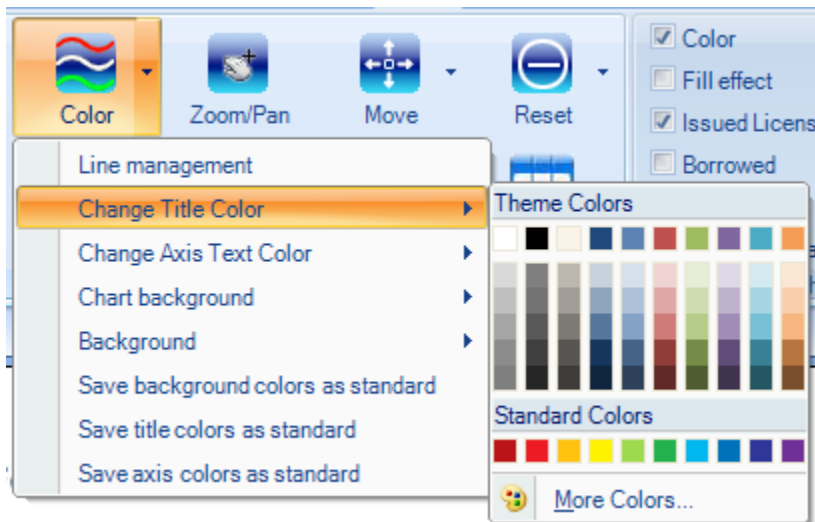
**Highlight** selected line makes the selected line red and bold.



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

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

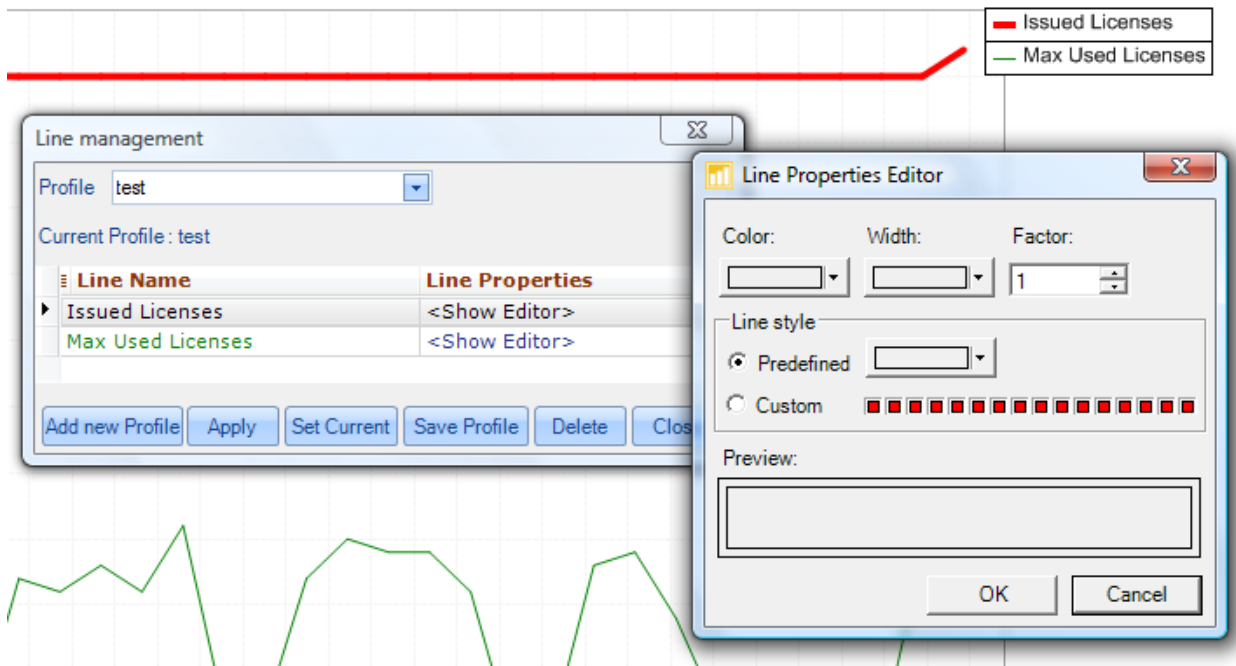
**Color** - Change the color of selected line if you want another color on it. Just click on the button, not on the arrow.



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.



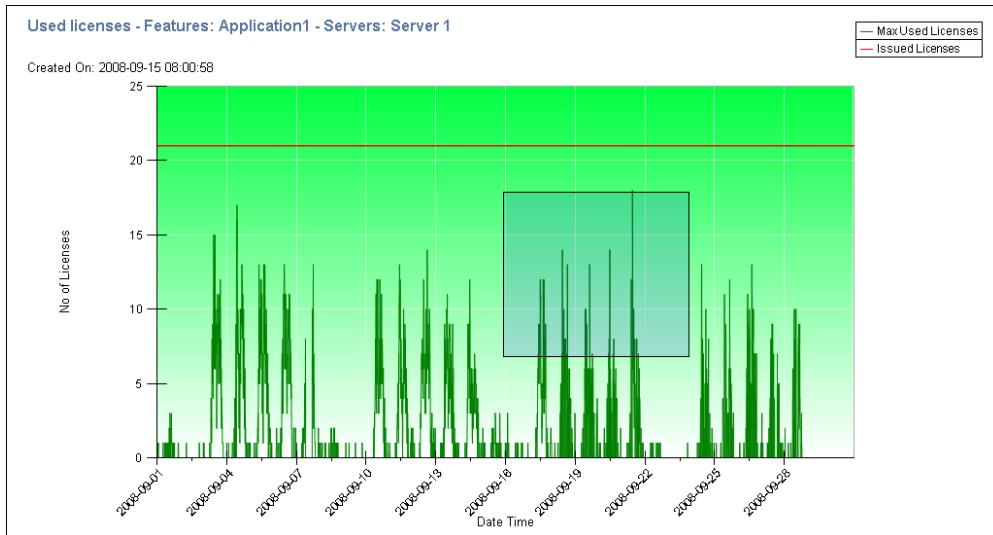
- Change Title Color
- Change Axis Text Color
- Chart background – This is for the area within the chart. If the colors are different it will be gradient.
- Background – This is for the area around the chart. If the colors are different it will be gradient.

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

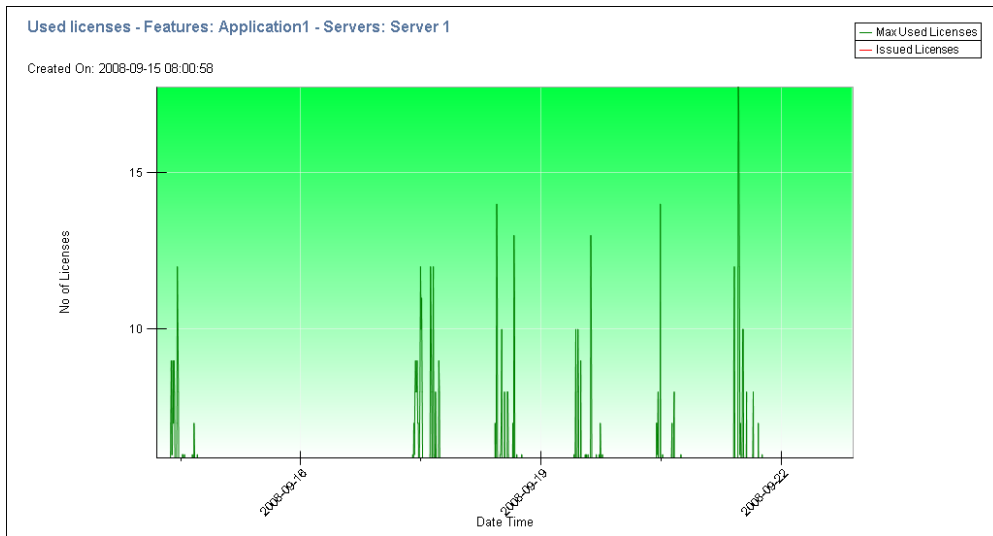
- Save background colors as standard
- Save title colors as standard
- Save axis colors as standard

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

**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.

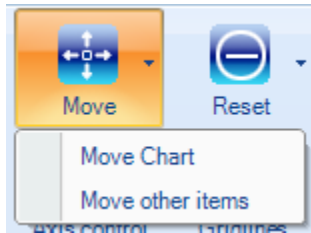


The result after zooming in:

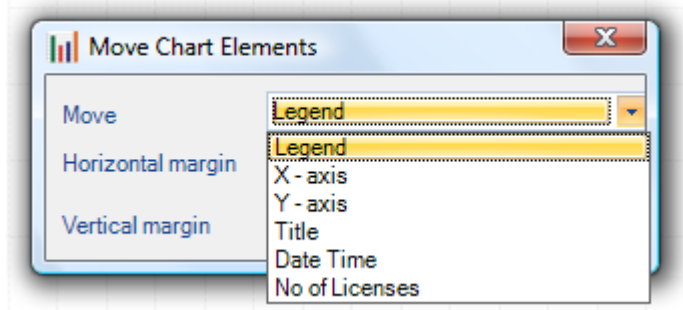
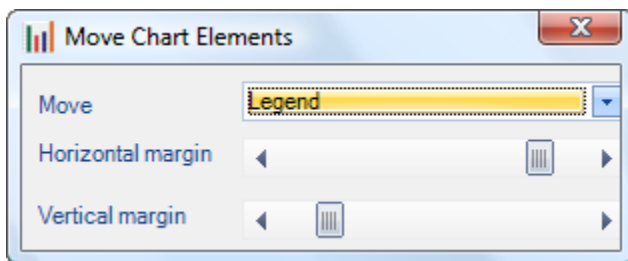


**Chart Zoom** acts on the chart area so you can adjust the size of it.

## Move

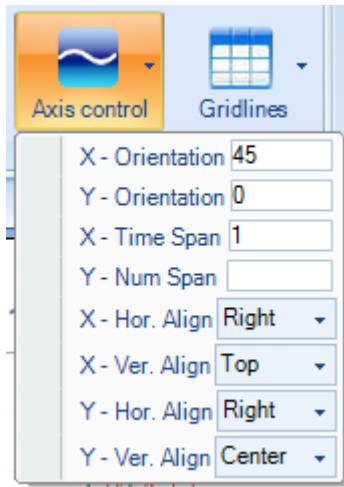


- Move Chart – relocate the chart
- Move other items  
Allow you to move the Legend, X-axis, Y-axis, Title, Date Time and No of Licenses individually.



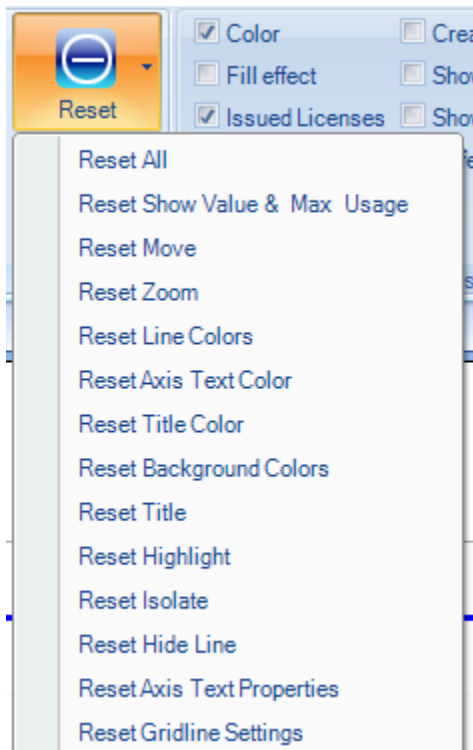
## Axis controller

Allow you to make changes to the axis text.



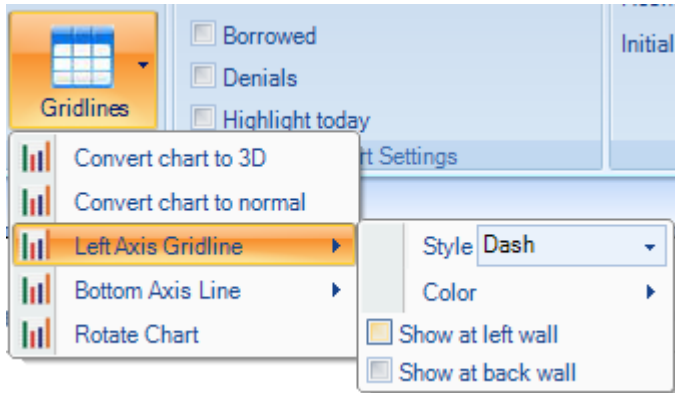
## Reset

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



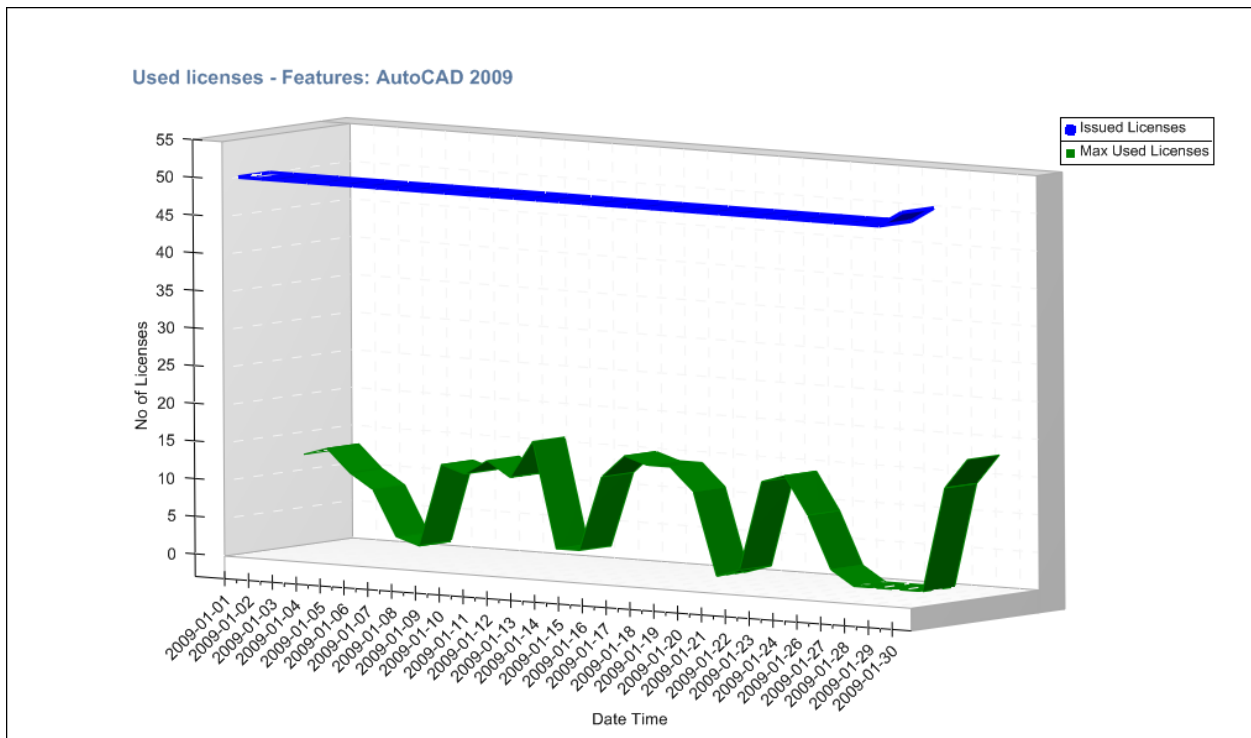


## Gridlines

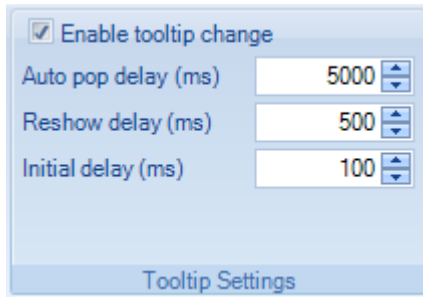


Besides being able to change the appearance of the grid lines you can set the chart to be viewed in 3D.

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



## Chart Tooltip Settings



Enable tooltip change

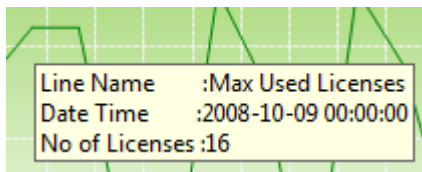
Auto pop delay (ms) 5000

Reshow delay (ms) 500

Initial delay (ms) 100

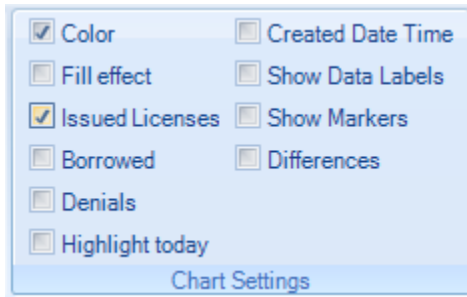
Tooltip Settings

- 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.

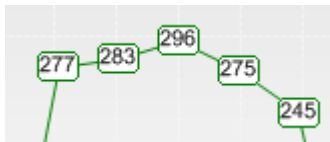
## Chart Settings



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

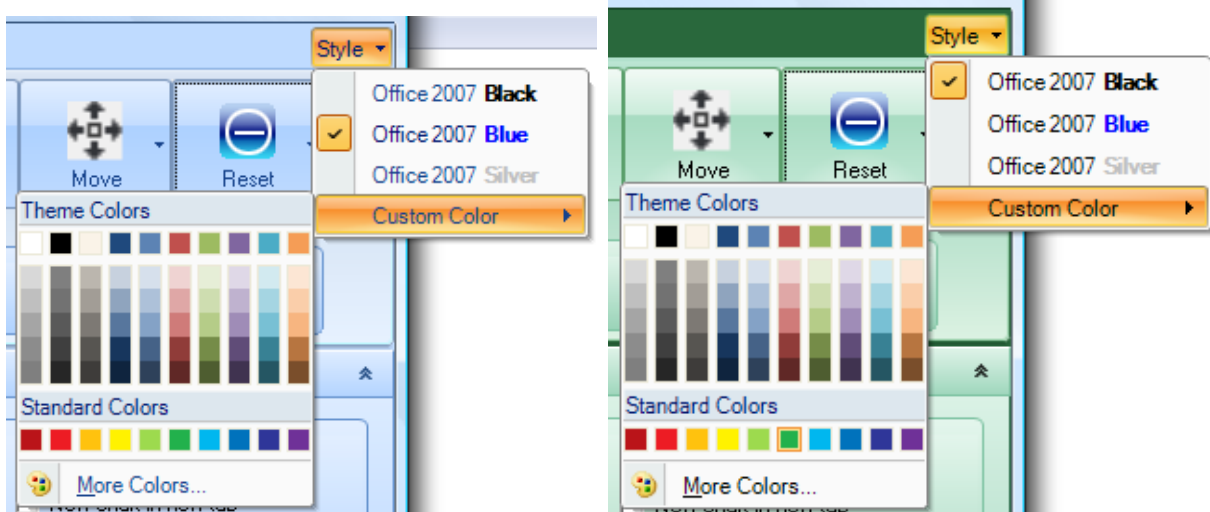


- **Differences**  
Used for the database discrepancy report only.

## 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 chart to clipboard.

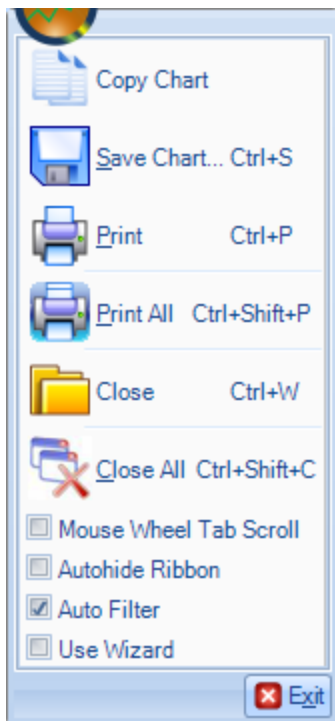
Charts can be saved/exported to file and printed.

Close current or all charts.

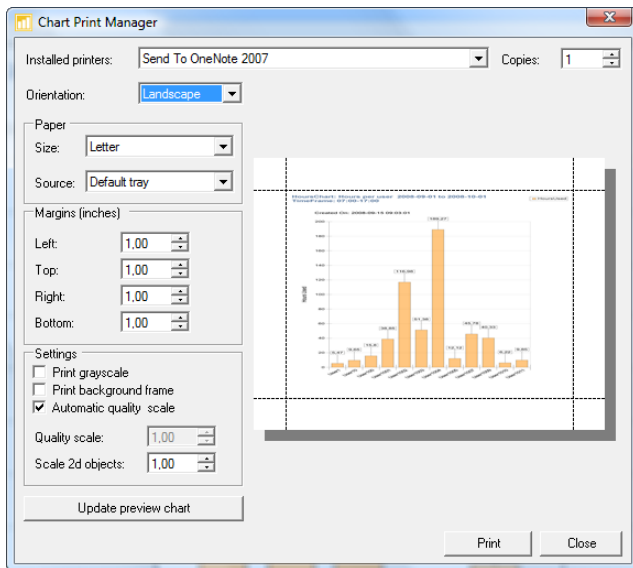
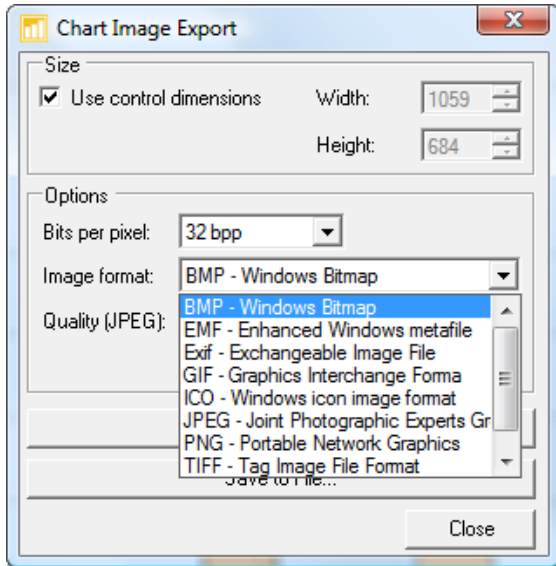
Determine if the mouse wheel should scroll among the tabs or not.

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.



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

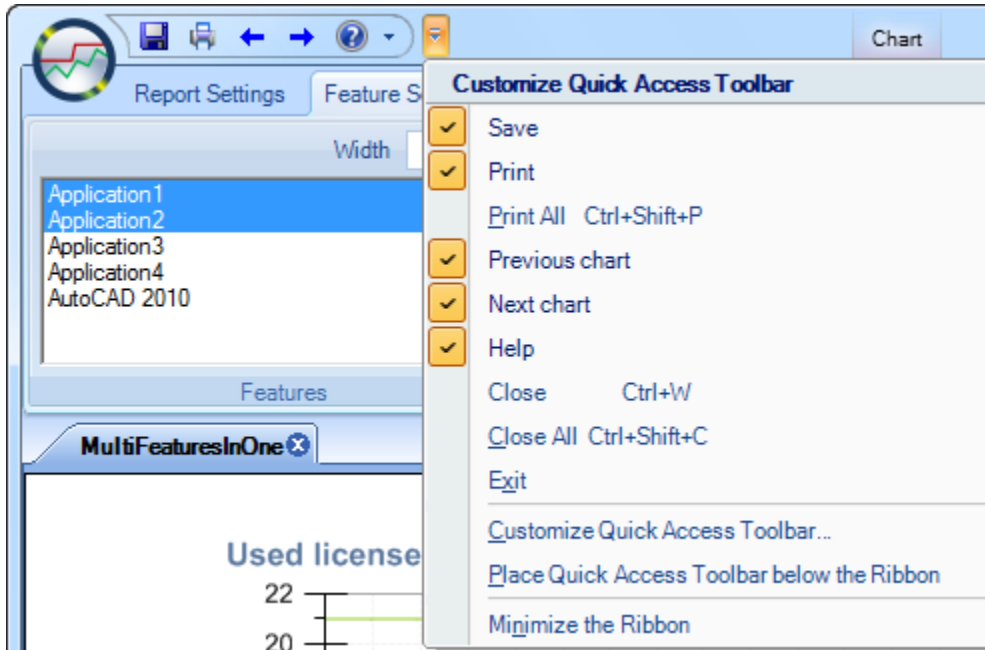


To be able to export all chart tabs to images see the Export tab.

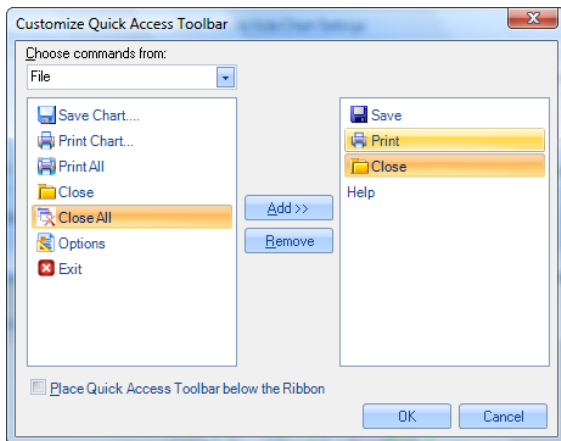
## Quick Access Toolbar

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

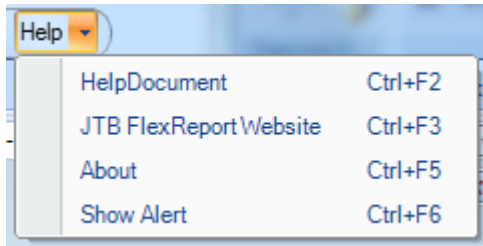
The Ribbon can be minimized and maximized also by right-clicking on the arrow to the right in the Quick Access Toolbar (QAT).



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.

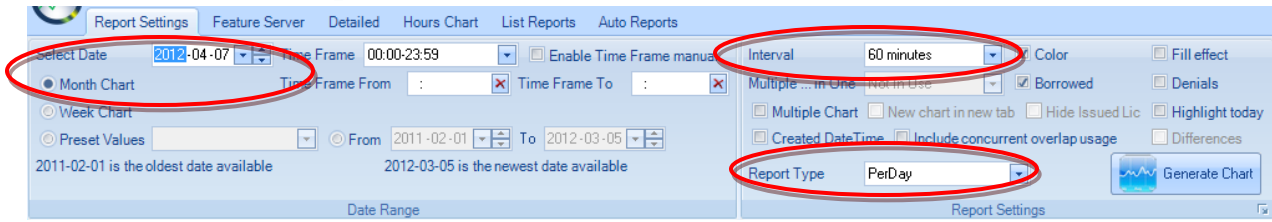


**Show Alert** will activate that the dialog box is shown when there is a need to select further data from other tabs.



# Sample charts

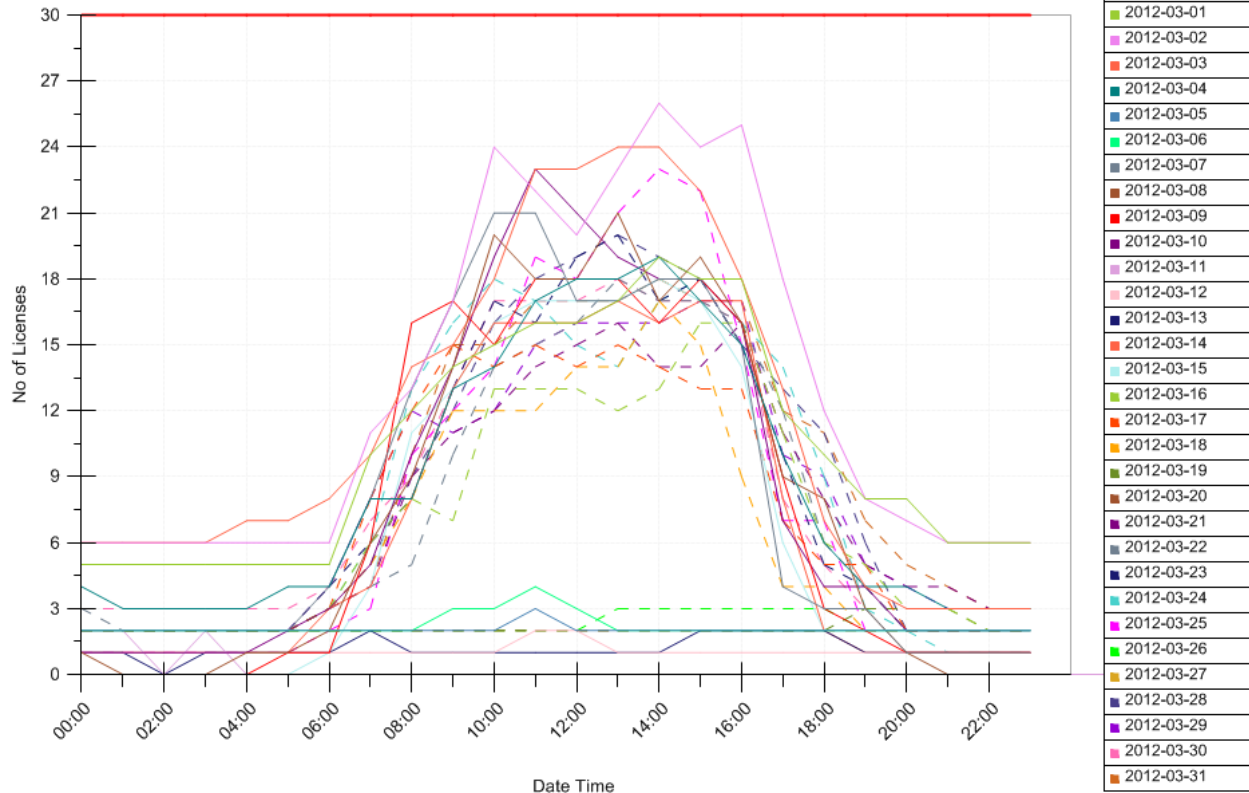
## Monthly chart on a per day basis



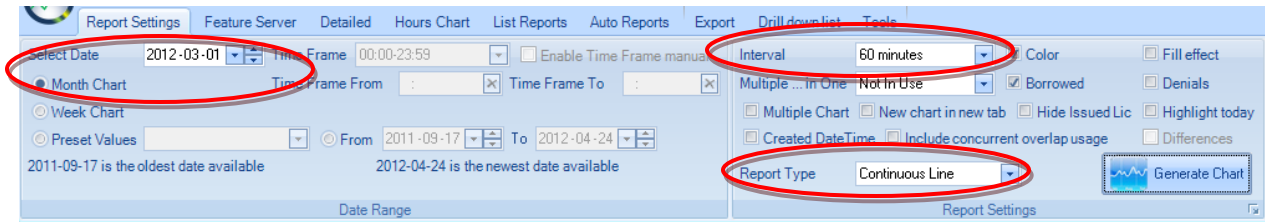
Select Report Type PerDay. Select Month Chart radio button and any date within the month you want to include in the report. Use lower interval than 1 day.

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

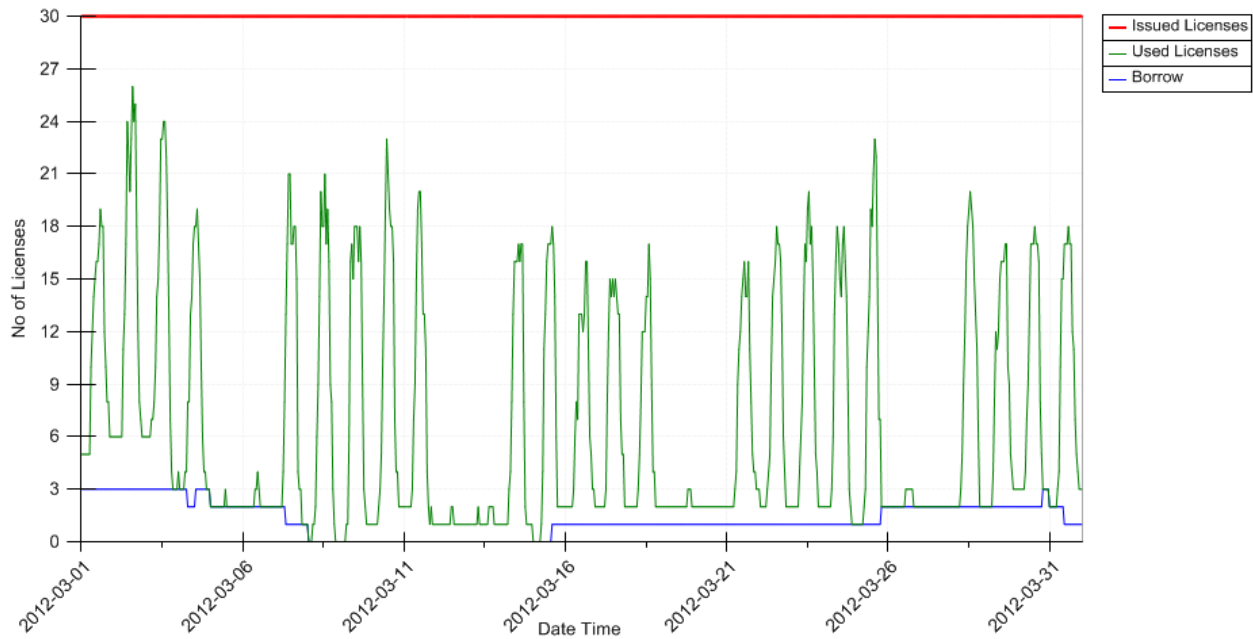


Select Report Type Continuous Line. Select Month Chart radio button and any date within the month you want to include in the report. You can also select month using Preset Values dropdown or From and To dates. Interval can be any interval larger than how the sampling interval or snapshot interval is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

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

Frame From 08:00 Time Frame To 16:00

From 2008-09-01 To 2008-11-01  
2009-01-30 is the newest date available

Interval 1 day  Color

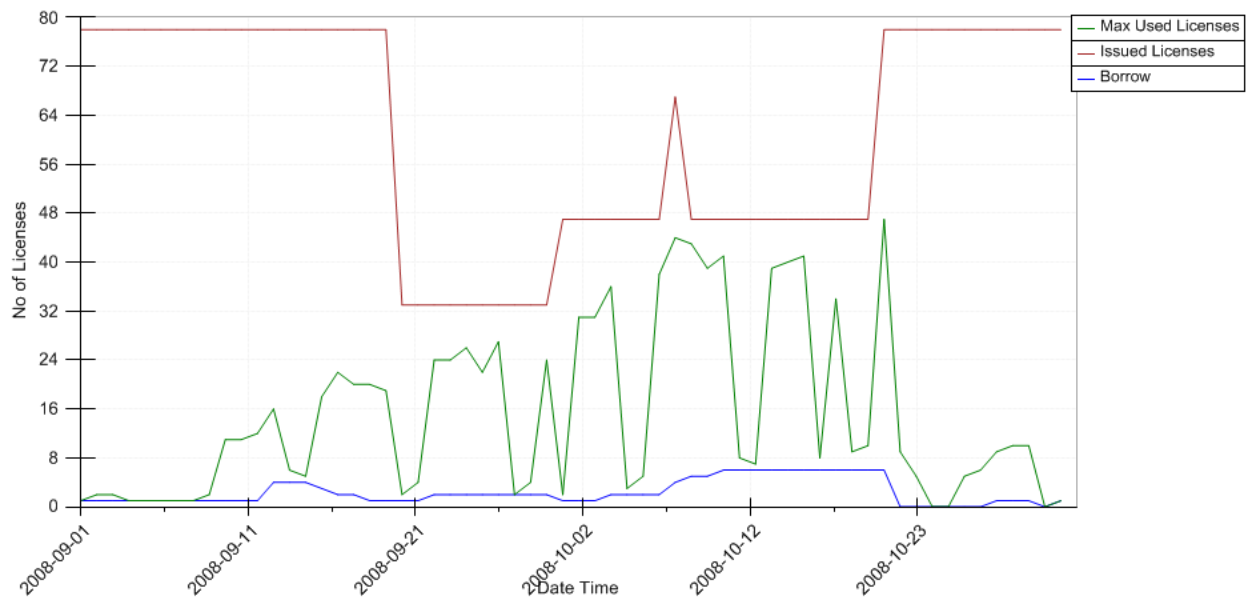
Multiple ... in One Not In Use  Borrowed

Multiple Chart  New chart in new tab  Hide Ma

Include concurrent overlap usage  Created DateT

Report Type Continuous Line

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.

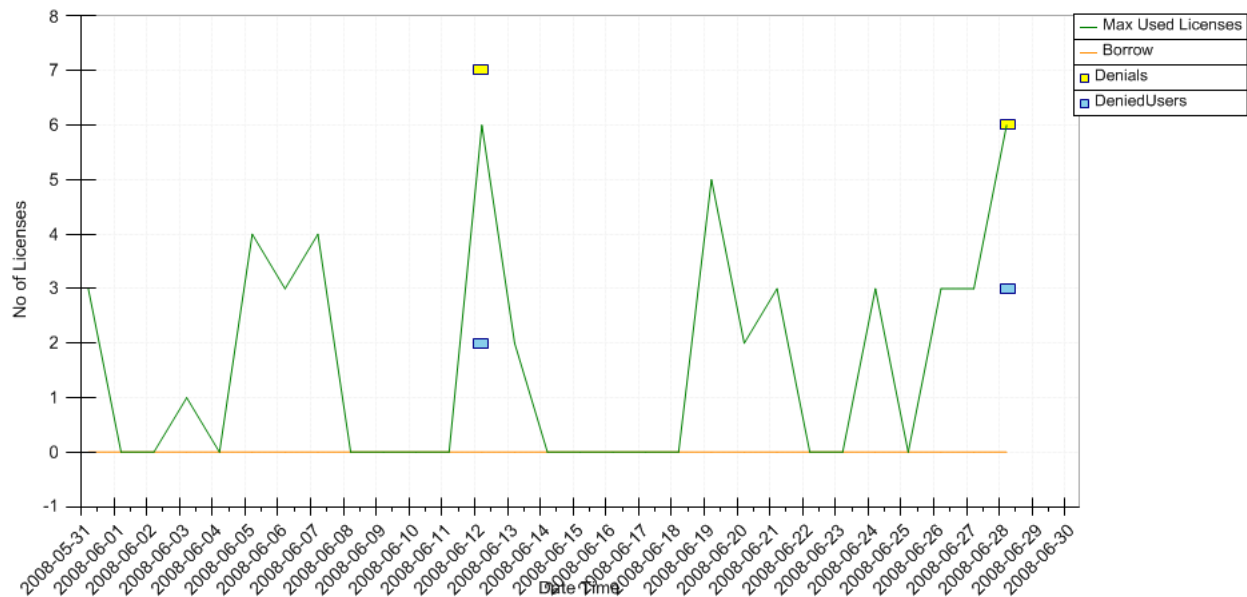
The points Denials are showing how many denials happened that day.

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.

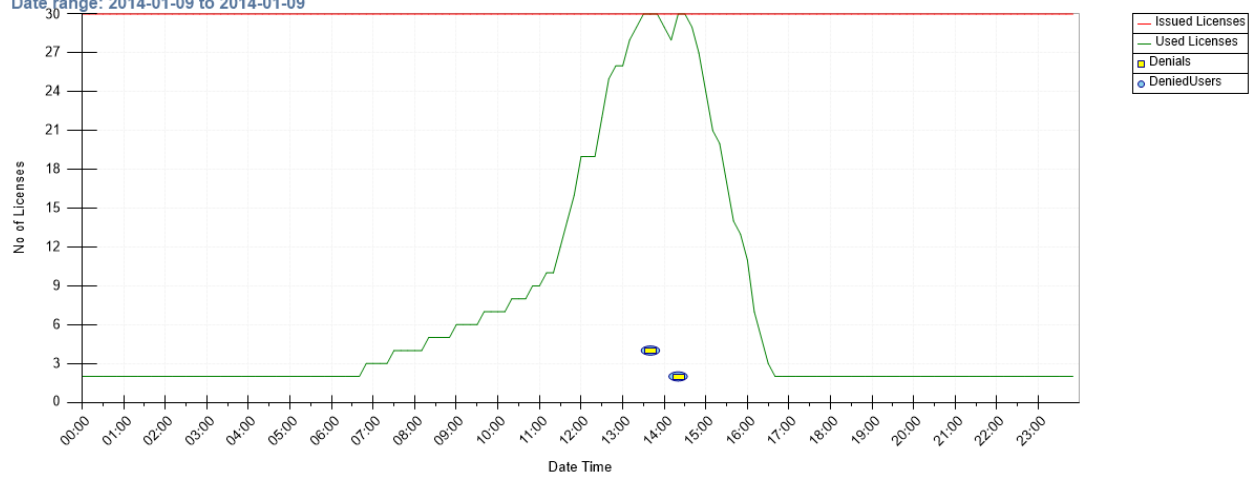
Use in combination with the Feature Server or Detailed tab.

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

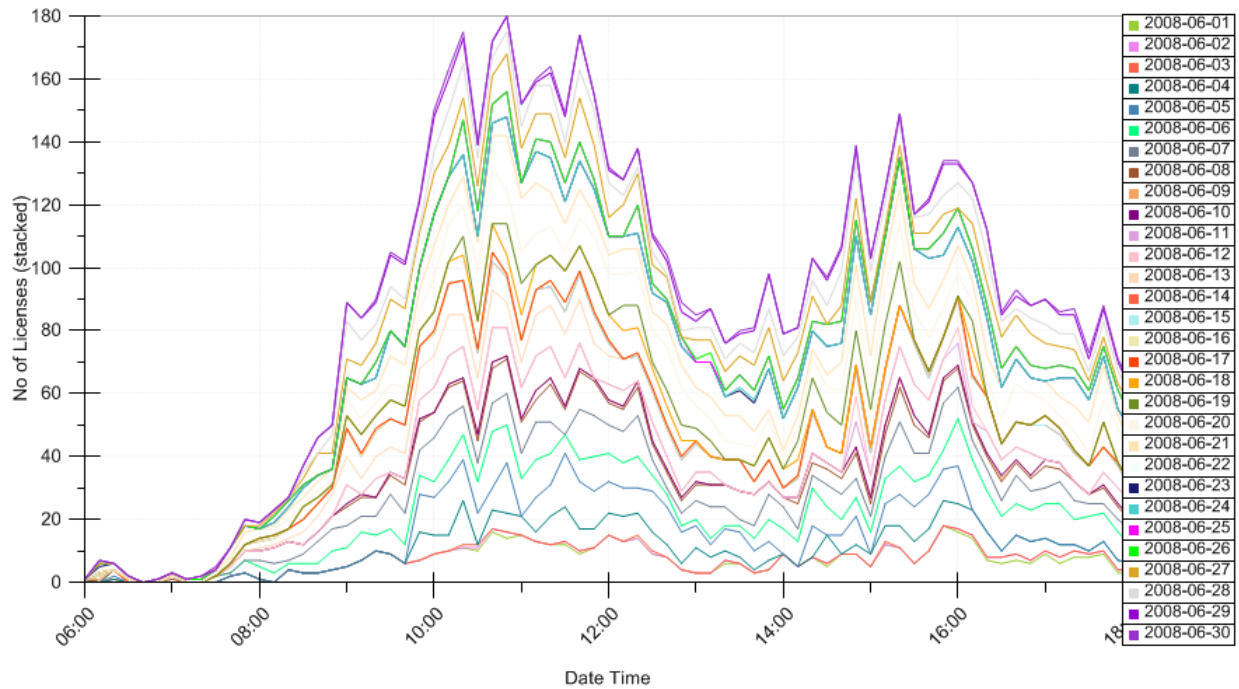
Select Date  Time Frame   
 Month Chart Time Frame From

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

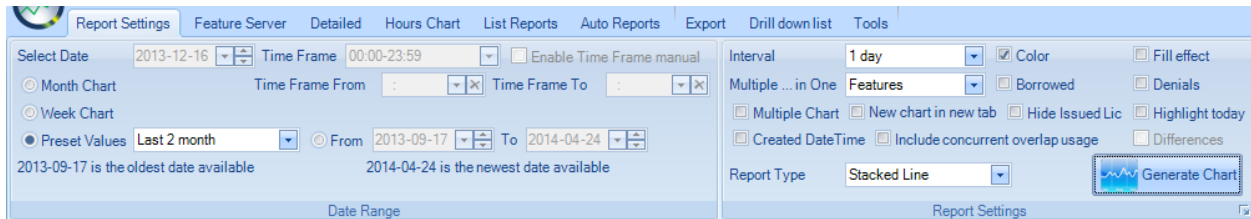


## Stacked Line with multiple features in one chart

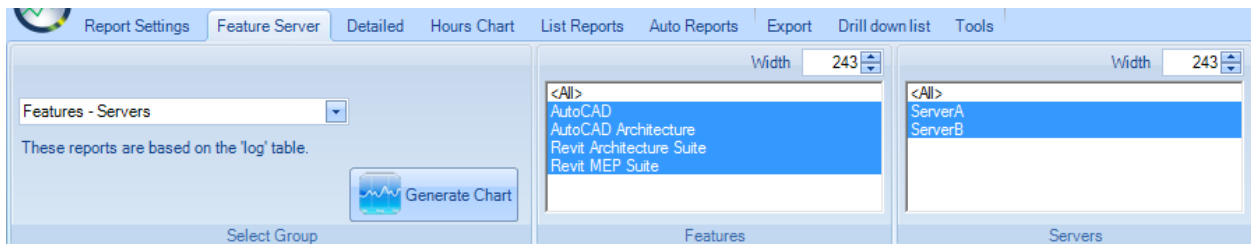
To create this chart select Report Type “Stacked Line”, interval 1 day or higher, “Multiple...in One” set to Features.

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.

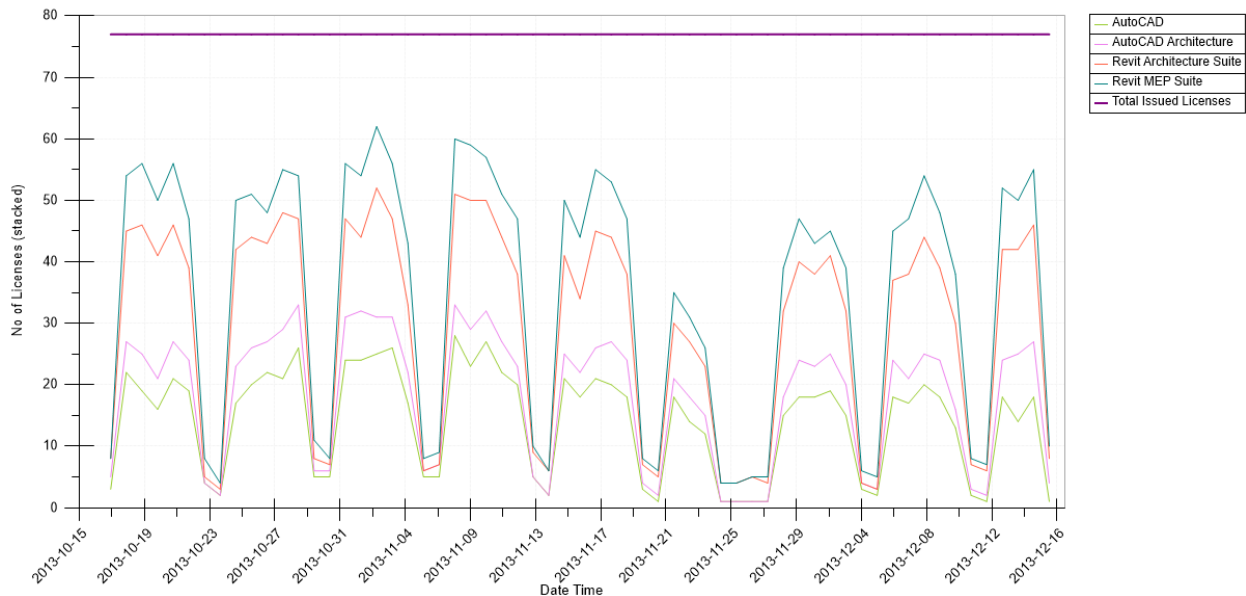


Then select multiple features.



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



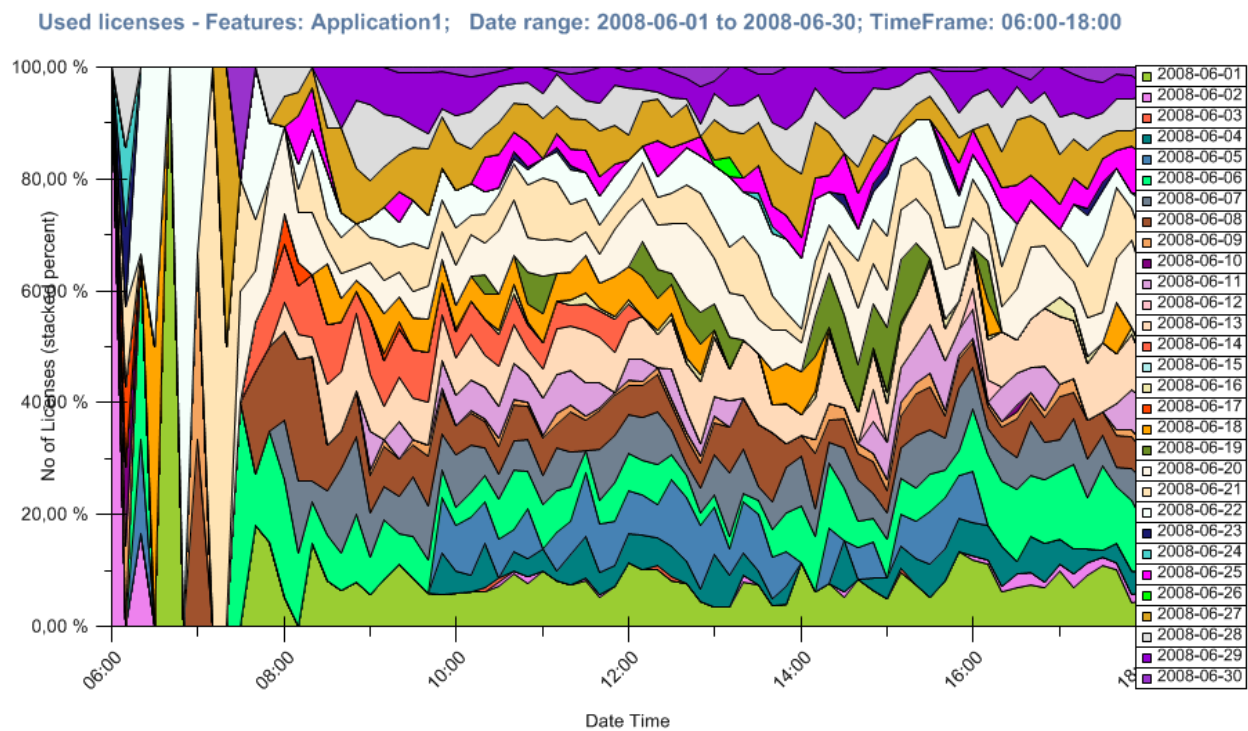
## Stacked percentage with fill effect

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

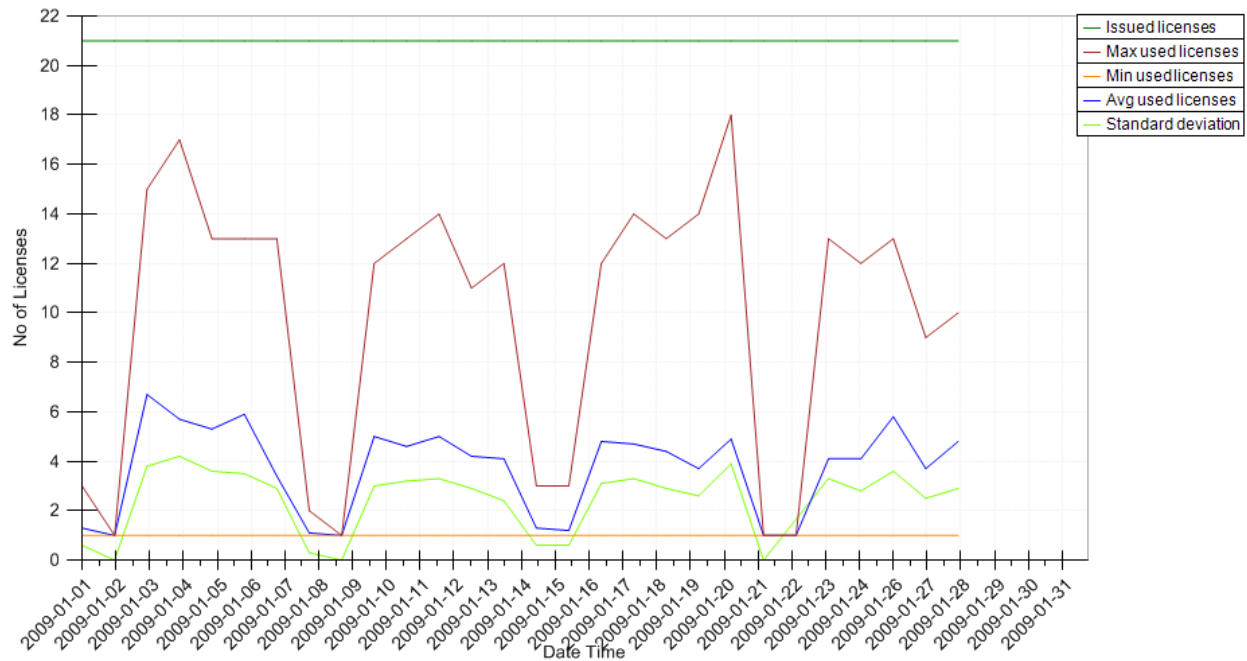
Show/Hide Lines  
 Min  Max  Avg  
 Standard Deviation

Avg Grouping  
Avg Grouping Value

MinMaxAvg Settings

Use in combination with the Feature Server or Detailed tab.

Used licenses - Features: Application1



## Histogram

Select Report Type Histogram.

Select Date

Month Chart

Interval   Color  Fill effect

Multiple ... in One   Borrowed  Denials

Multiple Chart  New chart in new tab  Hide MaxLic  Highlight today

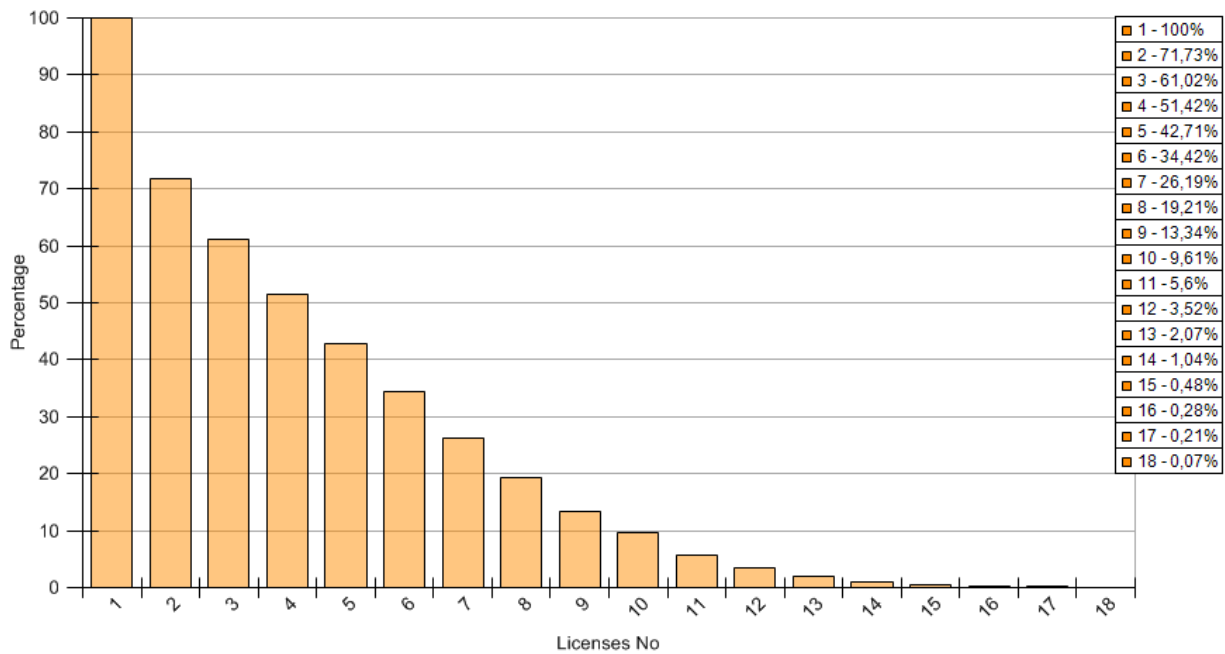
Include concurrent overlap usage  Created DateTime

Report Type

Use in combination with the Feature Server or Detailed tab.

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



## 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

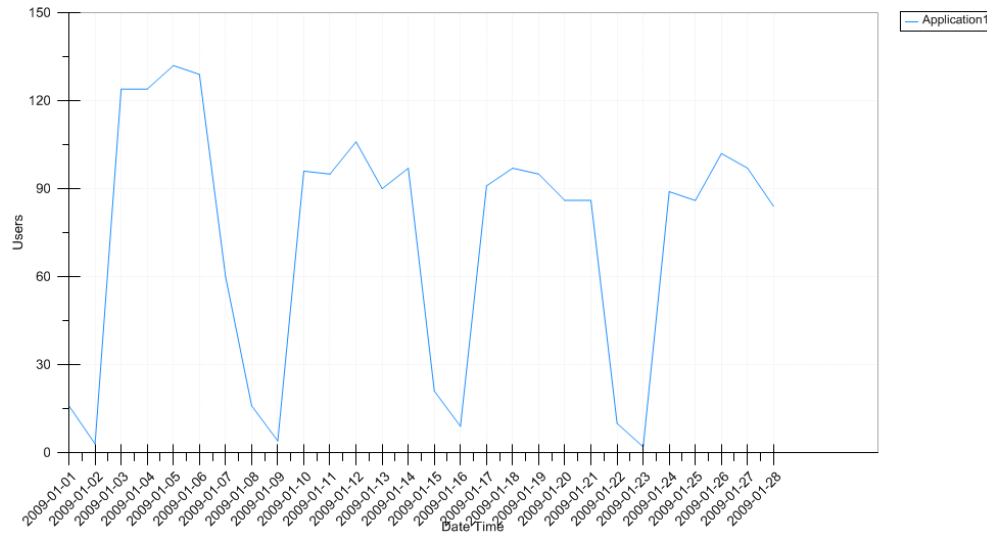
Multiple ... in One: Not In Use  Bor

Multiple Chart  New chart in new tab  H

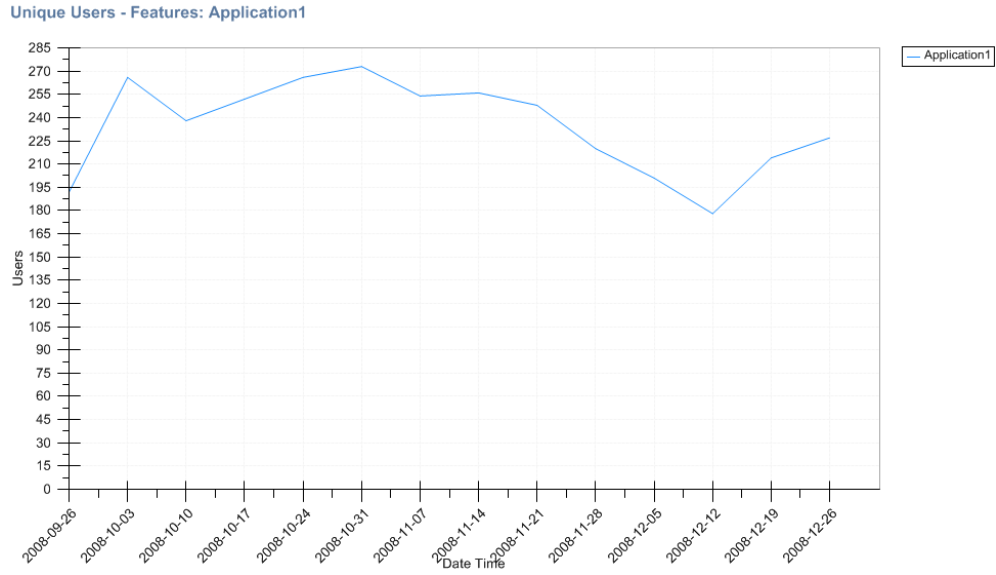
Include concurrent overlap usage  Created

Report Type: Unique users

Unique Users - Features: Application1

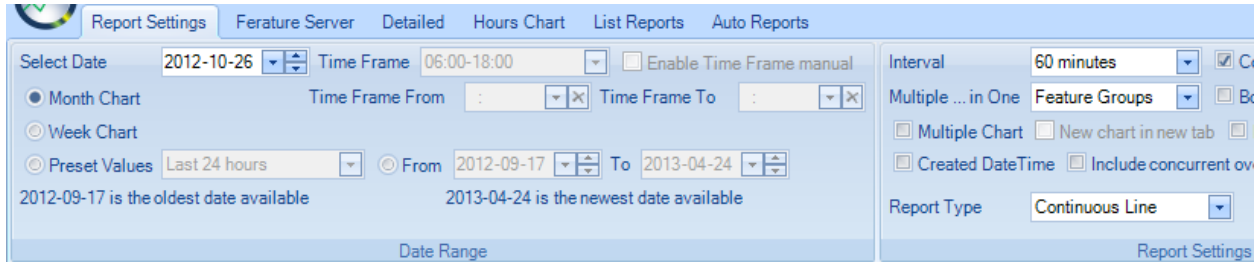


And here per 1 week interval.

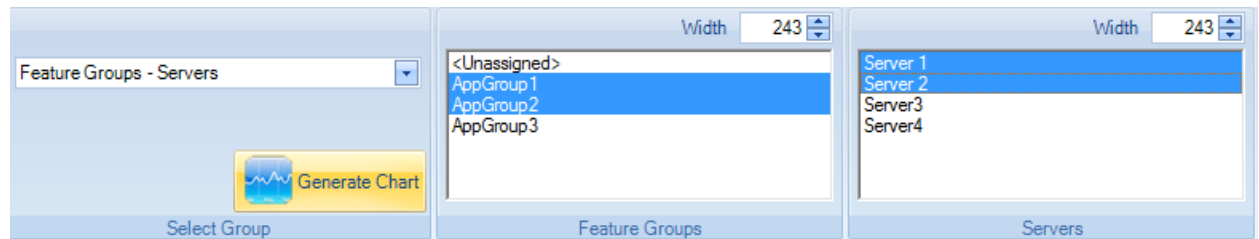


## Multiple feature groups are selected as well as multiple servers and plotted in the same chart

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

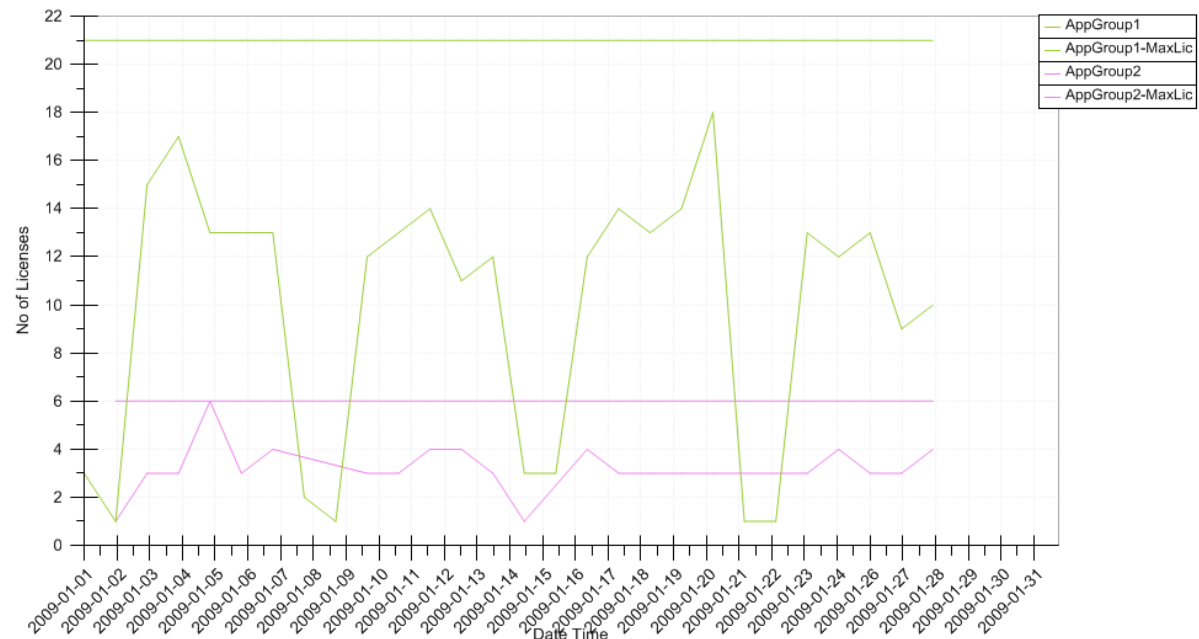


Use in combination with the Feature Server or Detailed tab where one or many feature groups and servers can be selected.



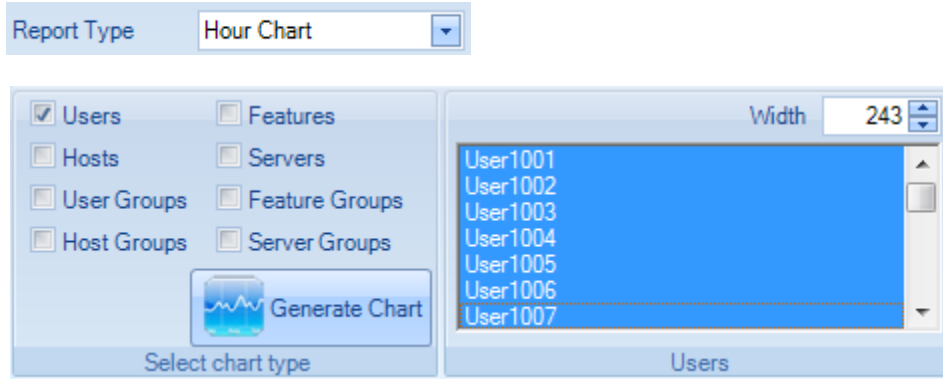
The feature groups will each have one usage line aggregated for all selected servers.

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

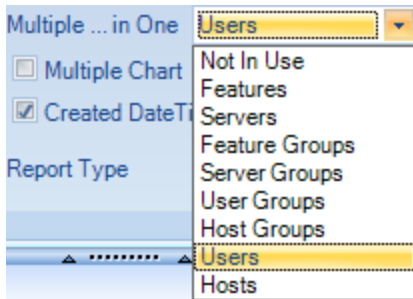


## Hours per user

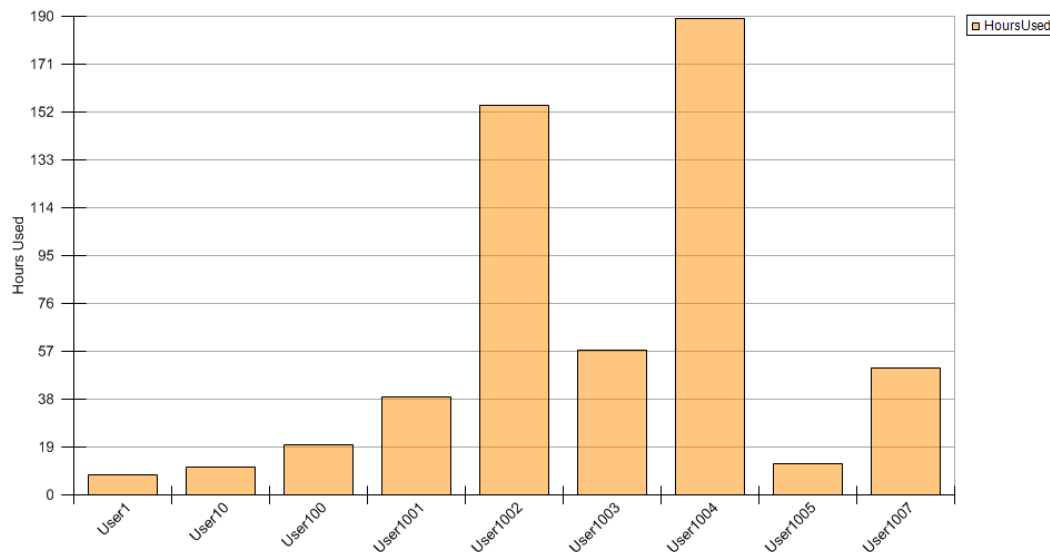
Select Report Type Hour Chart in Report Settings and use in combination with Hours tab. Hours Used includes borrowed hours. Borrowed hours can be showed separately if needed but Hours Used will still include the borrowed hours.



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.



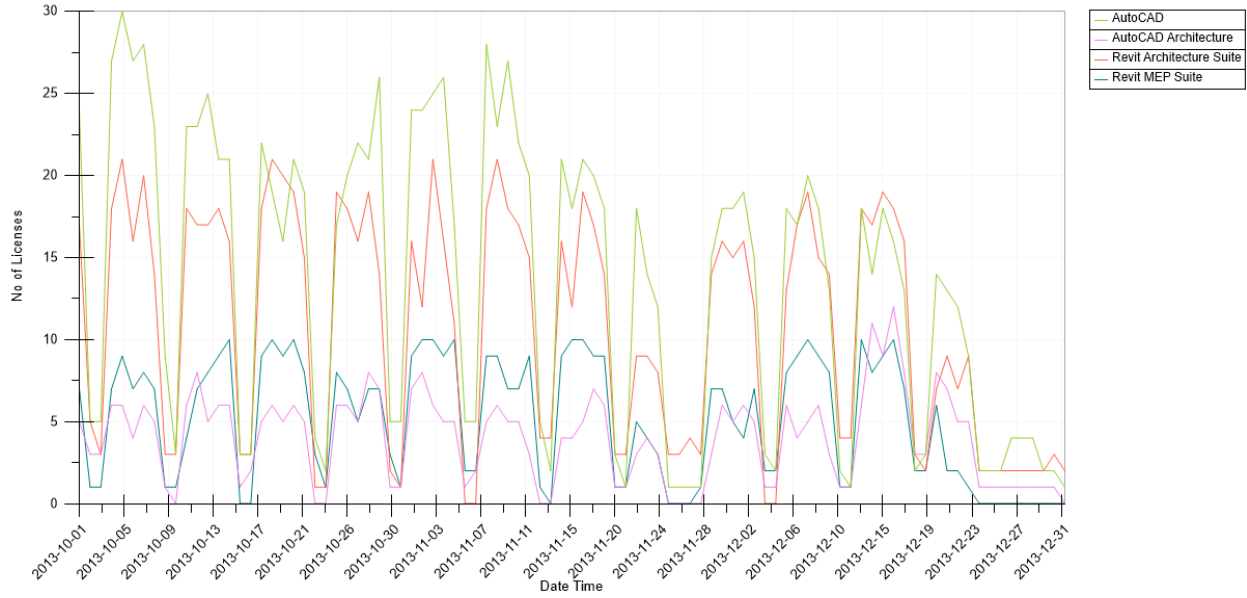
HoursChart: Hours per user; Date range: 2009-01-01 to 2009-01-31; TimeFrame: 00:00-23:59



## 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.

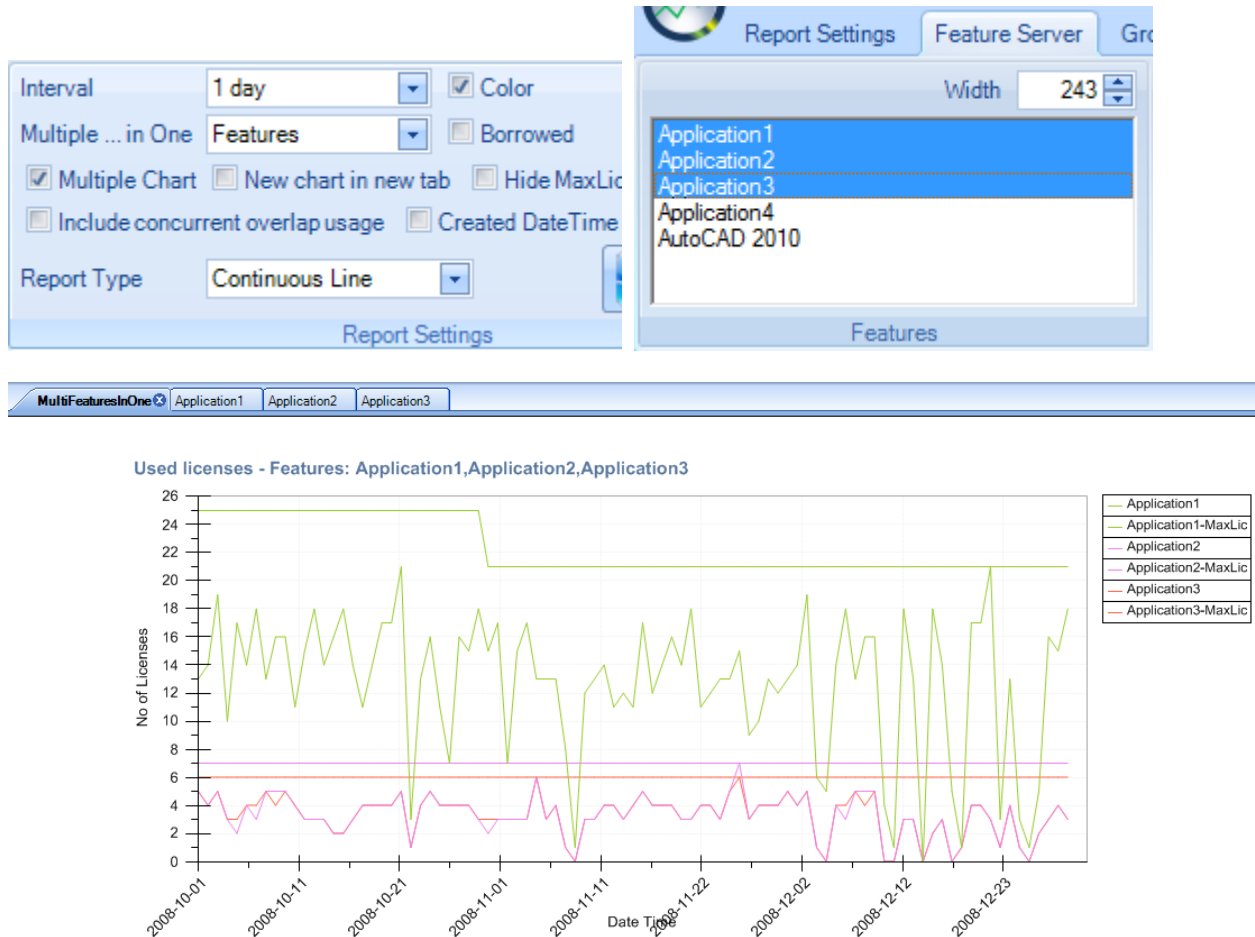
Used licenses - Features: AutoCAD,AutoCAD Architecture,Revit Architecture Suite,Revit MEP Suite - Servers: ServerA, ServerB



## 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.





## Miscellaneous questions answered

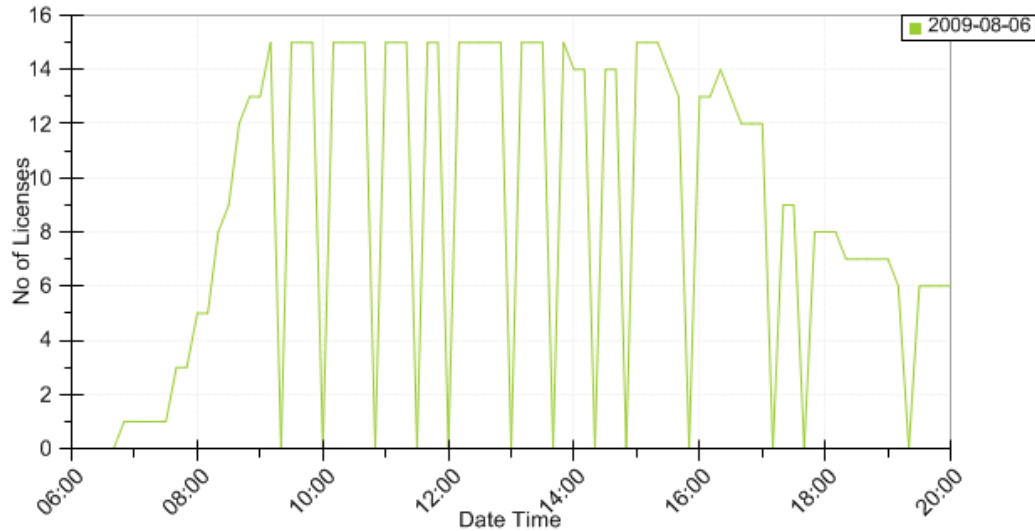
### Why are there dips in the charts?

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.

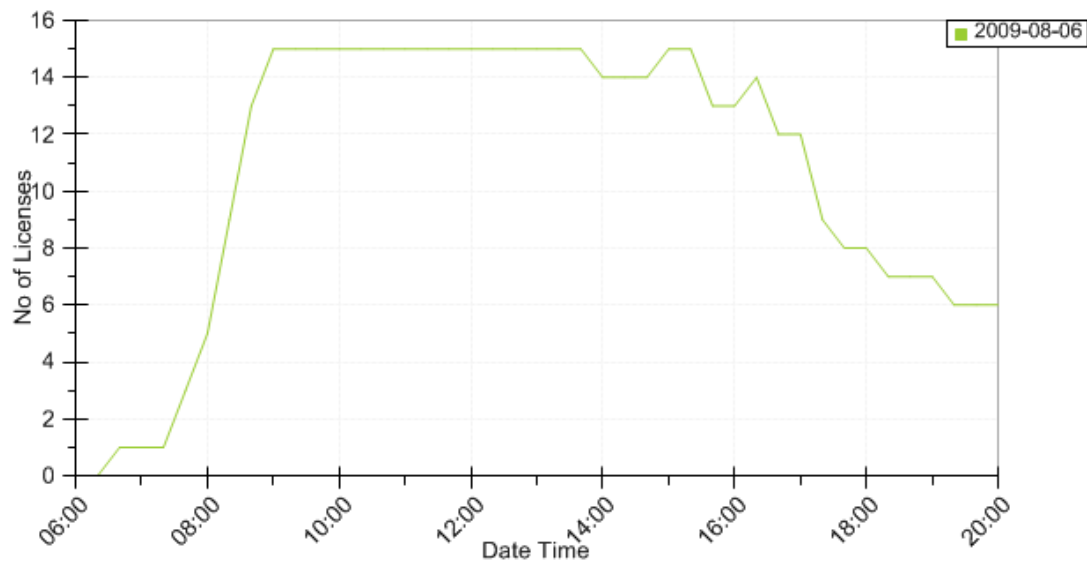
In this example the database mostly contain data with an interval of 10 minutes, but for some reasons like lack of server connections there are sometimes data missing and resulting in dips like this.

#### Used licenses



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

#### Used licenses



## 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.

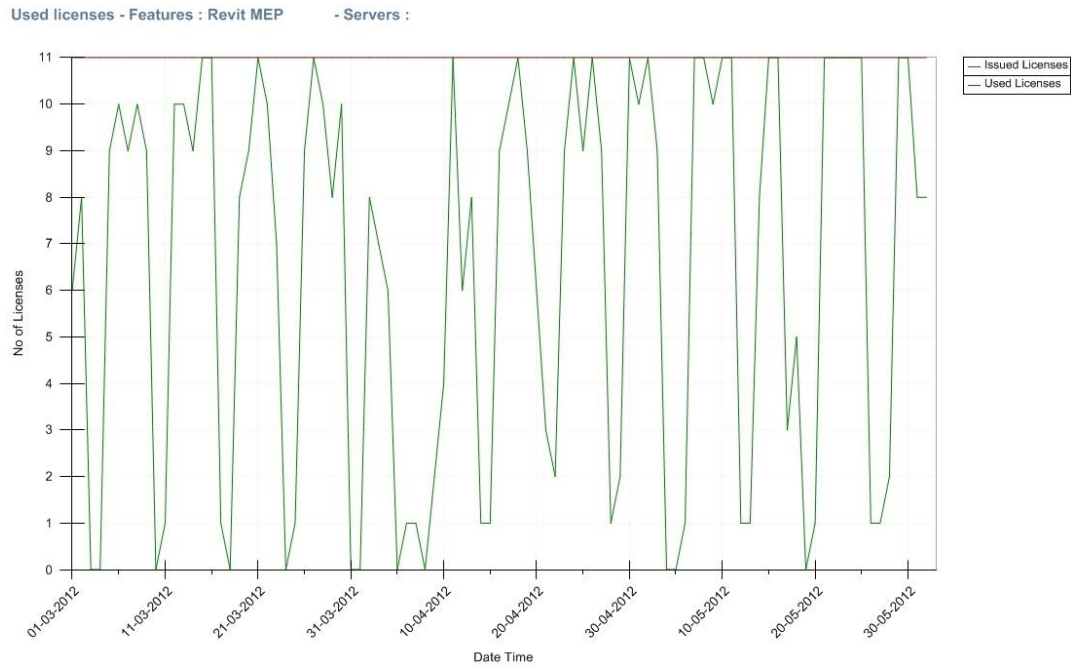
On the other hand the data saved into tblUserDetailedLog and tblUserDetailedLogPrev saved data on a lower level with both start and stop time for each user using a license. As there are much more data in these tables it will take much longer time to produce reports based on them but it might show a slightly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

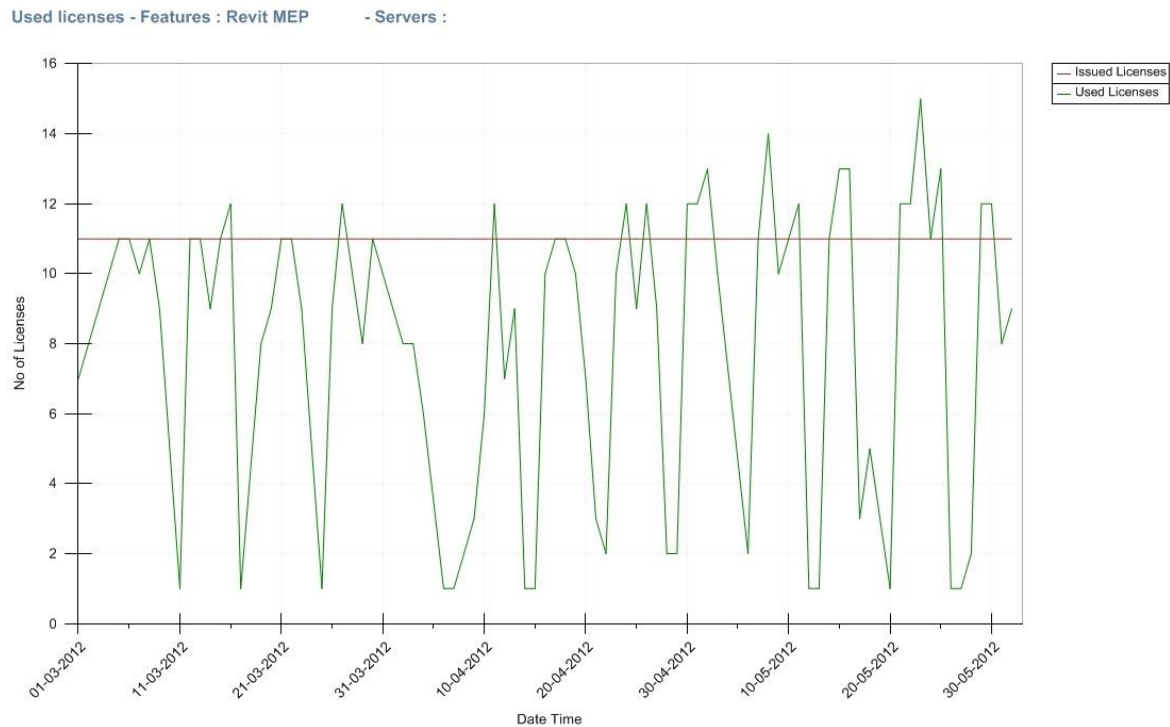
Say a license is checked out at 11:30 and it is checked in at 11:57. If the snapshot setting is at 10 minutes the time is saved as 12:00 instead of 11:57. Because of this you might find that when data is aggregated to find concurrent licenses used based on the detailed logs compared to the log table 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.

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 charted it is best to use the Feature Server tab.



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

If you get the error "Cannot open database"<database name> requested by the login. The login failed. Login failed for user 'NT AUTHORITY\ANONYMOUS LOGIN'." 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.



Try to use port 2000, 2001 or a port in a series after that.

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."

Try to use IP number instead of host name for the JTB Chart 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.

Make also sure the license file is copied to the folder installation folder for the chart service: C:\Program Files\JTB World\JTB FlexReport Service

Make sure the license file is copied to the folder installation folder for the Process Monitor service:  
\\JTB World\JTB Process Service

Make sure the license file is valid. Can be confirmed by sending it to JTB World.

Check if the service is running in Windows Services.

Make sure that the service address is the same in all the config files: "JTB FlexReportClient.exe.config", "JTB FlexReportSelfStartService.exe.config" and "ServiceConfigurator.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 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.

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

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.