
op5 Monitor user manual

op5 Monitor user manual
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Introduction

About introduction

This chapter covers the following topics:

Subject	Page	Subsections
<i>Using this manual</i>	2	
<i>About op5 Monitor</i>	3	

Using this manual

This manual includes information on how to use and configure op5 Monitor and its components.

The manual is also written with the goal to give the reader help about how to use the different parts of op5 Monitor.

This manual is targeted for a technical audience. The manual covers how to use and configure op5 Monitor through its web interface. For configuration using direct console access or SSH, see the op5 System manual.

About op5 Monitor

op5 Monitor is a highly flexible monitoring system for monitoring of IT infrastructure. op5 Monitor is based on the widely known open source monitoring system Nagios.

op5 Monitor is used and configured in a web interface using any standard browser. The most common browsers Internet Explorer, Firefox and Opera have been tested.

The interface is protected by using both authentication (username and password) and by SSL which enables a secure manner for accessing the web interface using encryption.

The GUI

About The GUI

This chapter covers the following topics:

Subject	Page	Subsections
<i>Navigation</i>	6	<i>Login and logout</i> on page 6 <i>Main menu</i> on page 7 <i>Minimize and expand the main menu</i> on page 9
<i>Searching</i>	12	<i>Simple search</i> on page 12 <i>Advanced search</i> on page 13 <i>Search result</i> on page 16
<i>Refresh time</i>	17	
<i>Widgets</i>	18	<i>Widget parts</i> on page 19 <i>Moving widgets</i> on page 21 <i>Restoring to factory settings</i> on page 22 <i>Create you own widgets</i> on page 22

Navigation

The new generation GUI in op5 Monitor is made to be as simple as possible to use. Even if the GUI has a new look and feel it works in many ways as the old one. You will recognize most of the features from the CGIs.

In-line help

A manual is great but many times you only need to get a fast answer about a special part of op5 Monitor.

To get information from the in-line help

- 1 Click the help icon



This gives you a small frame with the help text included in.

- 2 Click anywhere outside the help text to hide it.

Login and logout

To login to op5 Monitor

First of all you need to login before you can start use op5 Monitor. To login to the op5 Monitor GUI:

- 1 Point your browser to the portal page of your op5 Monitor server (<https://youserver/>)
- 2 Click op5 Monitor:



Username

Password

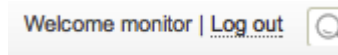
Login

- 3 Enter login and password¹.
- 4 Click **Login**

1.Installation default user name / password: monitor / monitor

To logout from op5 Monitor

To logout from op5 Monitor just click **Log out** in the upper right corner of the GUI.



Main menu

The navigation in op5 Monitor is simple and in many ways the same as in the old CGI GUI. But there are a couple of things that is new like:

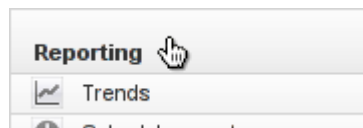
- widgets
- Tactical overview made editable
- NagVis
- a search function.

Hide and show parts of the main menu

If you do not want to see the whole main menu you can easily hide parts of it by clicking on the section header of the section you want to hide.

Hide a section

Let's say you want to hide the Reports section of the menu. Then you should click on **Reports** like in the picture below:



Show a section

To show the Reports section again you just have to click on the Reports section header again.

Scroll the main menu

Sometimes your browser is unable to show the complete main menu. You can scroll the main menu by using the scroll bar just to the right of the menu, shown in the picture below:

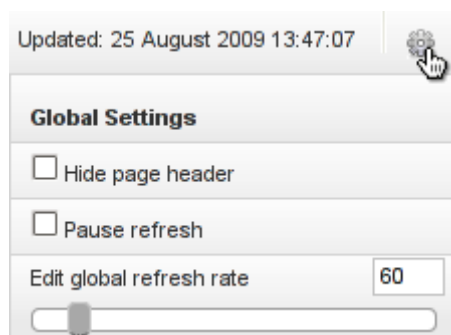


Hide and show page header

In many views in op5 Monitor you can hide the page header. This will give you a bit more space to show the "important" things on the page.

Note: This is not persistent. This means that if you navigate away from the current view and back again the header is visible again.

If you take the **Unhandled problems** as an example the normal page header looks like the picture below. Under the page header the list of monitored objects is shown.



Hiding the page header

To hide the page header

- 1 Click Settings in the top right corner of the gui:
- 2 Click Hide page header check box and the page header will disappear at once.

Showing the page header

To show the page header again you just need do one of the following

- Either click on the same menu choice in the main menu.
- or follow the two steps below:
 - 1 Click Settings icon.
 - 2 Click Hide page header to uncheck the check box.

Minimize and expand the main menu

It is possible to hide the main menu and only show the icons instead of the icons plus the captions.

To minimize or expand the main menu you only need to click on the icon the top of the main menu.

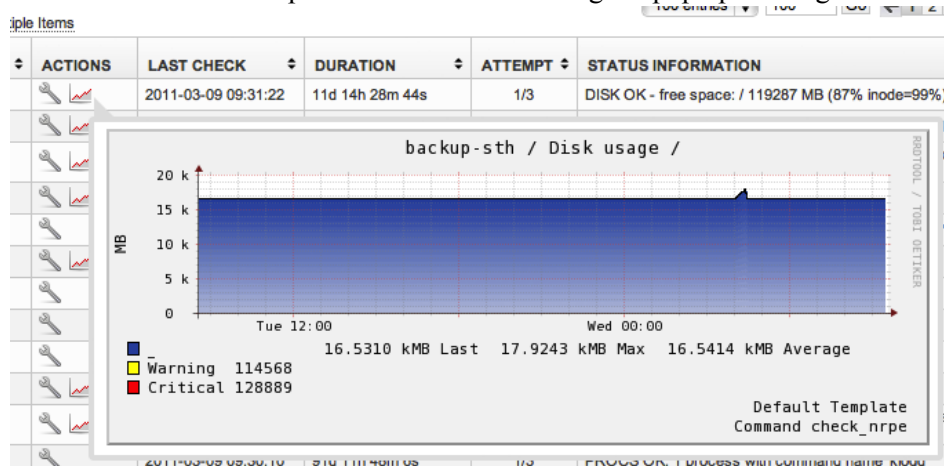


Pop up graphs and comments

In every view where you find the icons for

- graphs
- comments

You can over the mose pointer over the icon and get a pop up looking like this



Changing behaviour of the pop ups

You might not want to have those pop ups everytime you hover with the mouse over one of the graph or comment icons. Then you can change that behaviour in **My account**.

To change the behaviour of the pop ups

- 1 Open up My account
- 2 Set either a delay or turn the pop ups of completely. The delay time is in ms.

POP UPS	
Use popups	☒ On ☐ Off
Popup delay	1500

- 3 Click Save.

Keyboard commands

The keyboard commands are shortcuts to some of the features in the op5 Monitor GUI. The following keyboards commands are available:

- search
- pause
- paging to the left
- paging to the right

Table 1 Default keyboards commands

Function	Default command	Description
Search	Alt+Shift+f	Set focus to the search field of the GUI.
Paus	Alt+Shift+p	Pause or activate the refresh of the current view in the GUI.
Paging to the left	Alt+Shift+left	Takes you to the left in a view that have more than one page.
Paging to the right	Alt+Shift+right	Takes you to the right in a view that have more than one page.

By default the keyboard commands are disabled. To enable the keyboard commands and change their settings take a look at *Keyboard commands used in the GUI* on page 109.

Multiple host and service commands

In almost every view in the monitoring section you may perform commands on the objects displayed in the view. This is very usefull if you for instance have a bigger problem with one or many services you may then acknowledge all of them at once.

Executing multiple commands

In this example we will send acknowledgements to a larger number of services.

To execute multiple commands

1 Open up **Unhandled problems** view.

2 Click **Select Multiple Items**

 **Select Multiple Items**

(It is located on top of the list.)

3 Select the services problems you like to acknowledge.

Service Status Details For All Hosts:  **Select Multiple Items**

	HOST			SERVICE	
	linux-server1		☒	DNS	
			☒	FTP	
			☒	NTP	

4 Chose **Acknowledge** in **Select Action** drop down list just below the list and click **Submit**.

Select Action  **Submit**

5 Type in a comment and click **Submit**.

Service

linux-server1;DNS
linux-server1;FTP
linux-server1;NTP

Sticky ☒
Notify ☒
Persistent ☒
Author monitor
Comment

Submit **Reset**

Searching

op5 Monitor has got a search functionality that makes it easy to find:

- hosts
- services
- host groups
- service groups.

Note: The search is case insensitive.

The result is limited to maximum 10 result rows per object type.

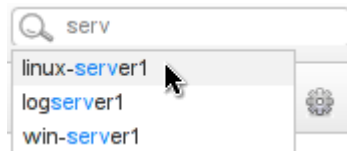
In the upper right corner of the gui you find the search input field:



Simple search

To perform a simple search

- 1 Enter the search string in the input field shown in [Searching](#) on page 12 and press Enter.
- 2 While you are typing your search string op5 Monitor will show you a list of hosts matching the string.



- 3 If you click on a host in the drop down list you will be redirected to the **Service Status Details For Host** page for the host you clicked on. The same happens if the search found only one object matching your search string.

op5 Monitor will now search for hosts, services, service groups and host groups matching the search string you entered.

The table below shows a list of in what parts of the object types is used in the search.

Object type	Variable
Host	host_name host_alias host_address display_name
Service	service_description display_name
Host group	hostgroup_name alias
Service group	servicegroup_name alias

Advanced search

To make your search more specific you should use the advanced search features.

The following table describes the search parameters that can be used in the search function:

Short parameter	Long parameter	Description
h:	host:	Search for hosts
s:	service:	Search for services
hg:	hostgroup:	Search for host groups
sg:	servicegroup:	Search for service groups
si:	statusinformation:	Search for Status information using the output from the latest service / host check.
AND		The AND operator is used to filter records based on more than one condition
OR		The OR operator is used to filter records based on more than one condition

Note: Remember to not use any space between the : and the search string

Advanced search examples

Example 1 Search for hosts containing a certain string in the host name.

If you want to search for hosts only containing “server” in the host name just enter the following in the search field:

```
h:server
```

or

```
host:server
```

Press enter to perform the search.

Example 2 Perform a search combining both hosts and services in the query.

In this example we want to find all services called either `ping` or `http` running on hosts called something like `win` or `linux`.

The query would then be:

```
h:win OR linux AND s:ping OR http
```

Example 3 Search for Status Information

To search for hosts and services having a certain string in their status output you shall write a query like this:

```
si:Connection refused
```

By using the `si:` search term and you will search the output from the latest check.

Example 4 Show all hosts or services

You may also get a list of all services and all hosts from the search funktion.

To get a list showing all services and host you should write the search query like this:

```
s:% OR h:%
```

Example 5 Show all hosts, services, host groups and service groups

To get a complete list of all hosts, services, host groups and service groups you only need to write a query like this:

```
%
```

This will give you a result with all object types grouped in one page.

Limiting the number of result objects

The default search result will be limited to 100 rows. This can be changed in the search query.

To change the limitation you only need to add limit with the number of lines to your query like this:

```
limit=10
```

The line above will give you max 10 rows in the search result.

To return all rows set:

```
limit=0
```

Search result

No matter if you use the simple or the advanced way to do your search you will end up with the same type of result list.

As you can see in the search result example below the search will be shown with one part for each type of object.

Host results for: "web"

↕	HOST	↕	ALIAS	↕	ADDRESS	↕	STATUS INFORMATION	↕	DISPLAY NAME	↕	↕
✓	www.op5.com		op5 web server		193.201.96.11		OK - 193.201.96.11 responds to ICMP. Packet 1, rtt 12.042ms				 
✓	www.op5.org		op5 Com web server		193.201.96.9		OK - 193.201.96.9 responds to ICMP. Packet 1, rtt 14.836ms				 

Service results for: "web"

↕	HOST	↕	SERVICE	↕	LAST CHECK	↕	DISPLAY NAME	↕	↕
✓	www.op5.com		✓ Web Service		2009-08-25 15:58:05				
✓	www.op5.org		✓ Web Service		2009-08-25 15:58:19				

Servicegroup results for: "web"

SERVICEGROUP	↕	ALIAS	↕
web_services		Web Services	

Hostgroup results for: "web"

HOSTGROUP	↕	ALIAS	↕
web_servers		Web Servers	

Just like in the normal views you can sort all columns in the search result.

Refresh time

Every view is automatically refreshed after a certain time. You can easily pause or edit the global refresh time in the GUI.

The default Global refresh time is: 90 seconds.

The Global refresh time is valid for all views that uses auto refresh. So it does not matter in what view you are pausing or editing.

Pausing the page refresh

To pause the page refresh

- 1 Click **Settings** in the top right corner of the gui:



- 2 Click in the **Pause refresh** check box and the Global refresh time is paused.



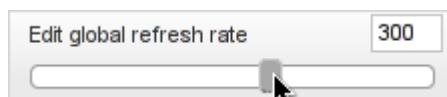
Editing the refresh time

To edit the Global refresh time

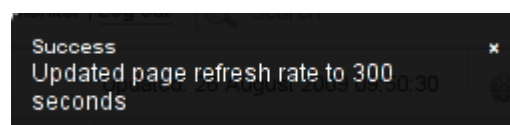
- 1 Click on the **Settings** icon in the top right corner of the gui:



- 2 Pull the slider to increase or decrease the refresh time.



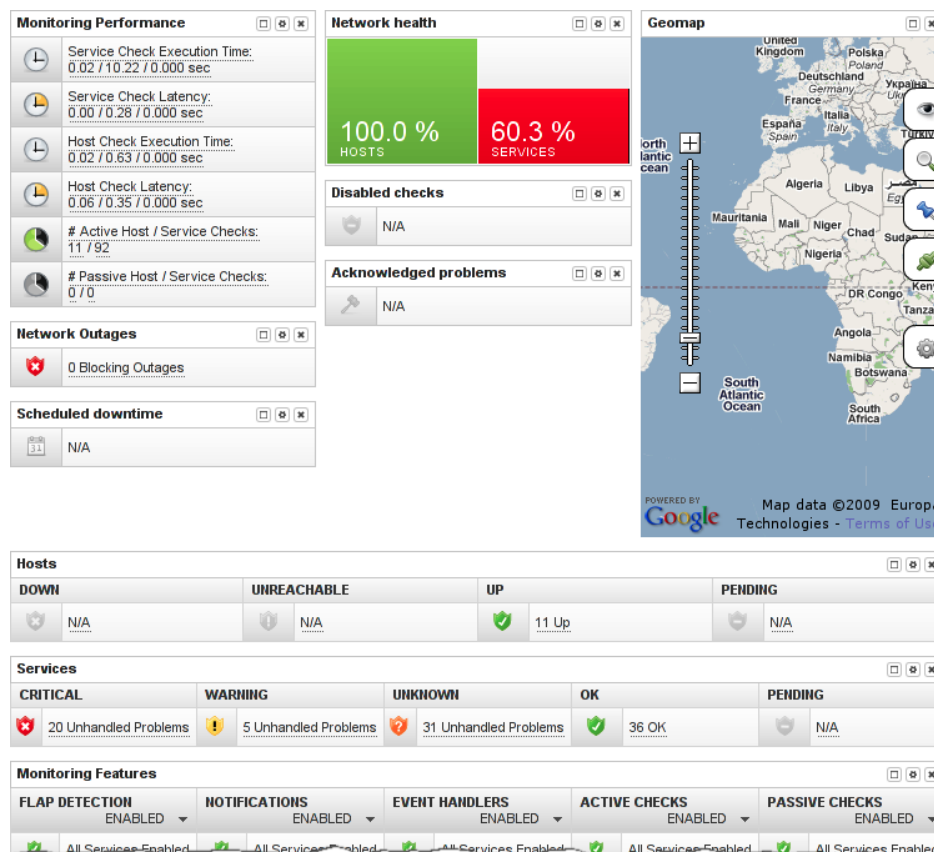
Once you have edited the Global refresh time a little notice will show up in the GUI. It tells you that the new Global refresh time is saved and look like the picture below.



Widgets

One thing that differ in the new op5 Monitor GUI from the old CGI GUI is the widgets. Widgets are used to give the user a possibility to customize the Tactical Overview.

The first thing you will see when you login to op5 Monitor is the **Tactical overview** and it looks like this:



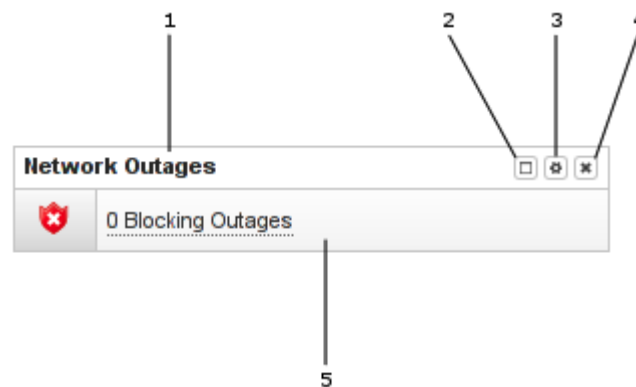
In the Tactical Overview you may:

- move around the widgets to different places
- close the widgets
- set individual refresh time for each widget
- collapse and expand all individual widgets.

Note: All changes you are doing with the widgets are saved per user.

Widget parts

Below you see an example of what a widget can look like:



The following table describes the parts of a widget shown in the picture above.

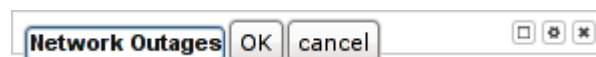
Nr	Description
1	Widget header
2	Collapse and Expand icon
3	Widget settings icon
4	Hide widget icon
5	Widget content

Renaming the widget header

The widget header displays the name of the widget.

To change the name in the widget header

- 1 Double click on the name in the widget header.
- 2 Type the new name in the text field.



- 3 Click **OK** to save the new name.

Collapse and expand

If you like to hide the content of a widget but still keep it on the Tactical overview page just click on the **Collapse icon**.



To show the widget again

Click on the **Expand icon**.

Widget settings

In this version of op5 Monitor the only setting you can change on a widget settings is:

- Refresh time

To set the refresh time on an individual widget follow the instructions below:

- 1 Click **Widget settings icon**



- 2 Move the slider to increase or decrease the refresh time.



Hiding widget 1

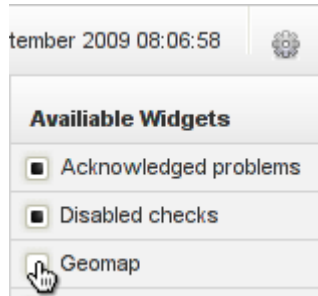
You may hide one or more widgets from the Tactical overview.

Just click on the **Hide widget icon** to hide the widget completely from the Tactical overview.



Hiding widget 2

Another way to hide the widgets from the Tactical overview is to click on the **Page settings icon**.



And then you just uncheck the widget, you like to hide, from the list.

Note: The widget will only be visually removed from the Tactical overview. It will not be removed from the software. See [Moving widgets](#) on page 21 about how to show the widget again.

Moving widgets

You may move around the widgets shown in the Tactical overview as you like.

To move a widget from one section an other

- 1 Grab the *Widget parts* on page 19 and move it to the section you like to place it in.
- 2 When you hover a section where you can drop the widget, a frame of dots are displayed:



Restoring to factory settings

To restore the Tactical overview to factory (default) settings

- 1 Click **Widget settings** icon.



- 2 Click on the **Restore to factory settings** button and all widget have
 - been placed back to their original places
 - got their default refresh time set
 - been made visible again
 - been expanded.

Create you own widgets

You may build your own widgets but this is not a subject for this user manual.

You can read more about how to build your own widget in the op5 Monitor Administrator manual.

Monitoring

About Monitoring

This chapter covers the following topics:

Subject	Page	Subsections
<i>Introduction</i>	24	<i>About Monitoring</i> on page 23
<i>Hosts and services</i>	25	<i>A host in detail</i> on page 25 <i>A service in detail</i> on page 31
<i>Host and service groups</i>	37	<i>Host and service groups</i> on page 37 <i>Using Service groups</i> on page 37
<i>Parenting</i>	36	
<i>Problem handling</i>	39	<i>Hard and soft states</i> on page 39 <i>Alerts and notifications management</i> on page 39 <i>Unhandled problems view</i> on page 40 <i>Acknowledge problems</i> on page 41 <i>Schedule downtime</i> on page 43
	48	<i>Viewing graphs</i> on page 49 <i>Adding graphs for custom plugins</i> on page 50
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Introduction

The monitoring section in the web menu is related to problem management and status of your network.

Here you will spend most of your time when using op5 Monitor. In the monitoring section you can

- view host and service problems
- view performance graphs
- execute service and host commands
- show objects on maps
- handling schedule downtime.

This chapter will give you information about the most common parts of the monitoring part of op5 Monitor.

Hosts and services

Hosts and services are the objects that are monitored by op5 Monitor.

A host in detail

A host can be any kind of network device, virtual device and other objects that you might reach from the op5 Monitor server..

Let us take a look at the Host information view and see what parts it is built upon. In the coming sections we will go through each part and learn how they can be used.

The picture below shows the Host information view.

View, for this host: [Status detail](#) [Alert history](#) [Trends](#) [Alert histogram](#) [Availability report](#) [Notifications](#)

Switch 1 (switch1)

Address: switch1
Parents: monitor
Member of: network
Notifies to: support-group

★ Extra Actions 📝 Extra Notes ⚙️ Configure 📈 Show performance graph

HOST STATE INFORMATION	
Current Status	🟢 Up (for 34d 4h 21m 47s)
Status Information	OK - switch1 responds to ICMP. Packet 1, rtt 30.195ms
Performance Data	pkt=1;0;0;0;5 rta=30.195;2000.000;2000.000;;
Current Attempt	1/5(HARD state)
Last Check Time	2010-03-18 14:37:41
Check Type	🟢 Active
Check Latency / Duration	0.24 / 0.041 seconds
Next Scheduled Active Check	2010-03-18 14:42:51
Last State Change	2010-02-12 10:19:15
Last Notification	N/A (Notifications 0)
Is This Host Flapping?	🟢 No (0.00% state change)
In Scheduled Downtime?	🟢 No
Last Update	2010-03-18 13:39:41 (0d 1h 1m 21s ago)
Active Checks	🟢 Enabled
Passive Checks	🟢 Enabled
Obsessing	🟢 Enabled
Notifications	🟢 Enabled
Event Handler	🟢 Enabled
Flap Detection	🟢 Enabled

HOST COMMANDS	
📍	Locate Host On Map
🛑	Disable Active Checks Of This Host
📅	Re-schedule the next check of this host
📝	Submit Passive Check Result For This Host
🛑	Stop Accepting Passive Checks For This Host
🛑	Stop Obsessing Over This Host
🔔	Disable Notifications For This Host
📢	Send custom host notification
📅	Schedule Downtime For This Host
🛑	Disable Notifications For All Services On This Host
🟢	Enable Notifications For All Services On This Host
📅	Schedule A Check Of All Services On This Host
🛑	Disable Checks Of All Services On This Host
🟢	Enable Checks Of All Services On This Host
🛑	Disable Event Handler For This Host
🛑	Disable Flap Detection For This Host

Host Comments

📝 Add a new comment 🗑️ Delete all comments

ENTRY TIME	AUTHOR	COMMENT	ID	PERSISTENT	TYPE	EXPIRES	ACTIONS
This host has no comments associated with it							

The table below describes each part of the Host information view briefly.

Nr	Part	Description
1	Page links	Quick links to other information about the host • status of all services on this host • Trends • Alerts and notifications for this host • Reports
2	Host information header	Displays brief information about the host and its surroundings like • host name and address • parent host • extra actions and notes • links to configure and graphs.
3	Host state information	Here you can see status information for the host like • current status • current attempt • last state changes and notification • what is enabled or not on this host.
4	Host commands	Here you can perform different commands for the host and/or all services on that host.
5	Comments	This is comments you put there either by adding a scheduled downtime or just a comment of it own.

Page links

The page links gives you a couple of short cuts to more information about this host and its services.

View, for this host: [Status detail](#) [Alert history](#) [Trends](#) [Alert histogram](#) [Availability report](#) [Notifications](#)

Host header information

Here you will get a short summary of the host.



The host header information contains

- the host address
- the parent host
- what host groups it is a member of
- what group will get the notifications
- links to extra service actions, service notes and the performance graphs
- a link to the object in the configuration GUI.

Host state information

In this view you get all kind of status information about the host. This is the most detailed view you can get over a host.

HOST STATE INFORMATION	
Current Status	✔ Up (for 34d 4h 21m 47s)
Status Information	OK - switch1 responds to ICMP. Packet 1, rtt 30.195ms
Performance Data	pkt=1;0;0;0;5 rta=30.195;2000.000;2000.000;;
Current Attempt	1/5(HARD state)
Last Check Time	2010-03-18 14:37:41
Check Type	✔ Active
Check Latency / Duration	0.24 / 0.041 seconds
Next Scheduled Active Check	2010-03-18 14:42:51
Last State Change	2010-02-12 10:19:15
Last Notification	N/A (Notifications 0)
Is This Host Flapping?	✔ No (0.00% state change)
In Scheduled Downtime?	✔ No
Last Update	2010-03-18 13:39:41 (0d 1h 1m 21s ago)
Active Checks	✔ Enabled
Passive Checks	✔ Enabled
Obsessing	✔ Enabled
Notifications	✔ Enabled
Event Handler	✔ Enabled
Flap Detection	✔ Enabled

Host commands

The host commands part gives you a various commands to handle the host. Here you can

- locate the host in a status map
- disable and enable active and passive checks
- disable and enable notifications
- schedule downtime
- disable and enable event handlers.

HOST COMMANDS	
	Locate Host On Map
	Disable Active Checks Of This Host
	Re-schedule the next check of this host
	Submit Passive Check Result For This Host
	Stop Accepting Passive Checks For This Host
	Stop Obsessing Over This Host
	Disable Notifications For This Host
	Send custom host notification
	Schedule Downtime For This Host
	Disable Notifications For All Services On This Host
	Enable Notifications For All Services On This Host
	Schedule A Check Of All Services On This Host
	Disable Checks Of All Services On This Host
	Enable Checks Of All Services On This Host
	Disable Event Handler For This Host
	Disable Flap Detection For This Host

Comments

There are two types of comments:

- automatically added
- manually added

Automatically added comments can be

- acknowledged comments
- scheduled downtime comments

As a manually added comment you can type in almost anything you like.

Host Comments


Add a new comment


Delete all comments

ENTRY TIME	AUTHOR	COMMENT	ID	PERSISTENT	TYPE	EXPIRES	ACTIONS
This host has no comments associated with it							

Comments are designed to be short texts. If you like to add documentation, longer descriptions and so on you should consider using the do *Dokuwiki* on page 51 that is included in op5 Monitor.

A service in detail

A service is practically anything that can be measured, most be connected to a host.

Let us take a look at the Service information view and see what parts it is built upon. In the coming sections we will go through each part and learn how they can be used.

The picture below shows the Service information view.

View, for this service: Information for this Host Status detail for this Host Alert history Trends Alert histogram Availability report Notifications

(PING)

On Host Address: environment1 (environment1)
Member of: environment1
Notifies to: No servicegroups
Notes: support-group
This is just a small test note

★ Extra Actions Extra Notes Configure Show performance graph

SERVICE STATE INFORMATION	
Current Status	Ok (for 13h 23m 4s)
Status Information	OK - environment1: rta=11.024ms, lost 0%
Performance Data	rta=11.024ms;100.000;500.000;0; pl=0%;20;70;
Current Attempt	1/3 (HARD state)
Last Check Time	2010-03-29 12:09:02
Check Type	Active
Check Latency / Duration	0.233 / 0.478 seconds
Next Scheduled Check	2010-03-29 12:14:02
Last State Change	2010-03-28 22:49:02
Last Notification	N/A (Notifications 0)
Is This Service Flapping?	No (0.00% state change)
In Scheduled Downtime?	No
Last Update	2010-03-28 17:36:52 (0d 18h 35m 14s ago)
Active Checks	Enabled
Passive Checks	Enabled
Obsessing	Enabled
Notifications	Enabled
Event Handler	Enabled
Flap Detection	Enabled

SERVICE COMMANDS	
Disable Active Checks Of This Service	
Re-schedule the next check of this service	
Submit Passive Check Result For This Service	
Stop Accepting Passive Checks For This Service	
Stop Obsessing Over This Service	
Disable Notifications For This Service	
Send custom service notification	
Schedule Downtime For This Service	
Disable Event Handler For This Service	
Disable Flap Detection For This Service	

Service Comments

Add a new service comment Delete all comments

ENTRY TIME	AUTHOR	COMMENT	ID	PERSISTENT	TYPE	EXPIRES	ACTIONS
This service has no comments associated with it							

Nr	Part	Description
1	Page links	Quick links to other information about the service and the host it is connected to. - Information the host - Status details for the host - Alerts and notifications for this service - Reports

Nr	Part	Description
2	Service information header	Displays brief information about the service, host and its surroundings like • host name and address • what service groups the service belongs to • extra actions and notes • links to configure and graphs.
3	Service state information	Here you can see status information for the service like • current status • current attempt • last state changes and notification • what is enabled or not on this service.
4	Service commands	Here you can perform different commands for the service.
5	Comments	These are comments you put there either by adding a scheduled downtime or just a comment of it own.

Page links

The page links gives you a couple of short cuts to more information about this service and the host it is connected to.

View, for this service: [Information for this Host](#) [Status detail for this Host](#) [Alert history](#) [Trends](#) [Alert histogram](#) [Availability report](#) [Notifications](#)

Service header information

Here you will get a short summary of the service.

(PING)	
On Host	environment1 (environment1)
Address	environment1
Member of	No servicegroups
Notifies to	support-group
Notes	This is just a small test note
 Extra Actions  Extra Notes  Configure  Show performance graph	

Here you may see things like

- what host it belongs to
- the service groups it is a member of
- what contact groups that will get the notifications
- service notes
- links to extra service actions, service notes and performance graphs
- a link to the object in the configuration GUI.

Service state information

In this view you get all kind of status information about the host. This is the most detailed view you can get over a service.

SERVICE STATE INFORMATION	
Current Status	✔ Ok (for 13h 23m 4s)
Status Information	OK - environment1: rta 11.024ms, lost 0%
Performance Data	rta=11.024ms;100.000;500.000;0; pl=0%;20;70;;
Current Attempt	1/3 (HARD state)
Last Check Time	2010-03-29 12:09:02
Check Type	✔ Active
Check Latency / Duration	0.233 / 0.478 seconds
Next Scheduled Check	2010-03-29 12:14:02
Last State Change	2010-03-28 22:49:02
Last Notification	N/A (Notifications 0)
Is This Service Flapping?	✔ No (0.00% state change)
In Scheduled Downtime?	✔ No
Last Update	2010-03-28 17:36:52 (0d 18h 35m 14s ago)
Active Checks	✔ Enabled
Passive Checks	✔ Enabled
Obsessing	✔ Enabled
Notifications	✔ Enabled
Event Handler	✔ Enabled
Flap Detection	✔ Enabled

Service commands

The service commands part gives you a various commands to handle the service. Here you can

- disable and enable active and passive checks
- reschedule the service check
- disable and enable notifications
- schedule downtime
- disable and enable event handlers.

SERVICE COMMANDS	
	Disable Active Checks Of This Service
	Re-schedule the next check of this service
	Submit Passive Check Result For This Service
	Stop Accepting Passive Checks For This Service
	Stop Obsessing Over This Service
	Disable Notifications For This Service
	Send custom service notification
	Schedule Downtime For This Service
	Disable Event Handler For This Service
	Disable Flap Detection For This Service

Comments

There are two types of comments:

- automatically added
- manually added

Automatically added comments can be

- acknowledged comments
- scheduled downtime comments

As a manually added comment you can type in almost anything you like.

Host Comments							
				 Add a new comment		 Delete all comments	
ENTRY TIME	AUTHOR	COMMENT	ID	PERSISTENT	TYPE	EXPIRES	ACTIONS
This host has no comments associated with it							

Comments are designed to be short texts. If you like to add documentation, longer descriptions and so on you should consider using the do [Dokuwiki](#) on page 51 that is included in op5 Monitor.

Parenting

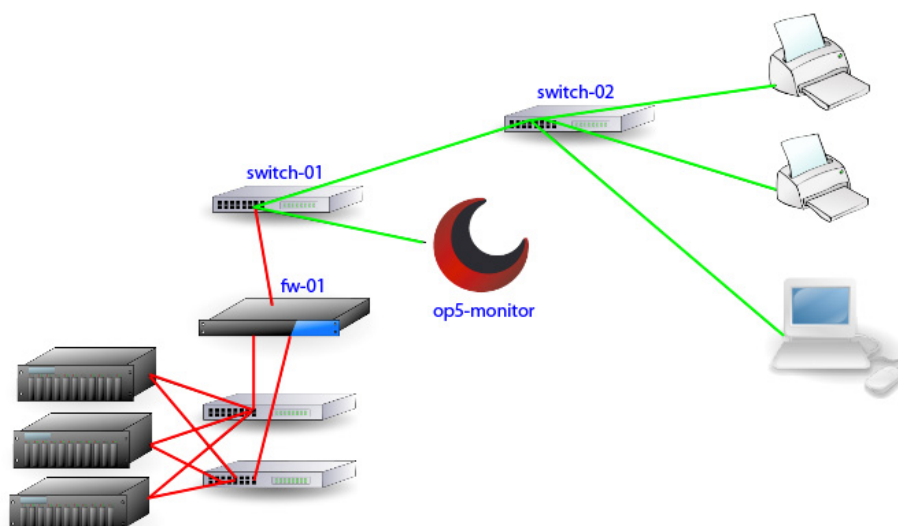
Parenting in op5 Monitor is used to determine whether a host is down or unreachable.

A host is

- down if the host is the first one it can not reach in the “tree”
- unreachable if the host is after the host described above.

Example 1 This example describes how the parenting works in practice

The picture below shows how a network looks like from the monitor servers point of view.



As you can see everything starts with the op5-monitor server. If fw-01 is down, as shown in the picture above, all child hosts of fw-01 are considered as unreachable.

The example above shows that you can use parenting to exclude a lot of unnecessary alerts and notifications. This is because you can tell op5 Monitor not to send any notifications on host unreachable. That means you will only get notification about fw-01 in this case, not the hosts “below” fw-01.

Host and service groups

Using Host groups

A host is normally placed in one or more host groups. A host group can contains any kind of hosts in any way you want to. You can use host groups to

- group hosts from the same geographic area in the same host group.
- put the same type of hosts in the same host group
- place all hosts in a special service in the same group
- place a customer's host in a host group of its own.

Beside just being a way of sorting hosts in you can use host groups to decide what user is supposed to be able to see what hosts. More about that in [Access rights](#) on page 118.

Using host groups makes it easy to find hosts that got something in common. Let us say you have a whole bunch of

Using Service groups

One of the most useful things with service groups is to group them by what useful service they are giving the users.

Example 2 *A service group example*

Let us say you have a mail service for you customers. This mail service needs the following components to be working as it should:

- DNS
- MTA
- IMAP-/POP-server
- Webmail
- Storage

On the hosts listed above there are services that must be working otherwise your customer will not be able to use the email service you shall deliver to them.

Place all the important services in one service group and you can then easily see if an alert and/or notification says anything about the email service in the example.

Another good way to use service groups is to create Service Level Agreement (SLA) reports based on service groups. If you take the example above and create a SLA report from it you will directly see if you can deliver your service the way you promised your customers.

Problem handling

Much of your work with op5 Monitor is about problem handling. In the beginning when you start working with op5 Monitor normally most of the time is about configuring, tweaking and fixing problems. After a while you will see that you can start work in a proactive way instead of how it used to be.

In this section we will take a look at how you can work effectively with op5 Monitor as a great help during your problem handling.

Hard and soft states

A problem is classified as a **soft** problem until the number of checks has reached the configured

max_check_attempts value. When **max_check_attempts** is reached the problem is reclassified as **hard** and normally op5 Monitor will send out a notification about the problem. **Soft** problems does not result in a notification.

Alerts and notifications management

Alerts and notifications are two of the most important things for you as an system administrator who depend almost all your work on a monitoring tool like op5 Monitor.

Alerts, alarm, notifications are called different things in most monitoring system. Here in op5 Monitor we define them like this:

	Description
Alerts	An alert is when any kind of status changes on a host or a service, like: • host up • host down • service critical • service ok and so on.

	Description
Notifications	Notifications is the messages sent out to the contacts associated with the object the notification is sent about. Notifications are sent out on state changes. A notification is sent during one of the following alets: • any service or host problem or recovery • acknowledgements • flapping started, stoped and disabled • downtime started, stoped and canceled Notifications can be sent by almost anything. The following are included by default in op5 Monitor: • email • sms • dial up Of course there are a lot of other ways to send notifications like sending them to a database, ticket handling system etc.

An alert can happens any time and it does not necessary needs to be associated with a notification but a notification is always associated to an alert.

Unhandled problems view

As you can see in the GUI there are many views in op5 Monitor to show you host and service status in. One of the most useful, for a system administrator, is the unhandled problems view.

DISPLAY FILTERS				Host Status Totals				Service Status Totals			
Host Status Types	All	Host Properties	Not In Scheduled Downtime & Has Not Been Acknowledged	22 Up	4 Down	135 Ok	5 Warning				
Service Status Types	Pending Unknown Warning Critical	Service Properties	Not In Scheduled Downtime & Has Not Been Acknowledged	1 Unreachable	0 Pending	4 Unknown	22 Critical				
				27 Hosts	5 Problems	0 Pending	166 Services				
						31 Problems					

Service Status Details For All Hosts							
HOST	SERVICE	ACTIONS	LAST CHECK	DURATION	ATTEMPT	STATUS INFORMATION	
localhost10	Disk usage /		2010-03-11 11:24:35	21d 21h29s	3/3	DISK WARNING - free space: / 874 MB (18% inode=92%):	
monitor	Disk usage /usr		2010-04-01 11:41:20	48d 22m 42s	3/3	NRPE: Command 'usr_disk' not defined	
	DNS resolv		2010-04-01 11:40:41	35d 20h 36m 53s	3/3	DNS WARNING - 0.098 seconds response time (Server not found in ANSWER SECTION)	
Porta_SIP	PING		2010-04-01 11:40:33	6h 47m 31s	3/3	WARNING - 41.221.1.195: rta 217.031ms, lost 0%	
qw	IF 1: sc0 Errors		2010-04-01 11:41:10	13d 21h 7m 14s	1/3	Timeout: No response from qw (community: public):	
	IF 1: sc0 Status		2010-04-01 11:42:43	13d 21h 6m 24s	1/3	UNKNOWN: Unable to resolve UDP/IPV4 address 'qw'	
	IF 1: sc0 Traffic		2010-04-01 11:40:35	13d 21h 5m 34s	1/3	SNMP ERROR: No data received from host.	
	IF 56: 10/100 utp ethernet cat 3/5 Errors		2010-04-01 11:42:17	13d 21h 4m 44s	1/3	Timeout: No response from qw (community: public):	
	IF 56: 10/100 utp ethernet cat 3/5 Status		2010-04-01 11:42:52	13d 21h 3m 54s	1/3	UNKNOWN: Unable to resolve UDP/IPV4 address 'qw'	
	IF 56: 10/100 utp		2010-04-01 11:41:20	13d 21h 3m 4s	1/3	SNMP ERROR: No data received from host	

In this view you will only find unacknowledged problems. From here it is easy to

Acknowledge problems

When a new problem is discovered you need to take care of it. The first thing you should do is to acknowledge the problem. There are many ways to acknowledge a problem.

When you acknowledge a problem you will

- make sure no more notifications are sent out
- by this show other users that you have seen the problem and are aware of it.

We will here take a look at two of them, acknowledge by

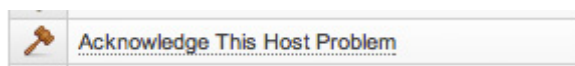
- the GUI
- SMS

Acknowledging a problem in the GUI

The most common way to acknowledge a problem is to do it in the GUI. This is easy and you will also be able to add a comment to your acknowledge. It is also the same routine no matter if it is a host or service problem you are about to acknowledge.

To acknowledge a host problem:

- 1 Look up the host in the GUI and click on the host name.
- 2 Click on **Acknowledge This host problem** in Service commands.



- 3 Fill in a comment and click **Submit**.

NAME	OPTION
Host	www.sunet.se
Sticky	☒
Notify	☒
Persistent	☒
Author	monitor
Comment	Add a comment here

- 4 Click Done and you will be directed back to the host you where on when you started.

Acknowledging a problem by sms

If you have received your notification by sms you can acknowledge it by sending a sms back to the op5 Monitor server.

To acknowledge a problem by sms

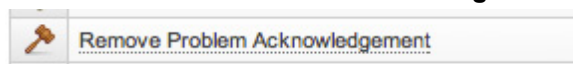
- 1 Pick up the notification sms in your mobile phone.
- 2 Forward it to the op5 Monitor server (you must forward the complete sms just the way it looked like when you got it).

If you now take a look at the host or service you will see that it has been acknowledged and a small comment is placed in the comment part for the object.

Removing an acknowledge

Sometimes you might need to remove an acknowledge. Maybe you acknowledged the wrong problem or you for some reason need to stop working on it but you like it more notifications to be sent out.

- 1 To remove an acknowledge for a host
- 2 Pick up the host or service in the gui.
- 3 Click on **Remove Problem acknowledgement**



Now the notifications will continue as it is setup for the object.

Note: The comment for the acknowledge *is not removed*.

Schedule downtime

Using scheduled downtime enables you to plan for system work ahead. When a host or service is scheduled for downtime op5 Monitor suppresses alarms for that host or service. Furthermore op5 Monitor informs you about when a host or service is scheduled for downtime through the web interface. Information about the scheduled downtime is also stored so that planned system work does not affect availability reports.

It is possible to schedule downtime for

- hosts
- services
- all members of a host group
- all members of a service group.

You can also configure triggered downtime for hosts located below a host currently in scheduled downtime. To do this you need to have your parenting configured correctly. Read more about [Parenting](#) on page 36.

Viewing scheduled downtime

Basically the Schedule Downtime view is a summary of all currently configured scheduled downtime for hosts and services.

 Schedule host downtime

HOST NAME	ENTRY TIME	AUTHOR	COMMENT	START TIME	END TIME	TYPE	DURATION	TRIGGER ID	ACTIONS
172.27.76.202	2010-04-04 12:34:30	monitor	Just a test	2010-04-04 14:34:15	2010-04-04 14:44:05	Fixed	9m 50s	N/A	

 Schedule service downtime

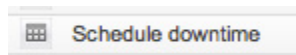
HOST NAME	SERVICE	ENTRY TIME	AUTHOR	COMMENT	START TIME	END TIME	TYPE	DURATION	TRIGGER ID	ACTIONS
172.27.76.202	check_portstatus	2010-04-04 12:34:30	monitor	Just a test	2010-04-04 14:34:15	2010-04-04 14:44:05	Fixed	9m 50s	N/A	
172.27.76.202	PING	2010-04-04 12:34:30	monitor	Just a test	2010-04-04 14:34:15	2010-04-04 14:44:05	Fixed	9m 50s	N/A	
172.27.76.202	IF 56: 10/100 utp ethernet cat 3/5 Traffic	2010-04-04 12:34:30	monitor	Just a test	2010-04-04 14:34:15	2010-04-04 14:44:05	Fixed	9m 50s	N/A	
172.27.76.202	IF 56: 10/100 utp ethernet cat 3/5 Status	2010-04-04 12:34:30	monitor	Just a test	2010-04-04 14:34:15	2010-04-04 14:44:05	Fixed	9m 50s	N/A	
172.27.76.202	IF 56: 10/100 utp ethernet cat 3/5 Errors	2010-04-04 12:34:30	monitor	Just a test	2010-04-04 14:34:15	2010-04-04 14:44:05	Fixed	9m 50s	N/A	
172.27.76.202	IF 1: sc0 Traffic	2010-04-04 12:34:30	monitor	Just a test	2010-04-04 14:34:15	2010-04-04 14:44:05	Fixed	9m 50s	N/A	
172.27.76.202	IF 1: sc0 Status	2010-04-04 12:34:30	monitor	Just a test	2010-04-04 14:34:15	2010-04-04 14:44:05	Fixed	9m 50s	N/A	
172.27.76.202	IF 1: sc0 Errors	2010-04-04 12:34:30	monitor	Just a test	2010-04-04 14:34:15	2010-04-04 14:44:05	Fixed	9m 50s	N/A	

In this view you can

- schedule new downtime
- remove scheduled downtime
- view all scheduled downtimes.

To view all scheduled downtime

- 1 Click **Schedule downtime** in the main menu under **Monitoring**.



It is however easier to schedule downtime from the views Host Information, Service Information, Hostgroup Information and Servicegroup Information.

Scheduling downtime

As you have seen we can schedule downtime for both hosts and services. Now we will take a look at how to schedule downtime for a host and a host group. The procedure is the same for services and service groups.



You can not add a scheduled town time back in time. So if you missed to add one when you took down the host or service you can not repair it by adding scheduled downtime afterwards.

When the scheduled downtime starts a notification is sent saying that the scheduled downtime has started.

To schedule downtime for a host

- 1 Find the host you like to schedule downtime for and pick up the host information page (*A host in detail* on page 25).
- 2 In the **Host commands** click **Schedule Downtime For This Host**.



- 3 Fill in the form

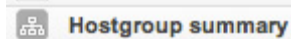
NAME	OPTION
Host	switch1
Start Time	2010-04-04 13:27:51
End Time	2010-04-04 15:27:41
Fixed	☒
Triggered By	N/A
Duration	2.0
Author	monitor
Comment	
Child Hosts	Schedule triggered downtime
Schedule downtime for services too	☒

- a Enter start and end time
 - b Choose between fixed or flexible.
 - c Choose what this downtime is triggered by¹, if any.
 - d If you chosen flexible in **b** then type in how long the scheduled downtime is supposed to be active.
 - e Add a comment about this scheduled downtime.
 - f Choose what to do with the child host of this host (if there are any).
 - g Check **Schedule downtime for services too** if you like to do so. I you uncheck this check button the services on this host will not be set into scheduled downtime.
- 4 Click Submit.
 - 5 Click Done.

1.This option is set if you want this scheduled downtime depending on an other scheduled downtime.

To schedule downtime for a host group

- 1 Locate the host group you like to schedule downtime for by clicking on Hostgroup summary in the main menu under Monitoring.



- 2 Click on the hostgroup alias (the one between the parenthesis, in the picture below)

HOST GROUP	HOST STATUS SUMMARY
Environment (Environment)	1 UP

- 3 Click Schedule downtime for all hosts in this Hostgroup in the list of Hostgroup Commands.



- 4 Follow a-g (except for f) in step 3 in *To schedule downtime for a host* on page 45.
- 5 Click **Submit**.
- 6 Click **Done**.

Remove a scheduled downtime

Sometimes it is necessary to remove a scheduled downtime. This can be done both before the scheduled downtime has started and during the downtime. If the scheduled downtime has been canceled before it has reached its end time a notification will be sent saying that the scheduled downtime have been canceled.

Removing a scheduled downtime

To remove a scheduled downtime

- 1 Open up the scheduled downtime view by follow the instructions in *To view all scheduled downtime* on page 44.
- 2 Click the delete icon under Actions.



- 3 Click **Submit**.

NAME	OPTION
Triggered By	ID: 52, Host 'www.google.de' starting @ 2010-04-05 13:27:51

Submit Reset

Now the scheduled downtime and the comment saved when you created the scheduled downtime is removed.

Schedule recurring downtime

As a good practice you shall put your hosts and services in scheduled downtime when you are planing to take them down. Many downtime events are recurring and it is pretty easy to forget to put your objects in scheduled downtime.

It is now when schedule Recurring Downtime is a great help for you.

Scheduling a recurring downtime

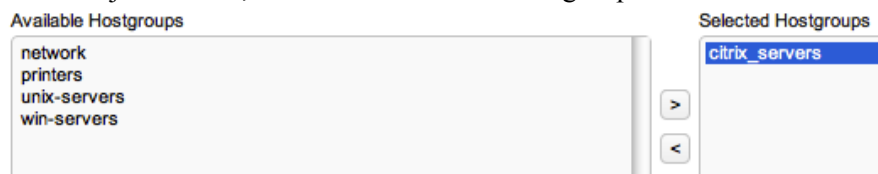
Let us say that you are using Citrix and you need to reboot your citrix servers once per week. This is a perfect case of when you should use a recurring downtime schedule.

To add a recurring downtime

- 1 Click Recurring downtime.
- 2 Choose the object type.

A screenshot of a web interface showing a dropdown menu with the text 'Hostgroups' and a small arrow icon. To the right of the dropdown is a button labeled 'Select'.

- 3 Chose objects to use, in this case the citrix host group.

A screenshot of a web interface showing two panels. The left panel is titled 'Available Hostgroups' and contains a list of hostgroups: 'network', 'printers', 'unix-servers', and 'win-servers'. The right panel is titled 'Selected Hostgroups' and contains a list with 'citrix_servers' highlighted. There are arrow buttons between the two panels to move items.

- 4 Add a comment.
- 5 Set start and end time.

Start Time (hh:mm) * Duration (hh:mm) *

23:00 23:30
- 6 Choose day of week and months of the year this scheudule shall be used.
- 7 Click Add schedule.

Viewing your recurring downtime schedules

Once you have created a recurring downtime schedule you may

- view it
- edit it
- delete it.

This is done from the Schedules tab.

The view looks like this

Create new	Schedules
------------	-----------

Recurring Hostgroup Downtime

HOSTGROUP NAME	AUTHOR	COMMENT	TIME	DURATION	WEEKDAYS	MONTHS	ACTIONS
citrix_servers	monitor	Restart of citrix servers	23:00	23:30	Sun	Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec	 

Editing a recurring downtime

To edit a recurring downtime

- 1 Click **Recurring downtime** and then **Schedules**.
- 2 Click **Edit**.

- 3 Edit the fields you like to change and click **Add schedule**.

Deleting a recurring downtime

To edit a recurring downtime

- 1 Click **Recurring downtime** and then **Schedules**.
- 2 Click **Delete**.

- 3 Click **Ok**.

Graphs

op5 Monitor includes support for graphing what's known as "performance data" returned by check plugins that support this feature.

Performance data can be anything that gives a more detailed picture of a particular check's performance characteristics than the OK/WARNING/CRITICAL levels that Monitor reacts to.

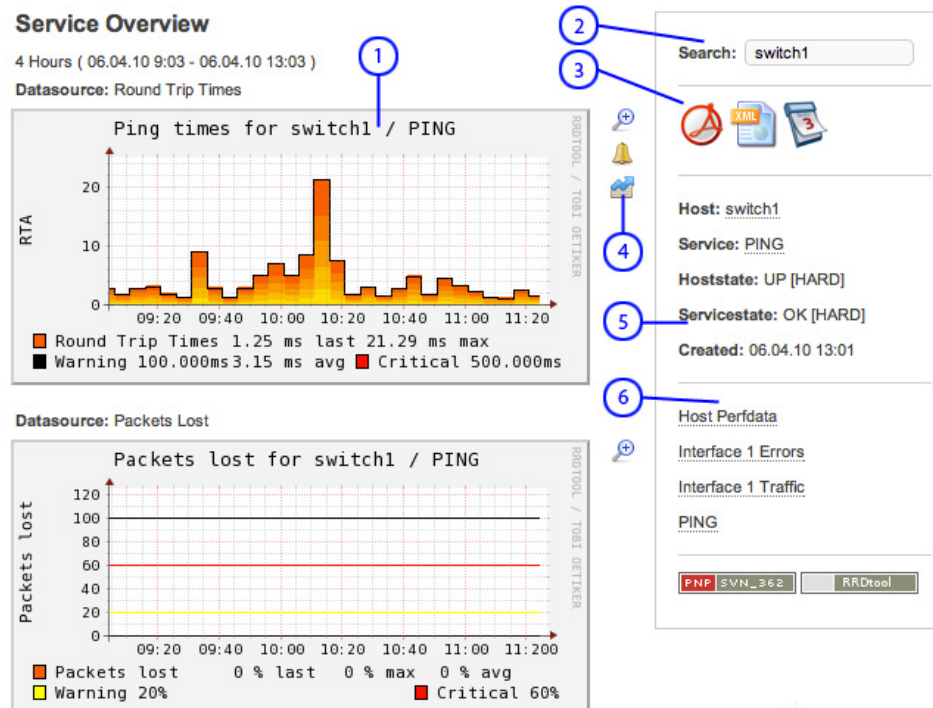
For example, `check_ping` returns performance data for packet loss and round trip times. This data is stored by Monitor and used to create graphs for different time periods, such as the last 24 hours and past week. This feature can be very helpful in identifying trends or potential problems in a network.

Viewing graphs

From most of the views in op5 Monitor you can find the graph icon looking like this:



To view the graphs for a service or a host click on the graph icon and you will get the graph view.



The table below describes the parts of the service overview which is where all graphs are being displayed.

Nr	Description
1	The graphs. Except for the graphs in it self they shows information like • host and service name • warning and critical levels • last, average and max values.
2	Here you can quickly get the graphs of an other host. Just type in the correct name of the host and press Enter . Note: This is not a search field.
3	Exports and calendar. Click the icons to • export to PDF or XML • open up the calendar to view old data.
4	Zooming and reports Click the icons to • zoom in the graph • show most resent alert for this time period for this host • create an availability report for this time period for this host.
5	Host information Here you see a short information about the host. Click the host or service name to get extended details.
6	Other graphs on this host The list shows the rest of the graphs available for this host. Just click on one of them to view the graphs of an other service.

Adding graphs for custom plugins

Sometimes you find a plugin you like to use but there are no graphs made from the output of the plugin. Then you need to create your own template.

To create a template of your own follow the HOWTO that can be found in the documentation area of the support part at www.op5.com.

Dokuwiki

op5 Monitor comes with an dokuwiki that gives you a great way of document both your environments and things needed to know about your monitored system.

Of course you can also use this dokuwiki to save other kind of related information in too. This makes it easy to reach and you will ensure you have all documentation in the same place.

More information about how to use the dokuwiki in op5 Monitor can be found at <http://www.dokuwiki.org/manual>

Agents

op5 Monitor can do a lot on its own. But to get the most out of op5 monitor you should use our agents.

The following agents are available from the download section in the support section at www.op5.com/support/downloads.

- op5 NSClient++
- NRPE
- MRTGEXT
- Windows syslogAgent

The table describes each agent briefly

Name	Description
op5 NSClient++	This is the agent used for monitoring Microsoft Windows operating systems. You can use it to monitor things like • CPU, memory and disk usage • services, windows events and files You can also use the built-in NRPE support to create your own commands for op5 NSClient++
NRPE	This is the most commonly used agent for Linux and Unix systems. NRPE is used to execute plugins on an remote machine and then send the results back to op5 Monitor. You may also send arguments to the NRPE daemon on the remote machine to make it a bit more flexible. This must be turned on before you use the feature.
MRTGEXT	MRTGEXT was originally written as an NLM for Novell Netware to obtain values used with the widely known MRTG (predecessor of cacti, which is the base of OP5 Statistics), but it can also be used to poll values from op5 Monitor.
op5 SyslogAgent	op5 SyslogAgent runs as a service under Windows 2000, Windows XP and Windows 2003. It formats all types of Windows Event log entries into syslog format and sends them to a syslog host (The op5 Monitor server or the op5 LogServer). The agent can also forward plaintext log-files.

More information about the agents can be found in the op5 Monitor administrator manual.

NagVis

About NagVis

This chapter covers the following topics:

Subject	Page	Subsections
<i>Introduction</i>	54	<i>About NagVis</i> on page 53
<i>Configuration interface</i>	55	<i>Main configuration interface</i> on page 55 <i>Configure plain maps</i> on page 56
<i>NagVis maps</i>	57	<i>Manage backgrounds</i> on page 57 <i>Manage maps</i> on page 59 <i>Map object types</i> on page 64 <i>Icon objects</i> on page 64 <i>Line objects</i> on page 66
<i>Automap</i>	69	
<i>Geomap</i>	71	<i>Adding Google API Key</i> on page 71 <i>View points</i> on page 73 <i>Locations</i> on page 74 <i>Links</i> on page 76
<i>Rotation pools</i>	78	

Introduction

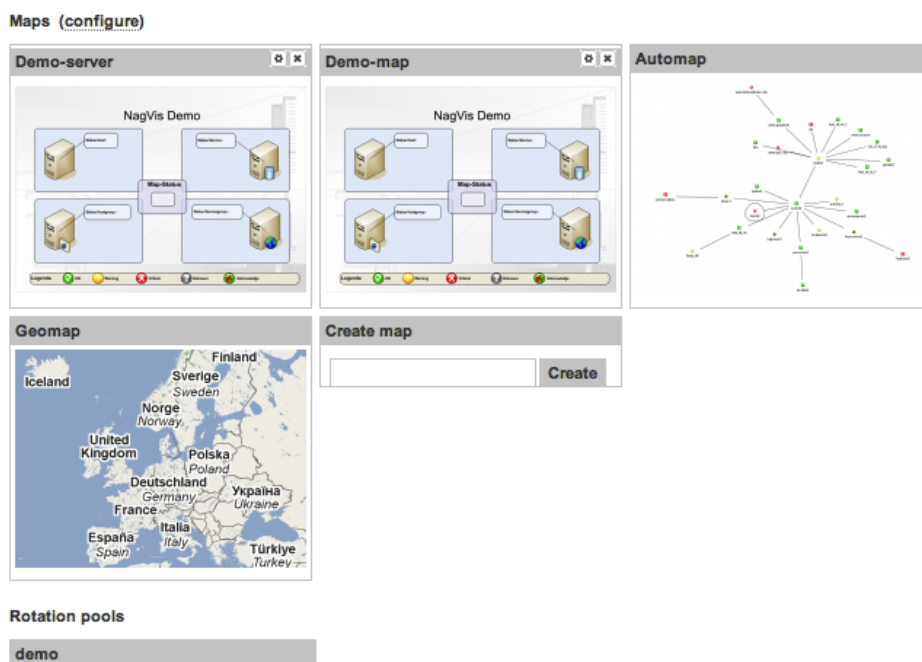
NagVis is a visualization add-on for Nagios and it is used to visualize Nagios data, e.g. to display IT processes like a mail system or a network infrastructure.

In this chapter each type of map will be described. You will also learn how to complete the most common tasks like how to

- add, edit and delete maps
- add, edit and delete objects
- change global configuration

The first thing you will see when you open up NagVis in Ninja is a few default demo maps, Automap and Geomap.

The picture below shows an example of how the view may look like.



It is from this view you can display and manage you maps.

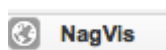
Configuration interface

All settings are administrated through the Configuration Interface . The Configuration Interface can be reached either from the configuration link at the top of the default view or from the edit buttons in the header of all plain maps in the thumbnail view on NagVis first page.

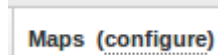
Main configuration interface

To open up the Configuration Interface

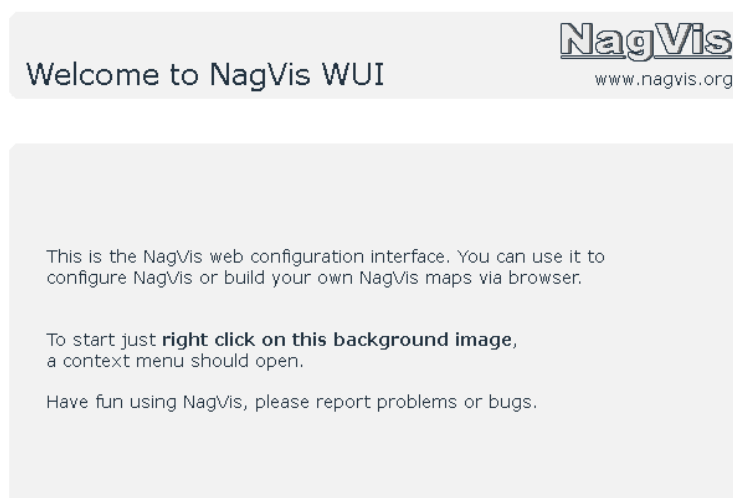
- 1 Click on NagVis in the main menu of Ninja.



- 2 Click on the (Configure) link at the top of the page.



- 3 Right click anywhere in the page and the Configuration Interface will show up.



From here you may now:

- change the global configuration
- add, edit and delete map and objects
- add and delete background images
- add, edit and delete shapes
- configure the backend.

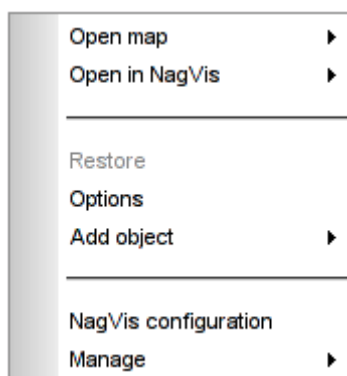
Configure plain maps

To configure a plain NagVis map

- 1 Click on NagVis in the main menu of Ninja.
- 2 Click on the (Configure) icon in the header at the top of every plain NagVis map.



- 3 Right click anywhere on the map and the Configuration Interface will show up.



NagVis maps

As you have seen there are a couple of demo maps in the default configuration. They are included so you have something to start with when you are using NagVis for the first time.

Manage backgrounds

When you start to create your own maps you will need to have a background image. The background image can be what ever you want.

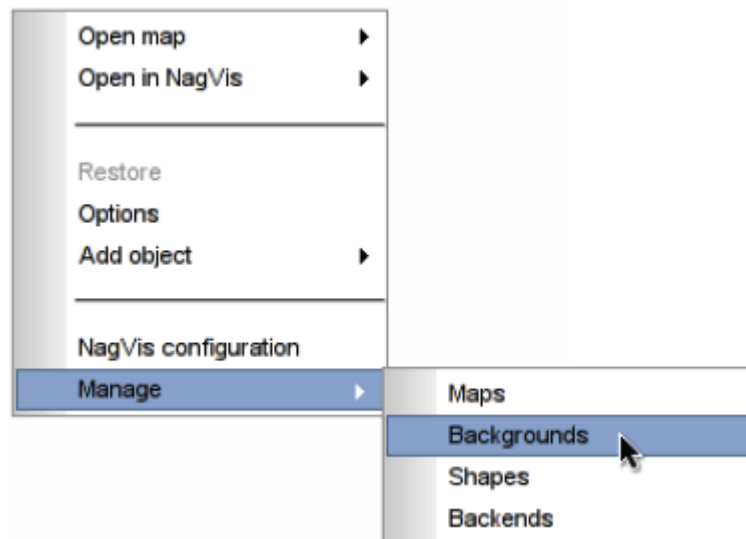
The following image types are supported:

- jpeg
- png
- gif

Add

To add a new background image

- 1 Follow the instructions in [Main configuration interface](#) on page 55 about how to open up the Configuration Interface.
- 2 Right click anywhere in the map and choose **Manage** -> **Backgrounds**



- 3 Click in the text field or **Browse** in the "Upload background image" and choose the image to upload.

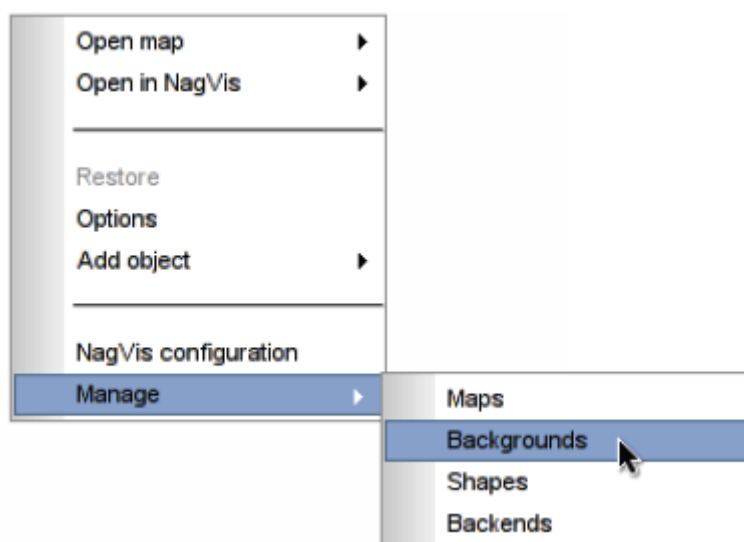
Upload background image	
Choose an image	Browse...
Upload	

4. Click **Upload**. Now your background image is ready to use.

Delete

To delete a background image

- 1 Follow the instructions in [Main configuration interface](#) on page 55 about how to open up the Configuration Interface.
- 2 Right click anywhere in the map and choose **Manage** -> **Backgrounds**



- 3 Under **Delete background image** choose the background image you like to remove and click **Delete**.

Delete background image	
Choose an image	demo_background.png
Delete	

Manage maps

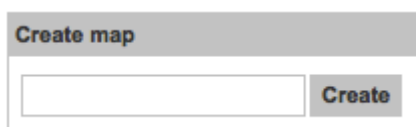
Add

There are two ways to add a new map to NagVis.

To add a new map

Alt. 1

- 1 On the **NagVis default page** type in the name of the new map in the **Create Map** box:



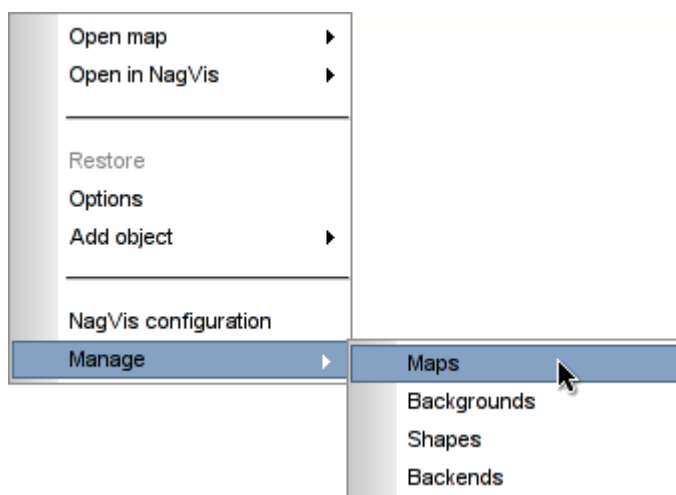
- 2 Click **Create**.



The map name can not contain any spaces

Alt. 2

- 1 Follow the instructions in [Main configuration interface](#) on page 55 about how to open up the Configuration Interface.
- 2 Right click somewhere in the map and choose **Manage** -> **Maps**



- 3 Now fill in the following fields:

Create map	
Map name	Email-Service
User with read permissions	EVERYONE
User with write permissions	EVERYONE
Map Iconset	std_medium
Background	email_service_nagvis_map.png
Create	

Option	Description
Map name	The map name without space in the name. ^a
User with read permissions	The users how shall be able to view the map. ^b
User with write permissions	Users who shall be able to modify the map. ^b
Map Iconset	Choose what iconset you like to use.
Background	Choose what background image you like to use.

a. This will be the name of the map and used both in URLs and it will be the name of the configuration file in the file system

b. EVERYONE or usernames separated with a comma (,)

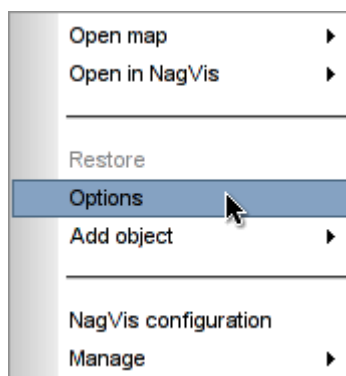
- 4 Click on the "Create" button and your map is created and ready to be filled with objects.

Change options

Since the **Add new map** window is pretty limited you probably want to change some of the options for your newly created map.

To find the Option window for your map.

- 1 Follow the instructions in [Main configuration interface](#) on page 55 about how to open up the Configuration Interface. Remember to chose what map to edit.
- 2 Right click anywhere in the map and click **Options**



The number of options is large. For more information about the options please read more in the official NagVis Manual at:

<http://www.nagvis.org/documentation>

Deleting a map

There are two ways to delete a map.

To delete a map

Alt. 1

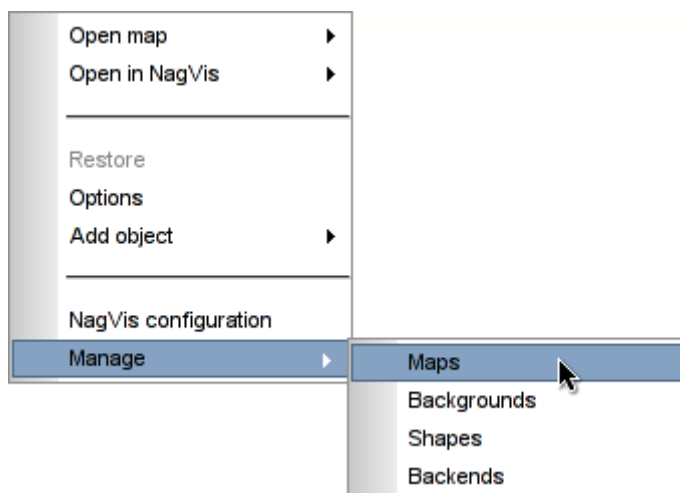
- 1 Click **delete icon** in the header of a plain NagVis map



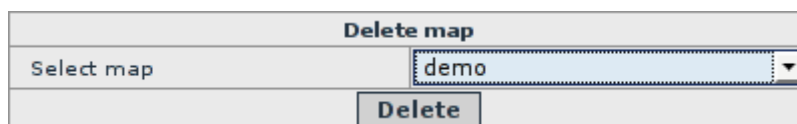
- 2 Click **Ok** and the map is deleted.

Alt. 2

- 1 Follow the instructions in [Main configuration interface](#) on page 55 about how to open up the Configuration Interface.
- 2 Right click anywhere in the map and choose **Manage -> Maps**



- 3 Under **Delete map** choose the map you like to remove and click **Delete**.

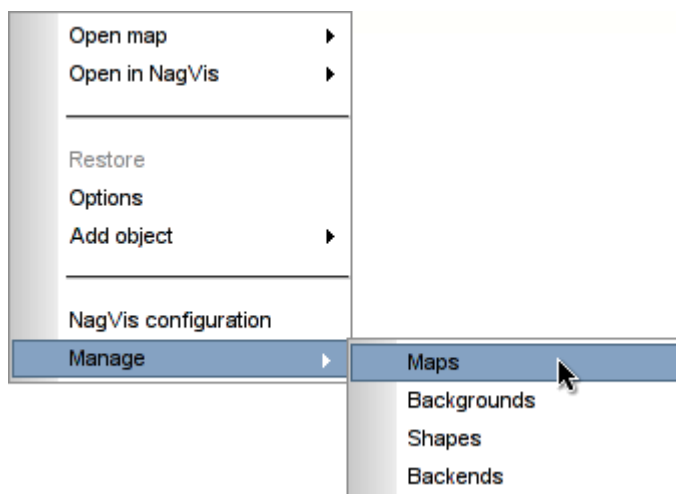


- 4 Click **Ok** in the java script dialog that shows up and the map will be deleted. Once the map is removed you will be redirected to the NagVis WUI page. From here you may open up the Configuration Interface by right click on the page.

Renaming a map

To rename a map

- 1 Follow the instructions in [Main configuration interface](#) on page 55 about how to open up the Configuration Interface.
- 2 Right click somewhere in the map and choose **Manage -> Maps**



- 3 Select the map you like to rename.

Rename map	
Select map	demo-map
New name	test-map
Rename	

- 4 Type the new name in the **New name** text field and click **Rename**.
- 5 Click **Ok** in the java script dialog that shows up and the map will be deleted.

Map object types

A map can have three types of objects. See the list of objects below:

- Icon
- Line
- Special

Each object type consist of a number of objects that may be used in a map. The table below briefly describes what objects each type includes:

Object Type	Objects
Icon	• Host • Service • Hostgroup • Servicegroup • Map
Line	• Host • Service • Hostgroup • Servicegroup
Special	• Textbox • Shape

If a host is in a problem state or a service on that host is in a problem state the host will be displayed in a non-green color (red, yellow or grey).

If you hover the mouse over an object you will get a summary of how the current object.

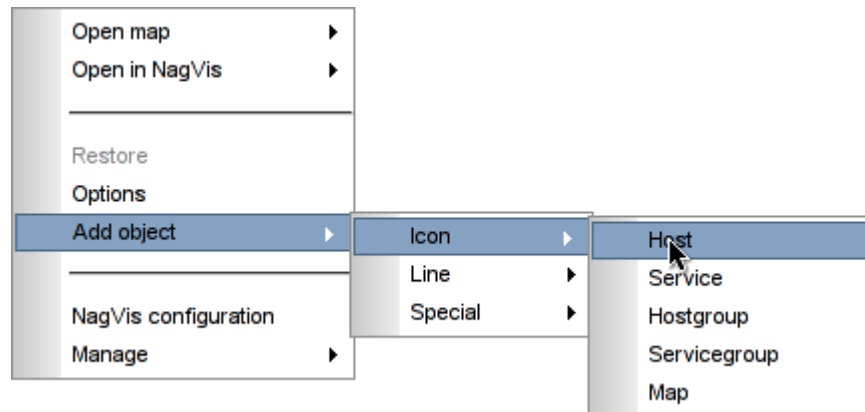
Icon objects

As you can see in the table in [Map object types](#) on page 64 the type Icon consists of five different objects. All of them are icons that displays status of a certain object in op5 Monitor. They will change color depending of the status of the corresponding object in op5 Monitor.

Adding a host icon

To add a host icon

- 1 Follow the instructions in [Main configuration interface](#) on page 55 about how to open up the Configuration Interface.
- 2 Right click somewhere in the map and choose: **Add object -> Icon -> Host**



- 3 You will now get a mouse pointer looking like a cross:



Click on the map where you like to add your host.

- 4 A box with the host options is now shown.

A screenshot of the host configuration dialog box. It has a title bar 'TITLE' with a close button 'x'. The form contains several fields: 'host_name' (with a dropdown arrow), 'x' (with the value 294), 'y' (with the value 178), 'z' (with the value 1), and 'Use' (with a dropdown arrow). A 'Save' button is at the bottom right.

The options marked with red text are mandatory. So the host name is the only one you have to change for now.

- 5 Click **Save** and your object is saved on the map.

Line objects

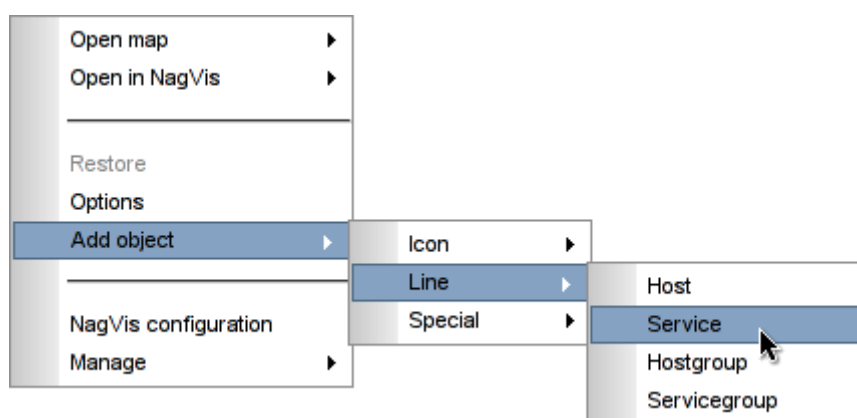
A line object is a printed line between two objects. It can symbolize a connection between two icon objects and be associated with a Nagios object.

Adding a line

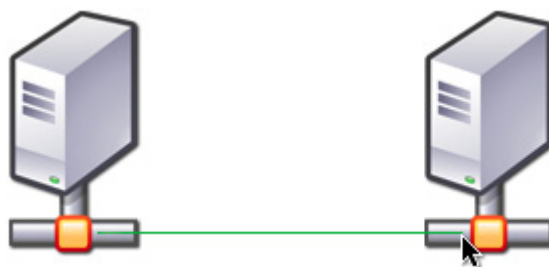
Here we will add a line between two hosts and connect it to a PING service.

To add a line

- 1 Follow the instructions in [Main configuration interface](#) on page 55 about how to open up the Configuration Interface.
- 2 Right click anywhere in the map and chose: **Add object -> Line -> Service**



- 3 Place the line between your objects like this:



- a Click on the host icon you like to start your line from.
- b Drag the mouse to the other host you like to connect the line to.
- c Click where you like to end the line.

- 4 A box with the line options is now shown.

TITLE	
host_name	
service_description	Â» Manual Input...
x	237,472
y	72,88
z	1
view_type	
line_type	
line_width	3
use	
Save	

The options marked with red text and **line type** are mandatory. So the host name, service descriptions and line type the only one you have to change for now.

- 5 Click **Save** and your object is saved on the map.

Deleting objects

To delete an object

- 1 Follow the instructions in [Main configuration interface](#) on page 55 about how to open up the Configuration Interface.
- 2 Hover your mouse pointer over the object icon and the following dialog is shown



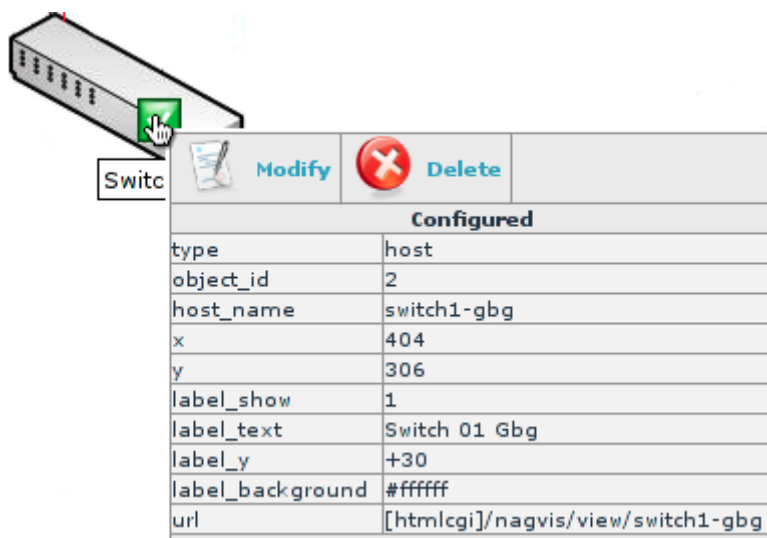
Configured	
type	host
object_id	2
host_name	switch1-gbg
x	404
y	306
label_show	1
label_text	Switch 01 Gbg
label_y	+30
label_background	#ffffff
url	[htmlcgi]/nagvis/view/switch1-gbg

- 3 Click **Delete** and the object is removed.

Modifying objects

To modify an object

- 1 Follow the instructions in [Main configuration interface](#) on page 55 about how to open up the Configuration Interface.
- 2 Hover your mouse pointer over the object icon and the following dialog is shown.



- 3 Click **Modify** and the object option box is shown.

Automap

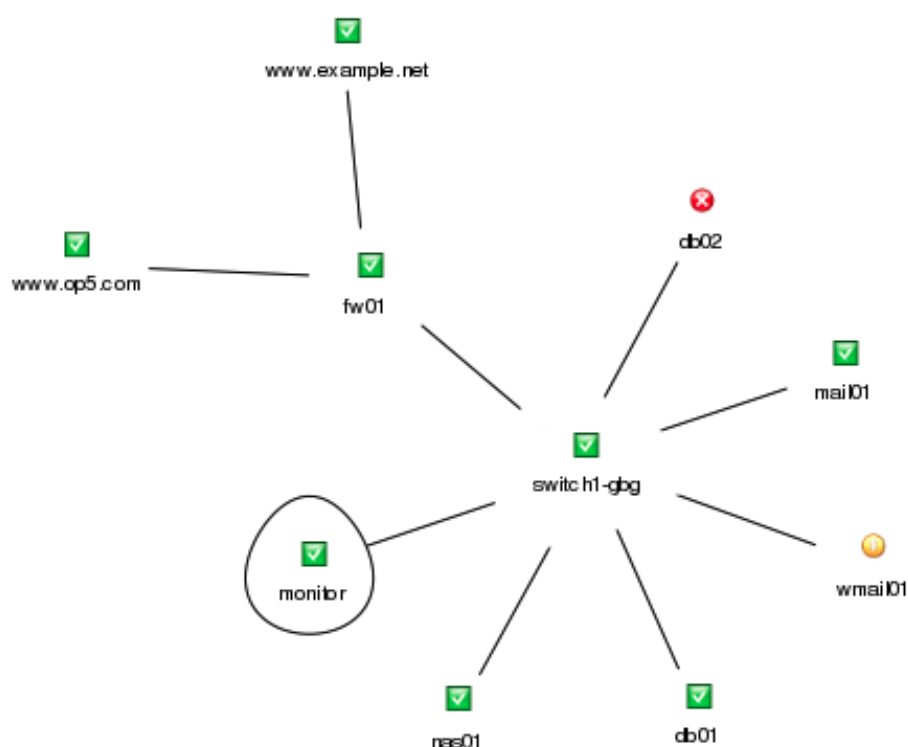
When you take a look at the Automap for the first time you will see the complete tree, including all your hosts. If you only like to see one part of the tree you have to change the following configuration setting:

`defaultroot`

Defaultroot tells Nagvis what host to start your tree with.

Example 1 *Example of how the defaultroot works in NagVis Automap*

In this example we have the following tree in op5 Monitor.



As you can see here the **monitor** host is marked with a line around it. That mark indicates that **monitor** is set to **defaultroot** and all of its children are displayed.

If you set the host **fw01** as **defaultroot** in Nagvis the automap only display **fw01** and it's children (**www.example.net** and **www.op5.com**). The picture below shows how it would look like:

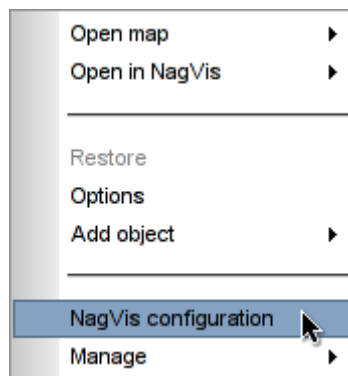


Setting defaultroot

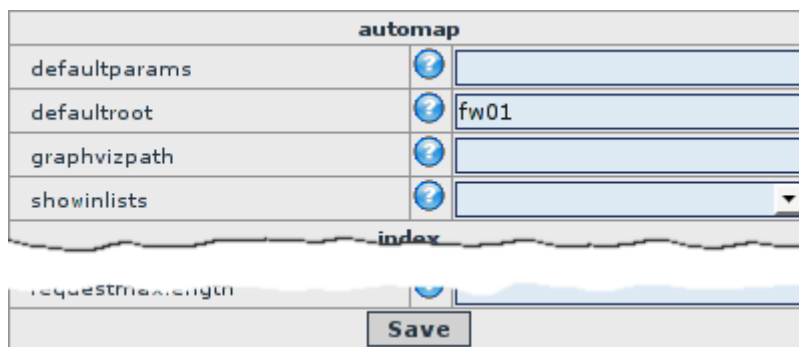
This is done when you have one of the maps in Edit mode.

To set defaultroot.

- 1 Follow the instructions in [Main configuration interface](#) on page 55 about how to open up the Configuration Interface.
- 2 Right click somewhere in the map and choose: **Nagvis configuration**



- 3 Scroll down to **Automap** and type in the complete host name in the text box:

A screenshot of the 'automap' configuration interface. It contains a table with four rows: 'defaultparams', 'defaultroot', 'graphvizpath', and 'showinlists'. Each row has a blue question mark icon in a circle to its right and a corresponding text input field. The 'defaultroot' field contains the text 'fw01'. Below the table is a 'Save' button. The interface has a light gray background and a blue header bar.

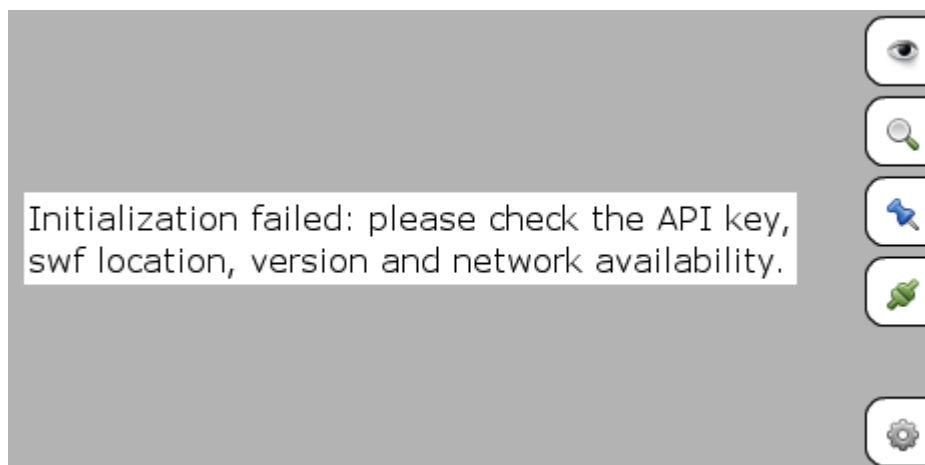
- 4 Click **Save** and the new setting has been saved.

Geomap

The Geomap is a special map that use **Google Maps** to create the map. To be able to use the Geomap you must have a connection to the Internet.

Note: Your nagios server must have access to the internet to get the address search to work because that part is done on the nagios server.

When you open up the geomap for the first time it will look like this:



You are here informed that you need a **Google API Key** to be able to start use the geomap. You can read about how to [Adding Google API Key](#) on page 71.

Once you have the Google API Key in place you can start adding objects to the Geomap.

Adding Google API Key

First of all you need a **Google Account** to be able to get the **Google API Key**. All about how to get a **Google Account** can be found at:

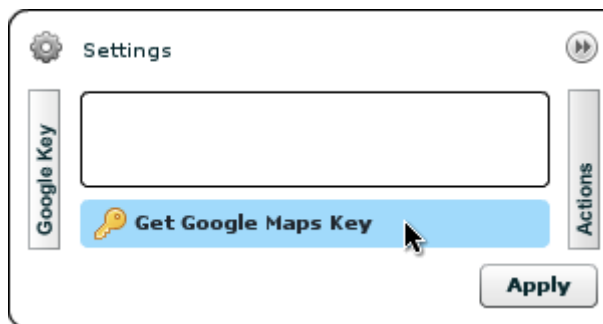
<https://www.google.com/accounts/>

When you have your **Google Account** ready you only have to follow the instructions below to get your own **Google API Key** and add it to the **Geomap**.

- 1 Open up the Geomap from the NagVis default view described in 3.
- 2 Click **Settings tab** to the right in Geomap:



3 Click **Get Google Maps Key**.



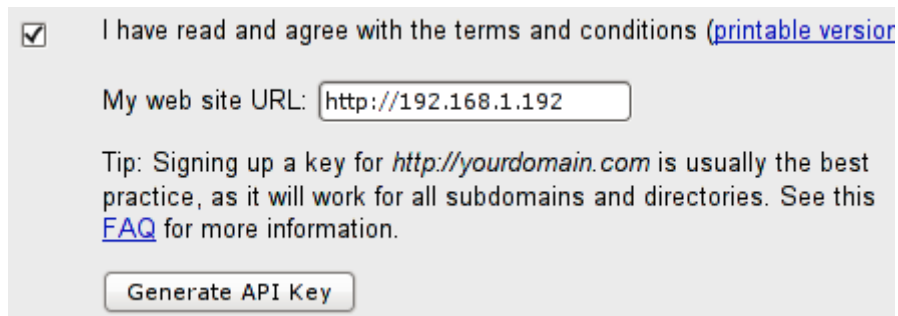
A new window/tab will be opened in your browser with the **Sign Up** page in.

4 Scroll down to the bottom of this page and enter the address to your op5 Monitor server



Remember to use https if your op5 Monitor server is supposed to be reached via HTTPS.

If you use http and the address to your server is 192.168.1.192 then you should fill in the form like this:

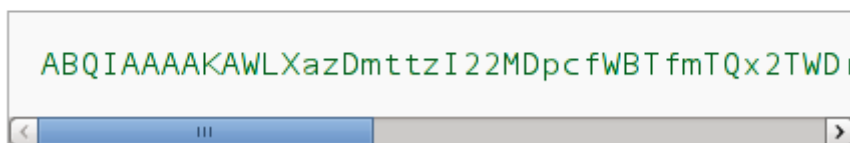


5 Click **Generate API Key**.

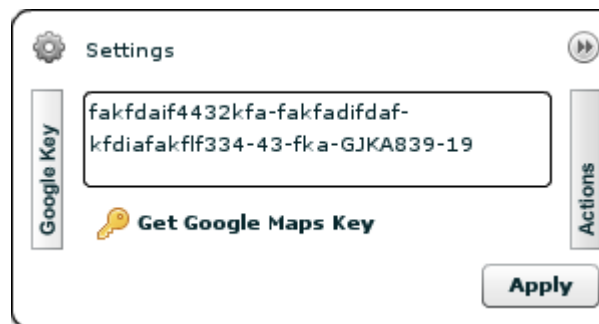
6 Now copy the entire line shown in green text below. This is the key Google generated for you.

Thank You for Signing Up for a Google Maps API Key!

Your key is:



- 7 Paste your key in the text field in the **Setting** box in the Geomap.



- 8 Click **Apply** to save your key.

View points

View points are sort of shortcuts to predefined views in your Geomap. You can add and delete your own view points.

After you have added view points to your Geomap you can reach them just by clicking on the "view point" tab to the right in the Geomap.

Adding a viewpoint

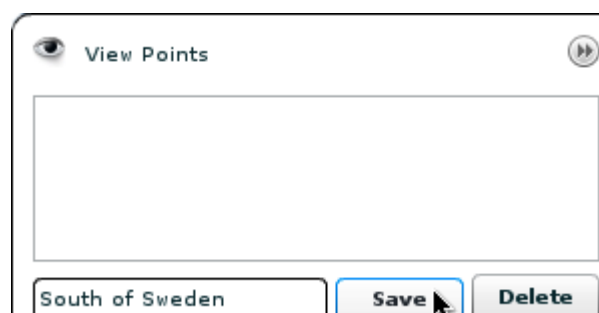
From start there are no view points in the Geomap.

To add a view point

- 1 Open up the Geomap from the NagVis default view described in the [Introduction](#) on page 54.
- 2 Navigate and zoom to the view you like to save.
- 3 Click on the "view point" tab to the right in the Geomap:



- 4 Enter the name of the new view point in the text field at the bottom of the "view point" tab and click on the "Save" button.



Now you may reach your view point quick and easy no matter where you are in the map.

Deleting a viewpoint

To remove a view point

- 1 Open up the Geomap from the NagVis default view described in the [Introduction](#) on page 54.
- 2 Click on the "View point" tab to the right in the Geomap:



- 3 Mark the view point in the list in the view point tab and click **Delete**.



Locations

Before Geomap is useful you have to add locations to the map. Each location can be associated with a Nagios object. The following object types can be used:

- Host
- Service
- Host Group
- Service Group

You can also decide what action Geomap shall take when you double click on a location.

Adding a location

Here we will add a new location. First we need to locate where on the map we want to put it. Then we save the location with some basic settings.

To add the location

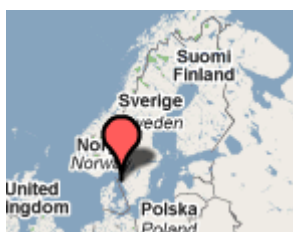
- 1 Open up the Geomap from the NagVis default view described in the [Introduction](#) on page 54.
- 2 Click on the **Address Search** tab to the right in the Geomap:



- 3 Type in an address in the text field and click **Locate**:

A dialog box titled "Address Search" with a magnifying glass icon and a "Locate" button. The text field contains "Första Långgatan 19, Göteborg".

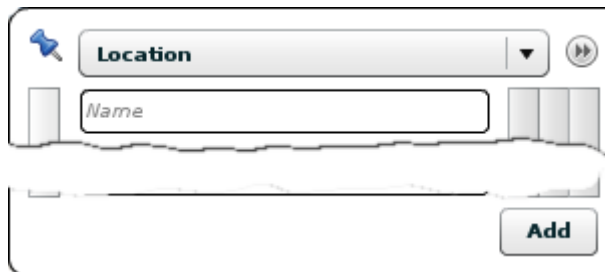
- 4 If the Geomap has found one or more locations it will display a “bubble” for each hit like this:



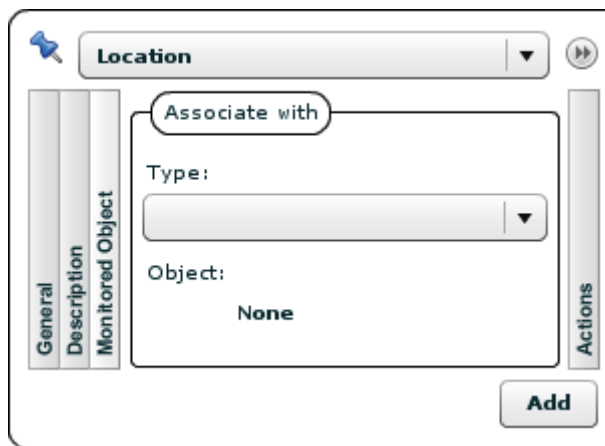
Click on the “bubble” and the Locations tab will show up like this:

A dialog box titled "Location" with a pin icon. It shows details for a location: Name, coordinates (57.6997238, 11.9449977), and address (Första Långgatan 19, 413, Gothenburg, Sweden). It has tabs for General, Description, Monitored Object, and Actions, and an "Add" button.

- 5 Give the location a name by typing it into the name text field in the locations box.



- 6 Click on the vertical bar, in the locations tab, called **Monitored object** here we add a nagios object to the location.



- a Click on the **Type** drop down list and choose **Host group**.
 - b Click in the **Object** field and then click on **Browse...**
 - c Select the host group you would like to associate with your location and click **Select**.
- 7 Click **Add** to save your new location to the Geomap.

Links

When you have added a couple of locations to your Geomap you might want to add a link between them. This can easily be done by associating a service to a so called link object.

Adding a link

Here we will use two locations called:

- Gothenburg
- Stockholm

The locations listed above are associated with one host each.

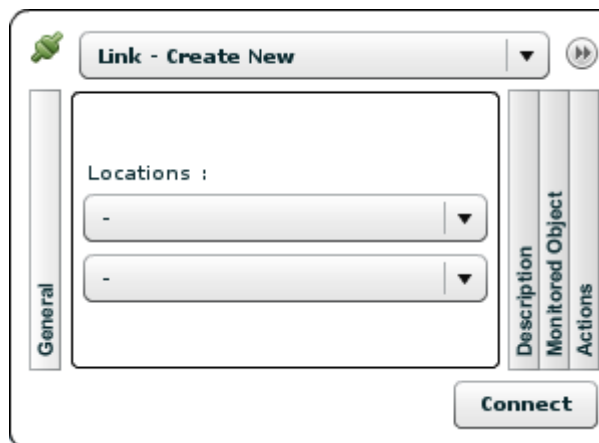
Now we will add a link between the two locations and associate it with a service that will symbolize the link between the both locations.

To add the link

- 1 Open up the Geomap from the NagVis default view described in the [Introduction](#) on page 54.
- 2 Click on the **Link** tab to the right in the Geomap:



- 3 Choose locations, in the two drop down lists, that you will add a link between.



A white line will now appear on your Geomap between the chosen locations.

- 4 Click on the vertical bar, in the locations tab, called **Monitored object** here we add an nagios object to the link.
 - a Click on the **Type** drop down list and choose **Service**.
 - b Click in the **Object** field and then click **Browse...**
 - c Select the service you would like to associate with your link and click **Select**.
- 5 Click **Connect** to save your link.

Rotation pools

The Rotation pools are just sets of NagVis maps that are used to rotate between. So you can open up a rotate pool to have your maps shown for a certain time and then the rotate function will switch to the next map in the pool.

Note: Neither automap nor Geomap can be used in a rotation pool.

There is no GUI to use for administration of the rotate pools. You have to edit the `nagvis.ini.php` file that is located here:

`/opt/monitor/op5/nagvis/etc/nagvis.ini.php`

Adding a rotation pool

To add a new rotation pool you have to edit `nagvis.ini.php`. Look in the file for the following section:

```
; -----  
; Rotation pool definitions  
; -----
```

To add a rotation pool

- 1 1. Logon to your op5 Monitor server, as root, via ssh or directly at the console.
- 2 2. Open up `nagvis.ini.php` in your favorite editor.
- 3 3. Go down to the **"Rotation pool definitions"** and add the following lines:
`[rotation_demo]`
`rotationid="demo"`
`maps="demo,Demo2:demo2"`
`interval=15`

The table below describes the options shown above:

Option	Description
<code>[rotation NAME]</code>	NAME is the displayed name of this rotation pool on NagVis default page.
<code>rotationid="NAME"</code>	NAME is the ID of this rotation pool, need to be the same as NAME in <code>[rotation_NAME]</code> .
<code>maps="map1, map2:Maps"</code>	The Maps is a label which is being displayed in the index pages rotation list.
<code>interval=15</code>	15 is the rotation time in seconds between the maps.



Maps must be named exactly the same as the corresponding cfg file.

- 4 Save and quit your editor.
- 5 Go back to your browser and reload the NagVis default page

Reporting

About Reporting

This chapter covers the following topics:

Subject	Page	Subsections
<i>Reports</i>	82	<i>SLA</i> on page 82 <i>Availability</i> on page 86 <i>Save reports</i> on page 92 <i>Schedule reports</i> on page 93 <i>Modifying scheduled reports</i> on page 95 <i>Deleting scheduled reports</i> on page 95 <i>Debug Availability reports</i> on page 95
<i>Events and logs</i>	96	<i>Alert summary - Top alert producers</i> on page 96 <i>Trends</i> on page 99 <i>Event log</i> on page 102 <i>The logs are grouped by hours to make it a bit easier to find what you are looking for.</i> on page 102

Reports

The Monitoring headline basically covers everything in op5 Monitor that is happening in real time. It shows you the status on your hosts and services right now. The Reporting headline is about letting the user create historical reports from the information that op5 Monitor has collected.

A monitoring system receives a huge amount of data from your IT environment. op5 Monitor has a powerful but yet very easy built-in report generator.

Reports are made from events that have occurred in time, by elements, services or specific groups.

SLA

The reports in op5 Monitor can be mapped against unique Service Level Agreements. This means that you can directly see and follow-up both your internal and external SLAs.

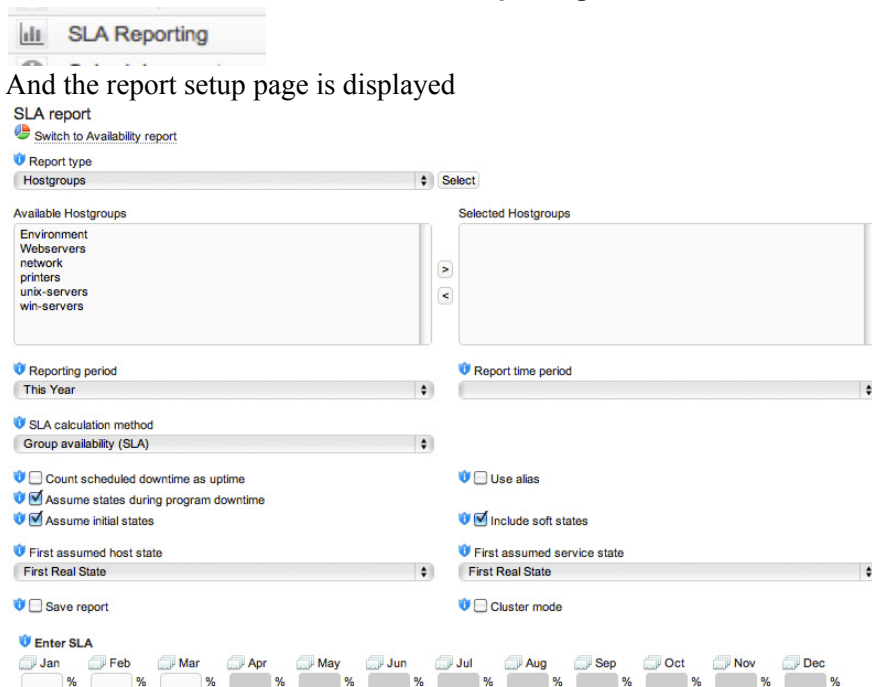
Creating a SLA report

You can either do it a fast an easy way and only follow step 1-3 and 11 in the following guide. By doing that you will use default values in almost all settings.

The complete instruction describes all settings.

To create a SLA report

- 1 In the main menu to the left click **SLA Reporting**



- 2 Choose **Report type** (what type of objects to base your reports on).

Report type
Hostgroups Select

We use hostgroups in this guide.

- 3 Select the objects you like to base the report on and move them from **Available hostgroups** to **Selected hostgroups**.

Available Hostgroups Selected Hostgroups

Webservers network printers unix-servers win-servers	> <	Environment
--	--------	-------------

- 4 Select Reporting period and Report timeperiod. If you leave Report timeperiod empty it will be the same as 24/7.

Reporting period Report time period

This Year

- 5 Choose what SLA calculation method to use.

SLA calculation method
Group availability (SLA)

You may choose between ¹

- Group availability (SLA)
- Average

- 6 Set the desired values in the following options or go directly to step 7 and leave the settings with their default value.

- a Choose if you like to count scheduled downtime as uptime.

☐ Count scheduled downtime as uptime

- b Choose whether you like to see the alias instead of the host name in the generated report.

☐ Use alias

- c Choose whether to assume state during op5 Monitor downtime.²

☒ Assume states during program downtime

1.Traditional Availability reports are based on group availability (worst case). An alternative way is to use average values for the group or object in question. Note that using average values are by some, considered not to be actual SLA.

2.If the application is not running for some time during a report period we can by this option decide to assume states for hosts and services during the downtime.

- d Choose whether to assume if the system is logging initial states or not. op5 Monitor does by default so if you have not changed anything in the nagios.cfg file leave the default value as it is.

 ☒ Assume initial states

- e Choose whether to include soft states or only use hard states in the report.

 ☒ Include soft states

7 How to assume first host and service state.¹

 First assumed host state

First Real State

 First assumed service state

First Real State

Choose between:

- **Current state**
The state the host or service has at the moment when the report is created.
- **Unspecified**
No value given at all.
- **First Real state**
Here the first real state (OK or not) found in the logs will be used.
- **Host UP / Service OK**
This force the first state to be assumed to be UP or OK, depending of if it is a host or service.
Host Down / Service Critical or Warning
This force the first state to be assumed to be Down or Critical/Warning, depending of if it is a host or service.
- **Host Unreachable / Service Unknown**
This force the first state to be assumed to be Unreachable or Unknown, depending of if it is a host or service.

- 8 If you like to save your report already here in this state check the **Save report** box and type in the name of the report. This can be done later.

 ☐ Save report

- 9 Check **Cluster mode** to create the report where the group logic is reversed so that the OK/UP time is calculated using the most positive service/host state of the selected objects.

 ☐ Cluster mode

1.If there is no information about the host or service in the current log file, op5 Monitor can assume status of the host/service.

10 Type in the SLA values with values from 0.00 to 100.00.

Enter SLA

Jan Feb Mar Apr

% % % %

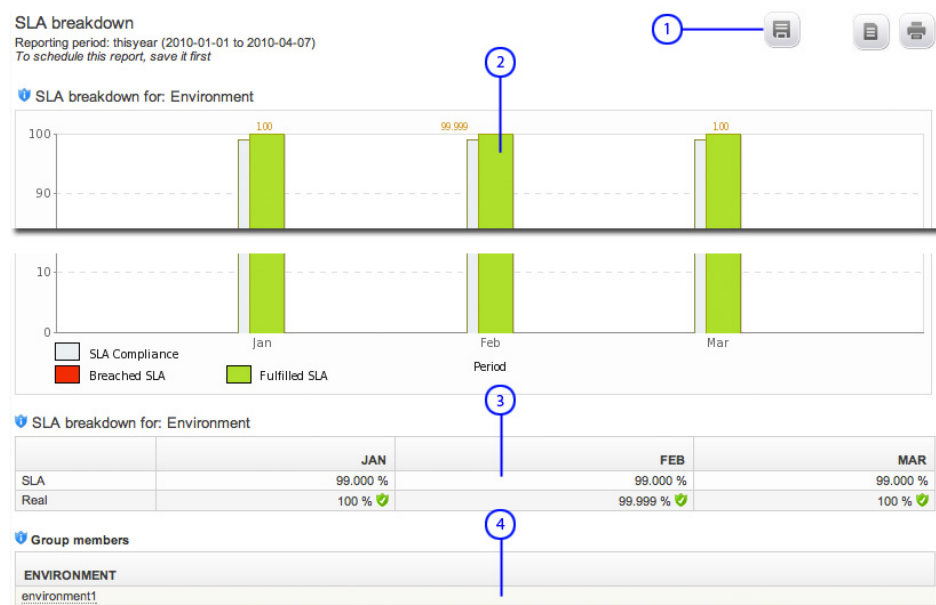
Click on the icon in front of the name of the months to copy the value to the other months that are available ¹.



11 Click **Create report**.

SLA report result

When you have created your report you will get a result page looking like this.



The table below describes the parts of the result page

Nr	Description
1	The icons gives you the possibility to • save the report • save the report as a pdf • print the report.

1. Only the months that is included in the report and where data is found will be available.

Nr	Description
2	The report graphs. Click on the numbers on top of every bar and you will get a detailed report for that month.
3	The report result in numbers.
4	A list of every object included in the report. Click on the object name to get a SLA report for each and every object.

Availability

The availability report shows availability of host groups, service groups, hosts or services during a selected report period.

op5 Monitor comes with two different kinds of availability reports. The standard one that comes with Nagios and a new one with extended functionality and nicer presentation. As default the op5 availability report is used but you can reach the old CGI reports by clicking on the Old Availability link.

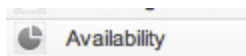
Creating an Availability report

You can either do it a fast and easy way and only follow step 1-3 and 10 in the following guide. By doing that you will use default values in almost all settings.

The complete instruction describes all settings.

To create an Availability report

- 1 In the main menu to the left click **Availability**



And the report setup page is displayed

Availability report

[Switch to SLA report](#)

Report type
Hostgroups Select

Available Hostgroups
Environment
Webservers
network
printers
unix-servers
win-servers

Selected Hostgroups

Reporting period
Last 7 Days

Report time period

SLA calculation method
Group availability (SLA)

☐ Count scheduled downtime as uptime
☒ Assume states during program downtime
☒ Assume initial states

☐ Use alias
☐ Output in CSV format
☒ Include soft states

First assumed host state
First Real State

First assumed service state
First Real State

☐ Save report
☐ Cluster mode

Create report

- 2 Choose **Report type** (what type of objects to base your reports on).

Report type
Hostgroups Select

We use hostgroups in this guide.

- 3 Select the objects you like to base the report on and move them from **Available hostgroups** to **Selected hostgroups**.

Available Hostgroups
Webservers
network
printers
unix-servers
win-servers

Selected Hostgroups
Environment

- 4 Select Reporting period and Report timeperiod. If you leave Report timeperiod empty it will be the same as 24/7.

 Reporting period  Report time period

This Year  

- 5 Choose what SLA calculation method to use.

 SLA calculation method

Group availability (SLA) 

You may choose between ¹

- Group availability (SLA)
- Average

- 6 Set the desired values in the following options or go directly to step 7 and leave the settings with their default value.

- a Choose if you like to count scheduled downtime as uptime.

 ☐ Count scheduled downtime as uptime

- b Choose whether you like to see the alias instead of the host name in the generated report.

 ☐ Use alias

- c Choose whether to assume state during op5 Monitor downtime.²

 ☒ Assume states during program downtime

- d Check this check box if you like to have the report output in CSV format instead of the ordinary graphical result.

 ☐ Output in CSV format

- e Choose whether to assume if the system is logging initial states or not. op5 Monitor does by default so if you have not changed anything in the nagios.cfg file leave the default value as it is.

 ☒ Assume initial states

- f Choose whether to include soft states or only use hard states in the report.

 ☒ Include soft states

1. Traditional Availability reports are based on group availability (worst case). An alternative way is to use average values for the group or object in question. Note that using average values are by some, considered not to be actual SLA.

2. If the application is not running for some time during a report period we can by this option decide to assume states for hosts and services during the downtime.

7 How to assume first host and service state.¹

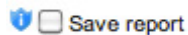


The image shows two side-by-side dropdown menus. The left one is labeled 'First assumed host state' and the right one is labeled 'First assumed service state'. Both menus have a blue shield icon on the left and a dropdown arrow on the right. The selected option in both is 'First Real State'.

Choose between:

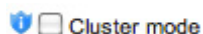
- **Current state**
The state the host or service has at the moment when the report is created.
- **Unspecified**
No value given at all.
- **First Real state**
Here the first real state (OK or not) found in the logs will be used.
- **Host UP / Service OK**
This force the first state to be assumed to be UP or OK, depending of if it is a host or service.
Host Down / Service Critical or Warning
This force the first state to be assumed to be Down or Critical/Warning, depending of if it is a host or service.
- **Host Unreachable / Service Unknown**
This force the first state to be assumed to be Unreachable or Unknown, depending of if it is a host or service.

8 If you like to save your report already here in this state check the **Save report** box and type in the name of the report. This can be done later.



The image shows a checkbox labeled 'Save report' with a blue shield icon on the left. The checkbox is checked.

9 Check **Cluster mode** to create the report where the group logic is reversed so that the OK/UP time is calculated using the most positive service/host state of the selected objects.



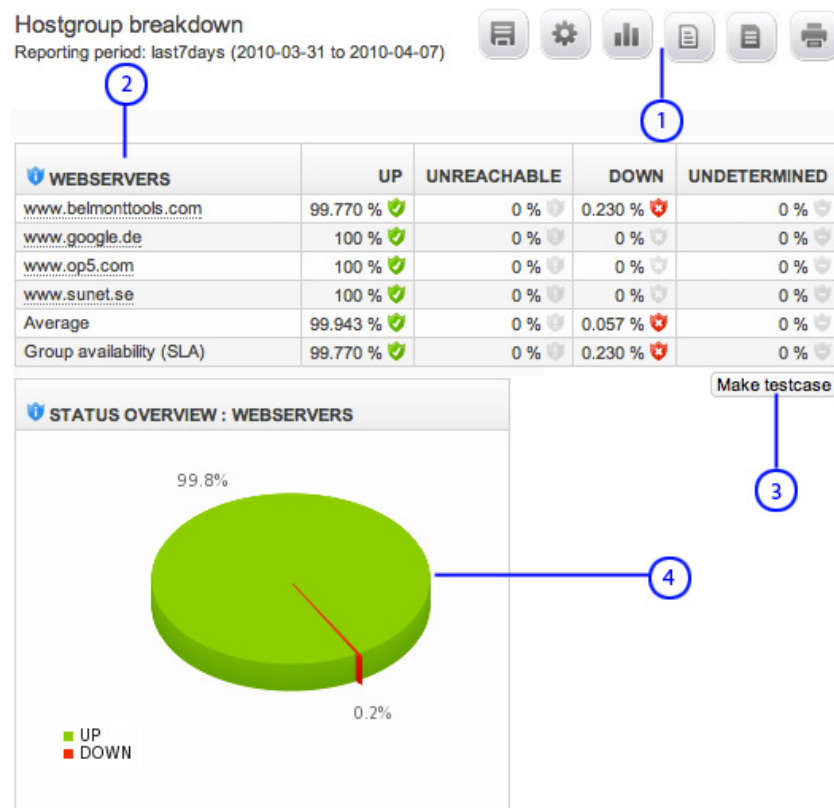
The image shows a checkbox labeled 'Cluster mode' with a blue shield icon on the left. The checkbox is checked.

10 Click **Create report**.

¹.If there is no information about the host or service in the current log file, op5 Monitor can assume status of the host/service.

Availability report result

When you have created your report you will get a result page looking like this.



The table below describes the different parts of the result page.

Nr	Description
1	The action icons gives you the possibility to change and save the report. From left to right, those are the icons: • Save it to be able to create a scheduled report • Edit some report settings in a popup frame • View the same timeperiod with the same objects in the old CGI availability report. • Download the report as a CSV file. • Show the report as an PDF. • Print the report.

Nr	Description
2	This is the actual result. You can here see how much time each object has been in the different states. Click on the object names in the list to get a more detailed report. There are two summary rows in the bottom of the table: • Average This is the average value for a group of hosts/services. It is calculated by adding the % Time for each host/service and then divide the total value with the amount of hosts/services in the group. • Group Availability (SLA) This value is only calculated for UP and PROBLEM states (for services OK and PROBLEM states). It displays the amount of time where all hosts/services in the group has been UP/OK or in a PROBLEM state at the same time.
3	The Make testcase button creates debug information to send to the developers at op5 if needed for any support case. Read more in Debug Availability reports on page 95
4	A pie chart displaying the result in a graphical way.

Editing the availability report settings

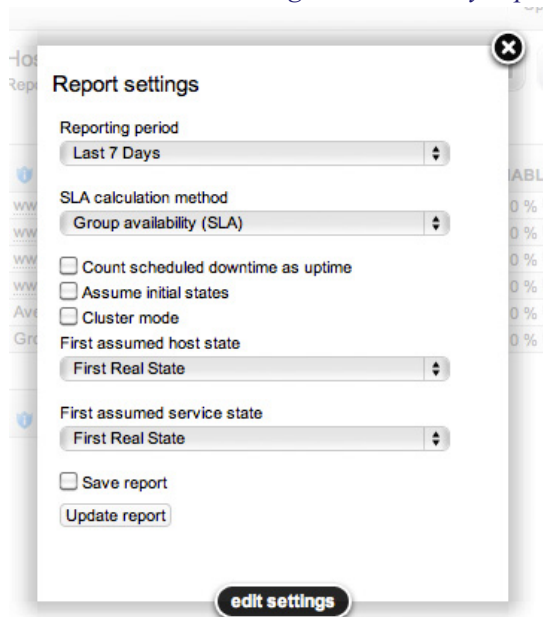
You do not have to create a totally new report if you only like to change a minor settings of the one you just created.

To edit the settings

- 1 Click edit settings.



- 2 Edit the settings you like to change in the dialog shown below. All options are described in *Creating an Availability report* on page 86.



The image shows a 'Report settings' dialog box with a close button (X) in the top right corner. The dialog contains the following settings:

- Reporting period: Last 7 Days (dropdown menu)
- SLA calculation method: Group availability (SLA) (dropdown menu)
- ☐ Count scheduled downtime as uptime
- ☐ Assume initial states
- ☐ Cluster mode
- First assumed host state: First Real State (dropdown menu)
- First assumed service state: First Real State (dropdown menu)
- ☐ Save report
- Update report (button)

At the bottom of the dialog is a button labeled 'edit settings'.

- 3 Click **Update report** to save the new values.

Save reports

There are two reasons for saving a report:

- It is easy to reach the same report the next time you like to see it.
- You can automate the report by scheduling it to be sent to you or anybody else in an email.

As you saw in *Creating a SLA report* on page 82 and *Creating an Availability report* on page 86 and you are able to save the report already when creating it from the beginning. Many times you like to see the result first and maybe edit some settings before you save the report.

The procedure is the same for both SLA reports and Availability reports. In the guide below we will use a SLA report.

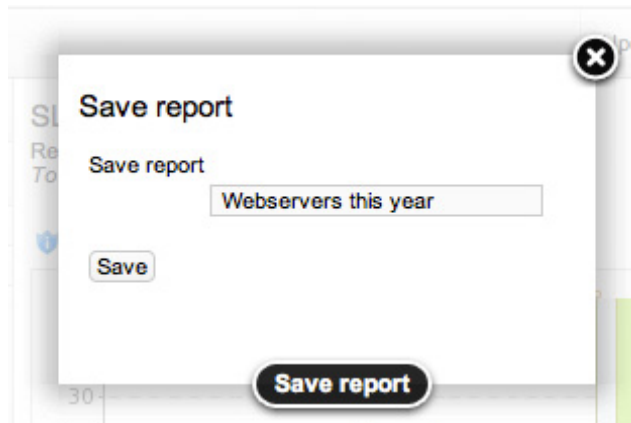
Saving a report

To save a report

- 1 Create a new report as in [Creating an Availability report](#) on page 86.
- 2 In the result page click **Save report**.



- 3 Give the report a name.



- 4 Click **Save**.

Schedule reports

When you want to have the reports on regularly basis and do not want to get it through the op5 Monitor GUI each time it is a good idea to schedule the report.

Before you schedule a report you need to create it ([Creating a SLA report](#) on page 82 or [Availability report result](#) on page 90) and then save it ([Save reports](#) on page 92).

Scheduling reports can be done from two places in the GUI:

- In the result page
- From the page where you create the report.

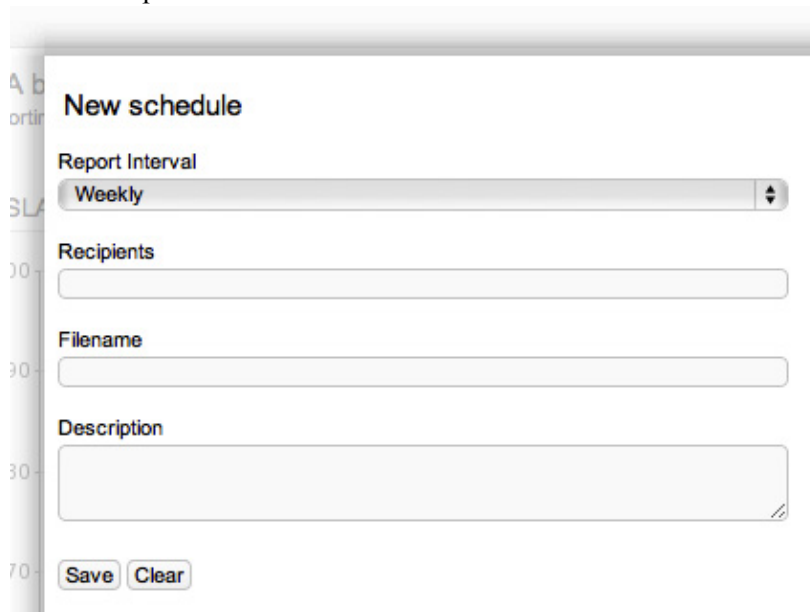
In the guides below we will schedule a SLA report but it is done exactly the same way for the availability reports.

To schedule a report from the result page

- 1 Create the report as shown in *Creating a SLA report* on page 82.
- 2 Save the report as shown in *Saving a report* on page 93.
- 3 Click create schedule icon.



- 4 Fill in the options in the the new window.



New schedule

Report Interval
Weekly

Recipients

Filename

Description

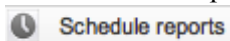
Save Clear

- a Choose Report Interval. This will be how often the report is supposed to be sent.
 - b Add Recipients email addresses, separated by a comma.
 - c Give the report a file name. This is the name that the pdf file will have when it arrives in your mailbox.
- 5 Click **Save**.

Modifying scheduled reports

To modify a scheduled report

- 1 Click Schedule reports in the main menu.



- 2 Double click on any field you like to modify.

SLA Reports

INTERVAL	REPORT	RECIPIENTS	FILENAME	DESCRIPTION	ACTIONS
Weekly	Webservers this year	john.doe@example.org	Webservers_this_year.pdf	Double click to edit	 

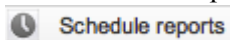
- 3 Click **OK** to save.

RECIPIENTS

Deleting scheduled reports

To modify a scheduled report

- 1 Click Schedule reports in the main menu.



- 2 Click delete icon on the schedule you like to delete.



- 3 Click **OK**.

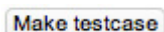
Debug Availability reports

Sometimes things does not work as they are supposed to do. There fore we have built in a debug button for the Availability reports. This makes it easy to send the needed data to the op5 developers.

To send debug data to op5

- 1 Create your report as shown in *Creating an Availability report* on page 86.

- 2 Click **Make testcase**.



- 3 Save the file `report-test.txt`
- 4 Send an email to op5 Support with the `report-test.txt` file attached to the email.

Events and logs

Alert summary - Top alert producers

One of the most useful things when working with op5 Monitor is the Top alert producers report. This report is created from the Alert summary.

The Top alert producers reports makes it easy to identify the biggest problem producers in your environment monitored by op5 Monitor.

There are a few predefined alert summary reports included in op5 monitor but to get the top alert producers we need to create a custom report.

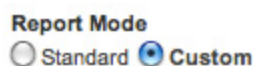
Creating a Top alert producers report

To create a Top alert producers report

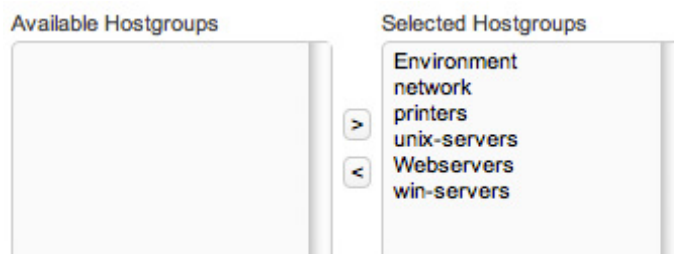
- 1 Click Alert summary in the main menu.



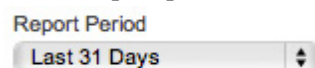
- 2 Select custom report mode.



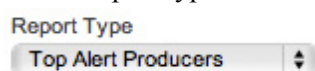
- 3 Select all hostgroups.



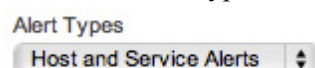
- 4 Select Report period ¹.



- 5 Select Report type and set it to Top alert producers.



- 6 Leave the Alert Types with the default value.



1. Since this is the first time we generate this report we use the last 31 days. When you use this on, for example, weekly basis you could use the last 7 days.

- 7 Choose Hard states for State Types, we are only interested in the real problems.

State Types
Hard States

- 8 Choose only problems state for both hosts and services.

Host States Service States
Host Problem States Service Problem States

- 9 Set the number of items to show in the resulting report.¹

Items to show
50

- 10 Click **Create Summary Report**.

Top alert producers result

Now we have a report ready to be examined.

Top hard alert producers

2010-03-08 12:13:54 to 2010-04-08 12:13:54
Duration: 30d 23h 0m 0s

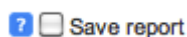
RANK	PRODUCER TYPE	HOST	SERVICE	TOTAL ALERTS
1	Service	Porta_SIP	PING	146
2	Service	router1	IF 10: ipsec0 Traffic	103
3	Service	router1	Monitor CPU	61
4	Service	router1	PING	10

The reason for doing this is to minimize the number of false alerts and false notifications. Now start working with the problems. The sooner the better. You do not want to end up with a monitoring system you do not think you can trust.

Saving an Alert summary report

Alert summary reports are usefull from time to time. So when you have created a new one you will probably like to use that one an other time. Then it is a good idea to save it.

To save an Alert summary report.

- 1 Create an Alert summary report like you did in *Creating a Top alert producers report* on page 96 and before you gennerate the report:
- 2 Click **Save report**.

- 3 Enter a name for the report and click **Create Summary Report**.

¹.If you have a large environment with a lots of host you might want to increase the number of shown items.

Scheduling an Alert summary report

For the exact same reason as it is to schedule an availability report or a SLA report you might want to schedule an alert summary report.

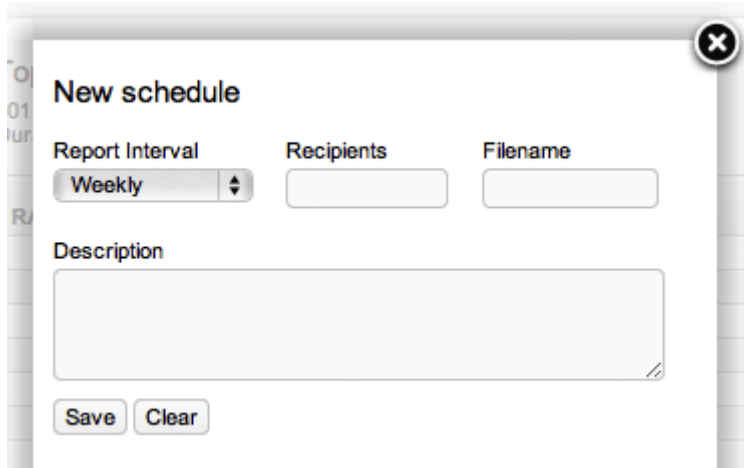
To schedule an alert summary report

- 1 Create an Alert summary report like you did in *Creating a Top alert producers report* on page 96.

- 2 Click the plus icon at the right top of the page



- 3 Chose:
Report interval
Recipients (email address separated by a comma)
Filename (the name of the pdf that will be sent to the recipients)



- 4 Click **Save**.

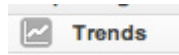
Trends

Trends display a graphic view of status on a host or a service during a selected time period. This graphical view can also be reached from Availability reports.

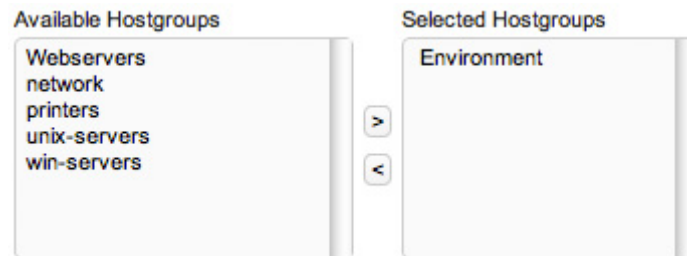
Creating a trend report

To create a trend report

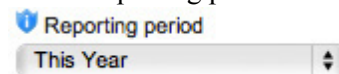
- 1 Click Trend in the main menu.



- 2 Select the objects you like to base the report on and move them from **Available hostgroups** to **Selected hostgroups**.



- 3 Select Reporting period



- 4 Set the desired values in the following options or go directly to step 7 and leave the settings with their default value.

- a Choose whether to assume state during op5 Monitor downtime.¹
 ☒ Assume states during program downtime
- b Choose whether to assume if the system is logging initial states or not. op5 Monitor does by default so if you have not changed anything in the nagios.cfg file leave the default value as it is.
 ☒ Assume initial states
- c Choose whether to include soft states or only use hard states in the report.
 ☒ Include soft states

1.If the application is not running for some time during a report period we can by this option decide to assume states for hosts and services during the downtime.

5 How to assume first host and service state.¹



Choose between:

- **Current state**
The state the host or service has at the moment when the report is created.
- **Unspecified**
No value given at all.
- **First Real state**
Here the first real state (OK or not) found in the logs will be used.
- **Host UP / Service OK**
This force the first state to be assumed to be UP or OK, depending of if it is a host or service.
Host Down / Service Critical or Warning
This force the first state to be assumed to be Down or Critical/Warning, depending of if it is a host or service.
- **Host Unreachable / Service Unknown**
This force the first state to be assumed to be Unreachable or Unknown, depending of if it is a host or service.

6 Click **Create report**.

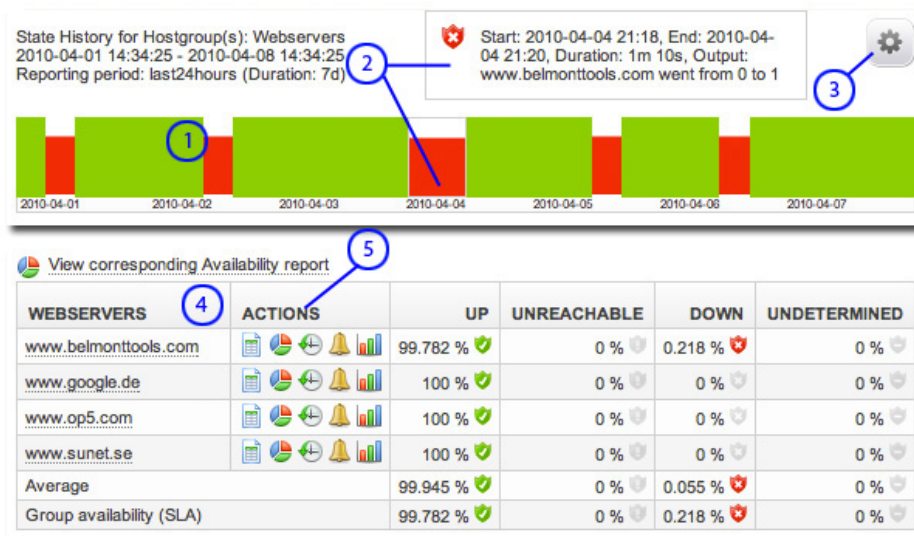
Viewing a Trend report

The Trend report result is actually divided into two parts.

- The upper part that contains the trend line.
- The lower part containing an availability report.

¹.If there is no information about the host or service in the current log file, op5 Monitor can assume status of the host/service.

The picture below shows the result page.



The table below describes the different parts of the trend reports result page.

Nr	Description
1	This is the trend graph showing you when the objects has been Up/OK or in a problem state.
2	Hover your mouse pointer over any of the sections of the trend graph and you will get a small popup showing more detailed information about the section.
3	Click edit settings icon to change some of the settings of the graph.
4	This whole part of the result page show you the corresponding availability report breakdown for the objects in the trend report.
5	Clicking the action icons and you will get other useful information about each and one of the hosts included in this report. From left to right this is the actions that can be performed here: The action icons gives you • service information for this host • availability report for this host • alert history for this host • a list of notifications for this host • alert histogram for this host

Event log

Events is actually a long list of all events that has occurred on a host. It shows you everything from alerts and notifications to op5 Monitor service restartings. In other words this is a log viewer for the main op5 Monitor log.

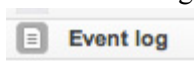
Viewing and filtering logs

In the op5 Monitor event log you can

- view every event that took place in op5 Monitor
- filter out any kind of events you do not want to see
- set the start and end time of the logs you like to view.

To view the event log

Click Event log icon in the main menu and there you go.



As you can see in the picture below everything except for **Initial and logrotation states** are shown by default.

State type options ☒ Soft states ☒ Hard states	Host state options ☒ Host down ☒ Host unreachable ☒ Host recovery	Service state options ☒ Service warning ☒ Service unknown ☒ Service critical ☒ Service recovery	General options ☐ Hide flapping alerts ☐ Hide downtime alerts ☐ Hide process messages ☒ Hide initial and logrotation states ☐ Hide external commands ☐ Older entries first
---	---	--	--

First time (Click calendar to select date) 	Last time (Click calendar to select date) 
---	---

2010-04-09 12:00

 [2010-04-09 12:47:54] SERVICE ALERT: www.op5.com;HTTP Server;OK;SOFT;3;HTTP OK: HTTP/1.1 200 OK -

 [2010-04-09 12:47:04] SERVICE ALERT: www.op5.com;HTTP Server;CRITICAL;SOFT;2;CRITICAL - Socket tim

 [2010-04-09 12:46:04] SERVICE ALERT: www.op5.com;HTTP Server;CRITICAL;SOFT;1;CRITICAL - Socket tim

2010-04-09 11:00

 [2010-04-09 11:48:34] SERVICE ALERT: router1;IF 10: ipsec0 Traffic;OK;HARD;3;OK - Avg Traffic: 278.03 Kbit/s

The event log view is divided into two parts

- filtering
- logs

In the filtering you can change what type of events you like to show and also between what dates you like to view logs for.

The logs are grouped by hours to make it a bit easier to find what you are looking for.

Configuration

About Configuration

This chapter covers the following topics:

Subject	Page	Subsections
Introduction	106	
View config	107	Viewing config on page 107
My account	108	
Backup / Restore	110	Backing up the configuration on page 110 Backup/Restore actions on page 110 Restoring a configuration backup on page 111

Introduction

The Configuration head line in op5 Monitor is all about configuring op5 Monitor. Everything from you own password to hosts, services, notification escalations and so on is done here.

The Configuration head line is divided into the following parts

- View config
- Change password
- Backup / Restore
- Configure, will be covered in the chapter *op5 Monitor configuration tool* on page 105.

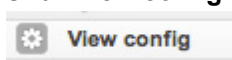
View config

In many times you only need to view the configuration without changing it. Then you should use **View config** instead of the **op5 Monitor configuration tool**. This is a lot easier to get a more complete view of all objects of the same types.

Viewing config

Example 1 In this example we are going to view the hostgroups ordered by description.

- 1 Click **View config** in the main menu.



As default hosts are shown.

Object type:

Hosts

HOST NAME ▾	ALIAS/DESCRIPTION ▴	ADDRESS ▴	PARENT HOSTS ▴	MAX. CHECK ATTEMPTS
172.27.76.202	172.27.76.202	172.27.76.202	router1	5
down-1	down-1	1.2.3.4	switch1	5

- 2 Change **Object type** to host groups

Object type:

- 3 Click on the sort arrows in the description column



My account

My account contains a few settings, including the possibility to change your password.

Here you may set

- pagination behavior
- how to display passive checks
- what skinn to use in the GUI
- keyboard commands used in the GUI.

Pagination behavior

Paginations are used in almost every view under the Monitoring section. You can set pagination

- limit
- step

Table 1 *pagination settings*

Setting	Description
limit	Sets the maximum number of items to display on each page
step	Sets the value is used to generate drop-down for nr of items per page to show.

The way passive checks are displayed

A service which is only recieving passive check results is normally displayed as inactive. This gives you an icon looking like this:



Here you may change how that service is displayed. To change this behavior you only need to set

Show Passive as Active = On

Then the passive only checks will appear as they were active.

What skin to use in the GUI

In op5 Monitor you are able to create your own skin to use in the GUI. How to create your own skin is described in the op5 Monitor administrator manual.

Here you may chose what skin you like to use.

Keyboard commands used in the GUI

You may use your own shortcuts to your keyboard commands. You need to set one or more modifier key plus any other key.

Possible Modifier keys are

- Alt
- Shift
- Ctrl

Modifier keys should be entered in alphabetical order.

Add a combination of keys with a + sign between like

Alt+Shift-f

without any spaces. All keys are case insensitive.

Changing my account settings

To change my account settings

- 1 Click **My account**.
- 2 Make the changes you need to do (password is saved separately).
- 3 Click **Save**.

Changing your password

To change your password

- 1 Click **Change password** in the top right corner of the **My account** page
- 2 Type current password and the new password two times

Change password

Current Password	
New Password	
Confirm Password	
Change password	

- 3 Click **Change password**.

Next time you login you have to use the new password.

Backup / Restore

The op5 Monitor GUI has got a built-in backup feature. This is not supposed to be a replacement to op5-backup.



The configuration backup is only backing up the op5 Monitor configuration, nothing else.

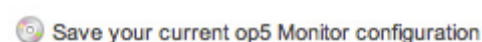
Backing up the configuration

To backup your op5 Monitor configuration

- 1 Click Backup/Restore in the main menu.



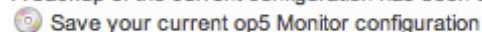
- 2 Click **Save your current op5 Monitor configuration**.



- 3 Now your backup is created and can be restored at any time you like.

Backup/Restore

A backup of the current configuration has been created



BACKUPS	ACTIONS
backup-2010-04-10_17.12	  

- 4 Click the backup archive name to download and save the backup archive somewhere else.

Backup/Restore actions

In the list of backups the second column is called **ACTIONS**. This is the functions you will find there, from the left to the right:

- View what files are included in the backup.
- Restor the backup
- Delete the backup.

Restoring a configuration backup

To restor a op5 Monitor configuration backup

- 1 Click Backup/Restore in the main menu.



- 2 Click restor icon on the configuration backup you like to restore.



Now the backup has been restored.

