



**Reckeen 3D and Reckeen Lite technical specification.**  
There are three version of system 12G, 3G SDI or HDMI.

**Video input**

**Reckeen SDI Virtual Studio System\***

- **SDI Video Input**
- 3G,12G – 1 x 3G SDI and 1 x 12G SDI
- **HDMI**
- 2 x HDMI 1.4 type A connector with support for 1080p60 one up to 4k 30p

**Monitor output**

- 2x DP output for monitor
- 2x HDMI output for monitor

**I/O port**

- **Tally Output**
- TL – DB9 – 4 channels
- **Reckeen External Keyboard port**
- RS – DB9 – RS 232
- **Reckeen External Audio port**
- LAN – Audio Link
- **Ethernet**
- Gigabit Ethernet LAN
- **PC/2**
- PC keyboard
- **USB**
- 2 x USB 3.0 ( front panel )
- 4 x USB 3.0 ( back panel )
- 1 x USB 3.1 ( back panel )

**Audio output**

- **Digital**
- embedded stereo on each SDI and HDMI
- **Analog**
- 2 x XLR two channels – professional balanced analogue audio stereo differential input (-10dBV, or 4dBu)
- 2 x Jack 6,3mm two channels – professional balanced analogue audio stereo differential input (-10dBV, or 4dBu)
- 1 x Jack 6,3mm – stereo Headphone output

**Video standards**

**Reckeen SDI Virtual Studio System\***

- **SDI**
- SMPTE2082-1\*
- 2160p (29.97/25)
- SMPTE-425M
- 1080p (60/59.94/50/30/25)
- SMPTE-292M
- 1080p (30/29.97/25)
- 1080i (60/59.94/50)
- SMPTE-296M
- 720p (60/59.94/50)
- SMPTE-259M
- 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 chroma key
- 2 input interchangeably as media 1 and 2
- **NDI output:**
- program out
- **Easy integration with application such as:**
- Skype
- MS Teams
- Zoom
- and more

**Video output**

**Reckeen SDI Virtual Studio System\***

- **SDI Video Output**
- 3G,12G – 1x3G/HD and 1x12G - 4k 30p
- **HDMI**
- 2 x HDMI 1.4 type A connector with support for 1080p60 one up to 4k 30p

**Audio input**

- **Digital**
- embedded stereo on each SDI and HDMI
- **Analog**
- 2 x XLR two channels – professional balanced analogue audio stereo differential input (-10dBV, or 4dBu)
- 2 x Jack 6,3mm two channels – professional balanced analogue audio stereo differential input (-10dBV, or 4dBu)
- Two types of microphones – dynamic and condenser with + 48V phantom

**Video formats**

**Reckeen SDI Virtual Studio System\***

- **Input**
- 2 x HDMI v1.4, 2 x SDI
- 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
- **Output**
- 2 x HDMI v1.4, 2 x SDI
- 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

**Features**

- **Downstream Key** – x2
- **Media Format**
- MPEG2, MPEG4 and H.264 containers: (avi, mpg, mpeg, mp4, mxf, mov)
- Audio: WAV, MP3
- **Video Capture Format**
- H.264 (.mp4) MPEG-2 (.mpg)
- 1080p 60/59.94/50/30/29.97/25
- 1080i 60/59.94/50
- 720p 60/59.94/50
- H.264 up to 4k 30p
- **PTZ Tracking through Free-D protocol**
- **Still Picture** – x2
- **Picture Format**
- .png, .jpg, .bmp, tiff.
- **Still Text** – x2
- Still Editor included
- **Keyer** – x4
- Chroma Key / Luminance Key
- **Streaming**
- Facebook
- YouTube
- NicoNico
- Ustream
- and custom profiles

**Software**

- **Reckeen 3D package:**
- 3D Production
- 3D Studio Editor
- Wizard
- MS 3D Paint
- Still Editor
- Material Editor
- **Reckeen Lite package:**
- Lite Production
- VSM Lite Editor (also as a standalone version)
- Still Editor

**NDI**



**THE MOST ALL-RUNDED  
3D BROADCASTING  
SYSTEM**



**RECKEEN**  
3D STUDIO

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For more information please visit our website at:  
[www.reckeen.com](http://www.reckeen.com)  
Contact us:  
[sales@reckeen.com](mailto:sales@reckeen.com)



# Reckeen 3D Studio & Lite

## The most all-rounded 3D broadcasting system in the industry

An advanced, trackless 3D virtual studio workstation for creative broadcasters who value versatility, high quality and cost-effectiveness.

RECKEEN 3D Studio is an all-rounded product that will cover your broadcasting needs – starting from creating and designing your virtual scenography, through producing your 3D TV content, to mixing and broadcasting the material in real-time.

Reckeen 3D Studio system is equipped with virtual cameras, which give you freedom to move around the whole virtual set at any angle without limitations, imitating a camera crane and cameraman's natural movements; unlike in 2D solutions, where that movement is limited to zoom in and out, and left to right.

### Compatibility

The system is compatible with other devices such as: switchers, production systems, any cameras, and more.

Do you already work on a green screen and/or own other systems that you are happy with? Great! - RECKEEN can work not only as a stand-alone workstation, but also as a supplementary module to other equipment – expand your working environment with possibilities of 3D system!

Take your productions to a new level!

### All necessary tools to produce 3D TV content

RECKEEN 3D Studio package contains all necessary tools and applications to produce 3D TV content. The solution is perfect for TV stations, Youtubers, Twitch and other broadcasters, streamers, e-learning and education facilities, and for all creative people producing content.

- **3D Studio Editor** – edit your 3D studio, create 3D objects' animations, adjust lighting, shadows, talent set-up, and more
- **3D Studio Wizard** – create your own virtual studio from scratch
- **Still Editor** – create captions, graphic boards, news tickers, and more.
- **SmartKey** – PIP feature, with 4 independent chroma keys, that can generate 4 separate outputs with talents on different backgrounds
- **Reckeen Lite** – 2D production module

### Default content:

- Over 50 ready-to-use sets and scenographies of different styles
- Library of over 700 3D objects
- Library of textures & materials – wood, metal, plastic, stone, fabrics, etc. in various colours – to customise any object, wall or floor inside a 3D studio.

### System's features:

- 4K resolution, up to 60fps
- 6 NDI inputs and 1 output
- Interface containing: mixers, switcher, and audio mixer
- Streamer and Recorder
- Premium chroma key – 4 independent channels
- 3D Multicamera mode of production with Depth of Field feature
- Supports 3D animations in .FBX format
- High quality graphics – the system uses PBR techniques
- ADB-100 - external audio panel for the best sound quality.
- Integrated Microsoft Paint 3D



## CONNECT UP TO 4 INDEPENDENT CAMERAS



RECKEEN Studio system has 4 camera inputs. It allows you to have up to two 4K or up to four Full HD camcorders connected to the RECKEEN's workstation. Their signals are keyed independently in a high quality, thanks to four independent high-end chroma key channels. Multiple inputs allow a user to make more complex productions with numerous talents filmed on different greenscreens, and also in different locations – if using an NDI connection.

### RECKEEN VKey-200 CONTROL PANEL

For optimized results during production, RECKEEN 3D Studio comes with RECKEEN VKey-200 - a specially designed control panel that provides precise control over real-time video operations. This control panel combines ergonomic design, top-quality, precise mechanics and versatile functionality.

### SMARTKEY - Multi Chroma Keyer



SMARTKEY is a new solution integrating chroma key function with media and graphics.

### Studio Editor Wizard



With RECKEEN 3DStudio you get a package of over 50 ready-to-use virtual 3D studio designs, that can be used straight away. However, thanks to 3D Studio Editor and Wizard all of them can be customized to your own preference, by modifying

the existing designs using supplied materials. You can also create your very own designs by starting the project entirely from scratch to create a completely unique sets. The Wizard allows you to create stage designs easily and quickly on the basis of ready-made elements in a few steps, while in the 3D Studio Editor you can personalize every detail you want including lights, virtual cameras' setup and talent's position.

