

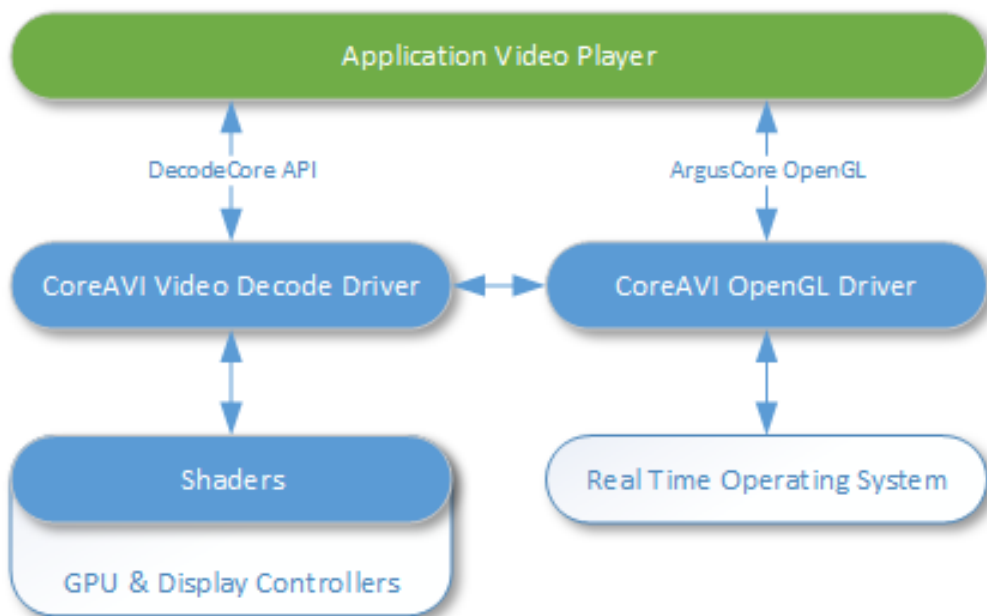


DecodeCore™

Video Decode Drivers for RTOS and Safety Critical Systems

CoreAVI's **DecodeCore™** is a real time and safety critical H.264/MPEG2/VC-1 video decode driver that enables the hardware video decoder that is built-in modern graphics and system on chip processors. CoreAVI's video decode drivers have been deployed in both airborne and ground control display systems globally, including UAV command and control, 360 degree situational awareness, Diminished Vision Enhancement (DVE), Geographic Information Systems (GIS), moving maps and various sensor warning systems.

DecodeCore enables applications to decode and display compressed video with much lower CPU usage than with a software-only decoder. The video decode drivers operates with CoreAVI's **ArgusCore™ ES/SC1/SC2** (CoreAVI's family of OpenGL graphics libraries) graphics drivers. The driver architecture and API ensures high efficiency and low latency between the video decode hardware and the graphics hardware. The de-compressed video is also available as an OpenGL texture enabling complex hardware accelerated image manipulation and integration with 2D or 3D graphics.



Features & Benefits

- Fully thread safe implementation
- Low power and high performance hardware-accelerated video decode of H.264/MPEG2/VC-1 video streams
- Fully integrated with CoreAVI's **ArgusCore** (OpenGL) graphics drivers for minimum latency and overhead
- Scalable architecture supports processing and displaying 10+ independent and simultaneous video decode streams
- GPU engine can automatically use the most recently decoded video frame with no CPU utilization
- Decoded video is displayable as an OpenGL texture, allowing easy integration with a 2D or 3D overlays
- Enables complex shader-based manipulation of the decoded video
- Supports multicore and CoreAVI's **HyperCore™** (hypervisor GPU manager) virtualized system configurations
- Supports RTOS, including Wind River VxWorks, SYSGO PikeOS, Green Hills Integrity, DDCI-Deos, Lynx Software LynxOS, Linux and configurable for proprietary RTOS
- Operates in conjunction with **EncodeCore™** (CoreAVI's Video Encode driver suite)
- Available with **CertCore178™** (DO-178C / ED12-C Avionics) Level A safety certification packages
- Available with **CertCore26262™** (ISO 26262 ASIL D Automotive) safety certification packages
- Available with **CertCore50128™** (CENELEC EN-50128 SIL 4 Railway) safety certification packages

Developed with real time and safety critical capabilities, the product suite enables maximum performance to take full advantage of the advanced capabilities of integrated video decode accelerators on popular GPUs and SoCs, including AMD's Unified Video Decoder (UVD).