

How to define a command

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Overview

A **Command line**, which defines a command, is referenced in contact, host, and service definitions among other places. Commands that can be defined include service checks, service notifications, service event handlers, host checks, host notifications, and host event handlers. By default, *Configuration* uses `commands.cfg` to store check command definitions.

Command definitions can contain macros, but you must make sure that you include only those macros that are *valid* for the circumstances when the command will be used. Immediately prior to the execution of a command, *Nagios* will replace all macros in the command with their corresponding values. This allows you to define a few generic commands to handle all your needs. For additional information on the use of macros see: http://nagios.sourceforge.net/docs/1_0/macros.html

Steps

Select Resource

1. Select **Commands** from the *Configuration* page and select **New**.
2. In the *Select Resource* screen, check the **resource macro** to configure. This is used to specify an optional resource file that can contain `$USERn$` macro definitions. `$USERn$` macros are useful for storing usernames, passwords, and items commonly used in command definitions (like directory paths). User macros can be defined in one or more resource files. *Nagios* supports up to thirty-two user macros (`$USER1$` through `$USER32$`).
3. After selecting the resource macro, the screen will change and the selected macro's options will appear at the top of the screen. Select a **Plugin** to associate with the resource macro from the drop-down list. The selected plugin will check local or remote resources or services of some type. This is incorporated into the command line. And, select **Next** to continue.


Figure: Select Resource

The screenshot shows the GroundWork web interface. At the top, there is a navigation bar with 'Dashboards', 'Event Console', 'Status', 'Views', 'Reports', 'Auto Discovery', 'Configuration', 'Business', 'GroundWork Administration', 'Advanced', and 'Resources'. Below this is a breadcrumb trail: 'Configuration > Commands'. On the left, a sidebar contains 'Commands' with options: 'New', 'Copy', 'Search', and 'Modify'. The main content area is titled 'Command Wizard' and 'Select resource macro'. It contains the following text: 'In this screen, you will specify the plugin (script or program) that your command will call. To start, choose a resource macro whose value is the absolute pathname of the directory where your plugin lives. This will almost always be USER1.' Below this is a table titled 'Select resource macro to edit' with columns 'Macro', 'Value', and 'Description'. The table lists macros from USER1 to USER32. At the bottom of the wizard are 'Next >>' and 'Help' buttons.

Macro	Value	Description
<input type="radio"/> USER1	/usr/local/groundwork/nagios/libexec	plugin directory
<input type="radio"/> USER2	/usr/local/groundwork/nagios/eventhandlers	event handler scripts directory
<input type="radio"/> USER3	60	plugin timeout
<input type="radio"/> USER4	*****	NSClient password
<input type="radio"/> USER5		
<input type="radio"/> USER6	*****	default MySQL password for GroundWork databases
<input type="radio"/> USER7	public	SNMP community string
<input type="radio"/> USER8	itgwrk	alternate SNMP community string
<input type="radio"/> USER9		
<input type="radio"/> USER10		
<input type="radio"/> USER11		
<input type="radio"/> USER12		
<input type="radio"/> USER13	127.0.0.1	sendEmail smtp mail relay option (-s) value
<input type="radio"/> USER14		
<input type="radio"/> USER15		
<input type="radio"/> USER16		
<input type="radio"/> USER17	nagios	default check_by_ssh remote user name for all SSH checks
<input type="radio"/> USER18		
<input type="radio"/> USER19	1248	NSClient TCP Port
<input type="radio"/> USER20		
<input type="radio"/> USER21	127.0.0.1	GroundWork Proxy Server IP
<input type="radio"/> USER22	libexec	default plugin subdirectory on remote hosts, relative to the home directory of the user you SSH in as
<input type="radio"/> USER23		
<input type="radio"/> USER24		
<input type="radio"/> USER25		
<input type="radio"/> USER26		
<input type="radio"/> USER27		
<input type="radio"/> USER28		
<input type="radio"/> USER29		
<input type="radio"/> USER30		
<input type="radio"/> USER31		
<input type="radio"/> USER32	USER32_GROUNDWORK_SERVER	GroundWork Server fully qualified hostname

New Command

1. In the **Command Wizard** screen, enter a name for the command.
2. Next, specify a command type: **Check** = service/host check commands, handlers; **Notify** = notification commands; **Other** = other commands (i.e. performance data collectors).
3. The **Command line directive** is used to define what is actually executed by *Nagios* when the command is used for service or host checks, notifications, or event handlers. This field can be edited and before the command line is executed, all valid macros are replaced with their respective values. See the *Nagios* documentation on macros for determining when you can use different macros.

 The command line is not surrounded in quotes. Also, if you want to pass a dollar sign (\$) on the command line, you have to escape it with another dollar sign.

4. The **Test** area within the *Command Wizard* screen enables you to test the command line for a host with arguments. When you click the *Test* button this parses through the command definition, performs the macro substitutions, inserts the hostname from the host box, puts the resulting command into a shell command line and executes, returning the results of the execution in the box to the right. Specifically, the Test fields are used as follows when you click the Test button;

- Host - To specify the name of an existing host within Monarch. Used to substitute corresponding values for \$HOSTNAME\$, \$HOSTALIAS\$, and \$HOSTADDRESS\$ macro references in the command.
- Arguments - Specifies the command-argument values, separated by ! characters (exclamation points). These will be used to substitute corresponding values for \$ARG1\$, \$ARG2\$, and similar macro references in the command.
- Service description - To specify the name of a host service within Monarch. This will be used to substitute a value for \$SERVICEDESC\$ macro references in the command.



This help information is also available by selecting the question mark help buttons next to each field. The help button at the bottom of the screen provides direct access to this help page.

5. Select **Add** to add the new command. **Cancel** will exit the command wizard without saving. You will be prompted that the command has been saved. Select **Continue**.

Figure: New Command Wizard

The screenshot shows the GroundWork web interface. The top navigation bar includes 'Dashboards', 'Event Console', 'Status', 'Views', 'Reports', 'Auto Discovery', 'Configuration', 'Business', 'GroundWork Administration', 'Advanced', and 'Resources'. The user is logged in as 'GroundWork Administrator'. The breadcrumb trail is 'Configuration > Commands'. On the left, there is a 'Commands' sidebar with options: 'New', 'Copy', 'Search', and 'Modify'. The main content area is titled 'Command Wizard' and shows the 'Select resource macro' step. Below this, there is a table of macros to edit:

Macro	Value	Description
<input type="radio"/> USER1	/usr/local/groundwork/nagios/libexec	plugin directory
<input type="radio"/> USER2	/usr/local/groundwork/nagios/eventhandlers	event handler scripts directory
<input type="radio"/> USER3	60	plugin timeout
<input type="radio"/> USER4	*****	NSClient password
<input type="radio"/> USER5		
<input type="radio"/> USER6	*****	default MySQL password for GroundWork databases
<input type="radio"/> USER7	public	SNMP community string
<input type="radio"/> USER8	itgwrk	alternate SNMP community string
<input type="radio"/> USER9		
<input type="radio"/> USER10		
<input type="radio"/> USER11		
<input type="radio"/> USER12		
<input type="radio"/> USER13	127.0.0.1	sendEmail smtp mail relay option (-s) value
<input type="radio"/> USER14		
<input type="radio"/> USER15		
<input type="radio"/> USER16		
<input type="radio"/> USER17	nagios	default check_by_ssh remote user name for all SSH checks
<input type="radio"/> USER18		
<input type="radio"/> USER19	1248	NSClient TCP Port
<input type="radio"/> USER20		
<input type="radio"/> USER21	127.0.0.1	GroundWork Proxy Server IP
<input type="radio"/> USER22	libexec	default plugin subdirectory on remote hosts, relative to the home directory of the user you SSH in as
<input type="radio"/> USER23		
<input type="radio"/> USER24		
<input type="radio"/> USER25		
<input type="radio"/> USER26		
<input type="radio"/> USER27		
<input type="radio"/> USER28		
<input type="radio"/> USER29		
<input type="radio"/> USER30		
<input type="radio"/> USER31		
<input type="radio"/> USER32	USER32_GROUNDWORK_SERVER	GroundWork Server fully qualified hostname

At the bottom of the wizard, there are two buttons: 'Next >>' and 'Help'.