

Chapter 16

Summary of PGM Configuration Statements

The following sections explain each PGM configuration statement. The statements are organized alphabetically.

pgm

Syntax	<pre>pgm { traceoptions { file <i>name</i> <replace> <size <i>size</i>> <files <i>number</i>> <no-stamp> <(world-readable no-world-readable)>; flag <i>flag</i> <flag-modifier>; } }</pre>
Hierarchy Level	[edit logical-routers <i>logical-router-name</i> protocols], [edit protocols]
Release Information	Statement introduced before JUNOS Release 7.4.
Description	Configure PGM globally and set tracing options. To specify more than one tracing operation, include multiple flag statements.
Default	The default PGM trace options are inherited from the routing protocol traceoptions statement included at the [edit routing-options] hierarchy level.
Options	The remaining statement is explained separately.

traceoptions

Syntax traceoptions {
 file *name* <replace> <size *size*> <files *number*> <no-stamp>
 <(world-readable | no-world-readable)>;
 flag *flag* <flag-modifier>;
 }

Hierarchy Level [edit logical-routers *logical-router-name* protocols *pgm*],
 [edit protocols *pgm*]

Release Information Statement introduced before JUNOS Release 7.4.

Description Configure PGM tracing options.

To specify more than one tracing operation, include multiple **flag** statements.

Default The default PGM trace options are those inherited from the routing protocol **traceoptions** statement included at the [edit routing-options] hierarchy level.

Options **disable**—(Optional) Disable the tracing operation. You can use this option to disable a single operation when you have defined a broad group of tracing operations, such as **all**.

file *name*—Name of the file to receive the output of the tracing operation. Enclose the name within quotation marks. All files are placed in the directory `/var/log`. We recommend that you place tracing output in the file `pgm-log`.

files *number*—(Optional) Maximum number of trace files. When a trace file named *trace-file* reaches its maximum size, it is renamed *trace-file.0*, then *trace-file.1*, and so on, until the maximum number of trace files is reached. Then the oldest trace file is overwritten.

If you specify a maximum number of files, you also must specify a maximum file size with the **size** option.

Range: 2 through 1000 files

Default: 2 files

flag—Tracing operation to perform. To specify more than one tracing operation, include multiple **flag** statements.

PGM Tracing Flags

- **all**—Trace all PGM packets.
- **init**—Trace all PGM initialization events.
- **packets**—Trace all PGM packet processing.
- **parser**—Trace all PGM parser processing.
- **route-socket**—Trace all PGM route-socket events.
- **show**—Trace all PGM **show** command servicing.

- **state**—Trace all PGM state transitions.

Global Tracing Flags

- **all**—All tracing operations
- **general**—A combination of the **normal** and **route** trace operations
- **normal**—All normal operations
Default: If you do not specify this option, only unusual or abnormal operations are traced.
- **policy**—Policy operations and actions
- **route**—Routing table changes
- **state**—State transitions
- **task**—Interface transactions and processing
- **timer**—Timer usage

flag-modifier—(Optional) Modifier for the tracing flag. You can specify one or more of the following modifiers:

- **detail**—Detailed trace information
- **receive**—Packets being received
- **send**—Packets being transmitted

no-stamp—(Optional) Do not place timestamp information at the beginning of each line in the trace file.

Default: If you omit this option, timestamp information is placed at the beginning of each line of the tracing output.

no-world-readable—(Optional) Disallow any user to read the log file.

replace—(Optional) Replace an existing trace file if there is one.

Default: If you do not include this option, tracing output is appended to an existing trace file.

size size—(Optional) Maximum size of each trace file, in kilobytes (KB), megabytes (MB), or gigabytes (GB). When a trace file named *trace-file* reaches this size, it is renamed *trace-file.0*. When *trace-file* again reaches its maximum size, *trace-file.0* is renamed *trace-file.1* and *trace-file* is renamed *trace-file.0*. This renaming scheme continues until the maximum number of trace files is reached. Then the oldest trace file is overwritten.

If you specify a maximum file size, you must also specify a maximum number of trace files with the **files** option.

Syntax: *xk* to specify KB, *xm* to specify MB, or *xg* to specify GB

Range: 10 KB through the maximum file size supported on your system

Default: 1 MB

world-readable—(Optional) Allow any user to read the log file.

Usage Guidelines See “PGM Configuration Guidelines” on page 109.

Required Privilege Level routing and trace—To view this statement in the configuration.
routing-control and trace-control—To add this statement to the configuration.