Breakout Session

Accelerating Time to Market for Safety Critical Designs

Neil Stroud, CoreAVI
Who is CoreAVI?

• Founded in 2005
• Global presence with proven safety critical pedigree
• Three key business elements
  • Delivery of safety critical software drivers and libraries
  • Delivery of certifiable hardware IP
  • Risk mitigation of supply through component storage
• Driving safety innovation through partnership

People innovating a safe and secure autonomous world
Focus Industries – Where Safety Matters

Avionics

Automotive

Industrial IoT
Safety Software Leadership

Certification
Proven safety certification pedigree across markets
- DO-178C DAL A
- ISO 26262 ASIL D*
- IEC 61508 SIL3*

Synergy
Adopt from aviation to accelerate cycles
- Safety critical graphics
- Autonomous systems requiring safe compute

Reduce TCO
Scale and reuse safety software across applications
- Safety packages
- Pre-cert solutions
- Customization

* In progress
CoreAVI Vulkan Safety Critical Components

Application

- EGL
- VkCoreGL® SC (OpenGL)
- EncodeCore® (Video Encode)
- DecodeCore® (Video Decode)
- TrueCore™ (GPU Safety Monitor)
- ComputeCore™ (BLAS and FFT)
- VkCoreVX™ SC (Video and Artificial Intelligence)

Vulkan Validation Layer (optional, for development only)

- VkCore® sc (Vulkan Driver)
  - Compositor
  - BIT
  - Physical Device Virtualization Manager
- Display Controller
- Video Capture
Deliverables

Certification
- DO-178C DAL A
- DO-254 DAL A
- ISO 26262 ASIL D
- IEC 61508 SIL3

Software
- VkCore® SC
- VkCoreGL® SC1/SC2
- EncodeCore®
- DecodeCore®
- TrueCore™
- ComputeCore™
- VkCoreVX™ SC

SBC Hardware IP
- COTS-D 3U VPX design package
- RTOS BSP Support

Tiger Lake SoC
- Distribution of Intel® Core™ i7-1185GRE
- Extended lifetime supply

Partnering to accelerate your safety system design, certification and deployment
Call to Action

• CoreAVI has a proven track record in delivering safety critical software

• The Intel® Core™ i7-1185GRE is a compelling SKU for many safety critical designs across market segments

• This partnership drives confidence in the ecosystem and enables customers to accelerate their safety critical designs
Thank you for watching!