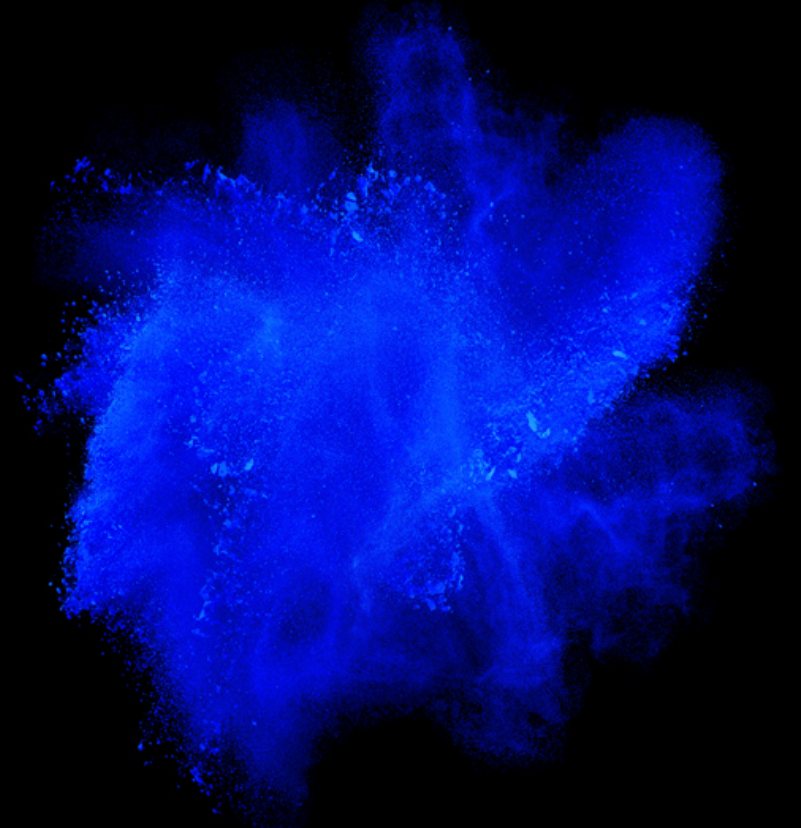


Mike Schmit

Director Software Engineering
Radeon Technologies Group



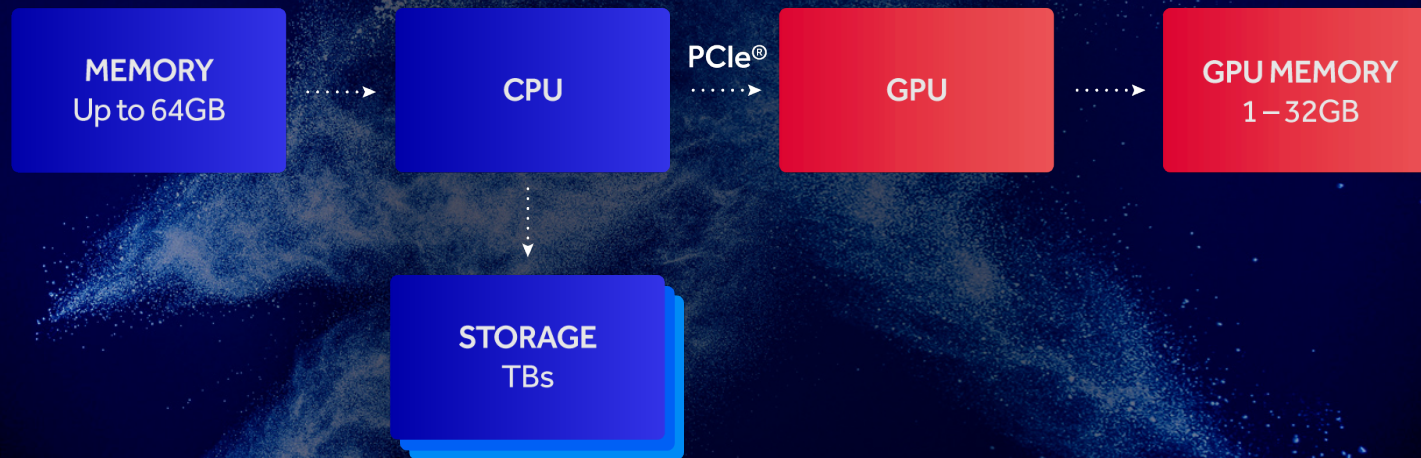
RADEON
PRO

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Solving big data set problems

Transforming Workstation Architecture



Project Delta

Secret project started in May 2013 that asked what if...

What if we have direct control over memory with no latency?

What if we had 1TB+ non-volatile memory directly accessible from the GPU?

What if we could have persistent large GPU assets?



RADEON PRO SSG

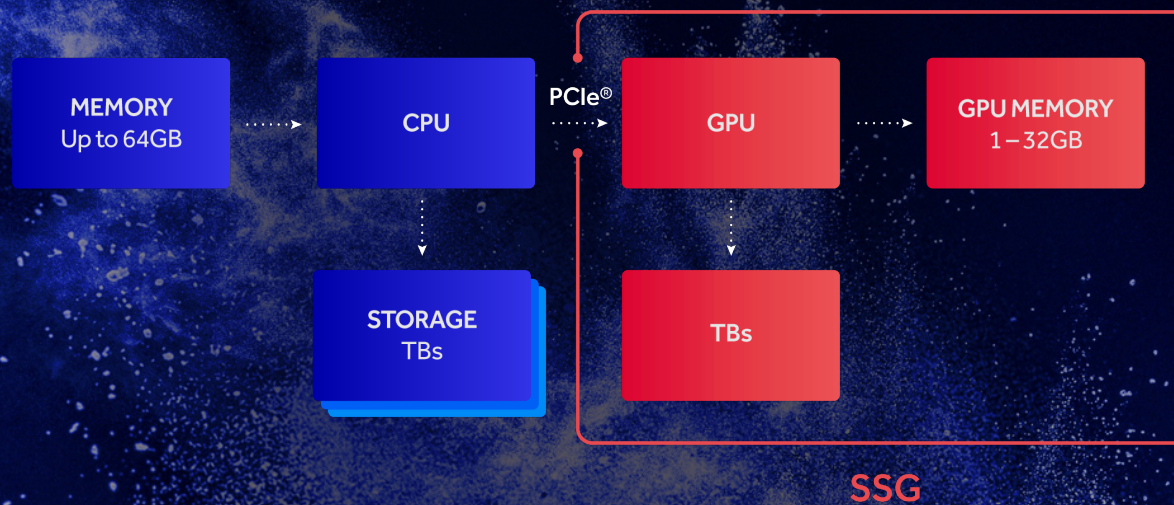
A Fundamental Change to Workstation
Architecture

CAPSAICIN

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Transforming Workstation Architecture

RADEON PRO SSG





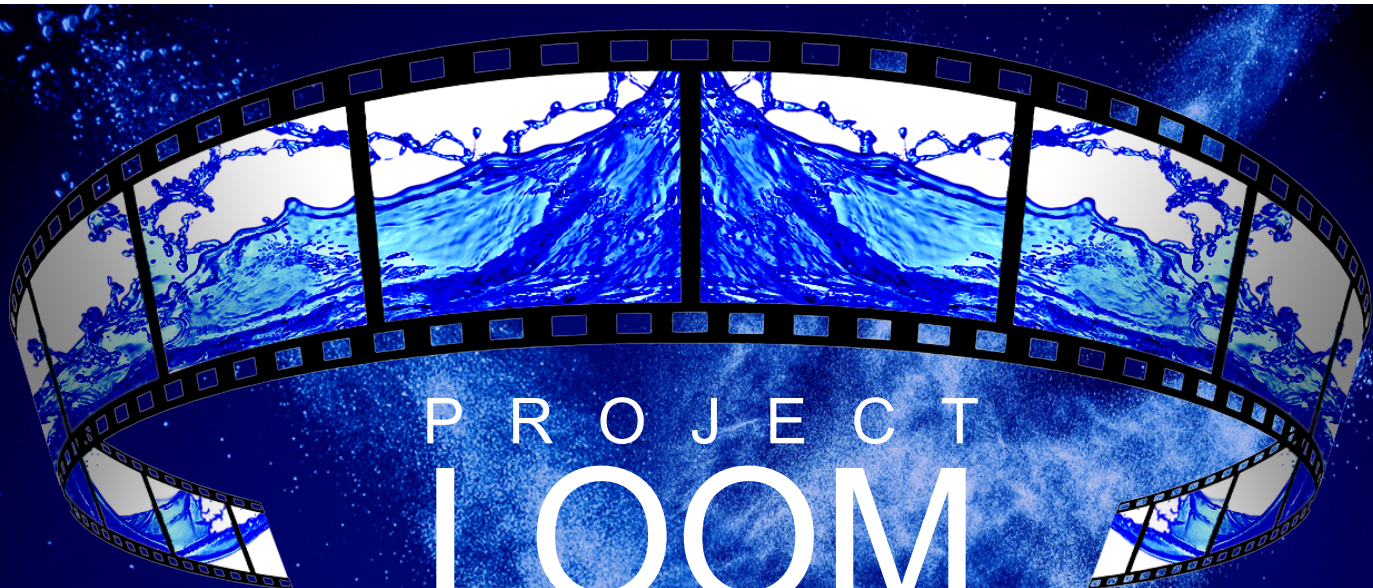
Without Radeon Pro SSG
0.85 GB/s @ 17 fps

5X+ FASTER
with Radeon Pro SSG
4.59 GB/s @ 92 fps

8K Uncompressed Editing Workflow

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See endslate for details



PROJECT
LOOM
A STITCH IN REAL-TIME

Real-time 360 video stitching solution for professional use

4-24 cameras, 1080p @ 60 fps outputting 4K @ 30 fps to HMDs and mobile devices

Enabled by Direct GMA

Planned availability as open source on GPUOpen later this summer





RADEON PRO SSG

Bringing TBs of Memory Closer to the GPU

Developer kits available to order now
at [Radeon.com/SIGGRAPH](https://www.amd.com/en/developer/radeon-pro-ssg)

CAPSAICIN

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Endnotes

Slide 8, Radeon Pro SSG demo: System 1: w/out Radeon Pro SSG, CPU: i7 4790K, RAM: 16GB DDR3 1600Mhz, Motherboard: Gigabyte GA-Z97X- Gaming5, PSU: 1200W, GPU: Radeon R9 Nano, SSD (OS): Samsung 850 Evo 250GB, SSD2 (demo content) - M.2 Samsung 950 Pro 512GB, GPU driver: 16.30.2010-160629n- 304071E, Video Player: AMD LiquidFlashPlayer - internal app, Demo Content - Raw 8K Video file, OS: Win 10 64bit. System 2: w/ Radeon Pro SSG, CPU: i7 4790K, RAM: 16GB DDR3 1600Mhz, Motherboard: Gigabyte GA-Z97X- Gaming5, PSU: 1200W, GPU: RadeonPro SSG, SSD (OS): Samsung 850 Evo 250GB, GPU driver: 16.30.2010-160629n- 304071E, Video Player: AMD LiquidFlashPlayer - internal app, Demo Content - Raw 8K Video file, OS: Win 10 64bit. System with Radeon Pro SSG scores 0.85 GB/s @ 17 fps. System with Radeon Pro SSG scores 4.59 GB/s @ 92 fps, more than 5X that of the system without Radeon Pro SSG.

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