

PGDBG Release Notes

Version 2014



PGI Compilers and Tools

TABLE OF CONTENTS

Chapter 1. Release Overview.....	1
1.1. Product Overview.....	1
1.2. Release Components.....	1
1.3. Supported Platforms and Operating Systems.....	1
Chapter 2. New or Modified Features.....	3
2.1. What's New in Release 2014.....	3
Chapter 3. Troubleshooting Tips and Known Limitations.....	4
3.1. Debugging Issues.....	4
Chapter 4. Contact Information.....	5

Chapter 1.

RELEASE OVERVIEW

Welcome to Release 2014 of the PGDBG® debugger for 32-bit and 64-bit x86-compatible processor-based workstations, servers, and clusters running versions of Linux, OS X, or Windows operating systems. This document describes late-breaking information not included in the current printing of the PGI Debugger Guide.

1.1. Product Overview

PGDBG is licensed software available from The Portland Group. You must agree to an End-User License Agreement when you install the software.

PGDBG supports debugging programs running on local and remote systems. The PGI license keys that enable PGDBG to debug must be located on the same system where the program you want to debug is running.

Local debugging

If you want to debug a program running on the system where you have launched PGDBG, you are doing local debugging and you need license keys on that local system.

Remote debugging

If you want to debug a program running on a system other than the one on which PGDBG is launched, you are doing remote debugging and you need license keys on the remote system. The remote system also needs an installed copy of PGI Workstation, PGI Server, or PGI CDK.

1.2. Release Components

Release 2014 includes the multi-thread graphical debugger for debugging applications.

1.3. Supported Platforms and Operating Systems

There are six platforms that PGDBG supports:

- ▶ **32-bit Linux** — includes all features and capabilities of the 32-bit Linux operating systems running on an x64 compatible processor. 64-bit Linux compilers will not run on these systems.

- ▶ **64-bit Linux** — includes all features and capabilities of the 64-bit Linux operating systems running on an x64 compatible processor. Both 64-bit and 32-bit Linux compilers run on these systems.
- ▶ **32-bit Windows** — includes all features of the 32-bit Windows operating systems running on either a 32-bit x86 compatible or an x64 compatible processor. 64-bit Windows compilers will not run on these systems.
- ▶ **64-bit Windows** — includes all features and capabilities of the 64-bit Windows version running on an x64 compatible processor. Both 64-bit and 32-bit Windows compilers run on these systems.
- ▶ **32-bit OS X** supported on 32-bit Apple operating systems running on either a 32-bit or 64-bit Intel-based Mac system. 64-bit OS X compilers will not run on these systems.
- ▶ **64-bit OS X** — supported on 64-bit Apple operating systems running on a 64-bit Intel-based Mac system. Both 64-bit and 32-bit OS X compilers run on these systems.

Chapter 2.

NEW OR MODIFIED FEATURES

This section provides information about the new or modified features of Release 2014 of the PGI Debugger.

2.1. What's New in Release 2014

- ▶ A number of problems are corrected in this release. Refer to www.pgroup.com/support/release_tprs.htm for a complete and up-to-date table of technical problem reports (TPRs), fixed in recent releases of the PGI compilers and tools. This table contains a summary description of each problem as well as the version in which it was fixed.

Chapter 3.

TROUBLESHOOTING TIPS AND KNOWN LIMITATIONS

This section contains information about known limitations, documentation errors, and corrections.

For up-to-date information about the state of the current release, refer to the frequently asked questions (FAQ) section at: www.pgroup.com/support/index.htm.

3.1. Debugging Issues

The following are known debugging issues across platforms:

- ▶ Before *PGDBG* can set a breakpoint in code contained in a shared library, `.so` or `.dll`, the shared library must be loaded.
- ▶ Breakpoints in processes other than the process with rank 0 may be ignored when debugging MPICH-1 applications when the loading of shared libraries to randomized addresses is enabled.
- ▶ Debugging of PGI Unified Binaries™, that is, 64-bit programs built with more than one `-tp` option, is not fully supported. The names of some subprograms are modified during compilation, and *PGDBG* does not translate these names back to the names used in the application source code.

For detailed information on how to debug PGI Unified Binary files, refer to www.pgroup.com/support/tool.htm.

Chapter 4. CONTACT INFORMATION

You can contact PGI at:

20400 NW Amberwood Drive Suite 100
Beaverton, OR 97006

Or electronically using any of the following means:

Fax: +1-503-682-2637
Sales: sales@pgroup.com
Support: trs@pgroup.com
WWW: <http://www.pgroup.com>

The PGI User Forum is monitored by members of the PGI engineering and support teams as well as other PGI customers. The forum newsgroups may contain answers to commonly asked questions. Log in to the PGI website to access the forum:

<http://www.pgroup.com/userforum/index.php>

Many questions and problems can be resolved by following instructions and the information available at our frequently asked questions (FAQ) site:

<http://www.pgroup.com/support/faq.htm>

All technical support is by e-mail or submissions using an online form at:

<http://www.pgroup.com/support>

Phone support is not currently available.

PGI documentation is available at <http://www.pgroup.com/resources/docs.htm> or in your local copy of the documentation in the release directory `doc/index.htm`.

Notice

ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS, AND OTHER DOCUMENTS (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED "AS IS." NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY, OR OTHERWISE WITH RESPECT TO THE MATERIALS, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES OF NONINFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE.

Information furnished is believed to be accurate and reliable. However, NVIDIA Corporation assumes no responsibility for the consequences of use of such information or for any infringement of patents or other rights of third parties that may result from its use. No license is granted by implication of otherwise under any patent rights of NVIDIA Corporation. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all other information previously supplied. NVIDIA Corporation products are not authorized as critical components in life support devices or systems without express written approval of NVIDIA Corporation.

Trademarks

PGI Workstation, PGI Server, PGI Accelerator, PGF95, PGF90, PGFORTRAN, and PGI Unified Binary are trademarks; and PGI, PGHPF, PGF77, PGCC, PGC++, PGI Visual Fortran, PVF, PGI CDK, Cluster Development Kit, PGPROF, PGDBG, and The Portland Group are registered trademarks of NVIDIA Corporation in the U.S. and other countries. Other company and product names may be trademarks of the respective companies with which they are associated.

Copyright

© 2013-2014 NVIDIA Corporation. All rights reserved.

PGI[®]