Video output

Reckeen 3D Virtual Studio System

- SDI Video Input
  - 2 x SDI – 3G/HD
  - 30,150 fps – 1 x SDI and 1 x 3G SDI
- HDMI
  - 2 x HDMI 1.4 type A connector with support for 1080p60 one up to 4k 30p

Audio input

- Analogue
  - SDI Video Output
  - 2 x HDMI v1.4
  - 2160p 30/25 on one HDMI and 12G SDI
  - 1080p 60/59.94/50/30/29.97/25
  - 1080i 60/59.94/50
  - 720p 60/59.94/50
  - PAL, NTSC

- HDMI
  - SDI Video Output
  - 2 x HDMI v1.4
  - 2160p 30/25 on one HDMI and 12G SDI
  - 1080p 60/59.94/50/30/29.97/25
  - 1080i 60/59.94/50
  - 720p 60/59.94/50

- Still Picture – x2
  - Picture Format
    - .png, .jpg, .bmp

- Still Text – x2
  - Still Editor included

- Keyer – x4
  - Chroma Key / Luminance Key

Features

- Downstream Key – x2
- Media Format
  - MPEG2, MPEG4 and H.264 containers (avi, mpg, mpeg, mp4, mxf, mov)
  - Audio: DOLBY, LPCM
- Video Capture Format
  - H.264 (up to 4k 30p)
- Streaming
  - Facebook
  - YouTube
  - Twitch
  - Ustream
  - NDI
  - and custom profiles

Software

- Reckeen 3D package
  - 3D Production
  - 3D Studio Editor
  - Wizard
  - NDI 3D Paint
  - Still Editor

- Reckeen Life package
  - Live Production
  - VSM Lite Editor (also as a standalone version)
  - Still Editor

NDI

- NDI Input
  - 4 input interchangeably as cam 1 to cam 4 with supported stream key or Reckeen Studio key
- NDI Output
  - program out

Video input

Reckeen SDI Virtual Studio System

- SDI Video Input
  - 2 x 3G – 3G/HD/SD auto switching
  - 30,150 – 1 x SDI and 1 x 3G SDI
- HDMI
  - 2 x HDMI 1.4 type A connector with support for 1080p60 one up to 4k 30p

Audio input

- Analogue

- Digital
  - embedded stereo on each SDI and HDMI

Audio output

- Analogue
  - SDI Video Output
  - 2 x SDI – 3G/HD
  - 30,150 fps – 1 x SDI and 1 x 3G SDI
  - HDMI
  - 2 x HDMI 1.4 type A connector with support for 1080p60 one up to 4k 30p

Video formats

Reckeen SDI Virtual Studio System

- Input
  - 2 x HDMI v1.4, 2 x SDI
  - 30,150 fps – one HDMI and 12G SDI
  - 3G, 12G – 1 x 3G SDI and 1 x 12G SDI
- Output
  - 2 x HDMI v1.4, 2 x SDI
  - 30,150 fps – one HDMI and 12G SDI

- SDI Video Input
  - 2 x 3GSDI
  - 30,150 fps – 1 x SDI and 1 x 3G SDI
- HDMI
  - 2 x HDMI 1.4 type A connector with support for 1080p60 one up to 4k 30p

Audio input

- Analogue

- Digital
  - embedded stereo on each SDI and HDMI

Audio output

- Analogue
  - SDI Video Output
  - 2 x SDI – 3G/HD
  - 30,150 fps – 1 x SDI and 1 x 3G SDI
  - HDMI
  - 2 x HDMI 1.4 type A connector with support for 1080p60 one up to 4k 30p

Video standards

Reckeen SDI Virtual Studio System

- SDI
  - SMPTE2022-1
    - JVT 309/410
  - SMPTE2 – 292M
  - SMPTE2 – 296M
  - SMPTE270M
  - SMPTE273M
- HDMI
  - Video standard – HDMI spec 1.4

NDI

- NDI Input
  - 4 input interchangeably as cam 1 to cam 4 with supported stream key or Reckeen Studio key
- NDI Output
  - program out

Monitor output

- SDI output for monitor

I/O port

- SDI output
  - TL – CDS – 4 channels

- Reckeen Central Keyboard port

- RS – CDS – RS 232

- Reckeen External audio port

- LAN – Audio Link

Ethernet

- Gigabit Ethernet LAN

Video input

Reckeen HDMI Virtual Studio System

- HDMI
  - 4xHDMI 1.4 type A connector with support for 1080p60 one up to 4k 30p

Audio input

- Analogue

- Digital
  - embedded stereo on each SDI and HDMI

Audio output

- Analogue

- Digital
  - embedded stereo on each SDI and HDMI

Video output

Reckeen HDMI Virtual Studio System

- HDMI
  - 2 x HDMI 1.4 type A connector with support for 1080p60 one up to 4k 30p

Audio input

- Analogue

- Digital
  - embedded stereo on each SDI and HDMI

Audio output

- Analogue

- Digital
  - embedded stereo on each SDI and HDMI

Video standards

Reckeen HDMI Virtual Studio System

- SDI
  - SMPTE2082-1
    - 2160p (29.97/25)
  - SMPTE2 – 425M
  - 1080p (60/59.94/50/30/25)
  - SMPTE2 – 292M
  - 1080p (60/59.94/50)
  - SMPTE – 259M
  - 720p (60/59.94/50)
  - PAL, NTSC
- HDMI
  - Video standard – HDMI spec 1.4

NDI

- NDI Input
  - 4 input interchangeably as cam 1 to cam 4 with supported stream key or Reckeen Studio key
- NDI Output
  - program out

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**Reckeen 3D and Reckeen Lite**

**Perfect broadcasting solutions for professionals and beginners.**

Reckeen 3D system enables you to produce professional TV programs in real-time. It is a multi-channel mixer that combines 4 video sources with computer graphics and media. Each of these video sources can be preprocessed with built-in chromatic keys and then placed in a virtual 3D scene, thus creating a virtual studio or an advanced composition combining computer graphics and video.

The system allows you to work in two independent modes – Reckeen 3D and Reckeen Lite – enabling you to customize the production process to suit your needs.

**RECKEEN 3D Studio is actually 9 in 1!**

- Virtual Studio with Animations of any 3D object on a scene
- Mixer
- Still Editor - captions and graphics boards generator
- Wizard Studio Editor - stage design editor
- 3D Studio Editor
- MS 3D Paint Editor
- Recorder
- Streamer
- Reckeen LITE system - the platform’s simpler version for quick tasks and for the beginners

### 3D Production

RECKEEN 3D Studio is a PC based system with an option of importing files in OBJ and FBX formats and objects from its own editors.

Up to two 4K camcordes or up to four Full HD (4x HDMI or 2x HDMI and 2xSDI /4x 3G or 1x 12G and 1x 3G – depending on the version) can be connected to the Reckeen workstation, their signals will be keyed independently in a high quality. This means, in your virtual studio you can get up to four talent shots taken by four cameras in different locations. In addition, you have four virtual cameras with full range of motion available: pan, tilt, zoom, dolly, truck, arc, pedestal, cant and so on. Their positioning and switching between them reflects the cameraman’s natural movements. Up to 16 shots can be assigned to each of the cameras. By default, they are set by the virtual studio designer and defined in the project, but you can customize them to fit your needs.

Controlling virtual cameras is easy and convenient thanks to the specially designed VKey-100 keyboard with joystick.

### Advanced features of the Studio Editor Wizard

With RECKEEN 3D you get a ready-made designs package, but 3D Studio Editor and Wizard are also its integral parts, with their use you can prepare your very own designs, with supplied materials or starting from scratch, after your own ideas. The Wizard allows you to create stage designs quickly and efficiently on the basis of ready-made elements, while in the 3D Studio Editor you can personalize every detail you want.

### Streaming

Streaming

3D connectors only in Reckeen Studio version with HDMI-SDI card

Virtual LITE studio offers a Full HD resolution, 4K resolution. By purchasing additional License Key, You can upgrade it to 3D Studio LITE with 4K resolution.

### Studio Editor Wizard

The Still Editor module allows you to create captions, text boards and news tickers. With an easy-to-use panel, suitable components can be downloaded from external files or created – even during the production and live editing.

### MS Paint 3D

You can create 3D objects you want to place in the virtual studio scenography in MS Paint 3D editor. The application allows you to implement all the ideas, from the most original and crazy ones to the simplest, like three-dimensional subtitles. And all those created objects can be easily and intuitively moved to a virtual studio, even during the live production.