

# 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](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.