



RIS d.o.o.

Address: Pilepcic 10, 51215 Kastav, Croatia

Phone: +385 51 687 500, Fax: +385 51 687 501

e-mail: info@ris.hr, web: <http://www.ris.hr>



Last Update: August 2015



Thin@ Administrator's Guide V3.2

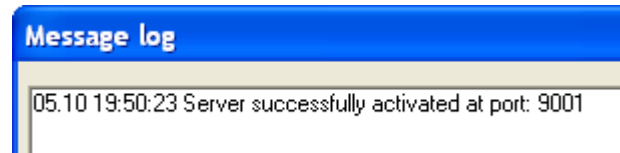
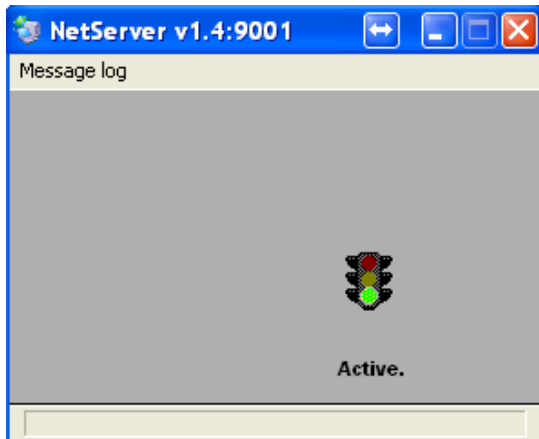
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1. Thin@ server tools

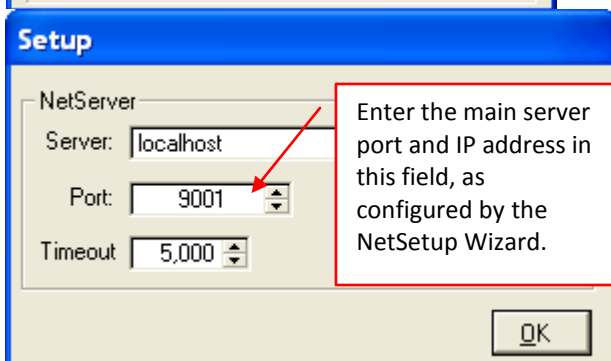
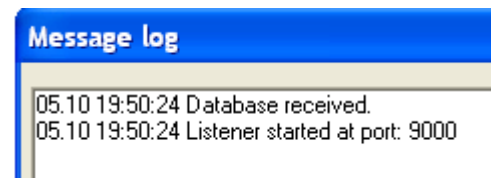
1.1. NetServer tool

If you have successfully added a new main application server in the NetSetup, the status of the server should be 'Active'.



1.2. NetListener tool

You need to enter the main server IP or DNS address, as well as the Main server database port in the NetListener Setup.



Enter the main server port and IP address in this field, as configured by the NetSetup Wizard.

NetSetup Wizard Main server IP example:

Main server IP or DNS address: 192.168.0.182

This information (address and port) must be entered in the NetListener and NetMonitor tools on each application server so that they could communicate with the Main application server.

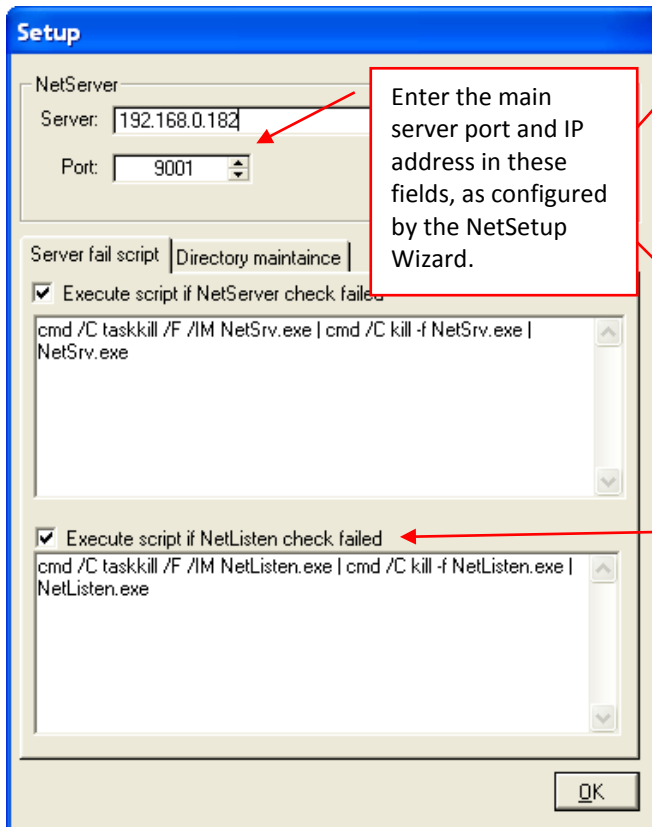
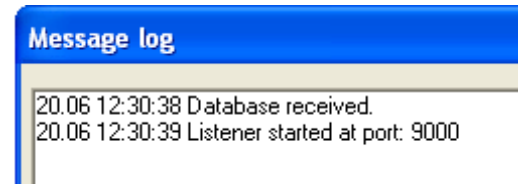
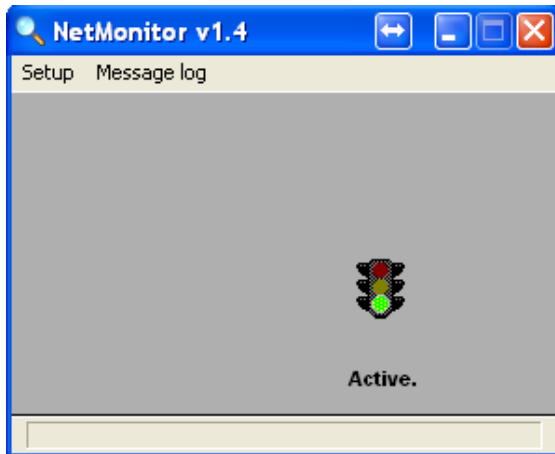
NetSetup Wizard Main server port example:

Main server database port: 9001

This is the port to which all application servers connect to share the Thin@ database settings.

1.3. NetMonitor tool

The main server IP or DNS address and the Main server database port must be entered in the NetMonitor Setup as well.



NetSetup Wizard Main server IP example:

Main server IP or DNS address: 192.168.0.182

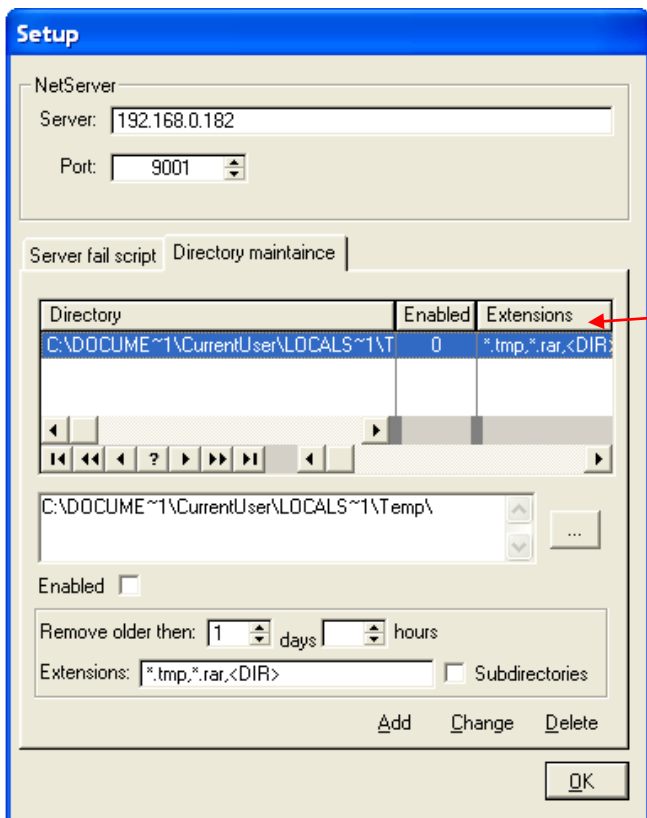
This information (address and port) must be entered in the NetListener and NetMonitor tools on each application server so that they could communicate with the Main application server.

NetSetup Wizard Main server port example:

Main server database port: 9001

This is the port to which all application servers connect to share the Thin@ database settings.

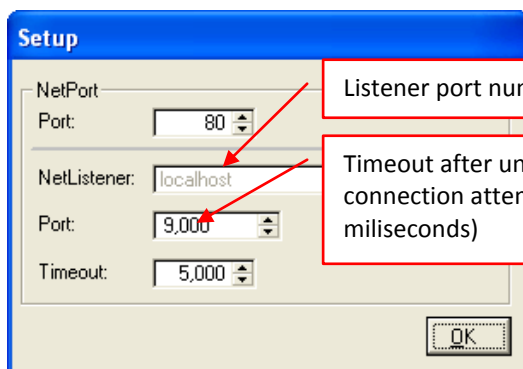
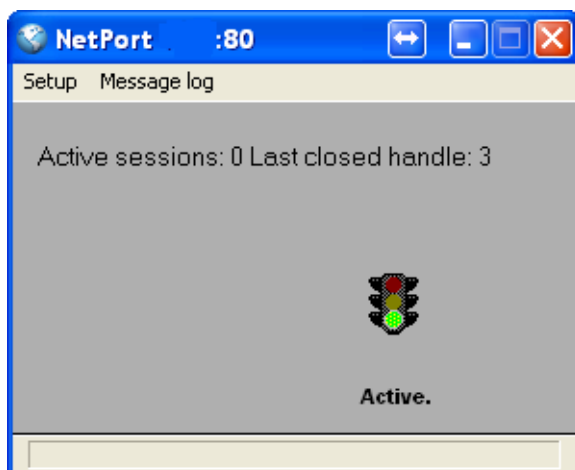
You can instruct NetMonitor to perform an action in case that the NetServer and/or NetListen processes 'freeze'.
A restart script which will restart the 'frozen' process is entered by default.



You don't have to worry about temporary files and folders created by Thin@ on the server machine. Thin@ will remove all files in the listed directories which have one of the specified extensions and which are older than X days and Y hours.

1.4. NetPort tool

We recommend that you use the NetPort tool, which was introduced in the Thin@ version 1.3. In the port field enter the port number of the port forwarded by your firewall for communicating with Thin@ clients. The default port is Port 80.



Listener port number

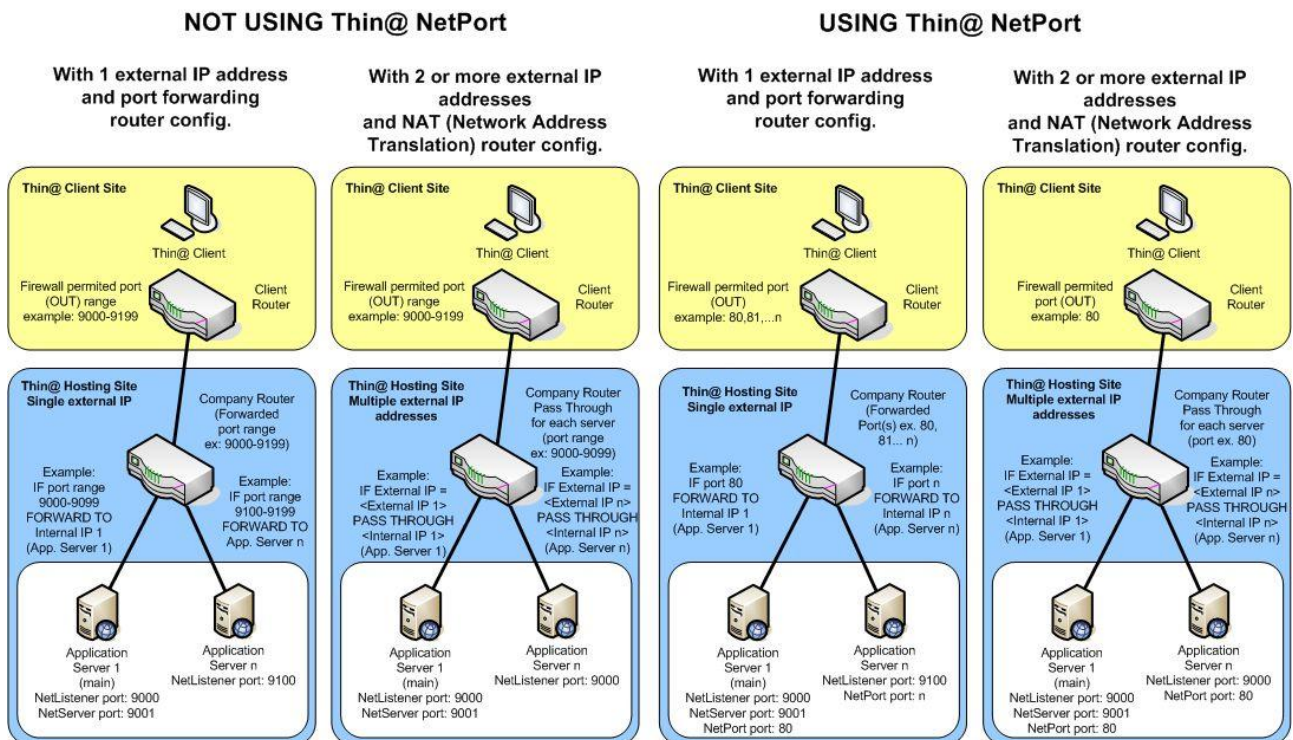
Timeout after unsuccessful connection attempt (in milliseconds)

1.5. Network configuration

- If you are hosting your Thin@ server on the internet, make sure that you have entered the right 'Main server external IP address' in the NetSetup Wizard configuration utility. In addition, make sure that your routers or proxy servers in your server network have all the necessary ports forwarded. (Server ports are entered in the NetSetup utility; the standard ports are 9000-9202). Note that if you're using NetPort only one port needs to be forwarded, e.g. port 80.
- If you using a router to forward ports and you have multiple grid servers make sure that all your grid servers use separate port ranges (For example, the first server is using 9000-9202; the second server is using 9203-9404, and so on). In that case, those specific port ranges need to be forwarded on the router. Note that this does not apply if you're using NetPort.
- If you have multiple grid application servers installed and each server has its own internet address, then the port ranges don't have to be separated because every server can be accessed through a different internet IP or DNS address.

On the following picture you can see the four most common Network Configuration Types, and example port settings for each type.

Thin@ Network Configuration Types



2. NetSetup administration utility

The NetSetup tool lets you manage and monitor your Thin@ server grid.

- The easiest way to start administering your Thin@ server grid is by using the NetSetup Wizard which can perform the most common configuration features, such as adding a new Thin@ application, adding a new Thin@ user, adding a new Thin@ server and adding a new Thin@ server license.

The NetSetup tool has five sections, each section placed on a different tab.

The following is an overview of each section (tab):

2.1. Statistics Tab

The Statistics tab gives you an overview of the registered Thin@ servers, their memory usage and the applications active on them.

The screenshot shows the NetSetup v1.4 application window with the Statistics tab selected. The interface is divided into several sections with red callout boxes explaining their functions:

- Grid statistics:** Displays overall grid memory usage. Callout: "Combined server stats."
- Selected server statistics:** Displays memory usage for a specific server. Callout: "Selected server stats."
- Server List:** A table listing available Thin@ grid servers. Callout: "List of available Thin@ grid servers."
- Application List:** A table listing active server applications. Callout: "List of active server applications."
- Buttons:**
 - Refresh:** Refreshes the Server and Application listboxes. Callout: "Refreshes the Server and Application listboxes."
 - Database synchronization:** Pressing this button commits the Thin@ database changes without the need to restart the NetServer application. Callout: "Pressing this button commits the Thin@ database changes without the need to restart the NetServer application."
 - Terminate:** Terminates the selected connection. Callout: "Terminates the selected connection."
 - NetSetup Wizard:** Using the NetSetup Wizard makes the initial configuration quick and easy! Callout: "Using the NetSetup Wizard makes the initial configuration quick and easy!"
 - Close:** Closes the application.

Category	Value	Percentage
Total Grid Memory	2,0 GB	
Free Grid Memory	1,0 GB	48%
Average Application Memory (MB)	10,78	
Application Slots (Used / Free)	2/92	

Category	Value	Percentage
Total Server Memory	2,0 GB	
Free Server Memory	1,0 GB	48%
Average Application Memory (MB)	10,78	
Application Slots (Used / Free)	2/92	

Server Name	IP Address	Server Memory Used / Free	%	App. Slots Used / Max	Status
RISAPP01	192.168.0.182	1,0 GB / 2,0 GB	49%	2/92	Live

Application	User	Client IP Address	Start Time	Last Activity	Stal
NetSetup	Everyone	192.168.0.182 \ 192.168.0.18	14:23:44	0:00:02	
MovieData	Everyone	192.168.0.182 \ 192.168.0.18	14:24:45	0:00:04	

2.2. Application List Tab

On the Application List tab you can manage applications, users / companies, and user licences.

List of registered applications

Application info for the selected application

The default path of the application on a server.

Sets the maximum amount of time available to a long running process.

This setting regulates the maximum user inactivity time, after which the user is kicked.

Users / Companies tab

List of users.

List of licensed users. Note that adding a User License for the user 'Everyone' will enable everyone to connect to the application without providing credentials.

The period in which this user will be able to connect to the application.

The maximum number of simultaneously active application instances.

You can set *Prepaid mins* and *Price per min* for each company if you wish to distribute your product(s) as SaaS (Software as a Service Model).

For more info about SaaS, read [Thin@ Software as a Service Model \(SaaS\)](#).

APPLICATION	COMMENT	LOCATION	TIMEOUT
Abacus	Mathematical Calculations	C:\ThiNET\Apps\abacus\abac	2:00:00
AbacusTest	Mathematical Calculations(Test)	C:\ThiNET\Apps\abacus_test\	2:00:00
Accounting	Accounting Software	C:\ThiNET\Apps\Wode\Wode.e	2:00:00
Accounting(Test)	Accounting Software(Test)	C:\ThiNET\Apps\Wode_Test\	2:00:00
Attendance	Attendance Management Softw	C:\ThiNET\Apps\Dolasci\Dola	0:45:00
Attendance(Test)	Attendance Management(Test)	C:\ThiNET\Apps\Dolasci_test\	0:45:00
CRM	Customers Relation Manageme	C:\ThiNET\Apps\Doprinost\Do	2:00:00
CRM(Test)	Customers Relation		2:00:00
ERP	Enterprise Resource		2:00:00
ERP(C7)	ERP Clarion 7 versio		2:00:00
ERP(Test)	Enterprise Resource		2:00:00
ERP-Bank	ERP (Banking)		2:00:00
HRM	Human Resources		2:00:00
HRM(Test)	Human Resources		2:00:00
Insurance	Insurance Software	C:\ThiNET\Apps\Polis\Polis.ex	2:00:00
Insurance(Test)	Insurance Software(Test)	C:\ThiNET\Apps\PolisTest\Pol	2:00:00

LOGIN	FROM	TO	INST.
Aaron			1
Abraham			1
Aidan			1
Alejandra			1
Alexia			1
Alexis			1
Alondra			1
Ana			1
Andres			1
Andy			1
Angelica			1
Ashley			1

Code	Title	Prepaid mins	Price per min
001	Company1	30	0.05
002	Company2	0	0.20

2.3. Server List Tab

On the Server List tab you can manage servers, and applications per server.

The screenshot shows the NetSetup v1.5 application window with the 'Server List' tab selected. The interface is divided into several sections:

- Server List:** A listbox on the left containing 'My Test Server'. Below it are buttons for 'Add new', 'Change name', and 'Remove server', and a 'Commit changes' button at the bottom left.
- Server options:** A table in the center showing various server parameters and their values. Below the table are 'Insert', 'Change', and 'Delete' buttons.
- Server Applications:** A table at the bottom left showing applications installed on the selected server.
- Configuration Fields:** On the right, there are fields for 'Name', 'Sort Order', 'Comment', and 'Value', along with 'Location', 'Timeout', 'Long timeout', and an 'Activity' checkbox.

Annotations with red arrows point to specific features:

- 'List of registered servers.' points to the 'My Test Server' entry in the Server List.
- Server options (described below). points to the 'Server options' table.
- This value determines the vertical position of an option on the 'Server options' listbox. points to the 'Sort Order' dropdown.
- The application path can be specified individually per each application on each server. points to the 'Value' field.
- The timeouts can be specified individually per each application on each server. points to the 'Timeout' and 'Long timeout' fields.
- You can temporarily deactivate an application on the selected server. points to the 'Activity' checkbox.
- List of applications present on the selected server. points to the 'Server Applications' table.

NAME	VALUE
Comment	
Listener Port	9000
IP Address	192.168.0.182
External IP Address	192.168.0.182
Alternative external IP Add	
Starting Port	9002
Ending Port	9202
Memory Limit (%)	90
Main Server	1
Server monitor port	9001
Authentication	0
External authentication	
External authentication res	
Statistic path	C:\Thin\DATA
Net Client version	N/A

APPLICATION	LOCATION	TIMEOUT	ACT
NetDownload	C:\Thin\NetDownload.exe	0:05:00	1
NetSetup	C:\Thin\NetSetup.exe	0:30:00	1

NOTE:

If you scroll down on the Server options listbox, you will see the Net Client version parameter. You need to modify this parameter to match the version of your latest NetClient application.

Statistic path	C:\Thin\DATA
Net Client version	1.86
Activity	1

2.4. System Statistics (SaaS support)

Using the Systems Statistics Tab you can implement SaaS (Software as a Service Model) support in your Thin@ application. For more information about SaaS, read [Thin@ Software as a Service Model \(SaaS\)](#).

The System Statistics tab consists of four modules: Activity Log, Server Load, Usage Statistics and Price Determination. Each of those modules is placed on its own tab and can be further divided into sections.

There are 3 levels of filtering. Level 1 filter options affect each of the four modules.

In the upper part of the Systems Statistics tab you can see the Level 1 filter group 'Log parameters' where you can set filter options that affect each of the four modules. For example, if you enter a Start date and an End Date in the 'Log Parameters' filter group (as in the picture below) and Press the Refresh Log button, the Activity Log will display only those records that comply with the filter options.

Note that modifying and refreshing Level 1 filter options can be time consuming since it involves reading data from the hard drive.

2.4.1. Module 1: Activity Log

The Activity Log contains historical data about user sessions including the name of the application the user started, the name of the server and port number on which the application was started, the client IP address, the Start time, Exit time and Session time and the Termination status.

Level 1 filter: Filter by Log parameters

Start date: 01.07.2010 End date: 30.09.2010 Company: User: Application: Refresh Log

Application	User	Server	Client IP Address Local / External	Start time	Port	Exit time	Session time	Active time	Termination status
RadioTelevision	Dakota	RISAPPO	Demo ***	30.09.2010:23:12:22	9029	31.08.2010:23:54:26	1:07:39	00:37:20	Exited
MovieDatabase	Madison	RISAPPO	Demo ***	30.09.2010:23:03:03	9028	31.08.2010:23:54:26	1:07:39	00:37:20	Exited
ERP	Wyatt	RISAPPO	Demo ***	30.09.2010:22:11:03	9027	30.09.2010:23:12:56	1:01:52	00:17:00	Exited
MedCare	Mathew	RISAPPO	Demo ***	30.09.2010:21:25:35	9026	30.09.2010:22:23:05	0:57:29	00:38:20	Exited
MovieDatabase	Madeline	RISAPPO	Demo ***	30.09.2010:19:43:19	9025	30.09.2010:19:47:31	0:04:11	00:03:20	Exited
MedCare	Elijah	RISAPPO	Demo ***	30.09.2010:18:52:25	9024	30.09.2010:21:09:48	2:17:22	00:36:00	Exited
MovieDatabase	Madison	RISAPPO	Demo ***	30.09.2010:18:00:25	9023	30.09.2010:18:39:21	0:38:55	00:05:00	Exited
ERP(C7)	Trent	RISAPPO	Demo ***	30.09.2010:17:58:34	9022	30.09.2010:19:59:02	2:00:27	00:10:20	Exited
MedCare	Melissa	RISAPPO	Demo ***	30.09.2010:17:37:07	9021	30.09.2010:18:40:17	1:03:09	00:33:00	Exited
ERP	Skyler	RISAPPO	Demo ***	30.09.2010:17:29:12	9020	30.09.2010:18:38:23	1:09:10	00:47:00	Exited
ERP	Aidan	RISAPPO	Demo ***	30.09.2010:17:23:05	9019	30.09.2010:17:50:04	0:26:58	00:09:40	Exited
ERP	Edgar	RISAPPO	Demo ***	30.09.2010:17:22:03	9018	30.09.2010:17:31:53	0:09:49	00:07:20	Exited
MedCare	Melissa	RISAPPO	Demo ***	30.09.2010:17:19:26	9017	30.09.2010:17:24:18	0:04:51	00:03:00	Terminated
MedCare	Melissa	RISAPPO	Demo ***	30.09.2010:17:03:12	9016	30.09.2010:17:11:24	0:08:11	00:06:20	Terminated
ERP	Maria	RISAPPO	Demo ***	30.09.2010:16:48:56	9015	30.09.2010:16:50:24	0:01:27	00:01:40	Exited
ERP	Kara	RISAPPO	Demo ***	30.09.2010:16:21:12	9014	30.09.2010:16:42:19	2:21:05	00:40:20	Exited
MedCare	Kaitlyn	RISAPPO	Demo ***	30.09.2010:16:06:51	9013	30.09.2010:16:52:16	0:45:24	00:16:40	Exited
MedCare	Kaitlyn	RISAPPO	Demo ***	30.09.2010:16:05:43	9012	30.09.2010:16:06:43	0:00:59	00:01:00	Exited
MedCare	Mya	RISAPPO	Demo ***	30.09.2010:15:53:27	9011	30.09.2010:15:54:52	0:01:24	00:01:00	Exited
ERP	Sarah	RISAPPO	Demo ***	30.09.2010:15:45:13	9010	30.09.2010:23:20:35	7:35:21	02:16:40	Exited
MovieDatabase	Madison	RISAPPO	Demo ***	30.09.2010:15:41:55	9009	30.09.2010:15:42:29	0:00:33	00:00:40	Exited
ERP	William	RISAPPO	Demo ***	30.09.2010:15:41:46	9008	30.09.2010:16:11:09	0:28:22	00:07:20	Exited

Graph Style: Data Style: Grid Style: Cumulatives for the chosen company: Usage time (minutes): 53,335.0 Billing minutes (Usage time - Prepaid time): 0 Billing price: 0.00

NetSetup Wizard Close

Remember that the Refresh Log button has to be pressed each time after you modify the Level 1 filter: Log parameters.

2.4.2. Module 2: Server Load

The Server Load tab contains information about the Maximum Number of Concurrent Sessions (MCS) Per Date, Per Day of Week (average) and Per Hour (average).

The number of Concurrent Sessions is defined as the number of simultaneously connected users.

This tab introduces a Level 2 Filter: Filter by server. This means that the data for the graph will be first determined by the Level 1 filter parameters, and then additionally by the Level 2 filter parameters: in this case the selected server(s).

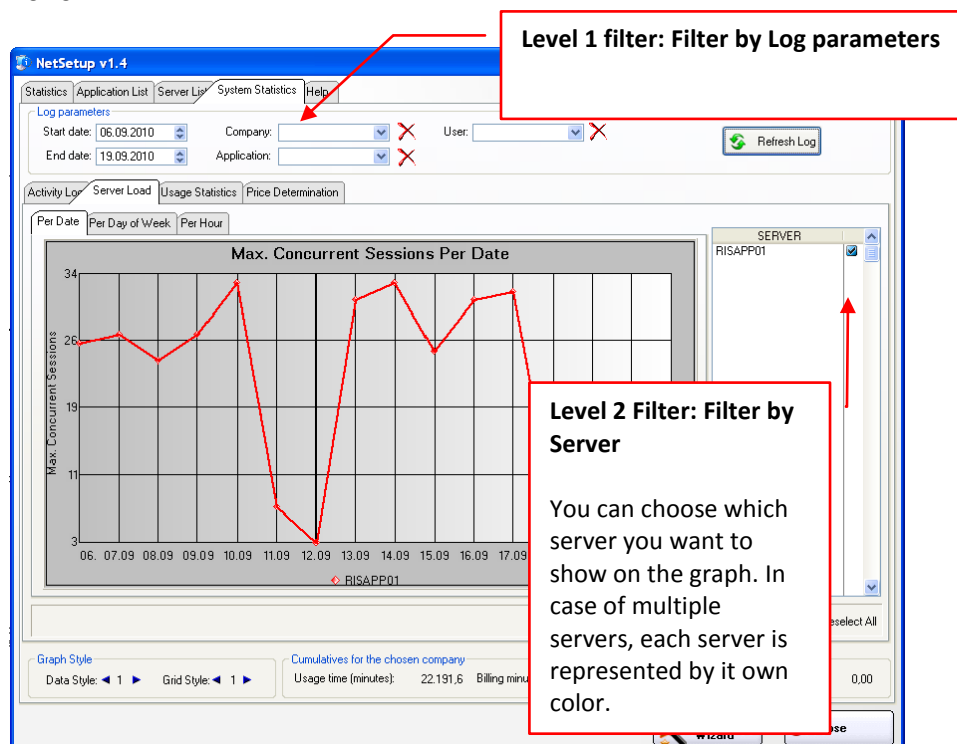
This tab consists of four sections: Per Date, Per Month, Sum and Pie(%). Choosing a different tab will only show a different aspect of the same filtered data.

a) Section 1: Per Date

The Maximum Number of Concurrent Sessions Per Date (MCSD) is defined as the maximum number of simultaneously connected users during a single day.

For example, in a typical work day the number of simultaneously connected users could reach its peak around 11 AM with 34 connected users. That number would then be considered as the Maximum number of Concurrent Sessions for that day.

The picture below shows the Server Load for the period of two weeks. The maximum number of concurrent sessions peaked on Friday, September 09 2010, then again on Tuesday, September 14 2010.

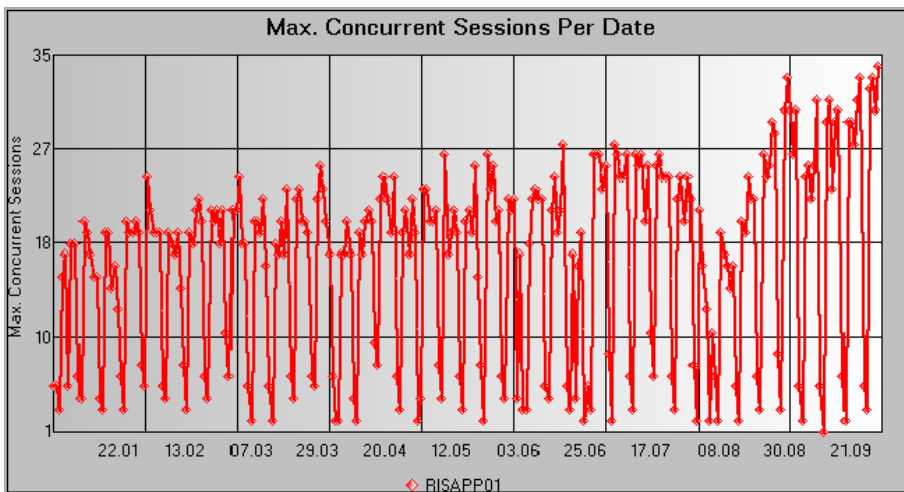


Thin@ Server Load for a period of two weeks

Planning critical hardware upgrades

Since this graphs can tells us how the Server Load has been changing over time, it is useful in planning future critical hardware upgrades.

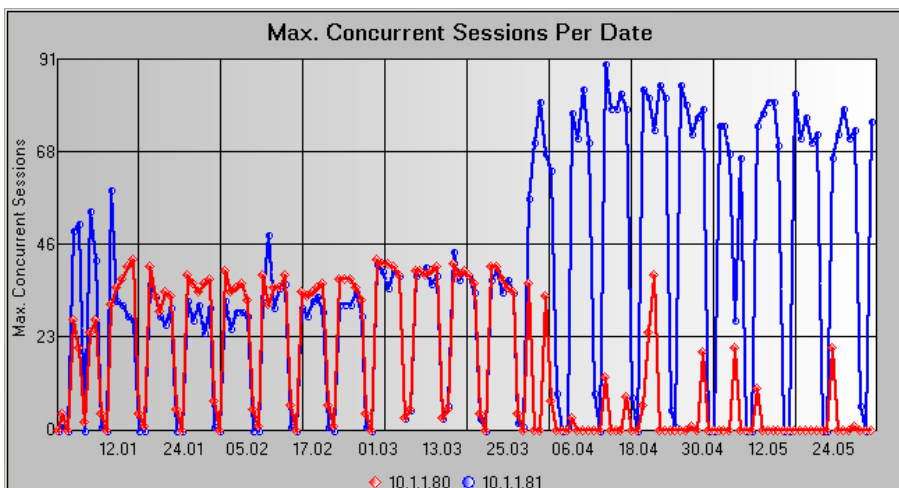
For example, on the picture below we can see a typical Thin@ Server Load Per Date graph (Thin@ Server Heartbeat) for a 9 months period. The server load has been slowly increasing, starting with about 18 maximum concurrent sessions per day (at the beginning of the year), and reaching about 35 maximum concurrent sessions. This is still below the maximum number the server can hold (~150-200), so that in this example the Thin@ Server Administrator would not have to start planning a hardware upgrade or adding a new server in the Grid.



Normal Thin@ Server Heartbeat

Multiple server environments

In multiple server environments, each server will be represented in another color. In the example below we can see that both the Red and the Blue Server were having a balanced load till the end of March. After that, most applications were intentionally deactivated on the Red Server (See Server List Tab), so that the Blue Server had to take most of the load. This is clearly represented by the graph.

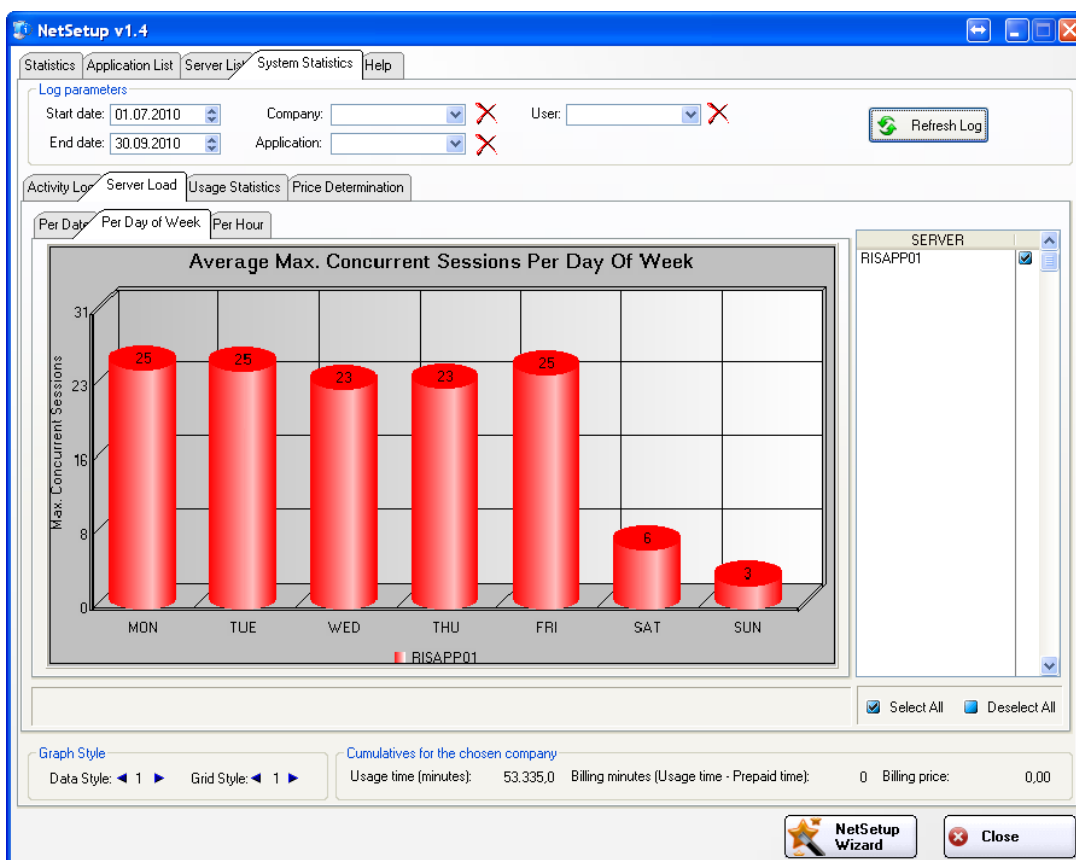


Thin@ Server Heartbeat with multiple servers

b) Section 2: Per Day of Week

The Average Maximum Number of Concurrent Sessions Per Day of Week (AMCSW) is based on the Maximum Number Of Concurrent Session Per Date.

For example, on the graph below we can see that in Monday (during the selected 3-months period) there were 25 maximum concurrent sessions in average. That could mean, for example, that in the first Monday of the 3-months period there were 20 MCS, in the second Monday 30, etc. The graph represents the average, which is 25.



Planning the exact day of hardware and software upgrades

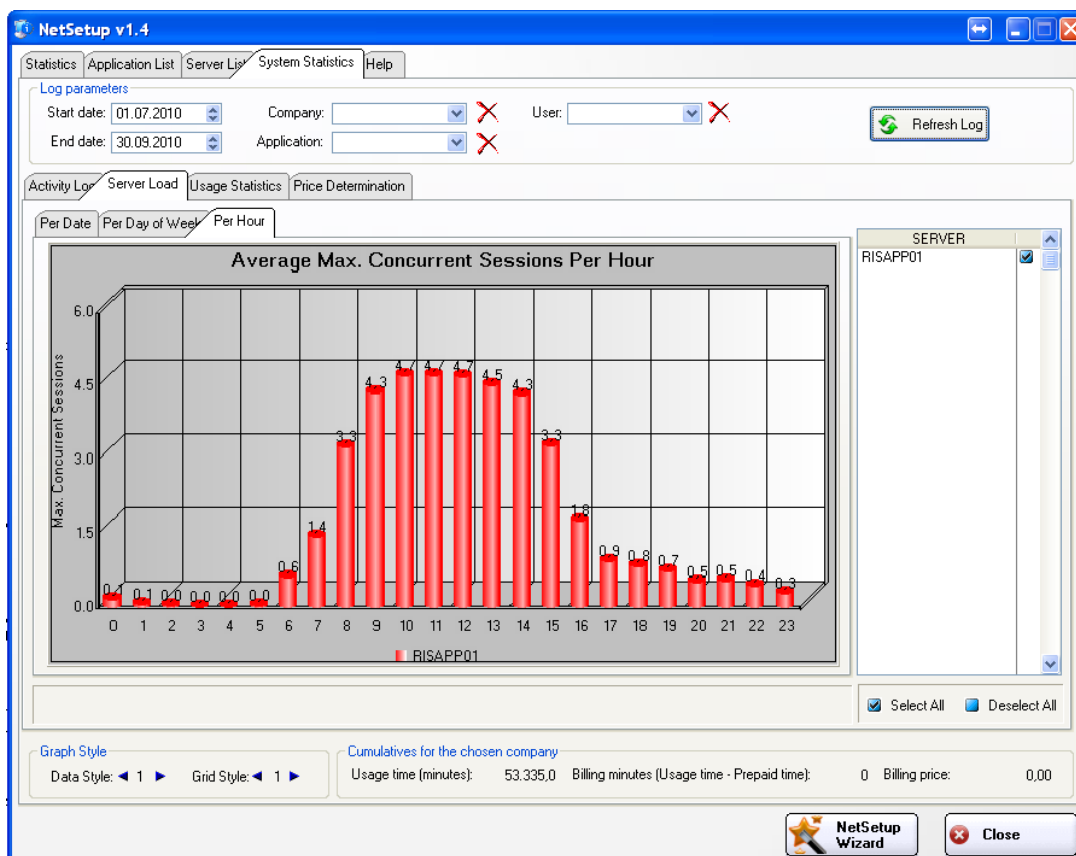
Based on the information provided by the AMCSW a Thin@ Server Administrator can plan the exact day of future software and hardware upgrades. We see that in the example above the best day for taking the Thin@ server offline would be Sunday, since on Sunday there are only 3 concurrent users working in the system in average. This is also true for database hardware upgrades, since this graph also demonstrates the database Load (However, this is true only if there is a 1-1 relationship between the Thin@ server grid and the underlying database architecture).

c) Section 3: Per Hour

Maximum Number of Concurrent Sessions Per Hour (MCSH) represents collective information about the maximum number of concurrent session reached in every single hour throughout a single day.

The Average Maximum Number of Concurrent Sessions Per Hour (AMCSH) is based on MCSH, but represents collective information not just for a single day but for a whole period of time.

Let's take a 3-moths period as an example. MCSH is calculated for each hour of each day separately, and then the average number of MCSH is calculated, which is represented by the AMCSH graph below.



Planning the exact hours of hardware and software upgrades

This information is valuable because it can give you a general idea of Thin@ System usage throughout a regular day. It can also serve as a basis for making decisions about when to make hardware or software upgrades to the system. In the example above the best hours for upgrades would be from 2AM to 5AM, because during that time nobody is usually using the System.

2.4.3. Module 3: (Active) Usage Statistics

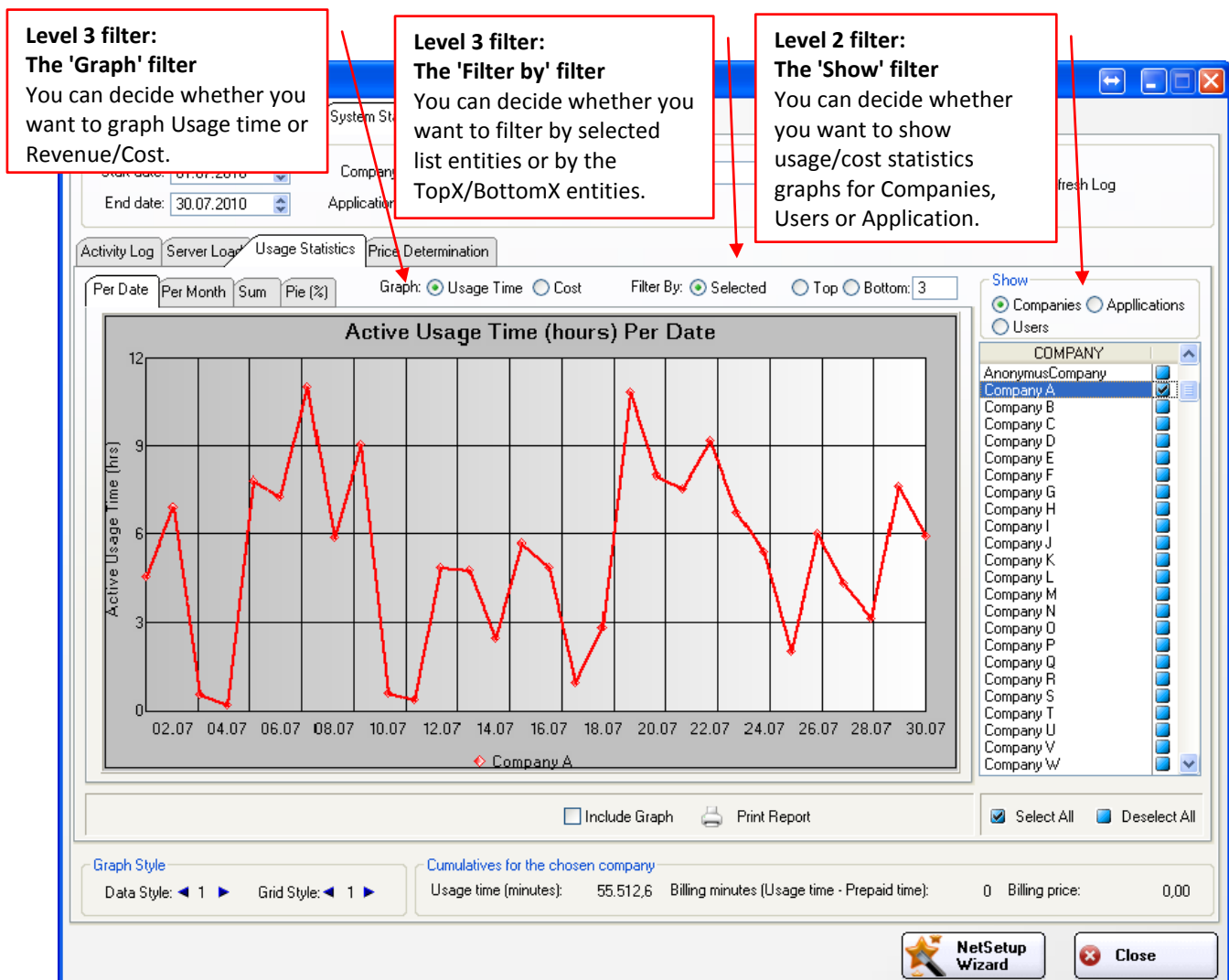
The (Active) Usage Statistics module (see [Thin@ Software as a Service Model \(SaaS\)](#) for more info on the distinction between Session Time and Active Time) is the heart of Thin@ SaaS support. It consists of four sections: Per Date, Per Month, Sum and Pie(%).

This tab has a more sophisticated Level 2 filter group, and introduces Level 3 filters.

The Level 2 filter type is determined by the chosen option in the 'Show' group on the right. You can decide whether you want to show Usage Statistics graphs for Companies, Applications or Users.

Level 3 filters are applied after Level 2 filters and are divided in two groups: The 'Filter By' group where you can decide either to filter by selected Level 2 entities or by the Top X/Bottom X Level 2 entities; and the 'Graph' group where you can decide whether you want to graph Usage Time or Revenue/Cost.

Choosing a different section (Per Date, Per Month, Sum or Pie) will only show a different aspect of the same filtered data.



a) Section 1: Per Date

The first section contains the Active Usage Time (in hours) Per Date graph. It shows you for how many hours the users were actively using the System throughout a selected period.

The graph can be modified by applying various types of filters. For example, instead of graphing the *Usage Time* it can graph Cost/Revenue by setting the 'Graph' filter to *Cost*).

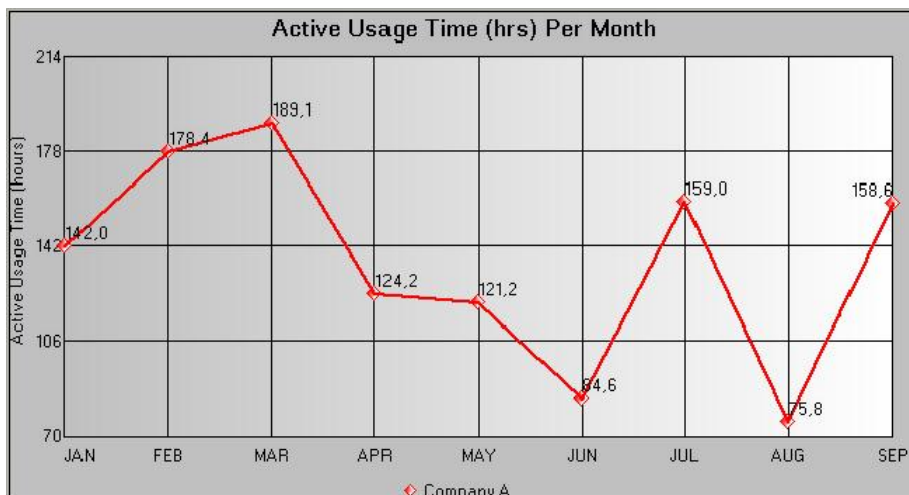
In the picture above we see that the Level 1 filter parameter Start Date is set to July 01 2010 and End Date to July 30 2010. The Level 2 'Show' filter group is set to Companies. The Level 3 'Graph' filter group is set to *Usage time* and the Level 3 'Filter By' filter group is set to *Selected*. The result of this filter combination is Active Usage Time (in hours) Per Date Per Selected Company for the month of July 2010.

From the picture above we can see for how many hours the Company A has been using the System each day.

b) Section 2: Per Month

The second section contains the Active Usage Time (in hours) Per Month graph.

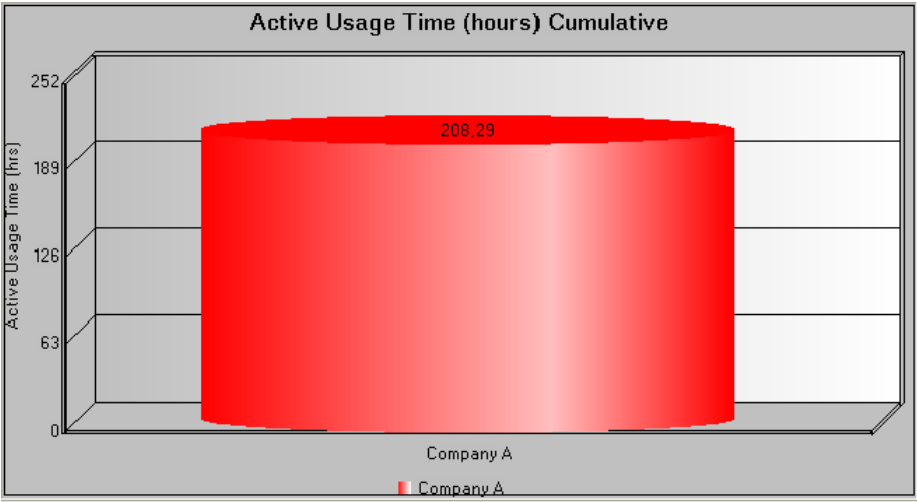
The example in the picture below portrays active System usage (in hours) by a selected company throughout a period of 9 months.



c) Section 3: Sum

The third section contains the Active Usage Time (in hours) Cumulative graph.

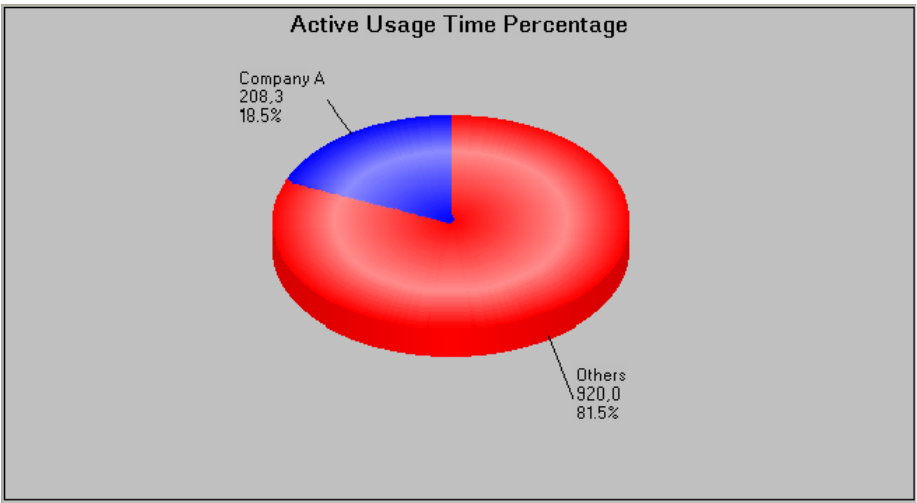
The example in the picture below portrays the cumulative active System usage (in hours) by Company A throughout the selected period.



d) Section 4: Pie (%)

The fourth and last section contains the Active Usage Time Percentage graph.

The example in the picture below portrays the percentage which the selected company (Company A) occupies in the Cumulative Active System usage (in hours) throughout the selected period (in color blue). The rest of the pie chart (color red) is the cumulative use of all other companies not selected in the Level 2 filter.



Comparing results

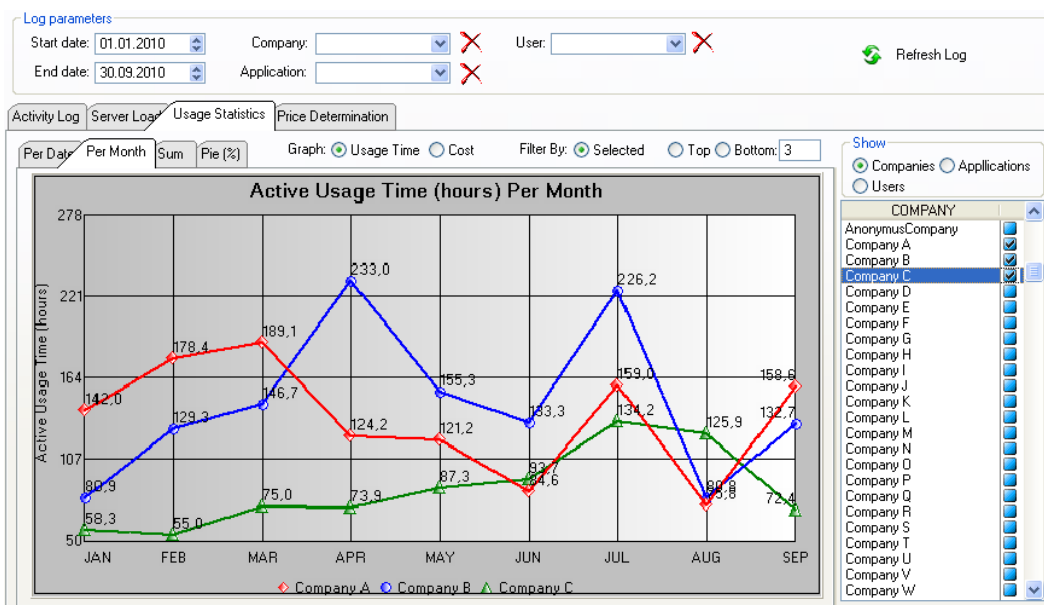
Thin@ Usage Statistics graphs are a very powerful tool for comparing active usage time and revenue earned from companies, users or applications while using your System.

a) Comparing multiple companies

By Usage Time

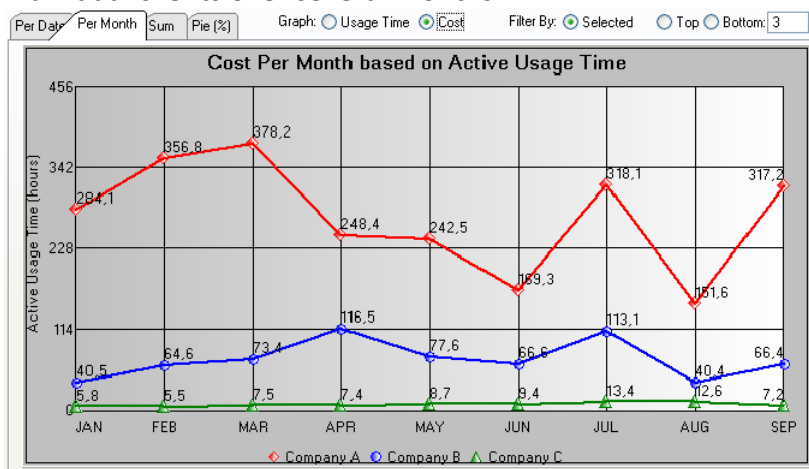
You can compare how much your clients were using the System in the past.

For example, on the picture below we compare 3 different companies and their Active usage time over 9 months. This kind of graph can reveal many things, for example we can see that Usage time of Company C (green) has been increasing over time, or that both Company A (red) and company B (blue) were working a lot in July (before holidays), with a sharp decrease in August.



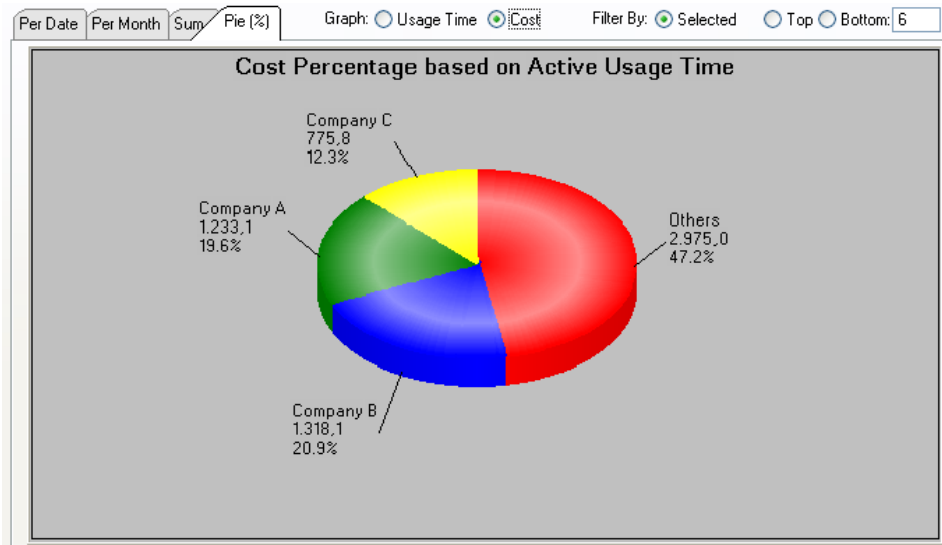
By Revenue

Interesting information to a hosting company might be comparing the revenues earned from individual clients over several months.



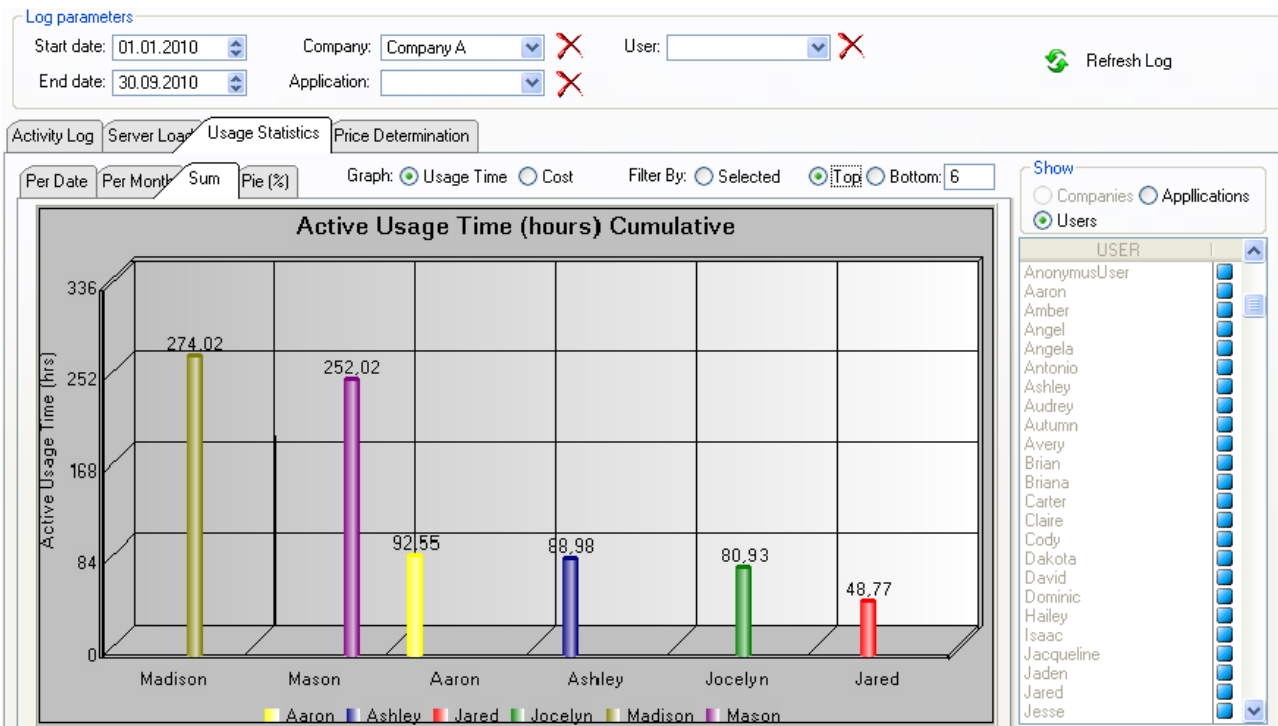
The same data can be demonstrated in the form of a pie chart. From the example in the picture below we can see that Company A, Company B, and Company C are earning more than 50% of

total revenues. The pie slice 'Others' showed in the graph includes the cumulative revenue percentage earned by all other companies using the System.



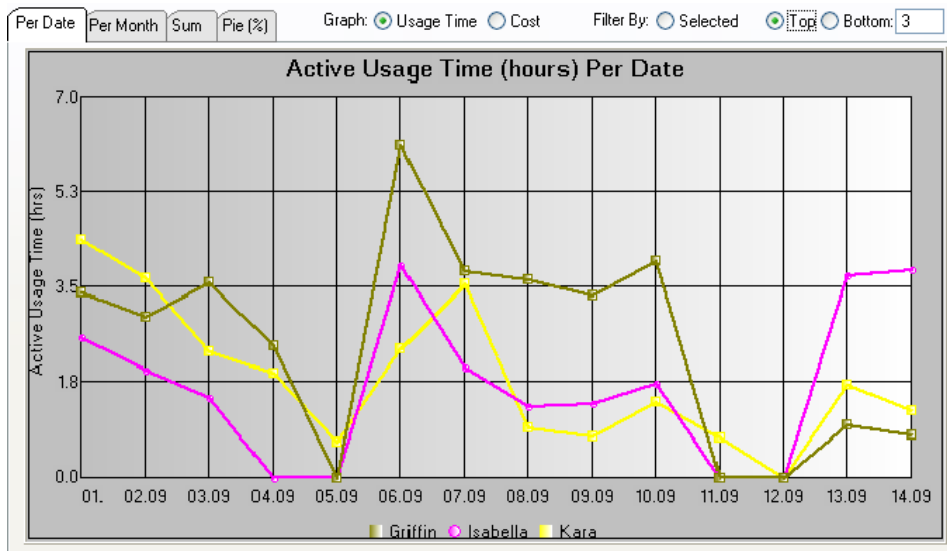
b) Comparing multiple users

Comparing Active Time Usage by User might be very interesting information that you can offer to your clients. For example, on the graph below we compare Cumulative Active Usage Time in a 9-months period made by Top6 users from the company 'Company A' selected in the Level 1 filter.



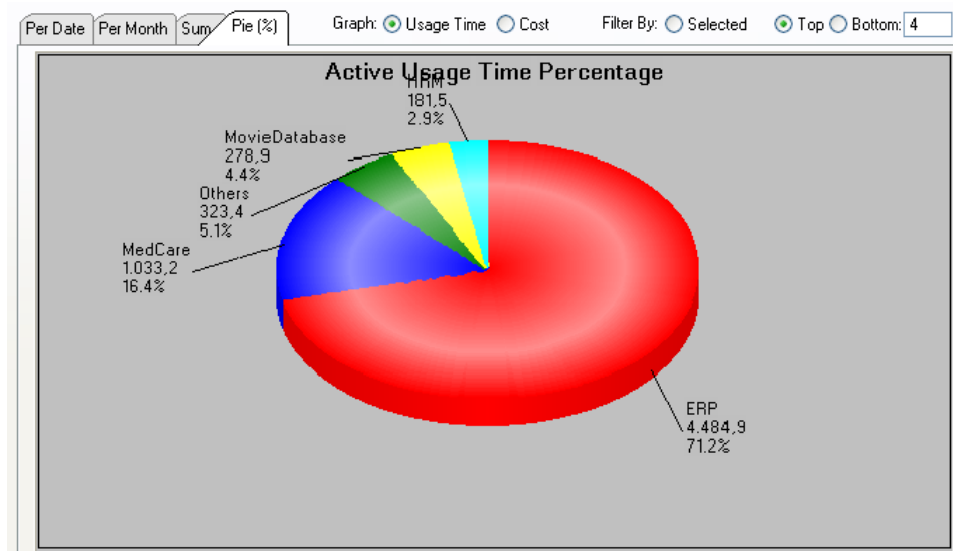
Employee monitoring

For a more detailed report we could choose to compare the TOP3 users of a company by Active Usage Time in a period of two weeks, as in the example below. The graph reveals us some very interesting facts. For example, Isabella's graph (pink) and Griffin's graph (green) are looking very similar, but Griffin is spending more time working on the hosted applications. Suppose that the job description of both employees is the same (so that both should be working on the same applications in the same way). It would be rather peculiar that one of them is working about 2 hours more than the other every day.



c) Comparing multiple applications

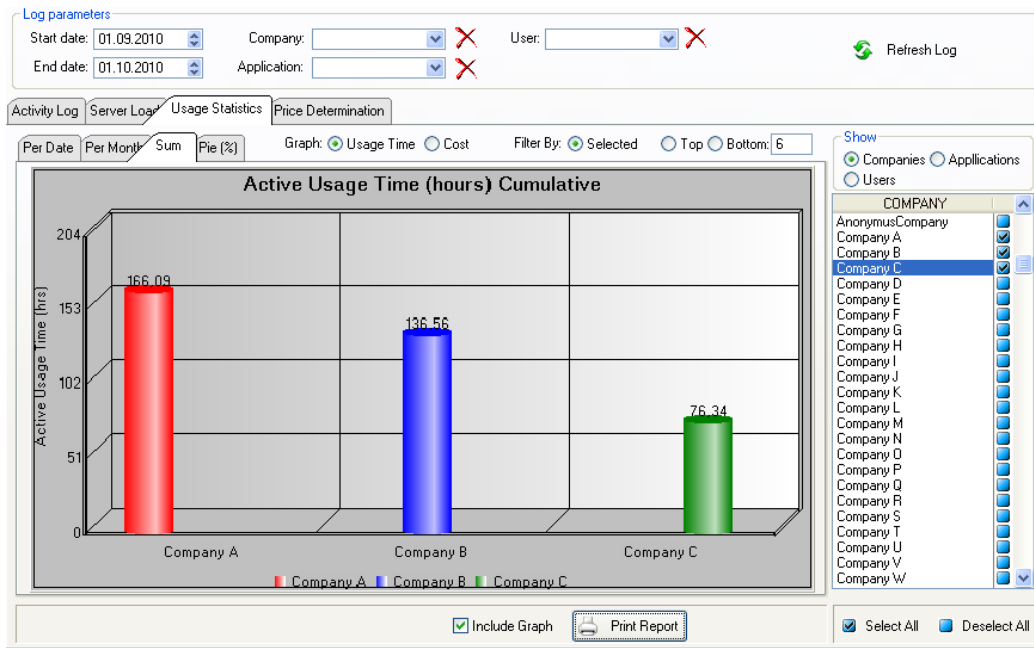
It is also possible to compare multiple applications. The Active Usage Time Percentage graph in the example below reveals that, for example, the ERP application makes more than 70% of total application use, followed by the application Medcare with 16% etc.



d) Using reports

If you make an analysis using the Usage Statistics module and you wish to view the detailed report or print it, press the Print Report button. Based on the selected filters the report will show data for companies, users or applications. You can choose whether you want to show the graph on the report or not.

The example below shows a report that is generated based on the selected filter parameters.



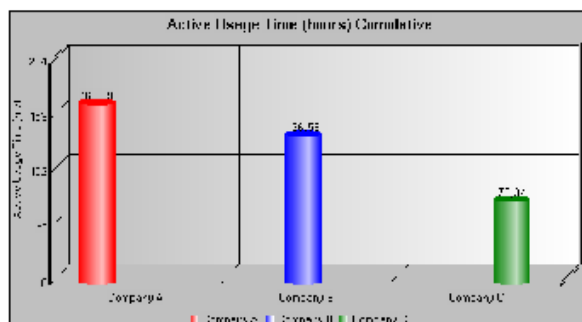
Generated Report



Thin@ Active Usage Statistics

Issue date: 10/15/2010

for the period: 01.09.2010 — 01.10.2010



Company	Active Time	Price Per Min.	Price	Prepaid Min.	To Pay
001 Company A	166.09	2.00	332.18	200.00	132.18
002 Company B	136.56	0.50	68.28	0.00	68.28
003 Company C	76.34	0.10	7.63	0.00	7.63
Total Active Time:	378.00	Total Price:	408.09	Total To Pay:	208.09

Keep in mind that if you're using *Prepaid Minutes* the report date range must be from the first day of the month to the last day of the month or the *Total To Pay* won't be correctly calculated.

2.4.4. Module 4: Price Determination

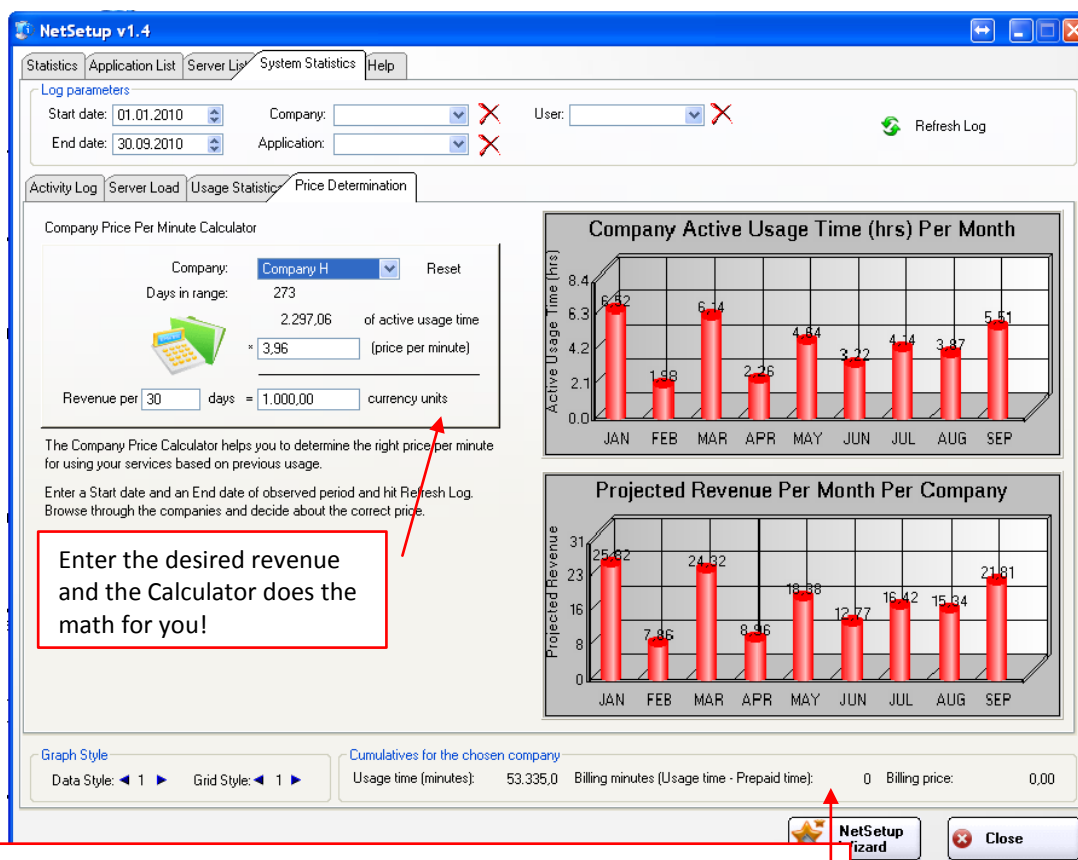
If you decide to use the SaaS billing options integrated in Thin@, so that your customers pay only for the time they were actively using the application(s), how do you determine the right Price Per Minute?

The mathematical aspect of that problem can be solved by using the integrated Thin@ Company Price Per Minute Calculator. The idea is that you can effectively determine the right Price Per Minute for a company that is using your services if you know historical data about that company Usage Time.

Using the Thin@ Company Price Per Minute Calculator

First of all you select a relevant period of time (in this case 9 months) during which you have not been using the SaaS billing options with your clients. Click on the Refresh Log button. The Company Active Usage Time (hrs) Per Month will appear for the selected company (Company H in the example below). Now enter a Price Per Minute you think would be appropriate. The second graph will appear showing the Projected Revenue Per Month for that company. You can see how much you would have been earning in each month from the selected company if the Price Per Minute had been the one you entered.

Another approach is to set the target revenue you would like to earn (in currency units) from that client in a period of time (default 30 days). The Calculator gives you the right Price Per Minute. You can switch companies and compare Prices Per Minute and Revenues.

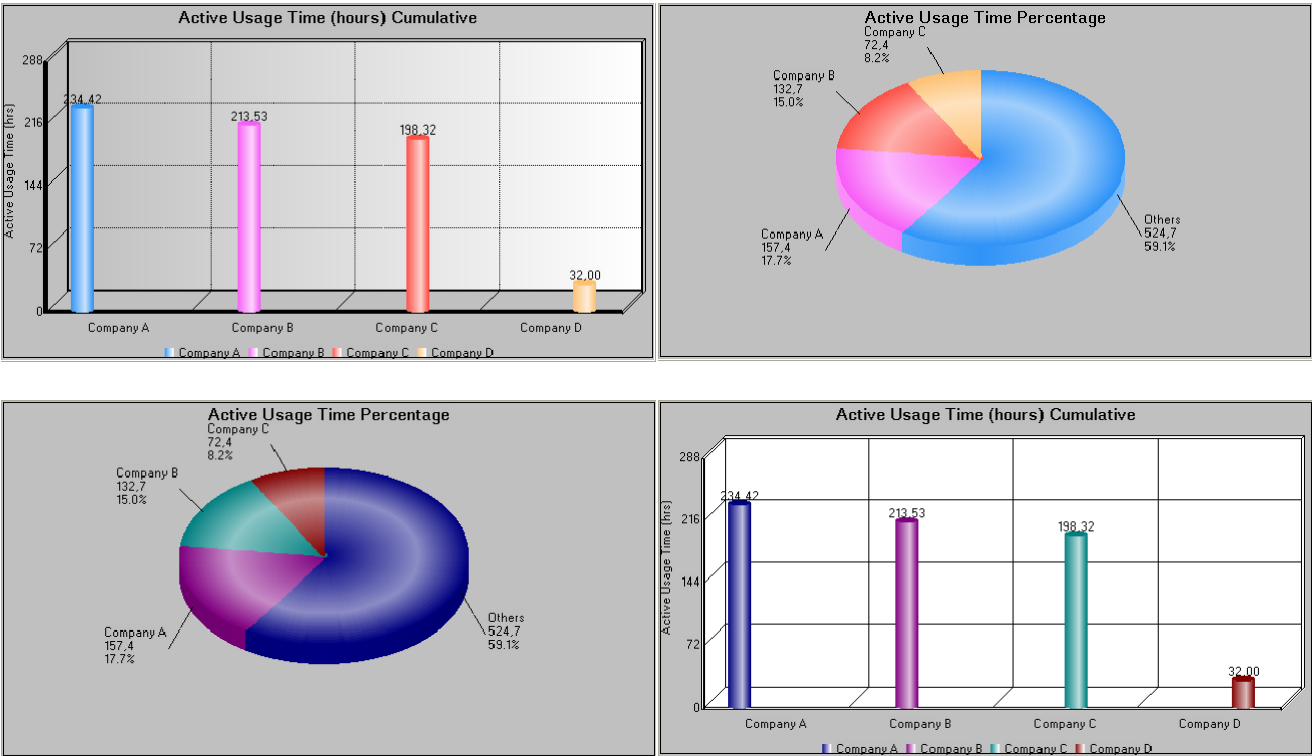


2.4.5. Changing graph color and style

If you wish you can change graph colors and style using the Graph Style controls.



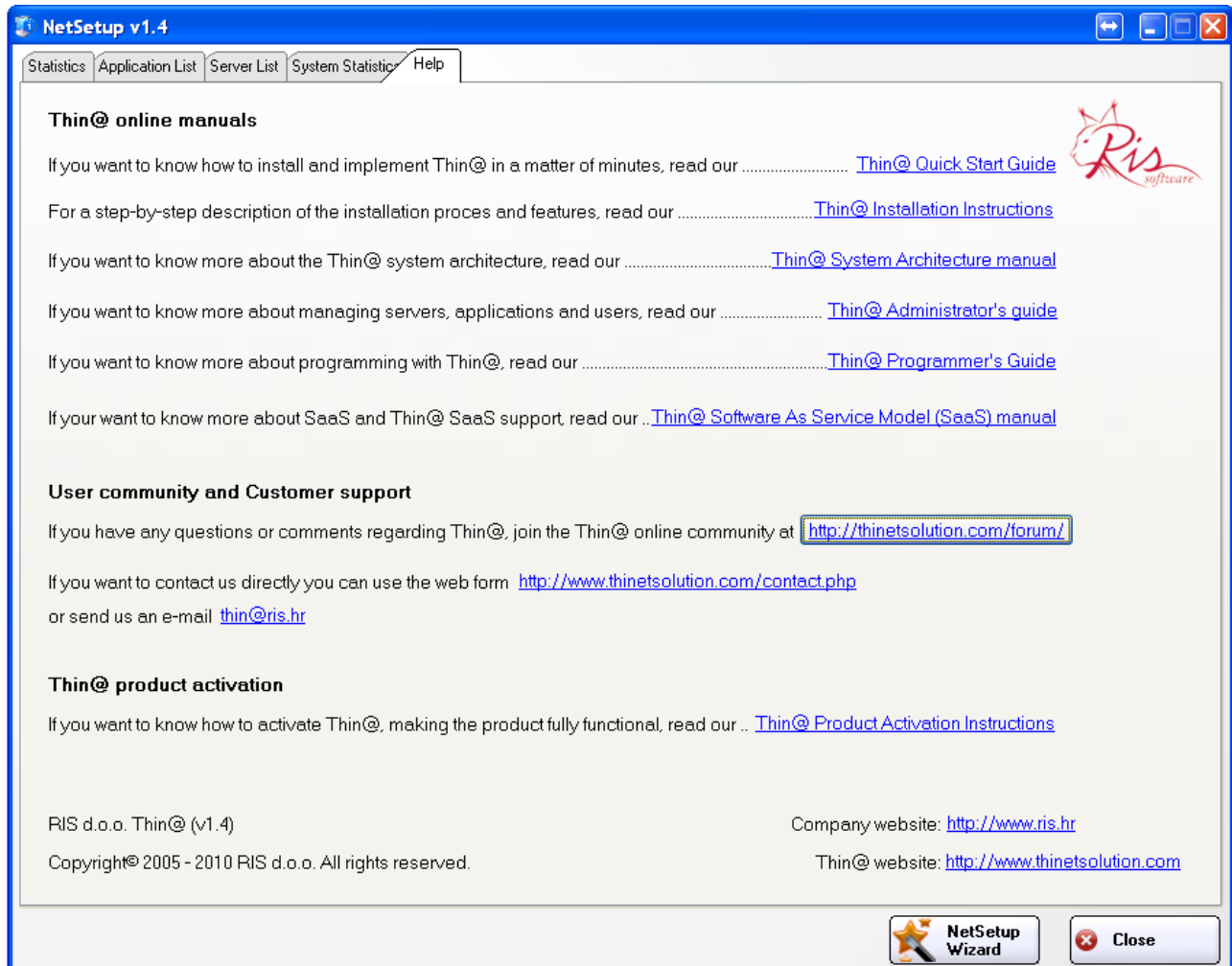
The pictures below show examples of some possible color and grid style combinations.



2.5. Help tab

The Help tab contains information about Thin@ online resources such as Thin@ online manuals, Thin@ product activation instructions and Customer support.

We welcome you to join the online Thin@ community on <http://www.thinetsolution.com/forum/> and use the forums to share your ideas and experience with other members.



2.6. Server Options

Server options example:

Listener Port	9002
IP Address	192.168.0.182
External IP Address	192.168.0.182
Starting Port	9003
Ending Port	9202
Memory Limit (%)	90
Main Server	0
Server monitor address	192.168.0.182
Server monitor port	9001
Authentication	1
External authentication	
External authentication res	
External authentication time	5000
After External Authenticatio	

➤ Listener port

The port on which users establish the connection with the server.

➤ IP Address

The internal IP or DNS address of the (main) application server.

If the server is the Main application server, than this value must be entered in the NetListener and NetMonitor tools on each application server so that they could communicate with the Main application server.

➤ External IP address

The unique identifier (IP or DNS address) assigned to you by your Internet Service Provider (ISP).

➤ Starting port

The starting port number the server will use for hosting its applications.

➤ Ending port

The ending port number the server will use for hosting its applications.

➤ Memory limit(%)

The memory percentage above which the server will not allow new users to connect.

➤ Main server

This parameter indicates wheter the server is the Main application server, or an ordinary application server.

0 – Application server - the server on which user applications run.

1 – Main server - the Load Balancing server which contains the Thin@ database and through which users connect to the system.

➤ **Server monitor port**

This is the port to which all application servers connect to share the Thin@ database.

➤ **Authentication**

1 – Enabled - only licensed users will be able to connect to the server.

0 – Disabled - all users will be able to connect to the server.

➤ **External authentication**

External authentication uses an executable file which validates the users.

The executable receives two input parameters (%username and %password), and writes the validation result in a text file.

Use the following pattern to fill in this field:

[authentication executable file] %username %password > [output result text file]

Example: tacacs.exe %username %password > tacacs.txt

➤ **External authentication result**

The validation result is written in a text file, which can contain either a successful or an unsuccessful validation value.

Use the following pattern to fill in this field:

[output result text file] [successful authentication result]

Example: tacacs.txt 0

➤ **Statistic path**

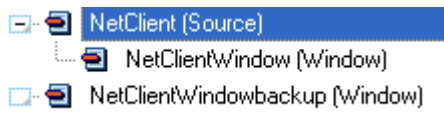
The path on the disk containing temporary connection-related user information files which are created and deleted, as appropriate.

➤ **Net Client version**

If the Thin@ client version is older than the one entered in this field the new version download will start automatically.

NOTE: In order to update your NetClient versions, apart from modifying this parameter in the NetSetup utility, you need to modify the client version in the NetClient source code.

Open your NetClient.app application and make the necessary modifications to the first source code line. The version of your new NetClient version should match the version entered in the NetSetup administration utility.



Get client info data
NetClientVersion = '1.84'

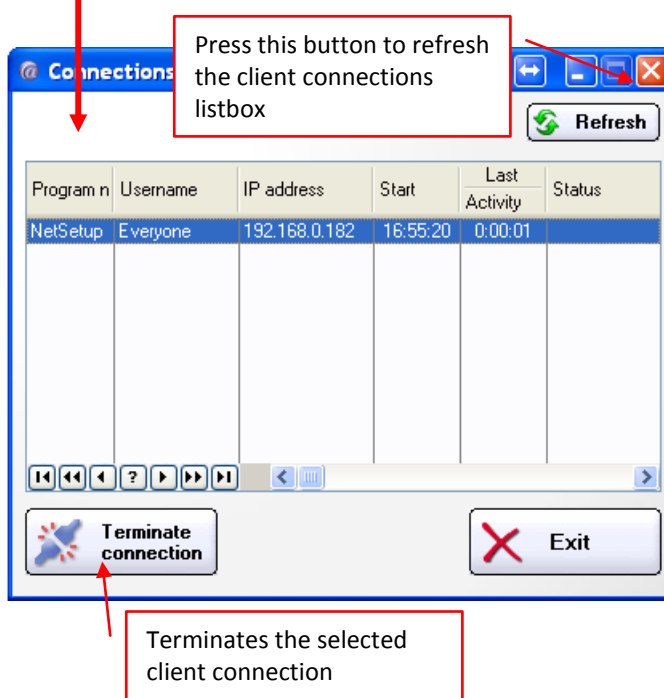
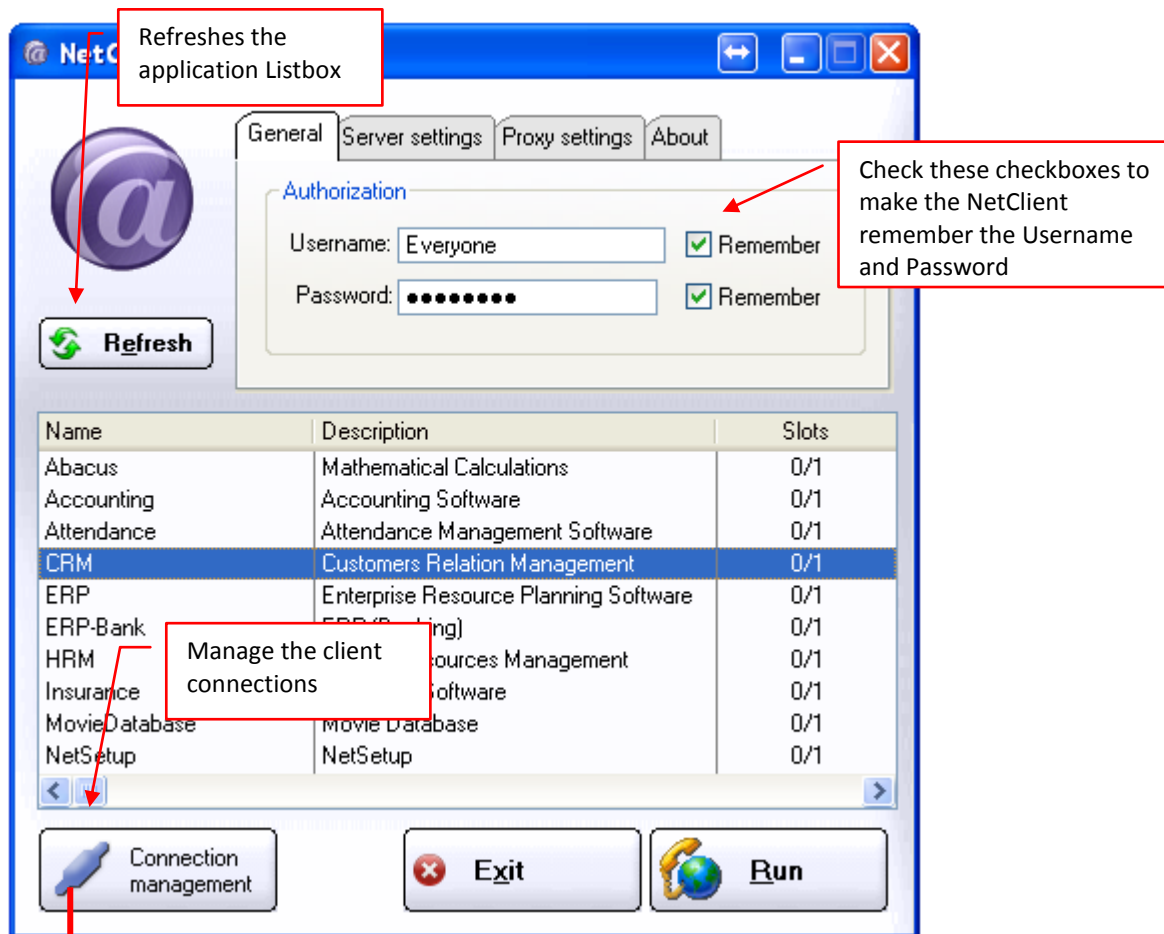
➤ Activity

This field indicates the status of the server.

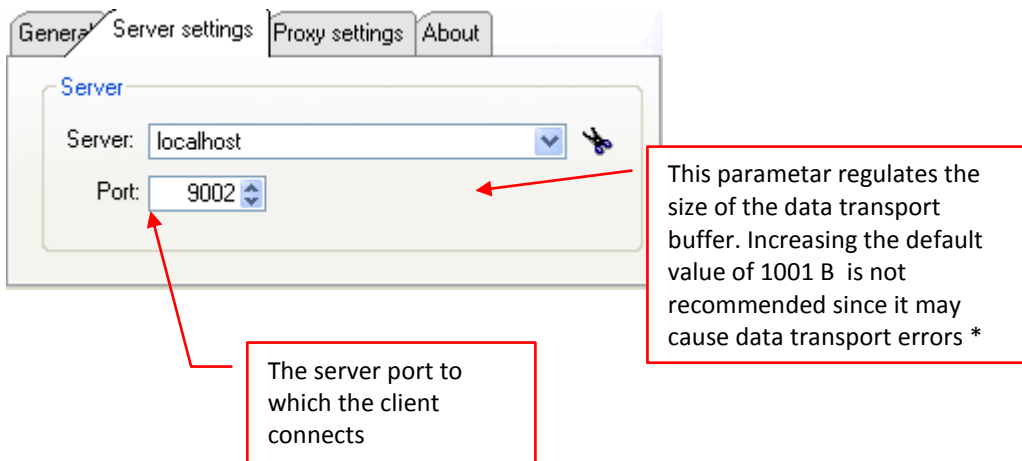
1 - Active, 0 – Not active

3. Thin@ server tools

➤ NetClient Window (General)

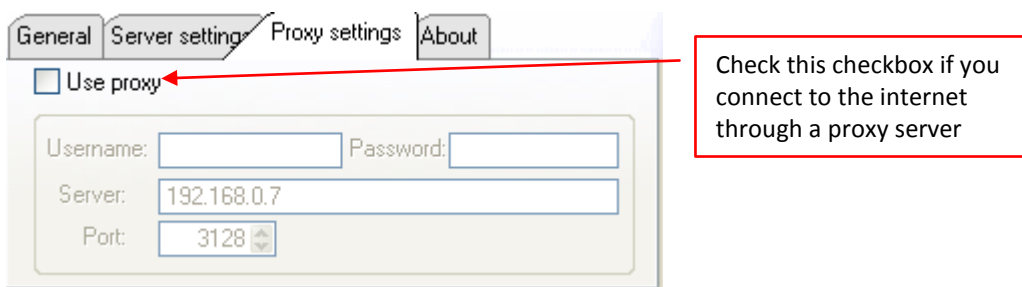


➤ **NetClient window (Server settings)**



- Buffer size: Most proxy servers will limit the buffer size to 1 KB, in which case increasing this parameter will cause cause Thin@ to stop working properly.

➤ **NetClient window (Proxy settings)**



➤ **NetClient window (About)**



In case you reach the maximum permitted number of client connections, the following window appears:

