Mali GPU Performance Analysis Tool Errata

Media Processing Division

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Product	Mali GPU Performance Analysis Tool
Product Version	2.2

Abstract

This document describes the known errata in the Mali GPU Performance Analysis Tool version 2.2.

This is a working document throughout the product lifecycle and, as such, the content may be modified as new information is uncovered.

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ARM web address

http://www.arm.com
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1 ABOUT THIS DOCUMENT

1.1 Change Control

Issue	Date	Change
1.0	July-31, 2009	Errata for version 2.2 Beta
2.0	Sep-15, 2009	Errata for version 2.2 EAC

1.2 References

This document refers to the following documents.

Ref.	Document No.	Author(s)	Title
	(none)		

1.3 Scope

This document describes the errata discovered in the implementation of Mali GPU Performance Analysis Tool, categorized by level of severity. Each description includes:

- the conditions under which erroneous behavior occurs
- the implications of the erratum with respect to typical applications
- the application and limitations of a 'work-around' where possible

1.4 Terms and Abbreviations

This document uses the following terms and abbreviations.

Term	Meaning
Cat	Acronym for Category
RHEL4	Redhat Enterprise Linux version 4

2   CATEGORISATION OF ERRATA

Errata recorded in this document are split into three groups:

Category 1   Features which are impossible to work around and severely restricts the use of the software in all or the majority of applications rendering the software unusable.

Category 2   Features which contravene the specified behavior and may limit or severely impair the intended use of specified features but does not render the software unusable in all or the majority of applications.

Category 3   Features that were not the originally intended behavior but should not cause any problems in applications.

2.1   Errata Summary

The following tables summarize all errata associated with this product.

Mali GPU Performance Analysis Tool Errata Summary

ID	Cat	Summary of Erratum
5497	Cat 2	Connecting to a remote target which never calls eglSwapBuffers will leave Mali GPU Performance Analysis Tool in a connecting state.
7849	Cat 2	Error in opening .pat (project) file can corrupt the .pat file
4400	Cat 3	If the user clicks just between two items in the counter tree when trying to start a drag it will be incorrectly interpreted as an attempt to make a selection.
4427	Cat 3	Mali GPU Performance Analysis Tool can fail if the user opens a project while another one is being opened

3 CATEGORY 1 ERRATA

No Category 1 errata exist.

4 CATEGORY 2 ERRATA

5497: Connecting to a remote target which never calls eglSwapBuffers will leave Mali GPU Performance Analysis Tool in a connecting state

Status

Affects:	Mali GPU Performance Analysis Tool
Fault status:	Cat 2, Present in: 2.2 Beta, 2.2
Platforms Affected:	Windows XP, RHEL4 Linux

Description

The Instrumented Drivers are programmed to block and wait for connections from remote clients, like Mali GPU Performance Analysis Tool, when a context is created if the network feature is turned on (MALI_DUMP_NET=TRUE). After a connection is established they will then continue and stop at the first eglSwapBuffer call to process events.

When connecting to such a remote application from Mali GPU Performance Analysis Tool it will, as part of connecting, establish a network connection and then query the Instrumented Drivers for information about them and about the counters they provide.

If the remote application running on top of the Instrumented Drivers never makes a call to eglSwapBuffers then Mali GPU Performance Analysis Tool will be left in the connecting state until the application exits.

If the remote application then tries to create a new context then it will again block, waiting to for Mali GPU Performance Analysis Tool to establish a new connection. Since Mali GPU Performance Analysis Tool is now left in the connecting state for the drivers will block indefinitely and appear to hang.

Implications

- Mali GPU Performance Analysis Tool and the Instrumented Driver network feature can't be used with applications that never make any calls to eglSwapBuffers

- One connection from Mali GPU Performance Analysis Tool must be established 'manually' for each context that is created in the remote application.

Workaround

Don't use Mali GPU Performance Analysis Tool with applications that don't make at least one call to eglSwapBuffers for each EGL context that is created.

7849: Error in opening .pat (project) file can corrupt the .pat file

Status

Affects:	Mali GPU Performance Analysis Tool
Fault status:	Cat 2, Present in: 2.2 Beta, 2.2
Platforms Affected:	Windows XP, RHEL4 Linux

Description

When an error occurs in opening a .pat file, the state of Mali GPU Performance Analysis Tool project file is not 'unrolled' back. Any further file operation shouldn't really affect the project (.pat) file as the loading did not happen fully. But Mali GPU Performance Analysis Tool keeps the information and state for the Mali GPU Performance Analysis Tool project file in memory.

Implications

- If failure happens in loading a Mali GPU Performance Analysis Tool project file, and the user selects "Save" operation, then it will overwrite the project file which can corrupt the project file.

Workaround

If the loading of a project file doesn't succeed, do not use the "Save" operation.

5   CATEGORY 3 ERRATA

4400:   If the user clicks just between two items in the counter tree when trying to start a drag it will be incorrectly interpreted as an attempt to make a selection

Status

Affects:	Mali GPU Performance Analysis Tool
Fault status:	Cat 3, Present in: 2.2 Beta, 2.2
Platforms Affected:	Windows XP, RHEL4 Linux

Description

Mali GPU Performance Analysis Tool supports selecting multiple items from the counter tree to include in a drag by selecting them while holding down the shift or ctrl key. However, it will incorrectly interpret a drag to be an attempt to create a selection without holding down shift or ctrl if the drag is started from the pixels just between the items.

Implications

Some drags will be interpreted as attempts to create selections.

Workaround

Click within the item/items you want to drag when starting a drag.

4427:   Mali GPU Performance Analysis Tool can fail if the user opens a project while another one is being opened

Status

Affects:	Mali GPU Performance Analysis Tool
Fault status:	Cat 3, Present in: 2.2 Beta, 2.2
Platforms Affected:	Windows XP, RHEL4 Linux

Description

Mali GPU Performance Analysis Tool can crash if the user opens a project while another one is being opened. This can happen if the user drag and drops a complex project twice onto Mali GPU Performance Analysis Tool.

Implications

User may not be able to open complex multiple projects simultaneously in quick succession.

Workaround

For projects where this occurs, open them separately using Mali GPU Performance Analysis Tool.