datavideo

Artificial intelligence

In computer science, artificial intelligence (AI), sometimes called machine intelligence, is intelligence demonstrated by machines, in contrast to the natural intelligence displayed by humans.

VGB-4000
4K Pro Presentation System

4K Pro Presentation System
VGB-4000

TPC-700
Touch Panel
Controller

VGB-4000
4K Pro Presentation
System

FS-220
Foot Switch

LBK-1 &LBK-2
Video Look Back
System

Datavideo VGB-4000
4K Pro Presentation System

Designing a course recording system means adjusting our view of regular AV systems to a presenter's perspective. A presenter is used to do things in his way and with his tools. Most of the presenters nowadays are trained professionals in using a smart display. Our VGB-4000 system connects to the way they teach and will not influence their current habits.

Datavideo VGB-4000 4K Pro Presentation System is designed based on a large panel display familiar for presenters to show the course content clearly. The system needs a single camera only and is very easy to start and stop. Built-in virtual sets give the presenter the freedom to adjust the background to his liking and preference.

TPC-700 provides many built-in scenes, and presenters can arrange the layout to their own needs.

3

1. Environment

A virtual studio or chromakey studio has a couple of characteristics. With VGB-4000, you can choose how you want to produce, either close up or have someone entirely in the shot head to toe. This composition determines if you need a small room or some more space.

1. If a full body shot is needed, the minimum distance for shooting must be considered for the camera to capture the complete image. We suggest that space is as following sizes: 5x5x3.5m
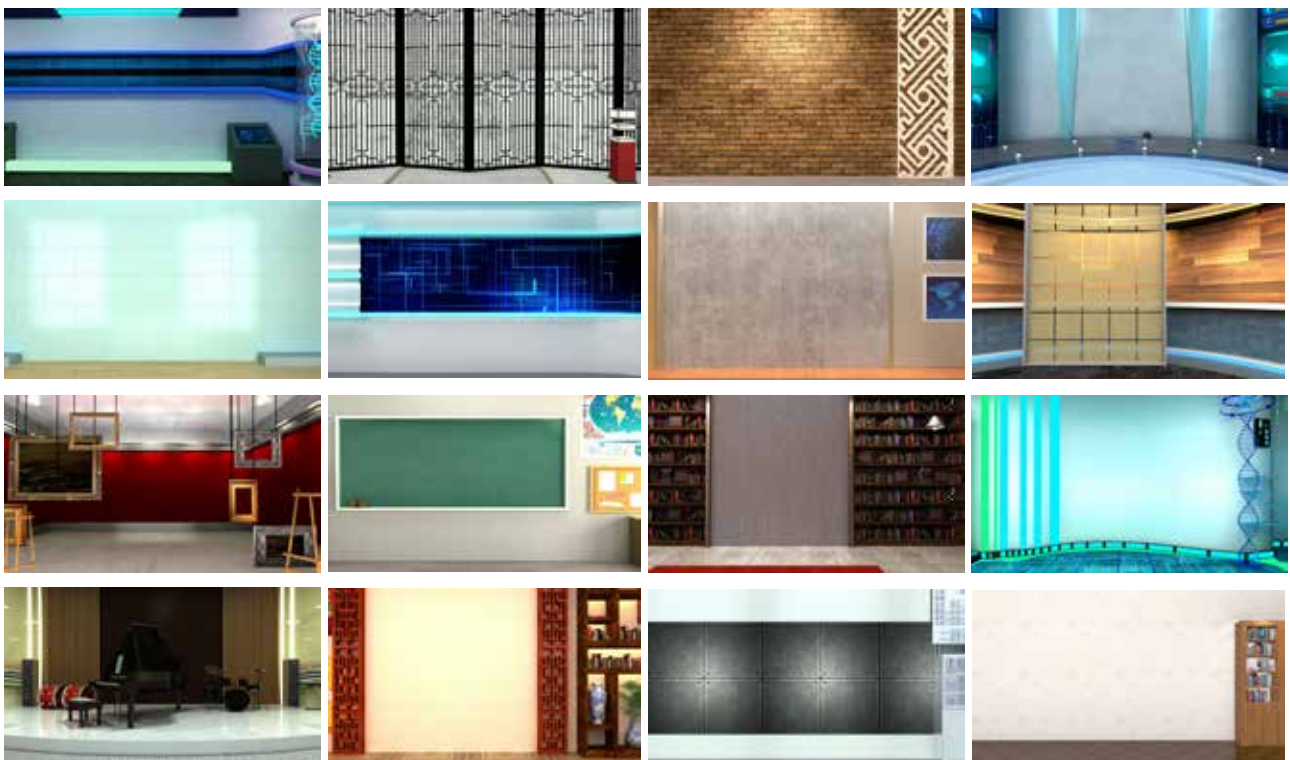
2. Chroma key wall: The primary colors for the virtual set background are blue and green. The clothes color of the presenter can determine the background color. In case they want to wear green, the background should be blue. In case he wants to wear blue colors, the background should be green. In practice, green is the better color to pick as this is less common in clothing. Thus, we suggest using decorating paint. The color is "PANTONE 360C" green. For the floor, please use plastic floor mats of the same color (Datavideo MAT-2), which is designed specifically for the virtual floor and is resistant to stepping and washing.

3. Ambient Lighting: Lighting determines the aesthetic feeling for the final chromakeyed virtual set. Ambient lighting ensures you of isolating the talent from the background the best. Recommended is to use three fill lights and six ceiling lights.

2. Virtual Set

VGB-4000 Exclusive Background Library

Different backgrounds will suit various lectures. Datavideo includes multiple backgrounds and easy importing tools to add your own.
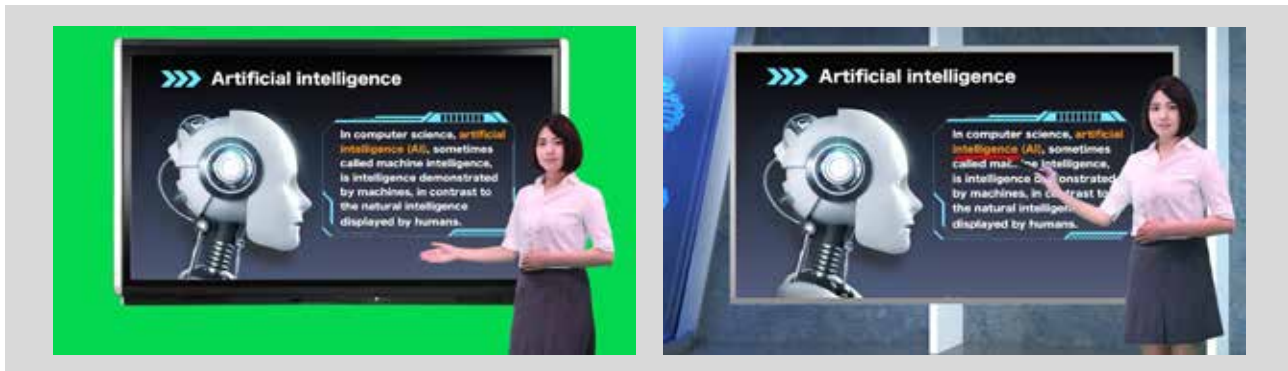
3. Facilities

The basis of the VGB-4000 Pro Presentation System is a broadcast-grade chroma keyer, DVK-400. This chroma keyer ensures high-end isolation from the green background with minimal effort. VGB-4000 is a perfect way for low-cost lecture capturing, live streaming, and interaction with students without a steep learning curve.

Chromakeying

With DVK-400, you isolate the presenter from the green background and replace that background with something you choose yourself. We deliver a high quantity of backgrounds that will suit your lecture seamlessly. Alternatively, you can upload your background and use that instead.
With keying occlusion, you can select a part of the screen that isn't keyed. This way, you prevent the chroma keyer from keying out your presentation. Using green in your presentations is no problem this way!

Interactive touch screen

Using a large touch screen is an easy way to lecture digitally. Showing your presentation and creating annotations on the screen is very easy to learn. The system can record the output of the digital touch screen as well to offer a full-screen rendition of your lecture.
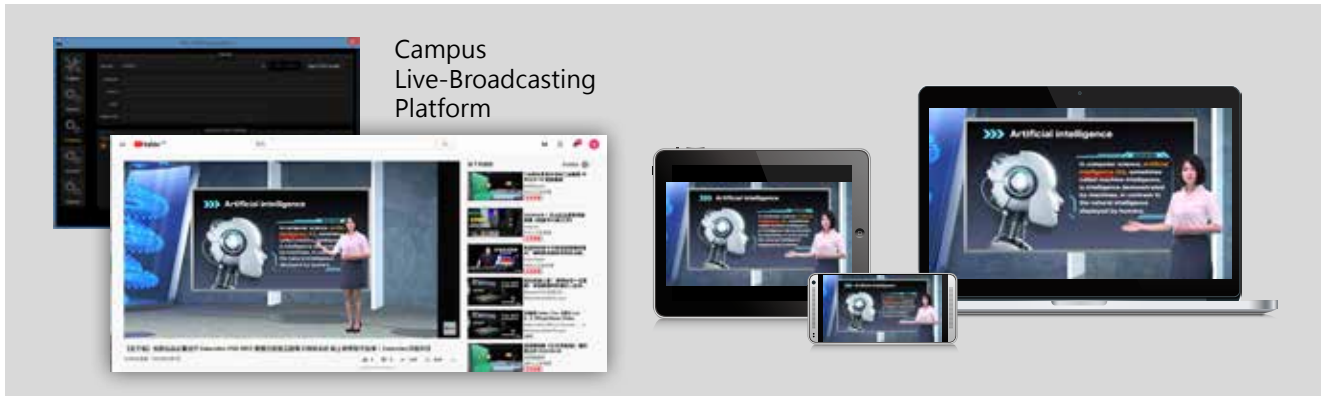

Video recording and recalling

Recording your video should be high quality, uninterrupted and safe from errors. The brand new HDR-90 ProRes 4K Video Recorder ensures all of that and more. By streaming the lecture through our NVS-33 h.264 streaming encoder and dvCloud, the file will be available on the VOD system as well, to be recalled at any desired moment.

4:2:2 COLOUR SAMPLING 4:2:2 10bit exFAT .MOV

Broadcasting Video Quality

Live-Stream System

The whole VGB-4000 system with the H.264 video streaming server allows you to live-stream the course scene to the web platform in RTMPS or RTSP mode or transfer it to a school or corporate training. Moreover, it provides the backup video recording function to record the video in MP4 format by inserting an SD card. Lectures can keep the recorded backup video by themselves.

Campus
Live-Broadcasting
Platform

Audio System

The wireless microphones provide audio input. The audio gets embedded on the recorded video, so there's no need to dub it later. The built-in audio delay ensures synchronized audio and video.
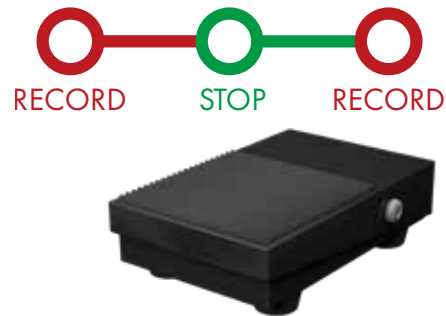

Control System

The TPC-700 allows you to control your production with the touch screen easily. From here, you can manage the AR objects and much more.

TPC-700 Touch Panel Controller
with various built-in effects.

TPC-700
Touch Panel Controller
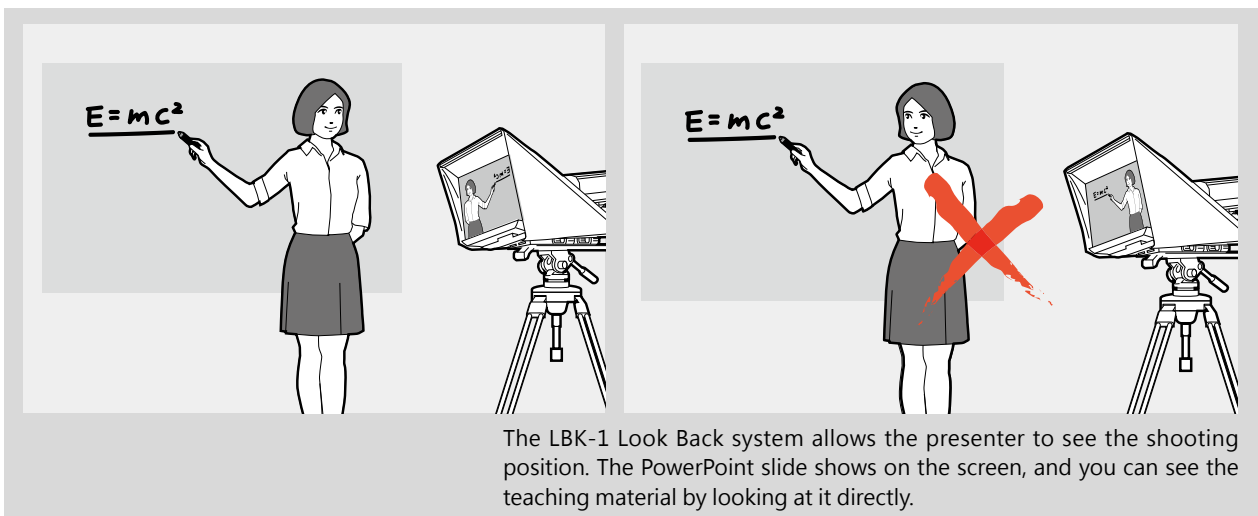
4. Applications

One step Start/ Stop Recording

You don't need to walk back and forth to the production station to start or stop recording during production. The FS-220 footswitch allows you to start and stop recording with a tap of your foot.

RECORD   STOP   RECORD

Easy Reference Monitoring

When producing video in a chromakey video, reference is always a thing to take in mind. You usually can't see yourself with the background as this is just a green screen. The included LBK-1 look back kit ensures you are always in the proper position, while the teleprompter design helps you keep looking in the camera lens. An extra LED indicator shows you when you're recording and when the recording is ended.

$$E = mc^2$$

The LBK-1 Look Back system allows the presenter to see the shooting position. The PowerPoint slide shows on the screen, and you can see the teaching material by looking at it directly.

The camera is installed behind the mirror. This way you will always look directly towards the camera.

Switching with a Touch

Using AR objects like a desk can be easily switched from foreground to background using the TPC-700P control panel.

The AR Object Modes for the VGB-4000 Pro Presentation System.

AR Object OFF (Lumakey OFF)

After the Lumakey is off, presenter can concentrate on explaining the PowerPoint slide content.

AUX Layer Swap Front/Back (AUX Layer Front)

The AR object will be displayed in front of the presenter.

BG Blur Mode (BG Blur ON)

The Backgroud Blur can create the Depth of Field effect.

AR Layer Swap Front/Back(Behind the AUX Layer)

The AR object will be displayed behind the presenter.

Hardware for the System

LBK-1
Look Back Kit

Mirror Display

Tally Light

Display on the front side of the screen

Rear View of the LBK-1

4K Camera

LBK-2
Look Back Kit for Monitor

LBK-1 & LBK-2
Image Look Back Kits

LBK-1 and LBK-2 are reference monitors that show the video feed in two ways. The LBK-1 in the teleprompter shows a mirrored view, so your reference is corresponding with your hand motions. The LBK-2 shows the actual feed, non mirrored.

4K Video Recorder

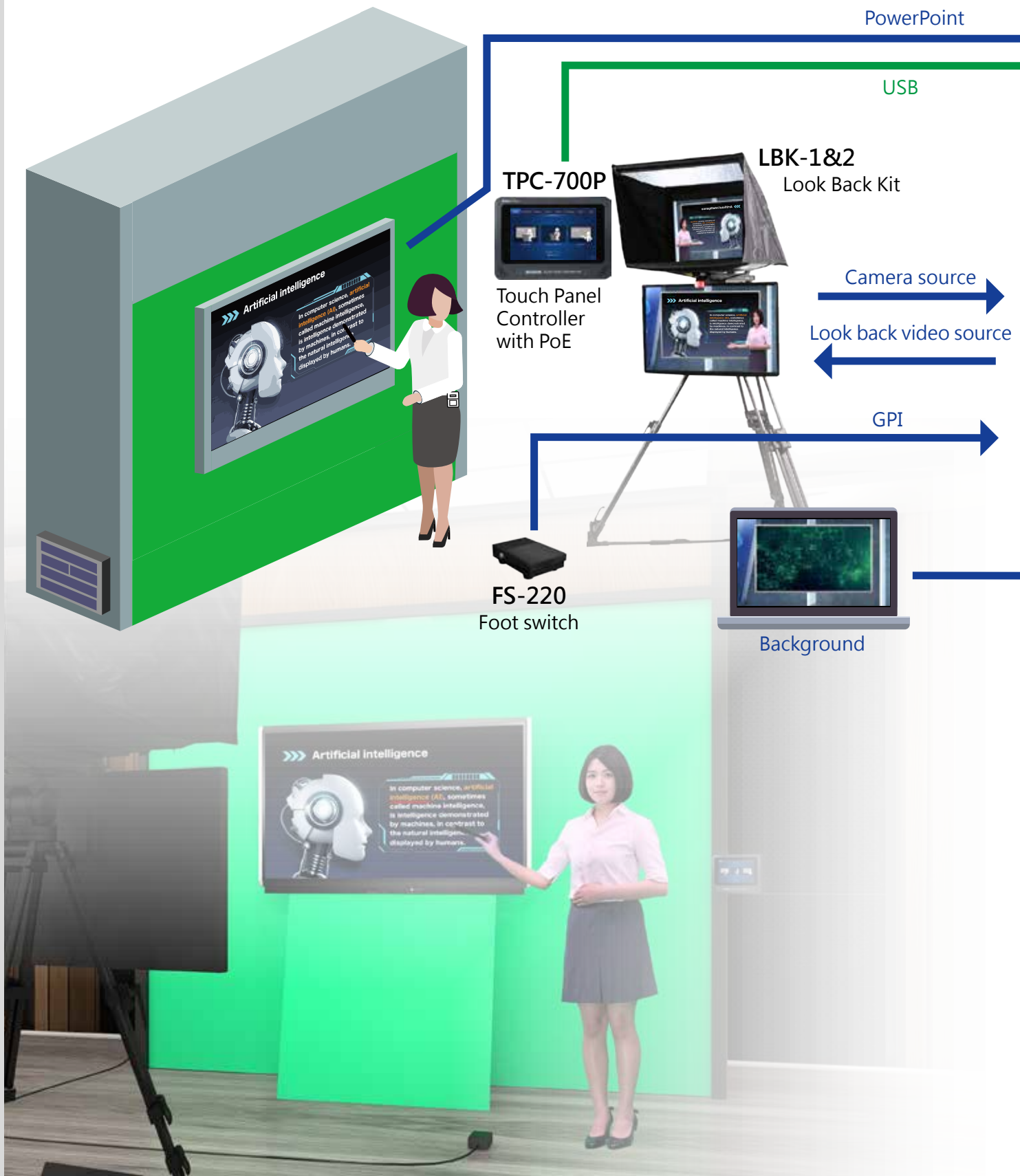Audio Delay Box

H.264 Video Streaming Server
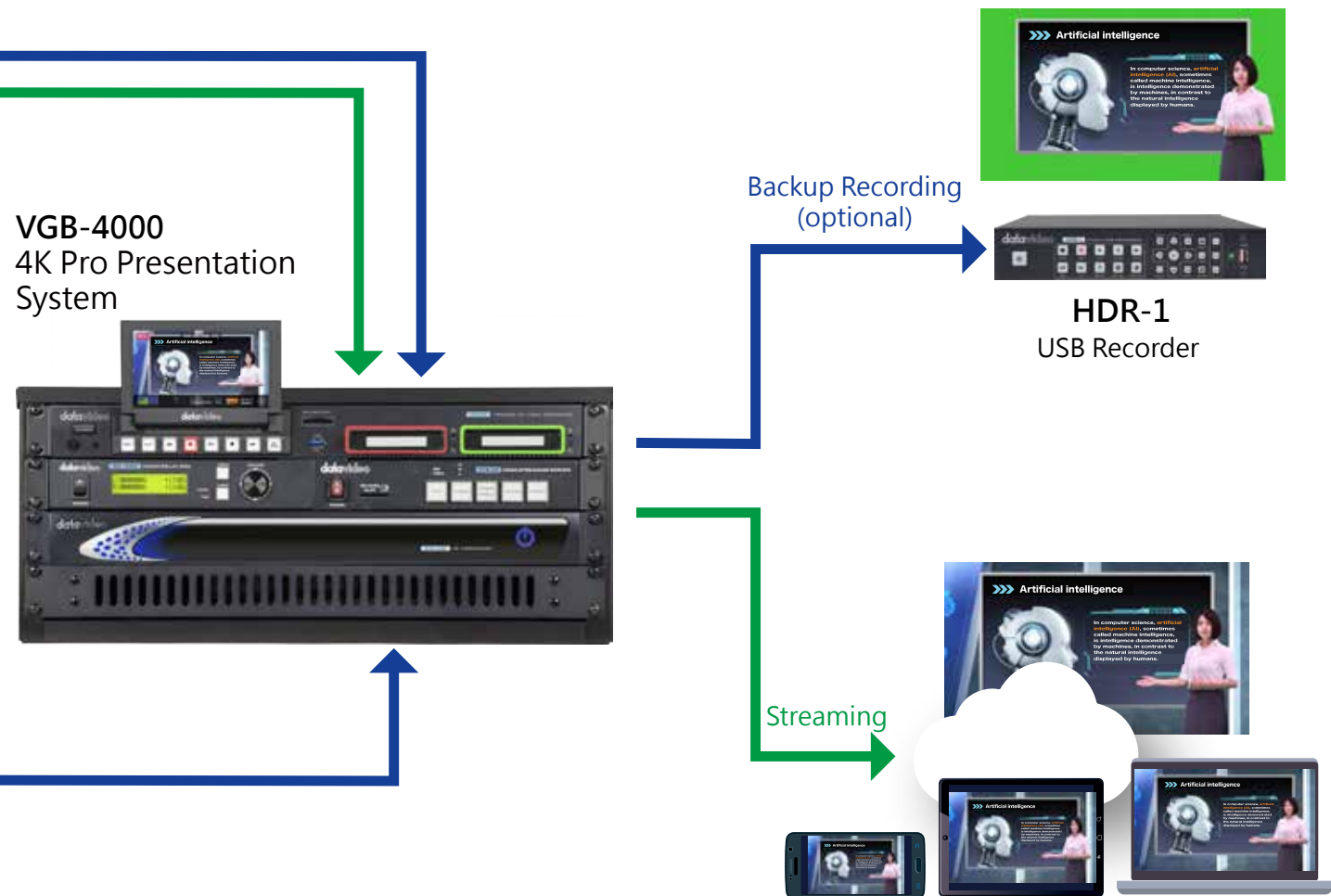
4K Chromakey

FS-220
Foot Switch Controller

This intuitive foot pedal controls starting and stopping the recording. A reference light underneath the camera shows the status of the recording.

4K Pro Presentation System

VGB-4000 is specifically designed to meet the needs of presenter for creating compelling course content. This unit integrates chromakeying with recording and streaming in a single system.

System Diagram

PowerPoint

USB

TPC-700P

LBK-1&2
Look Back Kit

Touch Panel
Controller
with PoE

Camera source

Look back video source

GPI

FS-220
Foot switch

Background

VGB-4000
4K Pro Presentation
System

Backup Recording
(optional)

HDR-1
USB Recorder

Streaming

System Content

Video & Audio Devices	Video Recording System	Teaching Material System	Environment
4K Camera	4K Pro Presentation System	Interactive Touch Screen	LED Ceiling Light
Tripod	Laptop		Front Fill Light
Look Back Kits LBK-1、LBK-2			Green Background
Audio System			

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