



Sun™ Grid Engine 5.2.3 Release Notes

Sun Microsystems, Inc.
901 San Antonio Road
Palo Alto, CA 94303-4900 U.S.A.
650-960-1300

Part No. 816-2082-10
July 2001

For more information, go to <http://www.sun.com/gridware>

Copyright 2001 Sun Microsystems, Inc., 901 San Antonio Road, Palo Alto, CA 94303-4900 U.S.A. All rights reserved.

This product or document is distributed under licenses restricting its use, copying, distribution, and decompilation. No part of this product or document may be reproduced in any form by any means without prior written authorization of Sun and its licensors, if any. Third-party software, including font technology, is copyrighted and licensed from Sun suppliers.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, Java, and Solaris are trademarks, registered trademarks, or service marks of Sun Microsystems, Inc. in the U.S. and other countries.

All other trademarks are the property of their respective owners.

Federal Acquisitions: Commercial Software—Government Users Subject to Standard License Terms and Conditions.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

Copyright 2001 Sun Microsystems, Inc., 901 San Antonio Road, Palo Alto, CA 94303-4900 Etats-Unis. Tous droits réservés.

Ce produit ou document est distribué avec des licences qui en restreignent l'utilisation, la copie, la distribution, et la décompilation. Aucune partie de ce produit ou document ne peut être reproduite sous aucune forme, par quelque moyen que ce soit, sans l'autorisation préalable et écrite de Sun et de ses bailleurs de licence, s'il y en a. Le logiciel détenu par des tiers, et qui comprend la technologie relative aux polices de caractères, est protégé par un copyright et licencié par des fournisseurs de Sun.

Des parties de ce produit pourront être dérivées des systèmes Berkeley BSD licenciés par l'Université de Californie. UNIX est une marque déposée aux Etats-Unis et dans d'autres pays et licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, Java, et Solaris sont des marques de fabrique ou des marques déposées, ou marques de service, de Sun Microsystems, Inc. aux Etats-Unis et dans d'autres pays.

Toutes les autres marques de commerce appartiennent à leurs propriétaires respectifs.

L'accord du gouvernement américain est requis avant l'exportation du produit.

LA DOCUMENTATION EST FOURNIE "EN L'ETAT" ET TOUTES AUTRES CONDITIONS, DECLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES, DANS LA MESURE AUTORISEE PAR LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE A LA QUALITE MARCHANDE, A L'APTITUDE A UNE UTILISATION PARTICULIERE OU A L'ABSENCE DE CONTREFAÇON.



Sun™ Grid Engine

Version 5.2.3

Release Notes

Please read this document carefully before you install the accompanying software.

1 About this Release

Sun™ Grid Engine release 5.2.3 is an update to the previous releases Sun™ Grid Engine 5.2, 5.2.1 and 5.2.2. Sun™ Grid Engine 5.2.3 replaces these releases as the only officially supported Sun Grid Engine release. The release 5.2.3 contains a number of enhancements and improvements over the previous releases (see “New Features in this Release” below). Yet, there are still some restrictions which are discussed in section “Known Limitations and Workarounds”.

2 Contents of Package

The Sun Grid Engine distribution kit contains the following top level directory hierarchy:

LICENSE_nnnnn	A zero byte file indicating the license number of your Sun Grid Engine license with the nnnnn file name suffix.
VERSION_5.2.x	A zero length file indicating the current release number.
3rd_party	Contains information about freeware, public domain and public license software used.
api	In a distribution without the API option this directory contains libraries required for tight PVM parallel environment integration. With the API option it contains the complete API kit.
bin	Sun Grid Engine executables.
catman	Manuals in the catman format.
ckpt	Sample checkpointing configurations.
doc	PostScript and ASCII Documentation.
examples	Sample scriptfiles, configuration files and appli-

	cation programs.
inst_codine	Generic Sun Grid Engine installation procedure.
install_execd	Driver for a simplified execution host installation.
install_qmaster	Driver for a simplified master host installation procedure.
man	On-line manual pages in nroff format.
mpi	A sample parallel environment interface for the MPI message passing system.
pvm	A sample parallel environment interface for the PVM message passing system.
qmon	Pixmaps, resource and help files for the Sun Grid Engine GUI <i>qmon</i> .
qsi	Sample configurations for the Queuing System Interface.
util	Some utility shell procedures used for installation tasks and some template Sun Grid Engine shut-down and boot scripts.
utilbin	Some utility programs mainly required during the installation.

3 Installation of Sun Grid Engine Version 5.2.3

Please refer to the corresponding sections in the Sun Grid Engine Quick Start Guide and the Sun Grid Engine Installation and Administration Guide. You also should take a look at `doc/READMEFIRST.txt`.

4 Upgrading from a Previous Release

The file `doc/UPGRADE` contains all pertinent information about upgrading a Sun Grid Engine installation based on a previous release to Sun Grid Engine release 5.2.3. Further information which might be of use during the upgrade process can be found in the file `doc/READMEFIRST.txt`.

5 Operating Environment

This software is intended for operation in a private secure network, typically behind a firewall for access through a reasonably trusted user base. Deployment across the Internet or in an insecure environment happens at your own risk

6 New Features in this Release

6.1 New in Release 5.2.3

The following is a list of new features for Sun Grid Engine release 5.2.3. Please refer to the corresponding manual sections and on-line manual pages for details. Also refer to the section “Known Limitations and Workarounds” in this document for additional information.

- ❑ Sun Grid Engine now has the ability to reschedule already started jobs if the corresponding execution host appears to be defunct for longer than a certain configurable period of time. Please refer to the description of the `RESCHEDULE_UNKNOWN` parameter in the *sge_conf(5)* on-line manual page (the Sun Grid Engine Reference Manual does not yet contain this information)
- ❑ The performance of the Sun Grid Engine scheduler has been improved greatly for several application scenarios.
- ❑ Problems with different host name resolutions in a Sun Grid Engine cluster (missing load values) now can be handled with the *sge_conf(5)* `IGNORE_FQDN` parameter (not yet documented in the Sun Grid Engine Reference Manual).
- ❑ Various improvements in the area of interactive jobs submitted via *qrsh(1)* and *qmake(1)* have led to a much better system behavior especially in cases with many interactive jobs.
- ❑ The amount of information logged by Sun Grid Engine during normal operation is now reduced by setting default `"log_warning"` for the `log_level` parameter in *sge_conf(5)*. In addition, example scripts are available for the trimming of large logfiles. See `doc/logfile_trimming.asc` for more information.
- ❑ *Qmon(1)* failures in case of finished jobs have been fixed.

7 Known Limitations and Workarounds

Sun Grid Engine is a dynamically growing environment steadily incorporating functionality stimulated by the Sun Grid Engine user community. Therefore, a printed manual with an edition of considerable size can never be accurate in all respects.

7.1 Limitations in Functionality

The following section is provided, to display the differences between the manual and the released software. Any facility denoted as still missing will become available in subsequent Sun Grid Engine releases.

- ❑ The *sge_conf(5)* `starter_method` for overwriting the default job execution facility is not operational yet.

Known Limitations and Workarounds

- ❑ The Queuing System Interface (QSI) is not yet available in Sun Grid Engine 5.2.3.
- ❑ The scheduler (*cod_schedd(8)*) lacks the following features:
 - ➔ The migration facility for checkpointing jobs is not implemented via migration thresholds but instead via the suspend thresholds mechanism. Checkpointing environments can be setup to migrate jobs whenever a checkpointing jobs is suspended.
- ❑ The *processors* queue configuration parameter (see the *queue_conf* manual page in the Sun Grid Engine Reference Manual), i.e. the binding of queues to groups of CPUs on multiprocessor machines, is available only for Sun Solaris, SGI IRIX release 5.3 to 6.2, Digital Unix 4, and Compaq Tru64 Unix.
- ❑ For AIX operating systems, this release does not retrieve memory and CPU load values as part of the standard system load monitoring (see *doc/load_parameters.asc* for details). To include them, the administrator needs to provide and configure a corresponding load sensor. The Sun Grid Engine Installation and Administration Guide and the *sge_conf(5)* manual page provide details on how to do this.

7.2 Last Minute Documentation Changes

Please Refer to the file *doc/DOC_CHANGES* for most recent information neither contained in the manual nor in this release note.