

AMDGPU RAS Support

The AMDGPU RAS interfaces are exposed via sysfs (for informational queries) and debugfs (for error injection).

RAS debugfs/sysfs Control and Error Injection Interfaces

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\gpu\amdgpu\ [linux-master] [Documentation] [gpu] [amdgpu] ras.rst, line 11)

Unknown directive type "kernel-doc".

```
.. kernel-doc:: drivers/gpu/drm/amd/amdgpu/amdgpu_ras.c
:doc: AMDGPU RAS debugfs control interface
```

RAS Reboot Behavior for Unrecoverable Errors

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\gpu\amdgpu\ [linux-master] [Documentation] [gpu] [amdgpu] ras.rst, line 17)

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```
.. kernel-doc:: drivers/gpu/drm/amd/amdgpu/amdgpu_ras.c
:doc: AMDGPU RAS Reboot Behavior for Unrecoverable Errors
```

RAS Error Count sysfs Interface

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\gpu\amdgpu\ [linux-master] [Documentation] [gpu] [amdgpu] ras.rst, line 23)

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```
.. kernel-doc:: drivers/gpu/drm/amd/amdgpu/amdgpu_ras.c
:doc: AMDGPU RAS sysfs Error Count Interface
```

RAS EEPROM debugfs Interface

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\gpu\amdgpu\ [linux-master] [Documentation] [gpu] [amdgpu] ras.rst, line 29)

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```
.. kernel-doc:: drivers/gpu/drm/amd/amdgpu/amdgpu_ras.c
:doc: AMDGPU RAS debugfs EEPROM table reset interface
```

RAS VRAM Bad Pages sysfs Interface

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\gpu\amdgpu\ [linux-master] [Documentation] [gpu] [amdgpu] ras.rst, line 35)

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```
.. kernel-doc:: drivers/gpu/drm/amd/amdgpu/amdgpu_ras.c
:doc: AMDGPU RAS sysfs gpu_vram_bad_pages Interface
```

Sample Code

Sample code for testing error injection can be found here: https://cgit.freedesktop.org/mesa/drm/tree/tests/amdgpu/ras_tests.c

This is part of the libdrm amdgpu unit tests which cover several areas of the GPU. There are four sets of tests:

RAS Basic Test

The test verifies the RAS feature enabled status and makes sure the necessary sysfs and debugfs files are present.

RAS Query Test

This test checks the RAS availability and enablement status for each supported IP block as well as the error counts.

RAS Inject Test

This test injects errors for each IP.

RAS Disable Test

This test tests disabling of RAS features for each IP block.