

## Tracing System Resource Cleanup Operations for JUNOS SDK Applications

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Using the JUNOS SDK, providers can have their SDK applications request and manage system resources. Some of this resource utilization is persistent across, for example, reboots or the restart of the application. Some system tasks such as deleting a package, disabling an application, or accessing shared resources require that resources be cleaned up by entities other than the application itself. Resources that are known to need cleaning up include the following:

- GENCFG blobs
- SYSV shared memory segments
- SYSV semaphores
- Temporary files

Currently, the `traceoptions` statement is the only CLI statement available for configuring resource cleanup.

To configure tracing operations for resource cleanup operations, include the `traceoptions flag` option for selectively turning the debugging of trace messages on or off:

```
[edit]
system {
  processes {
    resource-cleanup {
      traceoptions {
        file filename files number match regex size size (world-readable |
          no-world-readable);
        flag flag;
        level level;
        no-remote-trace;
      }
    }
  }
}
```

The available flags for the `traceoptions` statement include:

- `all`—Enable all trace option flags.
- `events`—Display process state change and cleanup events.
- `gencfg`—Display GENCFG blobs recorded for cleanup.
- `sysvsem`—Display SYSV semaphores recorded for cleanup.
- `sysvshm`—Display SYSV shared memory segments recorded for cleanup.
- `ui`—Display tracing messages for UI operational commands.