

# PGDBG® Debugger Release Notes

Version 12.10



**The Portland Group®**

While every precaution has been taken in the preparation of this document, The Portland Group® (PGI®), a wholly-owned subsidiary of STMicroelectronics, Inc., makes no warranty for the use of its products and assumes no responsibility for any errors that may appear, or for damages resulting from the use of the information contained herein. The Portland Group retains the right to make changes to this information at any time, without notice. The software described in this document is distributed under license from STMicroelectronics and/or The Portland Group and may be used or copied only in accordance with the terms of the end-user license agreement ("EULA").

PGI Workstation, PGI Server, PGI Accelerator, PGF95, PGF90, PGFORTRAN, and PGI Unified Binary are trademarks; and PGI, PGHPE, PGF77, PGCC, PGC++, PGI Visual Fortran, PVE, PGI CDK, Cluster Development Kit, PGPROF, PGDBG, and The Portland Group are registered trademarks of The Portland Group Incorporated. Other brands and names are property of their respective owners.

No part of this document may be reproduced or transmitted in any form or by any means, for any purpose other than the purchaser's or the end user's personal use without the express written permission of STMicroelectronics and/or The Portland Group.

## PGDBG® Release Notes

Copyright © 2012 The Portland Group® and STMicroelectronics, Inc.  
All rights reserved.

Printed in the United States of America

First Printing: Release 2012, version 12.1, January 2012

Second Printing: Release 2012, version 12.2, February 2012

Third Printing: Release 2012, version 12.3, March 2012

Fourth Printing: Release 2012, version 12.4, April 2012

Fifth Printing: Release 2012, version 12.5, May 2012

Sixth Printing: Release 2012, version 12.6, June 2012

Seventh Printing: Release 2012, version 12.8, August 2012

Eighth Printing: Release 2012, version 12.9, September 2012

Ninth Printing: Release 2012, version 12.10, October 2012

Technical support: [trs@pgroup.com](mailto:trs@pgroup.com)

Sales: [sales@pgroup.com](mailto:sales@pgroup.com)

Web: [www.pgroup.com](http://www.pgroup.com)

# Contents

<b>1. Release Overview .....</b>	<b>1</b>
Product Overview .....	1
Release Components .....	1
Supported Platforms and Operating Systems .....	1
<b>2. New or Modified Features .....</b>	<b>3</b>
What's New in Release 2012 .....	3
<b>3. Troubleshooting Tips and Known Limitations .....</b>	<b>5</b>
Debugging Issues .....	5
Corrections .....	5
<b>4. Contact Information .....</b>	<b>7</b>



# Chapter 1. Release Overview

Welcome to Release 2012 of the PGDBG debugger for 32-bit and 64-bit x86-compatible processor-based workstations, servers, and clusters running versions of the Linux, Apple MacOS, and Microsoft Windows operating systems. This document describes late-breaking information not included in the current printing of the PGI Debugger Guide.

## Product Overview

PGDBG is licensed software available from The Portland Group. 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, then 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.

## Release Components

Release 2012 includes the multi-thread graphical debugger for debugging applications.

## Supported Platforms and Operating Systems

There are six platforms that PGDBG supports:

- *32-bit Linux* - supported on *32-bit Linux operating systems* running on either a 32-bit x86 compatible or an x64 compatible processor.
- *64-bit/32-bit Linux* – includes all features and capabilities of the 32-bit Linux version, and is also supported on *64-bit Linux operating systems* running an x64 compatible processor.
- *32-bit Windows* – supported on *32-bit Windows operating systems* running on either a 32-bit x86 compatible or an x64 compatible processor.

- *64-bit/32-bit Windows* – includes all features and capabilities of the 32-bit Windows version, and is also supported on *64-bit Windows operating systems* running an *x64* compatible processor.
- *32-bit Mac OS X* – supported on 32-bit Apple Mac operating systems running on either a 32-bit or 64-bit Intel-based Mac system.
- *64-bit Mac OS X* – supported on 64-bit Apple Mac operating systems running on a 64-bit Intel-based Mac system.

# Chapter 2. New or Modified Features

This chapter provides information about the new or modified features of Release 2012 of the PGI Remote Debugger Client.

## What's New in Release 2012

Release 12.1 was the initial release of the PGI Remote Debugger Client standalone GUI.

### 12.5 Updates and Additions

- PGDBG has enhanced auto-scrolling in the PGDBG I/O Tab.
- Type parameters for derived types, also known as parameterized derived types, are now supported.

### 12.4 Updates and Additions

- PGDBG now supports AVX registers on Windows.



# Chapter 3. Troubleshooting Tips and Known Limitations

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

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

## 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, see [www.pgroup.com/support/tools.htm](http://www.pgroup.com/support/tools.htm).

## Corrections

A number of problems have been corrected in the PGI 2012 release. Refer to [www.pgroup.com/support/release\\_tprs.htm](http://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 4. Contact Information

You can contact The Portland Group at:

The Portland Group  
STMicroelectronics, Inc.  
Two Centerpointe Drive, Suite 320  
Lake Oswego, OR 97035 USA

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:

[www.pgroup.com/userforum/index.php](http://www.pgroup.com/userforum/index.php)

Or contact us electronically using any of the following means:

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

All technical support is by email or submissions using an online form at [www.pgroup.com/support](http://www.pgroup.com/support). Phone support is not currently available.

Many questions and problems can be resolved at our frequently asked questions (FAQ) site at [www.pgroup.com/support/faq.htm](http://www.pgroup.com/support/faq.htm).

PGI documentation is available at [www.pgroup.com/resources/docs.htm](http://www.pgroup.com/resources/docs.htm) or in your local copy of the documentation in the release directory [doc/index.htm](http://doc/index.htm).

