MAINCONCEPT

ST 2110 Client SDK

Software-based ST 2110 reception for professional video and audio over IP

MainConcept® ST 2110 Client SDK enables the software-based reception of professional video and audio streams over IP networks for broadcast, production, contribution, and media workflows transitioning from SDI to IP infrastructures. Designed for modern broadcast environments, the SDK delivers standards-compliant reception of uncompressed ST 2110 video and audio streams with low latency, high interoperability, and flexible deployment across software-defined infrastructures.

The ST 2110 Client SDK provides the essential components for receiving, processing, and managing SMPTE ST 2110 streams within professional media applications. Supporting SDP and NMOS-based stream loading, integrated color space conversion, and hardware-agnostic deployment, the SDK enables developers and system integrators to build flexible IP-based workflows for monitoring, ingest, playout, multiviewer, and broadcast processing applications.

Complete ST 2110 reception workflow

The SDK includes a comprehensive suite of features:

- ST 2110 system support: Standards-compliant implementation following SMPTE ST 2110-10 system architecture for synchronized professional media transport over IP networks.
- Uncompressed video reception: Support for SMPTE ST 2110-20 uncompressed video stream reception for high-quality professional broadcast workflows.
- Professional audio support: Reception of SMPTE ST 2110-30 PCM audio streams conforming to AES67 interoperability requirements.
- SDP and NMOS stream loading: Stream discovery and loading through SDP files and NMOS-based IP broadcast environments.
- Integrated color space conversion: Built-in Universal Color Space Converter for direct color space conversion of incoming video streams within the processing workflow.

Spec-compliant workflows for professional ST 2110 IP media transport

- Supports flexible software-based deployment across modern broadcast and media infrastructures
- Enables integration into SDI-to-IP transition workflows for production, contribution, ingest, and monitoring applications
- Hardware-agnostic architecture simplifies deployment across standard network environments
- Supports scalable IP-based workflows with independent handling of video and audio essences
- Designed for integration into software-defined and cloud-ready broadcast infrastructures

- Hardware-agnostic deployment: Software-based architecture compatible with standard network infrastructure meeting required bandwidth specifications.
- Designed for IP-based production: Enables flexible handling of independent video and audio essences across modern broadcast and contribution infrastructures.
- Optimized Linux deployment: Streamlined integration into professional Linux-based broadcast and media applications.

Built for flexibility, performance and modern IP workflows

MainConcept® ST 2110 Client SDK is designed to support the transition from dedicated SDI infrastructures to scalable IP-based media environments. By combining standards-compliant ST 2110 reception with software-based deployment flexibility, the SDK enables developers to integrate professional IP media transport capabilities into existing and next-generation broadcast applications. With support for synchronized video and audio reception, NMOS-based discovery, and integrated processing tools, the SDK provides a reliable foundation for modern software-defined broadcast workflows.

System Requirements

	x86	Arm
Linux	Ubuntu 20.04 LTS – 22.04 LTS, Rocky Linux 8.9	Ubuntu 20.04 LTS – 22.04 LTS

Features

- Standards-compliant support for SMPTE ST 2110-10, ST 2110-20, and ST 2110-30 specs
- Reception of uncompressed ST 2110 video streams for professional low-latency broadcast applications
- Support for ST 2110-30 PCM audio streams conforming to AES67 interoperability requirements
- SDP-based stream loading and NMOS-based stream discovery within IP broadcast networks
- Integrated Universal Color Space Converter for direct processing of incoming video streams
- Software-based implementation independent of proprietary or specialized hardware platforms
- Designed for Linux-based professional media and broadcast environments
- Suitable for multiviewer, playout, ingest, monitoring, contribution, and IP production workflows

For more information visit ➡ www.mainconcept.com/st-2110

MainConept GmbH
Elisabethstr. 1,
52062 Aachen
Germany

MainConcept LLC
16767 Bernardo Ctr. #27970,
San Diego, CA 92198
USA

MainConcept Japan
Building 2, Nippo Shin-Osaka, 1-8-33 Nishimiyahara, Yodogawa-ku,
Osaka 532-0004
Japan