



The HSL Combiners



What is a KVM Combiner?

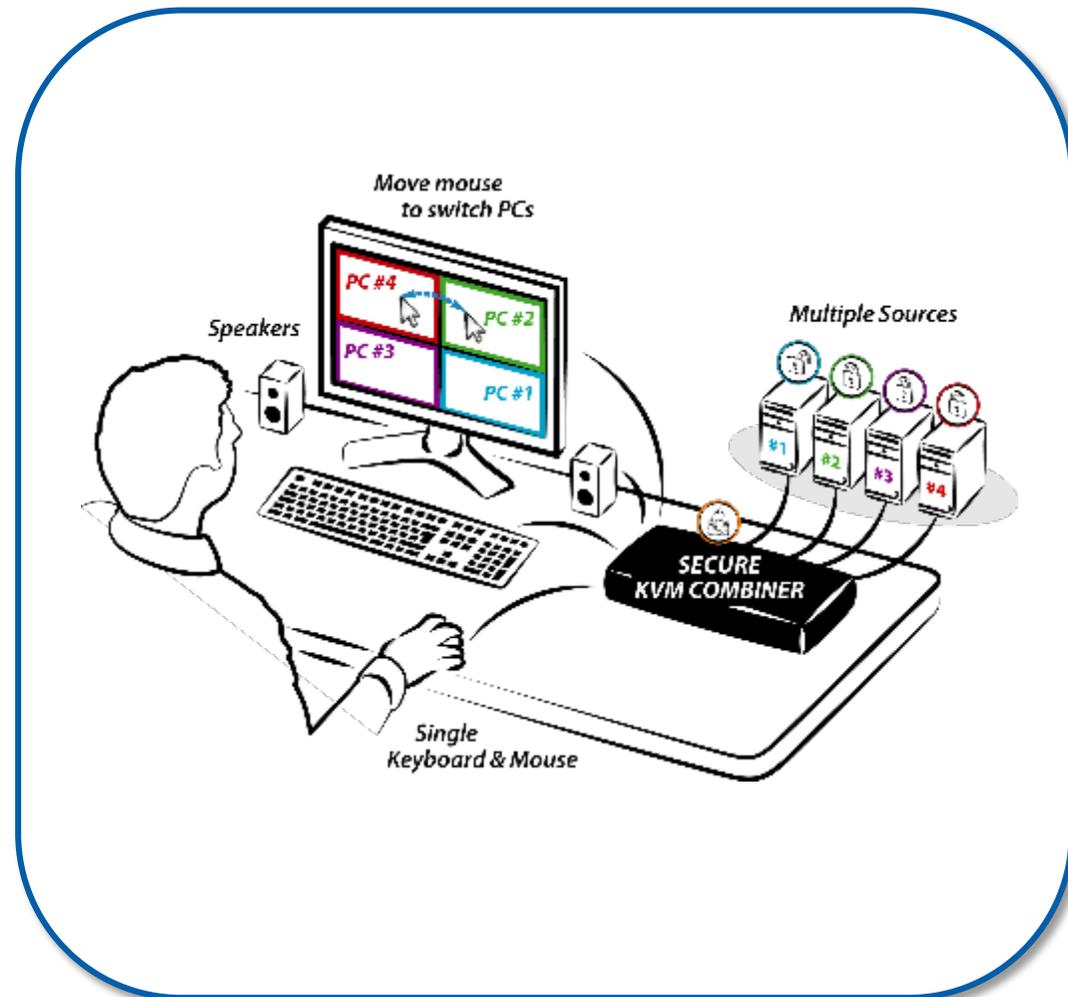
A KVM Combiner is a multi-viewing KVM switch that allows users share a **single** keyboard-and-mouse set, to control:

- **All** connected computers
- On **one** display (or two, in extended-view mode)

HSL's KVM combiner is a combination of a multi-viewer, a scaler, and a KVM switch, all combined into a single product.

Channel switching is done simply by dragging the mouse from window to window, with no need for push buttons or any other user interaction.

HSL has both secure, NIAP certified products, or non-secure products which enable copy-paste between channels.



Secure KVM Combiners Products List Table – All Models

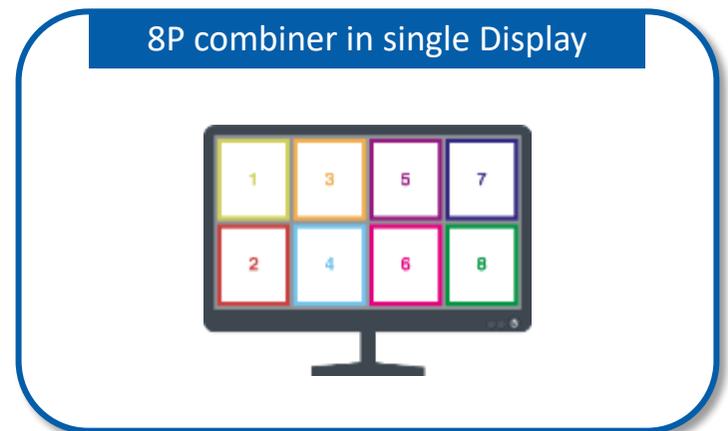
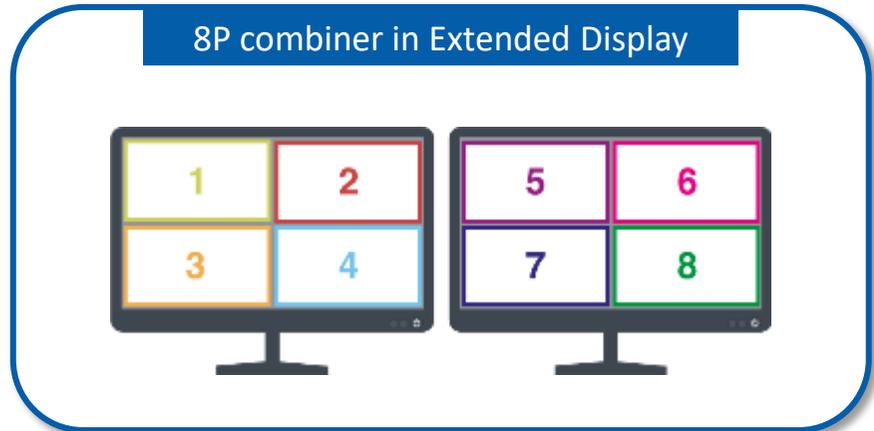
HSL SECURE KVM COMBINERS

<i>Model</i>		# of sources (inputs)	# of projected displays (outputs)	Keyboard and mouse ports	Video	Max Resolution
SC42DHU-4		4	2	USB	DVI	Supporting UHD 4K resolutions up to 3840x2160 @30Hz
SC42PHU-4		4	2	USB	DP/HDMI	Supporting UHD 4K resolutions up to 3840x2160 @30Hz
SC82PH-4		8	2	USB	DP/HDMI	Supporting UHD 4K resolutions up to 3840x2160 @30Hz
SC162PH-4		16	2	USB	DP/HDMI	Supporting UHD 4K resolutions up to 3840x2160 @30Hz

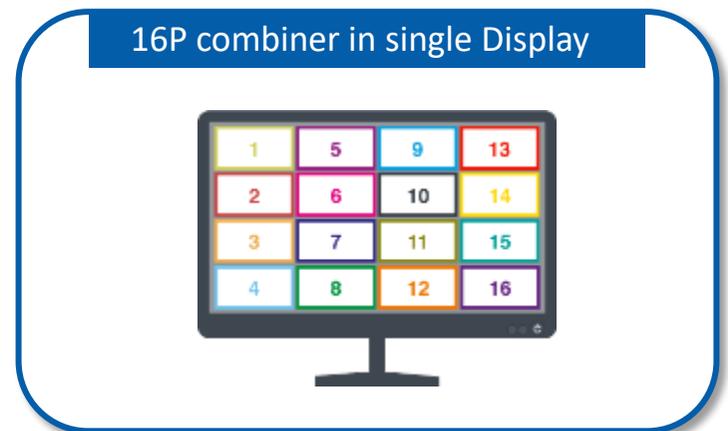
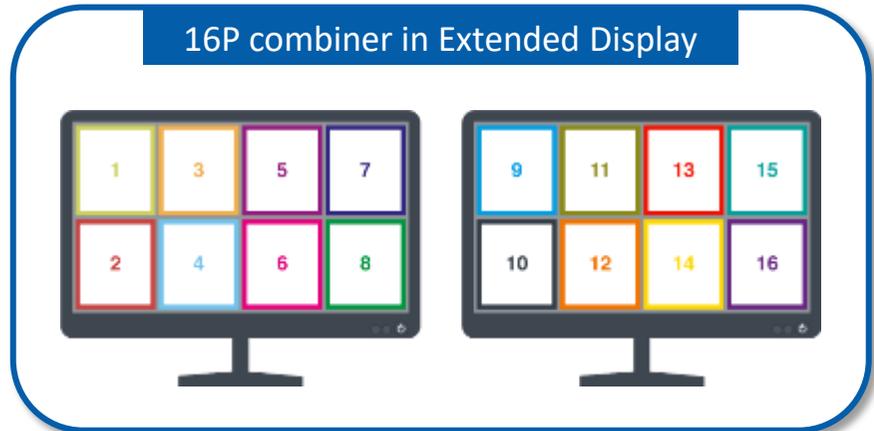
Multiview – Seeing multiple computers on a single Display

The KVM Combiner functions as a multiviewer.
It enables viewing multiple computers (up to 16) on just one or two displays.

For example, on an 8-port KVM Combiner, in a basic layout, all eight computers can be viewed at the same time:



The same goes for a 16-port KVM Combiner:



In addition, the KVM Combiner enables creating multiple layouts to meet the user's exact needs:

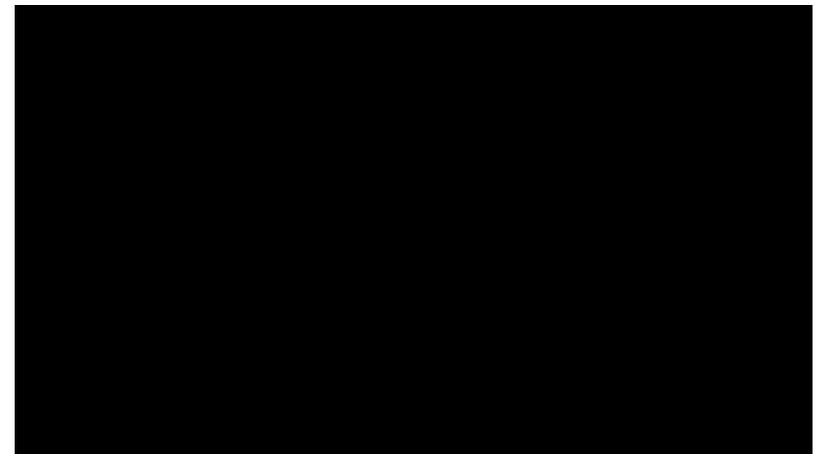


The user can easily and quickly switch between the different layouts.

Channel switching is done by dragging the mouse from window to window.

The layout is possible, the user has complete flexibility to create his own view and save it as a preset.

Resize and change view while **maintaining aspect ratio** on a 4P KVM Combiner:



Smoothly Switching Between Computers (Virtual Display Technology)

Intuitively Switch Between Displays

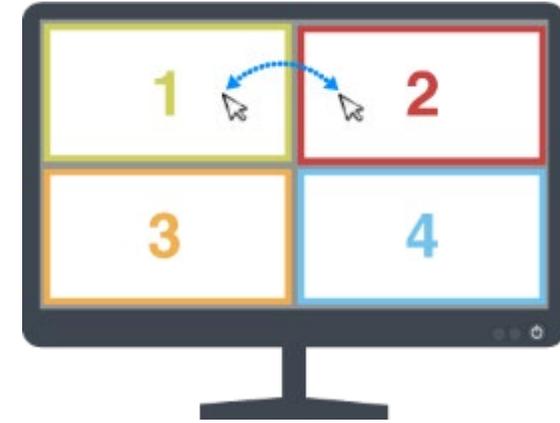
The KVM Combiner's Virtual Display Technology enables users to automatically switch control from one computer to another, by sliding the mouse cursor over the computer's display border.

This eliminates the need to press the front-panel buttons.

The other shared peripherals (keyboard, audio, USB) switch to the next computer, once the mouse cursor passes the display border.

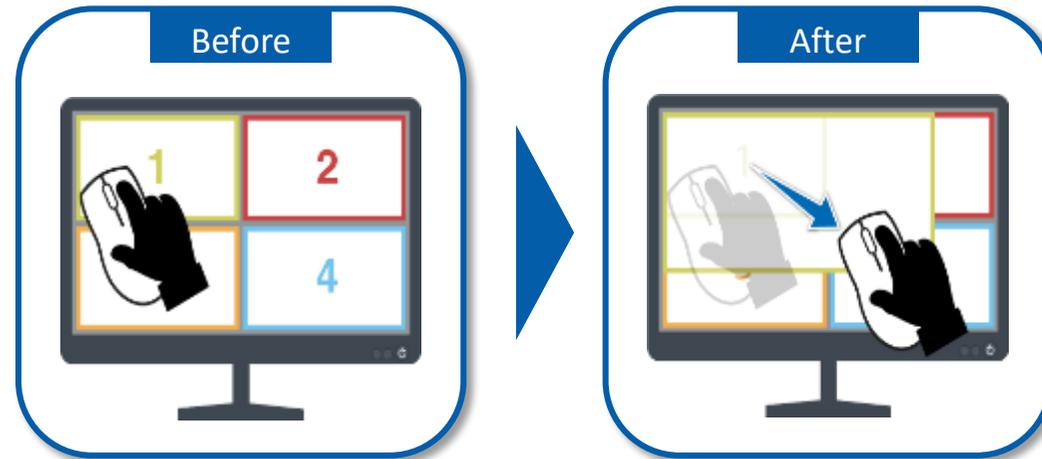
For security, guard mode is added to force users to press and hold the control key to switch.

*Drag mouse
between screen
borders*



Upscaling and Downscaling

Any channel can be resized (upscale or downscale) while maintaining an optimum scale aspect ratio or without maintaining aspect ratio, using the state-of-the-art conversion scaler (up to 4K).



Resize and change view **without maintaining aspect ratio** on a 4P KVM Combiner

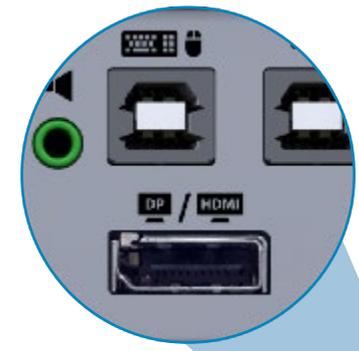


Interoperability - Special DP\HDMI

To assure easy and intuitive interoperability with different sources the HSL KVM Combiner includes a special type of video input connector, DP/HDMI Combined Connector.

The connector supports both HDMI and Display Port Video interfaces and Allows connecting both types of cables at a time.

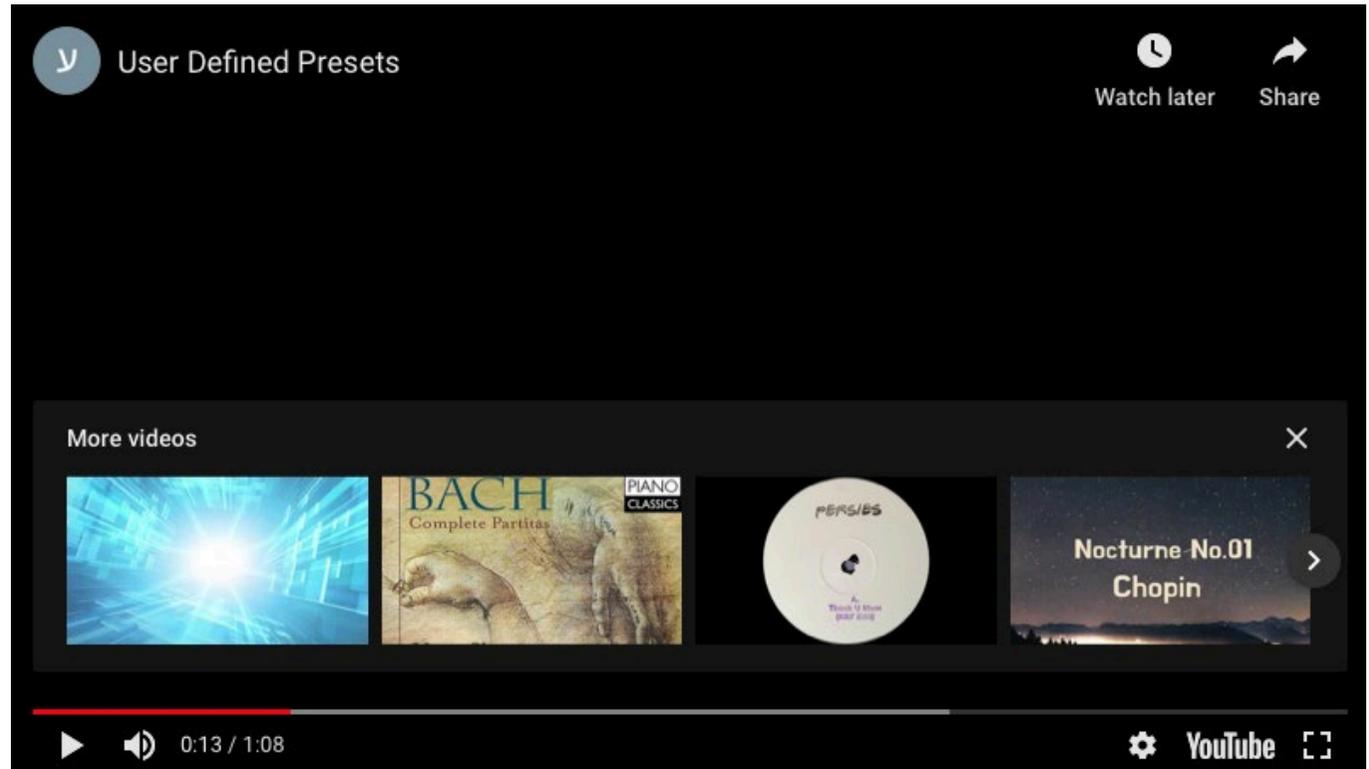
DP\HDMI Connector



User Defined Presets

For easy switching and intuitive control the HSL KVM combiner includes up to 8 user defined presets.

Users can easily define and save presets and quickly switch between different presets and predefined view modes.



Freeze channel layer

For more dynamic and flexible presentation it is possible to freeze a channel layer and switch the mouse through an active channel or channels.



Securely Share Peripherals Between Computers of Different Classification Levels

To prevent the risk of sharing peripherals, HSL's line of secure KVMs has the following features:

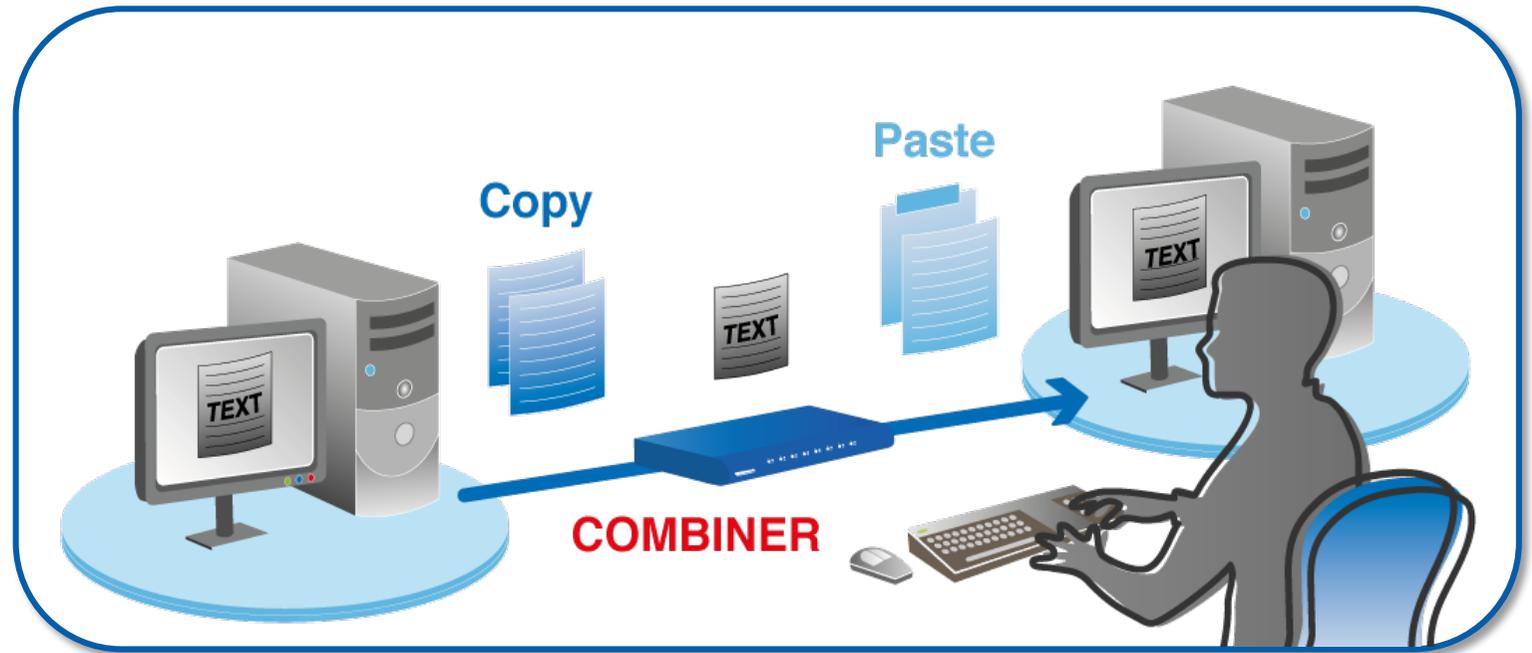
- **NIAP/Common Criteria PP4.0 Certification**
HSL secure KVMs qualify to the latest NIAP Common Criteria Protection Profile version 3.0 (PP4.0) certification for Peripheral Sharing Device (PSD) devices.
- **Securely share peripherals across different security domains**
Securely share peripherals between computers that belong to different security classifications levels, while maintaining the highest possible data separation security.
- **Prevent information leaks**
Block threats derived from sharing and switching of vulnerable, untrusted or unauthorized peripheral devices. Prevent peripheral exploits, information leaks, eavesdropping, signal transmission, computer malware, hardware, and firmware tampering by enforcing multilayered security mechanisms.

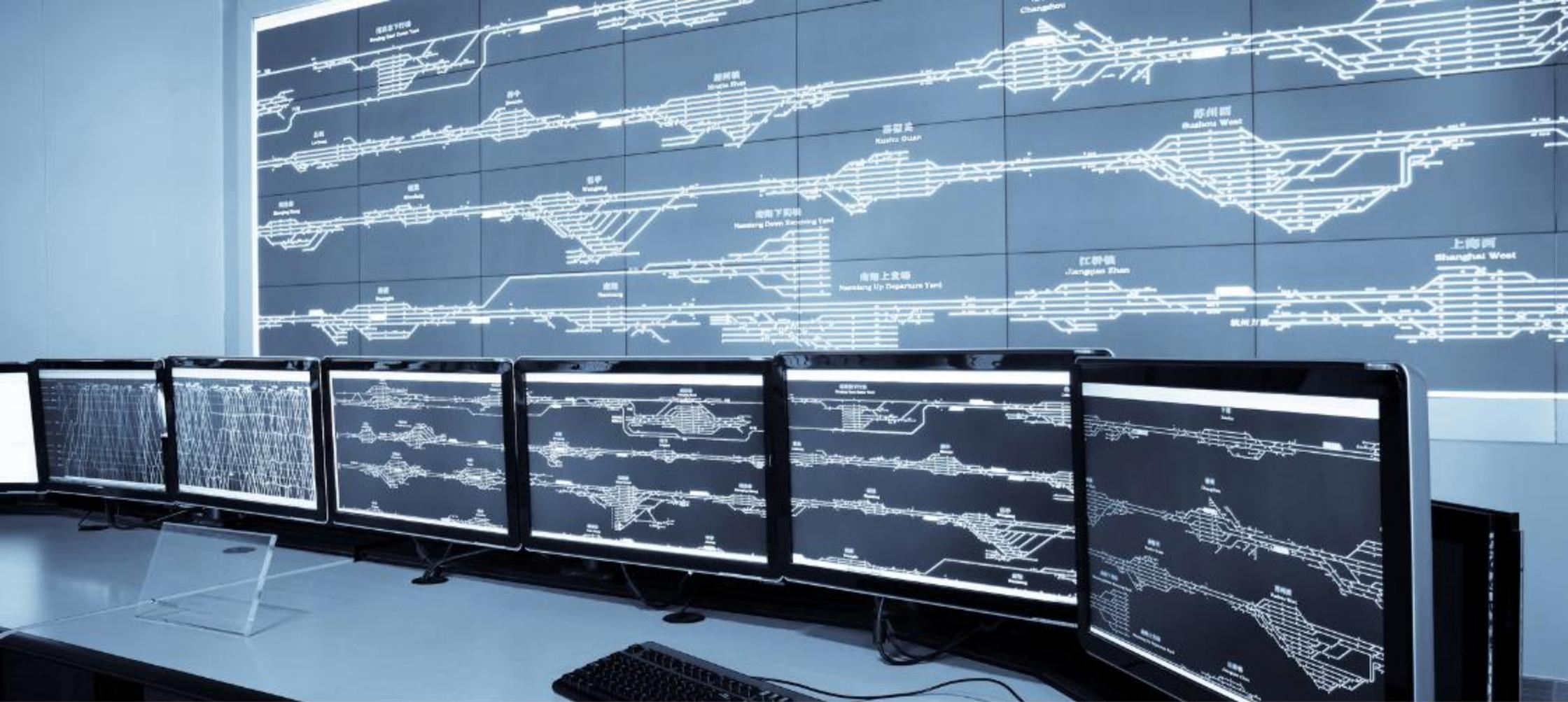


Copy & Paste

The Copy & Paste feature enables:

- Transferring text and files between all the computers that are connected to the Combiner, through the Combiner (no network connection is needed between parties).
- Using standard copy-and-paste keyboard key combinations (**Ctrl+c/Ctrl+v**) or mouse-context menu commands.





 **HighSecLabs**
Highest Security Solutions ●●● Ltd.

THANK YOU

For more information, please visit www.highseclabs.com