

SONY



Vision Exchange™

PEQ-C100
Collaboration System

PEQ-C130
Collaboration System

PES-C10
Pod PC Software



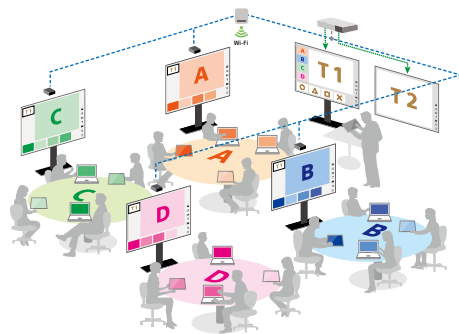
Exchange Information, Exchange Ideas, Exchange Visions

Sony's Vision Exchange provides a dynamic and flexible solution to cover various teaching space in the education field. Changing the environment from a "one way teaching" platform to an "interactive and collaborative active learning" platform for everyone. Lecturers and presenters can brainstorm and work collaboratively by sharing each individual's multimedia presentation content together, even bringing in other participants at remote locations to join the discussion as required.

Active Learning Class



Encourage Discussions with Simple Work Flow



Let teams, lecturers and presenters brainstorm and work collaboratively by sharing each individual's multimedia presentation content together.

Interactive Lecture



Maximize Student's Learning Experience

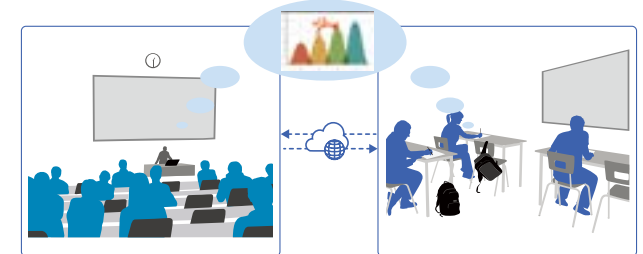


Stimulate lectures by having students participate with their BYOD (Bring Your Own Device). Give instant feedback by annotating on their shared image.

Distance Learning



Share more and Communicate Better



Remote communication capabilities allow all effective collaborations to be shared even on the remote side.

Introduction

Sony's new 'Vision Exchange' solution brings Active Learning alive.

Sony introduces Vision Exchange, the intuitive new collaboration solution for education.

Uniquely flexible and cost effective, Vision Exchange brings together students, lecturers and presenters in a dynamic workgroup-based environment that encourages creative discussion and knowledge exchange.

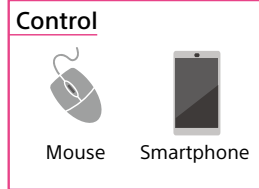
Ideal for universities, colleges of higher education. Vision Exchange provides a dynamic, flexible solution to suit a wide range of teaching spaces and meeting areas. Teams can brainstorm and work collaboratively, wirelessly sharing content from everyone's laptop or tablet. It is just as easy to bring in participants to join the discussion by adding a video connection to remote locations, making teamwork truly global.

Simple Drag & Drop Control

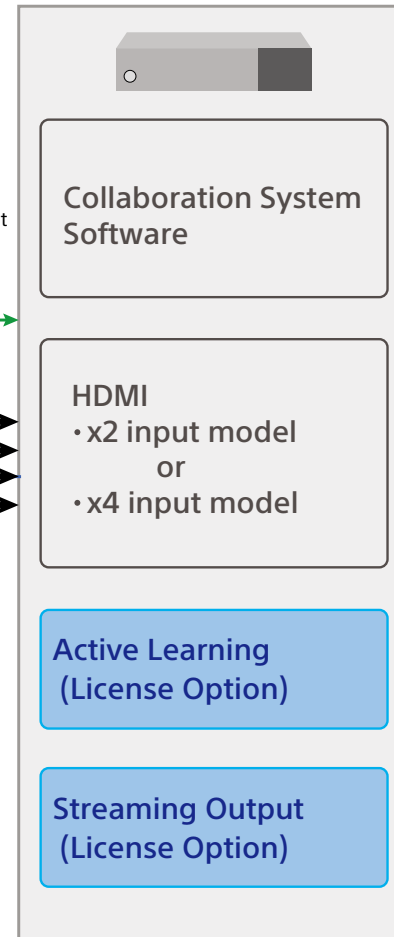
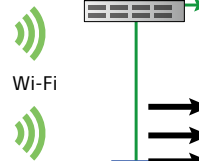
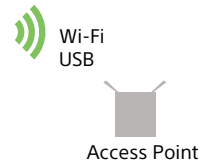
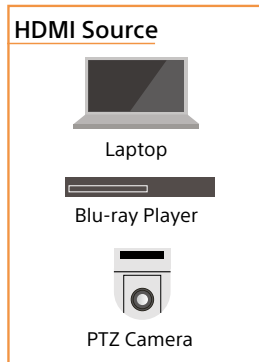
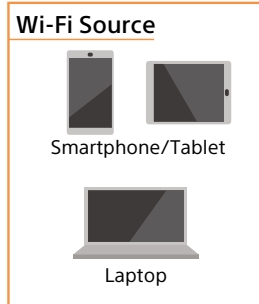
Encourage Discussions with Active Learning

Sharing more with remote location

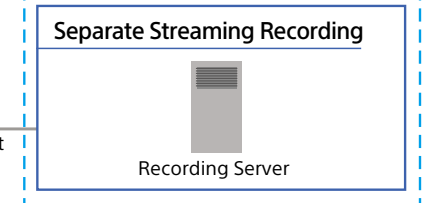
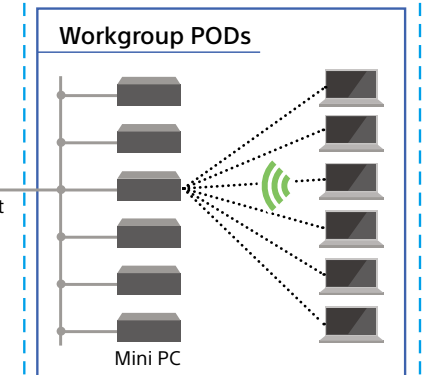
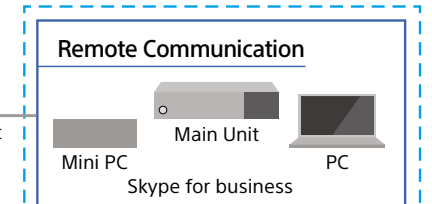
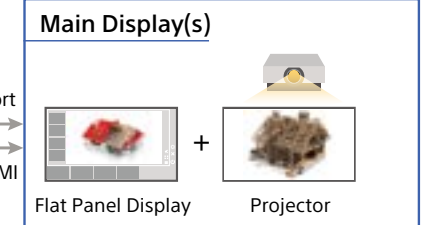
Input and Control



Media Input^{*1}



Output and Connectivity



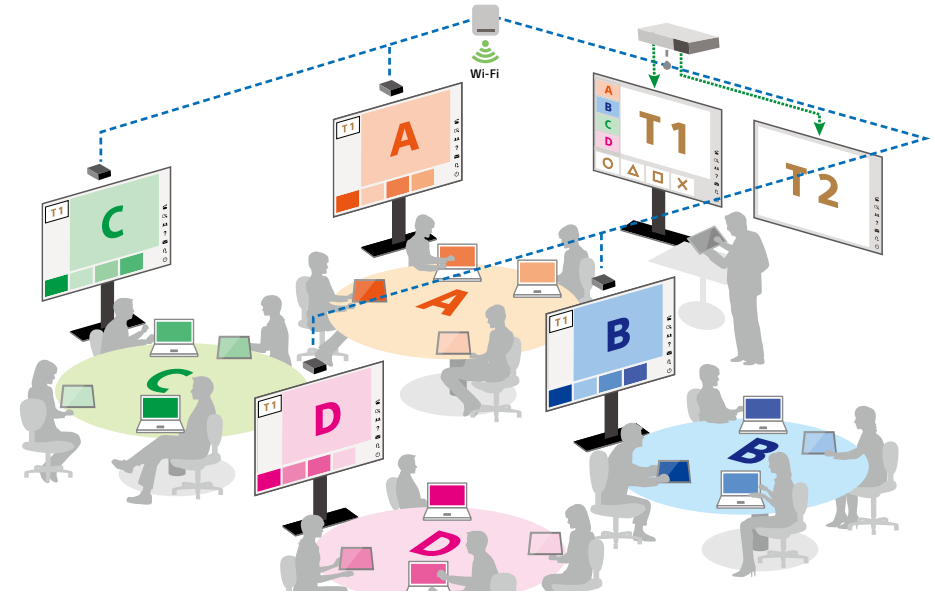
^{*1} Refer to page 10 for full details

Active Learning Class

Sony's Vision Exchange is a solution that brings together students, lecturers and presenters in a workgroup-based collaborative environment. Cost-effective, easy to configure and intuitive for every user, this total active learning solution is ideal for universities and colleges of higher education. Sony's Vision Exchange lets teams, lecturers and presenters brainstorm and work collaboratively by sharing each individual's multimedia presentation content together, even bringing in other participants at remote locations to join the discussion as required.



Simulated image



Facility Managers

- Currently no optimum solution. Trial and error.
- Increase in cost of equipment.

Faculty

- Difficult AV Operation.
- Large burdens on the faculty.

Students

- Limited to either single BYOD, whiteboard or labels, etc.
- Outcome of discussions cannot be taken home.

Pain



Facility Managers

- Easy to configure.
- Cost-effective.

Faculty

- Intuitive operation.
- Efficient class.

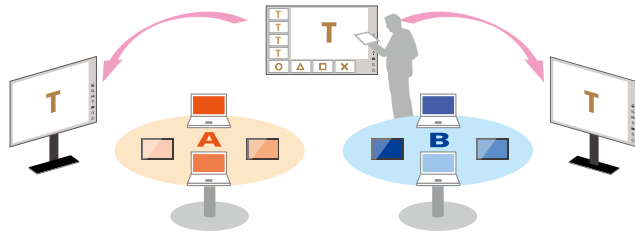
Students

- Multiple BYOD, whiteboard and labels with bird-eye view.
- Outcome of discussions can be saved/downloaded.

Gain

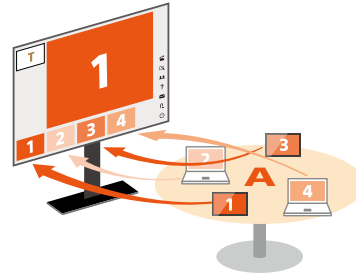
Active Learning Class Workflow

Share to Class



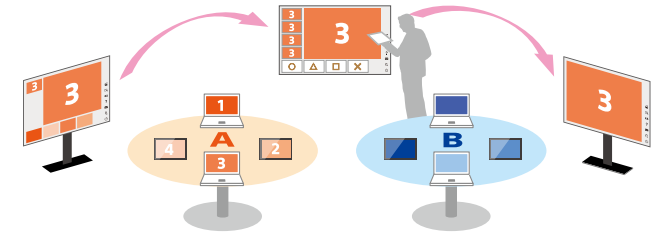
- Easy sharing of teacher's materials (Laptop/tablet images, document camera, HDMI inputs, etc.)
- Any image on the main view will be shown to all work group POD displays in full screen when the "Pod share" button is pressed

Active Group Discussion



- Any student can easily mirror their BYOD content.
- Enhance discussions by simple switching, annotation/digital tag whiteboard mode
- Teachers can monitor and select any group's information then share to all other group screens.

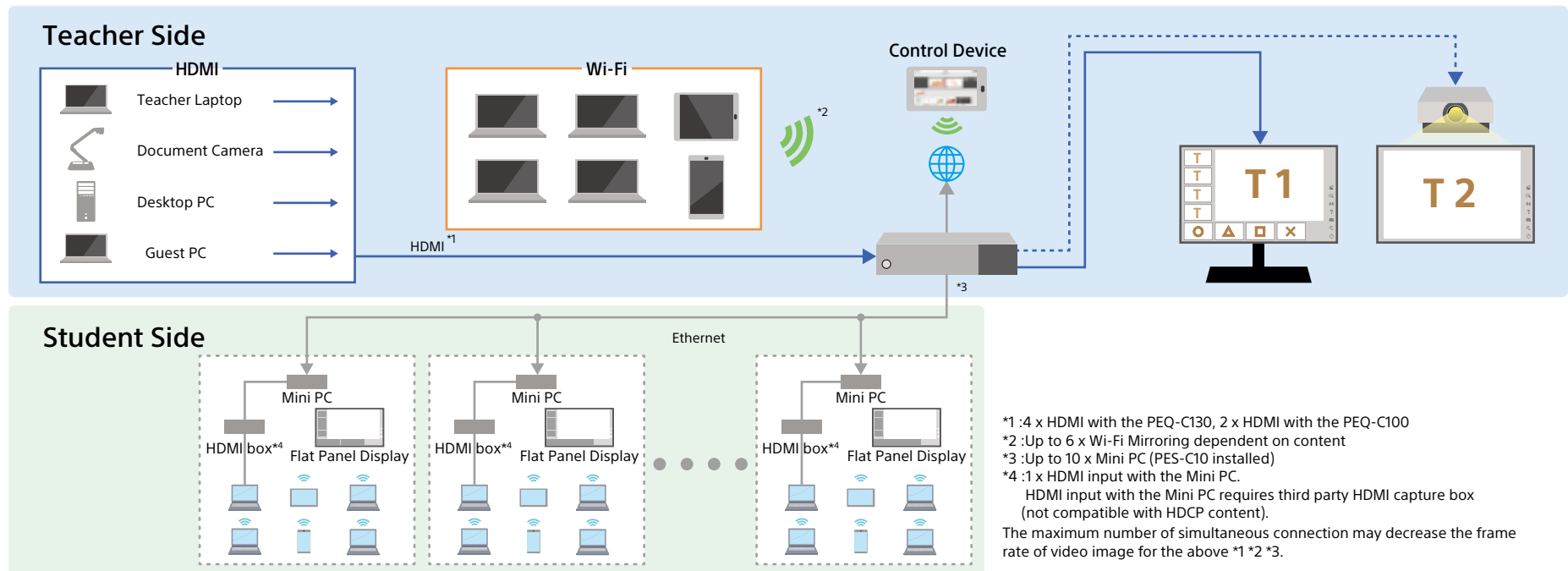
Present and Feedback



- Quickly drag & drop to share anyone's screen
- Promptly reflect the teacher or student comments with annotations to feedback

System Diagram of Active Learning

- Easy to configure and scalable by simply adding Mini PC's with Ethernet cable.
- Flexible system capable of supporting up to 10 groups (6 BYOD per table).



Interactive Lecture

One way lecture style classes are no longer sufficient for students who want to learn deeper. Sony's Vision Exchange provides dynamic and flexible solutions to cover various teaching spaces, changing the environment from a "one way teaching" platform to an "interactive lecture".

The faculty can easily bring up any sources in the classroom and intuitively switch multiple content from smartphones or tablet interfaces. The sources can be anything from standard AV equipments (Faculty laptop PC, document camera, Blu-ray players, etc.) to any students' BYOD (Bring Your Own Device) images who want to share their images wirelessly.

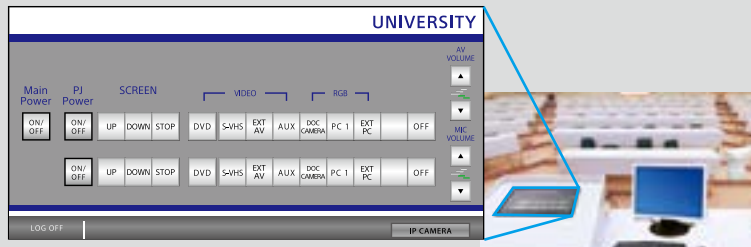
Furthermore, student can easily refer, capture, write and save the main screen content using their BYOD for later review.



Simulated image

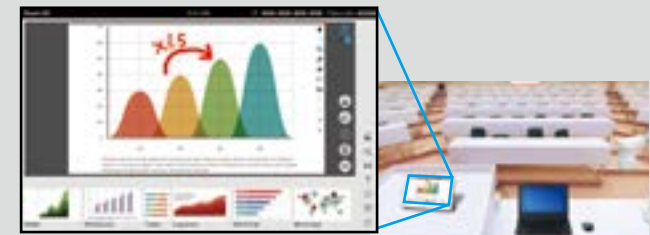


Complicated Switching



Pain

Intuitive Control



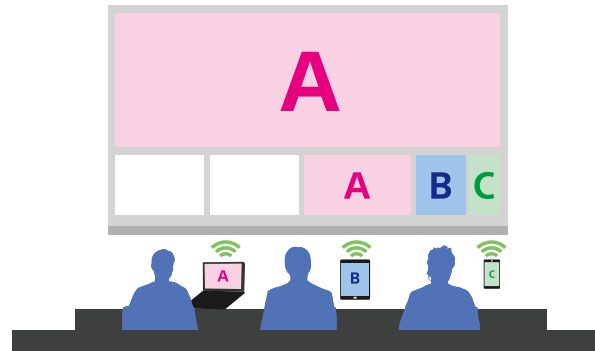
Gain

Intuitive UI



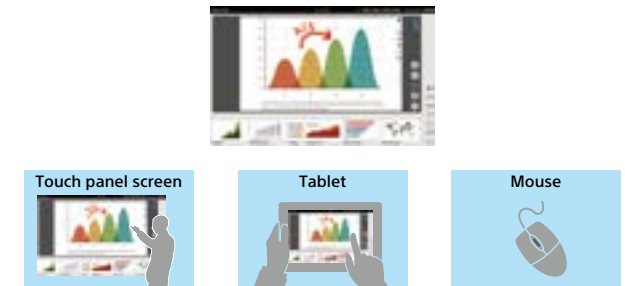
Intuitively switch between desired contents with ease.

Interactive Mirroring



Maximize student's learning experience by interacting with students.

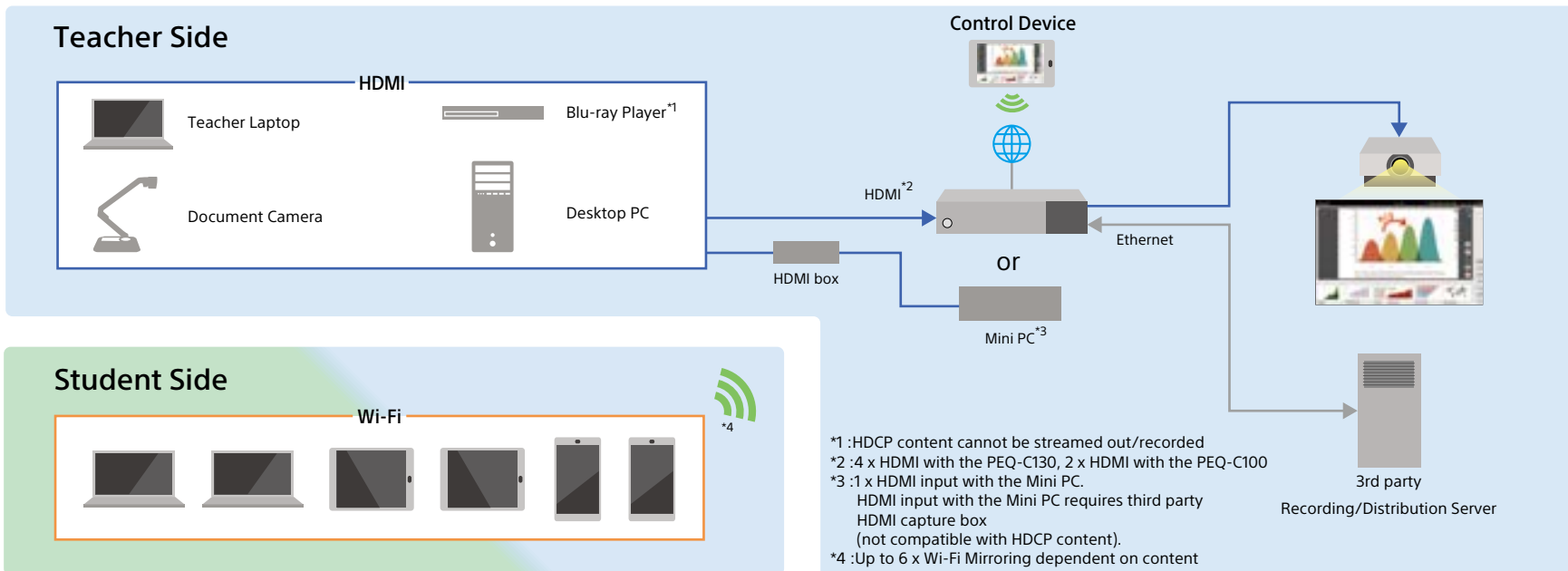
Annotation



Give instant feedback to students with annotations.

System Diagram of Interactive Lecture

- Vision Exchange allows intuitive switching of AV sources with its intuitive drag & drop user interface.
- A highly flexible system that can receive up to 4 x HDMI inputs and 6 student wireless BYOD's.



Distance Learning

Skype™ for Business is natively integrated to Vision Exchange that enables participants to learn remotely as content can be shared with multiple users within a workgroup – regardless of their geographical location. Participants can share not only content from their own devices (laptops, tablets and smartphones), but annotations overlaid on the devices' images or whiteboard description in real-time. It even has remote communication capabilities that will allow all of these effective collaborations to be extended to remote locations. Vision Exchange lets you collaborate and communicate better.

Traditional distance learning system requires multiple cables, AV switchers, video conferencing systems, and other hardware. These complex set-ups are frequently a cause of wasted time and frustration, as presenters struggle with awkward wiring instead of focusing on the lecture itself. Vision Exchange reduce these operational headaches, allowing participants to focus on the lecture with improved communication.

Campus A



Campus B



Simulated Image

- Wasting time with complex AV/IT remote controllers ?
- Want to annotate over any source ?
- Want to share whiteboard, tablet/smartphone to the far side ?
- Taking snapshots with smartphone and sending them via e-mail ?
- Wasting time with complex AV/IT remote controllers ?

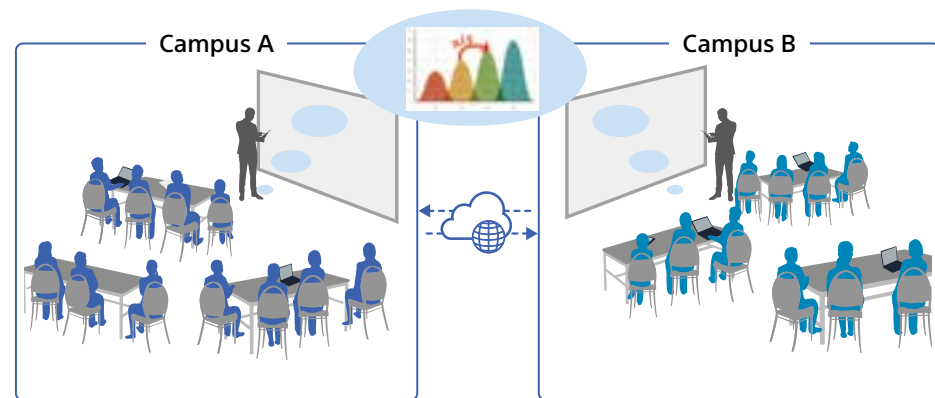
Pain



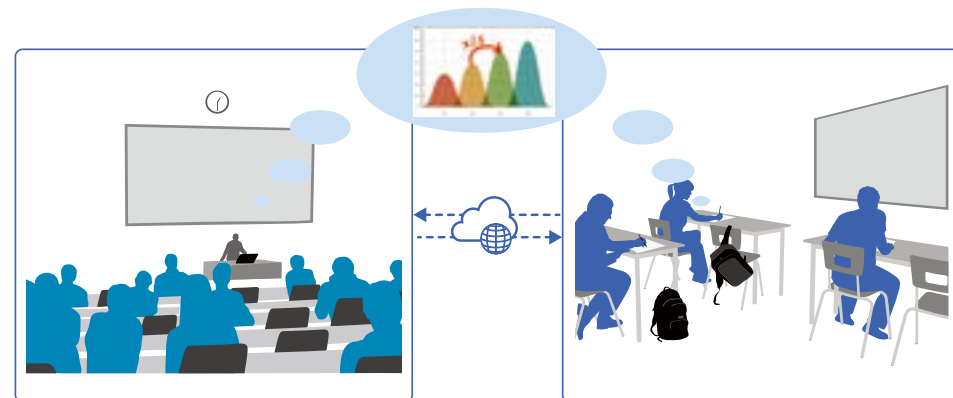
- Vision Exchange does it all with it's intuitive control.
- The far side has a better understanding with richer content and clearer message.

Gain

for Active Learning Class



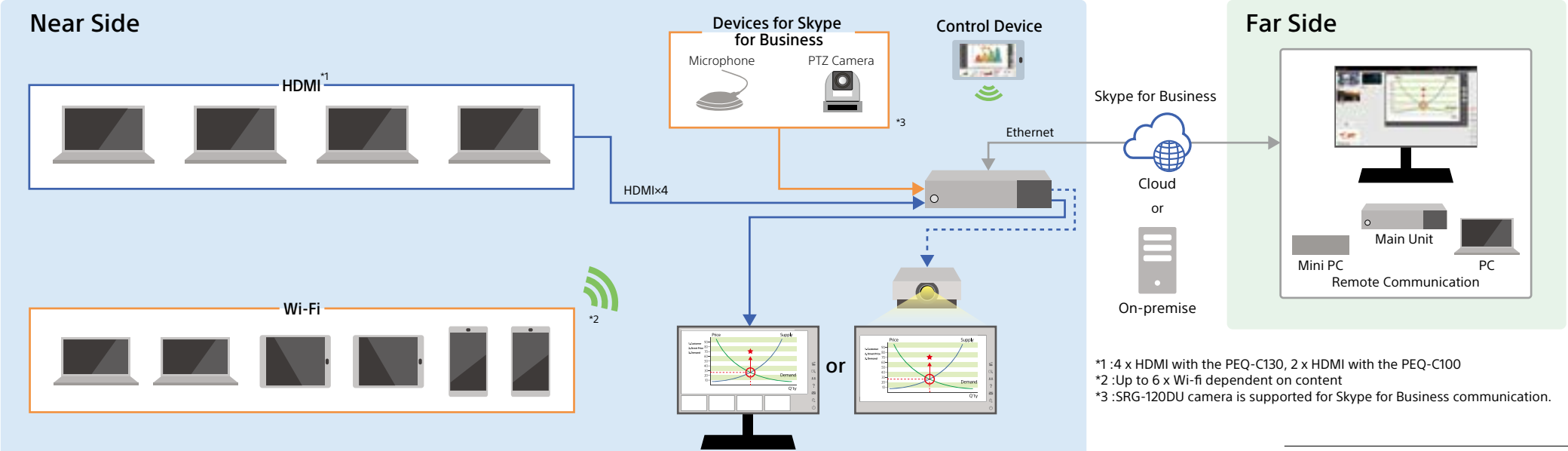
for Interactive Lecture



Simulated image

Multi applications are available for many types of distance education.

System Diagram of Distance Learning Classrooms using Skype for Business



Features

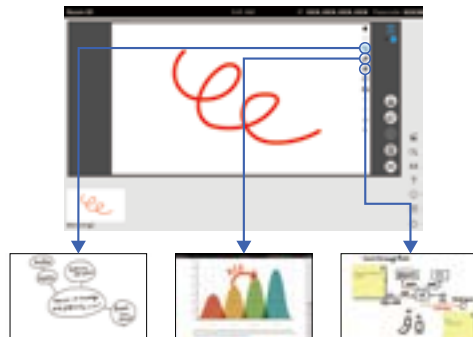
Control



BYOD device	Web Browser
- Windows® (7 / 8.1 / 10), 64bit - Android™	Google Chrome™
- macOS - iOS	Safari

- All of the user functions of Vision Exchange Main Unit and Mini PC can be controlled by Web application, touch panel interface, or mouse/keyboard.
- Web application GUI is applicable for tablets, laptops, and smartphones.

Whiteboard/Annotation/Digital Tag



- Whiteboards can be brought up anytime for brainstorming sessions and note taking.
- Annotations can be made over any source available.
- Digital Tag can be used to maximize collaboration results.
- All of the functions above can be done directly from the screen (touch panel, mouse/keyboard) or from BYOD simultaneously.

Mirroring



- BYOD screen mirroring is available with the following device OS*1:
Windows OS*2, macOS*3, iOS*4, and Android OS*5.

*1 Please contact us for more information on the connection verified hardware.

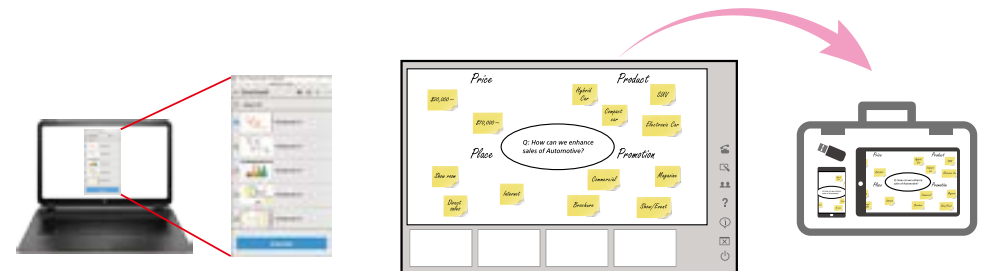
*2 Windows OS 7/8.1/10 (64bit)

*3 macOS 10.12/10.13/10.14 Audio cannot be sent.

*4 iOS12 or later

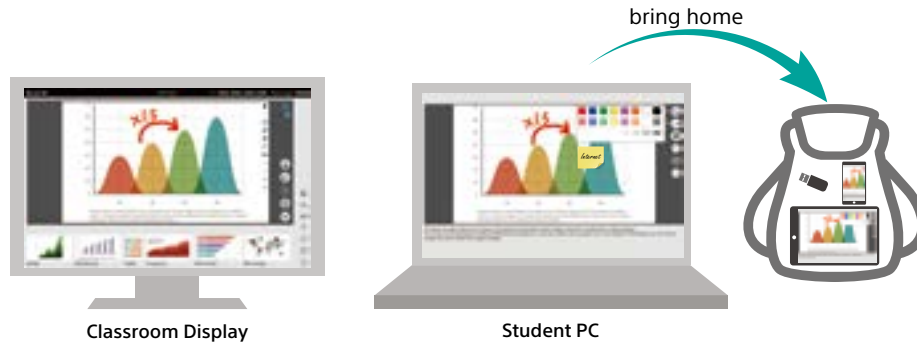
*5 Android OS V7 Nougat or later. Audio cannot be sent.

Snapshot/Download



- Any image on the Main View can be saved as a snapshot together with annotation overlaid.
- Snapshot images are stored in the "Snapshot Folder" in the bottom thumbnail to be viewed again anytime.
- All of the snapshot images can be downloaded to connected BYOD or to a USB Memory inserted to Vision Exchange Main Unit or Mini PC.

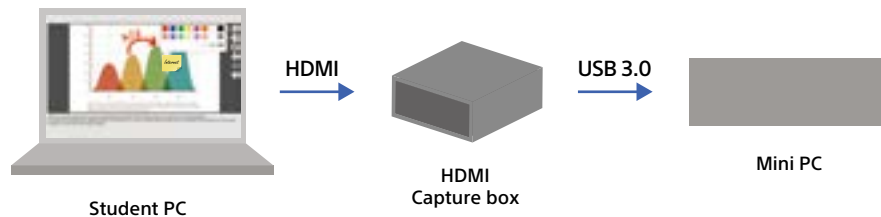
Personal Note Taker



- Any image on the classroom main display can be viewed from BYOD (viewer mode).
- Any content on the viewer mode can be saved by capturing the image.
- Text notes*, annotations, and digital tags can be used to instantly & effectively create your personal notes.

*available for laptop/desktop PC.

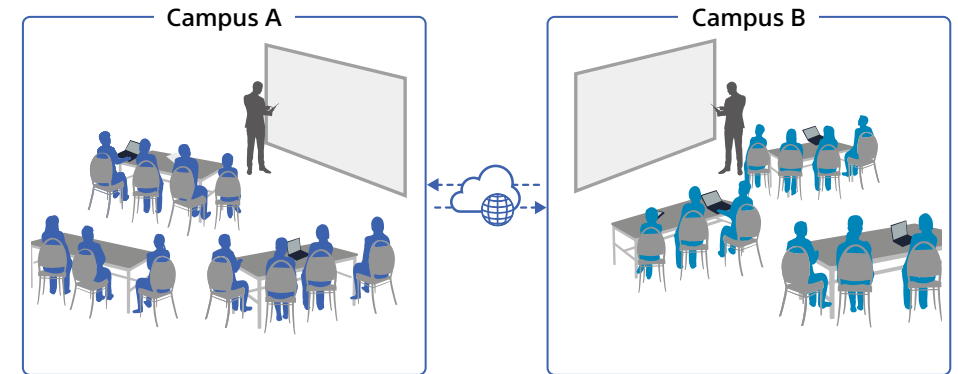
HDMI Input



- HDMI input is available with Pod PC Software when using 3rd party HDMI capture box*

*AverMedia DarkCrystal CD750 (not compliant to HDCP)

Skype for Business



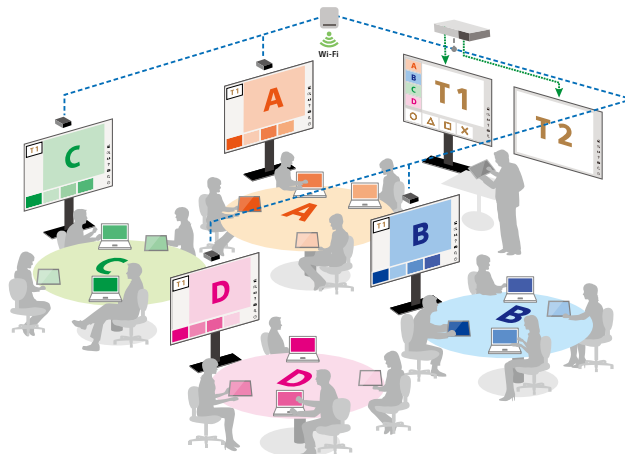
- Making and receiving calls via Skype for Business cloud or on-premise server.
- Content Sharing can be used to share your presentation remotely.
- Annotation can be made over any source available, and it can also be shared.
- Instant messages can be received and viewed using Chat features (messages cannot be sent).

Option

Active Learning License PEQA-C10



- All pods' content can be viewed on the Main Unit
- Facilitators can check the progress of each pod
- Main View content can be shared to all pods at anytime
- Facilitator's feedback can be provided as annotation over the shared image



Pod PC Software PES-C10

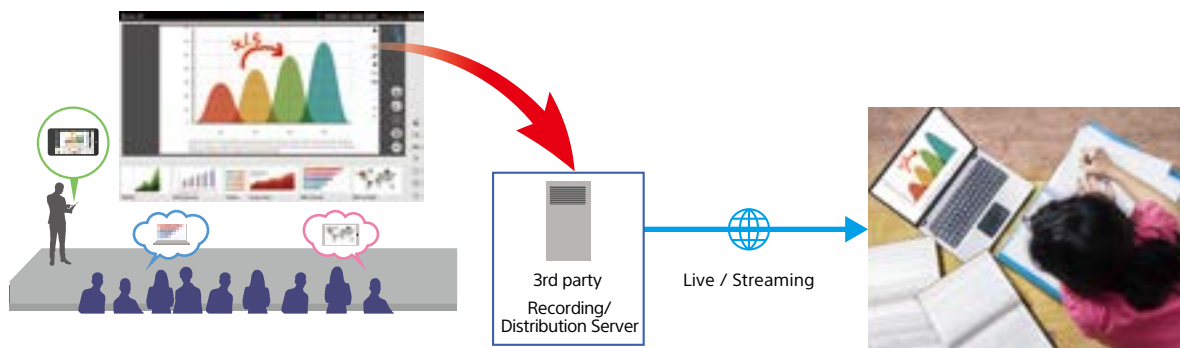


GUI image

- Pod PC Software*1 is required for the Mini PC for each Pod table.
- Same GUI concept of Vision Exchange Main Unit for ease of use throughout the classroom.

*1: Refer to page 14 for function and PC spec.

Streaming Out License PEQA-C30



- Streaming output is supported by Vision Exchange Main Unit and Pod PC Software for Recording, Lecture Capture or Live Distribution purposes.
- Primary Display can be streamed out using unicast with RTSP/RTP (H.264/AAC).

Software Upgrade Program (SUP) PEQ-C1SU(for Main Unit) / PES-C1SU(for POD PC Software)

- Software Upgrade Program (SUP) is the user license to upgrade the software for the Main unit and Pod PC Software

• Key Benefits

- Addition of new feature
- Feature improvements for easier use
- Compatibility to the latest BYOD OS's
- Bug fixes

*Please contact us for more information on the connection verified BYODs.

• 1st year SUP is included in the Main unit and Pod PC Software

	Base Product	Software Upgrade Program
Main Unit	PEQ-C100, PEQ-C130	PEQ-C1SU (for 1 year)
License Option	PEQA-C10, PEQA-C30	N/A*
Pod PC Software	PES-C10	PES-C1SU (for 1 year)

*Upgrade rights are included in the Main Unit and Pod PC Software SUP

Specifications

Key Features

Features		Collaboration System PEQ-C130/C100	Pod PC Software PES-C10
Control	Mouse, HID Touch Panel Control, VE App, Web Browser	Yes	Yes
Mirroring	Windows® OS*1, macOS*2, iOS*3, Android™ OS*2 Devices	Yes	Yes
HDMI Input		x4 or x2	x1*4
Collaboration	Whiteboard, Annotation, Snapshot, Download, Personal Note Taker	Yes	Yes
Remote Communication	Skype for Business	Yes	Yes
Active Learning	License Option	Yes	-
Streaming Output	License Option	Yes	Yes

*1 Windows 7, 8.1, 10

*2 Audio cannot be sent.

*3 iOS12

*4 Requires 3rd party HDMI capture box, AverMedia DarkCrystal CD750 (HDCP not compliant) x1 HDMI Capture Box can be connected to PES-C10

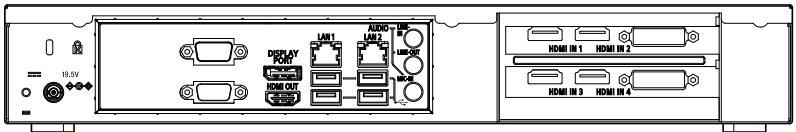
Specifications

Interface	PEQ-C130	PEQ-C100
Video Input	HDMI x 4	HDMI x 2
Video Output	HDMI x 1, Display Port x 1	
Audio Input	Microphone Input Mini-jack x 1, Line Input Mini-jack x 1	
Audio Output	Line Output Mini-jack x 1	
Network Port	1000BASE-T x 2	
USB Port	USB 2.0 x 2 (Front) USB 3.0 x 4 (Rear)	
OSD Lanugage		
OSD Lanugage	English, Japanese, Simplified Chinese, French, Spanish, German	
General Specification		
Dimension	W:370mm x H:56mm x D:245mm (W:14 5/8 x H:2 1/4 x D:9 3/4 inches)	
Weight	Approx. 3.4kg (7.5lb)	
Power	DC 19.5 V (AC Adapter : AC 100 V to 240 V, 50/60 Hz)	
Accessibility	Screen Reader supported (iOS, Android). The visual presentation of text has a contrast ratio of at least 3:1*.	

* Main operation screen : the visual presentation of text has a contrast ratio of at least 4.5:1 (WCAG 2.0 Level AA)

Connector Panels

PEQ-C130

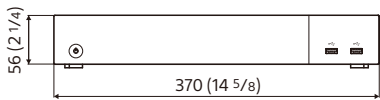


* HDMI IN3 and HDMI IN4 are not available with PEQ-C100

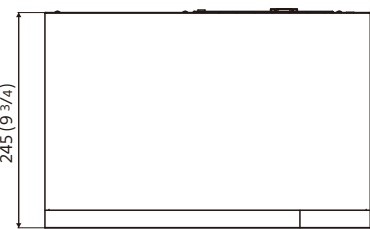
Dimension

Unit: mm (inches)

Front



Top



Mini PC Hardware Requirements

For Basic Collaboration (Switching Contents, Mirroring, Annotation/Whiteboard, Snapshot/Download)

CPU	6th generation Intel® Core™ i5-6260U (1.8 GHz, 4 MB cache, 2 cores, 4 threads) or higher
Memory	4 GB × 2 DDR4-2133 DIMMs*1
SSD	128 GB, 6 Gbps or higher*2
OS	Windows 10 Pro 64-bit Anniversary Update (version 1607) or later
OS Language	English*3
Intel Graphics Driver version	21.20.16.4627 or later*4
LAN	10/100/1000 Mbps or faster ethernet (RJ-45)
USB	USB 3.0

To fully appreciate Advanced Features later than V1.1 (Skype for Business, HDMI input, Streaming Out (op.), and Personal Note Taker function)

<Form Factor: Mini PC>

CPU	6th generation Intel® Core™ i7-6770HQ or higher
Memory	4 GB×2 DDR4-2133*1
SSD	128 GB, 6 Gbps or higher*2
OS	Windows 10 Pro 64-bit Anniversary Update (version 1607) or later
OS Language	English*3
Intel Graphics Driver version	21.20.16.4627 or later*4
LAN	10/100/1000 Mbps or faster ethernet (RJ-45)
USB	USB 3.0

<Form Factor: Desktop PC>

CPU	8th generation Intel® Core™ i5-8600K or higher*5
Memory	4 GB×2 DDR4-2133*1
SSD	128 GB, 6 Gbps or higher*2
OS	Windows 10 Pro 64-bit Anniversary Update (version 1607) or later
OS Language	English*3
Intel Graphics Driver version	21.20.16.4627 or later*4
LAN	10/100/1000 Mbps or faster ethernet (RJ-45)
USB	USB 3.0

When using Personal Note Taker function with over 20 connections (Windows Server)

CPU	Intel® Xeon® Silver 4110 processor or later
Memory	4 GB × 2 DDR4-2133 DIMMs*1
SSD	128 GB, 6 Gbps or higher*2
OS	Windows Server 2016 Standard or later
OS Language	English*3
Graphics card	NVIDIA Quadro P2000 or later
LAN	10/100/1000 Mbps or faster ethernet (RJ-45)
USB	USB 3.0
Sound card or USB audio device	16-bit quantization, 48 kHz sampling frequency, 2-channel PCM support.
Windows Server Client Access License (CAL)*6	Prepare the appropriate version, type, and number of licenses according to the type of users.

- *1 A single 8 GB DIMM is not recommended as it has lower performance than two 4 GB DIMMs.
- *2 RAID configuration is not supported.
- *3 It is possible to change the default input language to a language other than English.
- *4 The first six digits vary depending on the Intel or Microsoft version schema. The last four digits indicate the build number of the Intel Graphics Driver. To check and update the version, check the documentation that came with the computer, the Microsoft website, the Intel website, or contact the computer manufacturer
- *5 Intel Graphics embedded (QSV supported)
- *6 For details, please contact Microsoft.

Distributed by

©2019 Sony Imaging Products & Solutions Inc.
Reproduction in whole or in part without written permission is prohibited.
Features and specifications are subject to change without notice.
The values for mass and dimension are approximate.
"SONY" is a trademark of Sony Corporation.
The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.
Windows® is a registered trademark of Microsoft Corporation in the United States and/or other countries.
Mac, Mac OS, Safari, and MacBook are trademarks of Apple Inc.
IOS is a trademark or registered trademark of Cisco in the U.S. and other countries and is used under license.
Android™ and Google Chrome™ are trademarks of Google Inc.
Intel and Intel Core are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries.
All other trademarks are the property of their respective owners.
Please visit Sony's professional website or contact your Sony representative for specific models available in your region.