Dynamic Window Layouts

Changing Presenter and Content windows during a recording

NCast's Presentation Recorders and Telepresenters allow great flexibility in layout of the Content (Main or VGA) window and the Presenter (PIP or Video) window along with graphical overlays. This Tech Tip will discuss static and dynamic window layout with details on how to implement dynamic window layouts using the serial command set.

Static Window Layouts

Static window layouts are configured when the Channels of a Presentation Recorder or Telepresenter are edited. A Channel in our architecture is like a preset or a template that contains all the startup parameters and information needed for a streaming or recording session.

The Channel layouts may be altered from the factory defaults during a Channel Edit operation. There is an easy-to-use drag-n-drop editor to move windows around and to add customized graphic or text overlays.
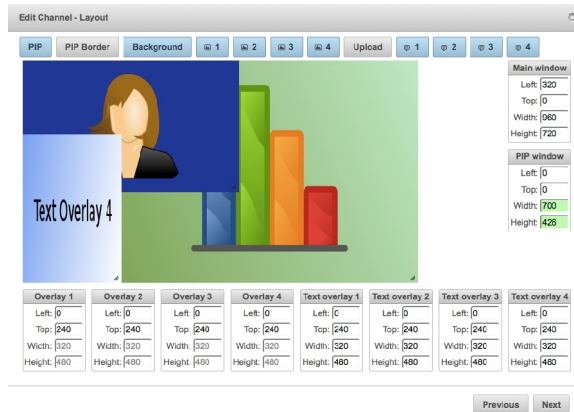
When a Channel session is started the layout defined by that Channel is initialized (the Main and PIP windows are set to some defined set of coordinates on the screen) and these positions are maintained throughout the streaming or recording session.

The defined window hierarchy (which windows will be most visible) is as follows:

• Background image (Lowest visibility, blocked by all other windows)
• Main window (Usually the content or presentation window)
• PIP window (Blocks the Main or Content window, usually is the podium video)
• Graphical overlays 1-4 (Overlay 1 has the lowest visibility of the group)
• Text overlays (Blocks all other windows. Text overlay 1 has the lowest visibility)

These window arrangements are considered "static" as the only way to move a window on the screen (other than use of the Swap command) is to stop a Channel and start a new one with a different arrangement.

There are many occasions where users would like more flexibility and would like to rearrange the windows during a streaming/recording session. Fortunately this is easy to accomplish using the serial command set. Dynamic window layouts solve the problem.

Dynamic Window Layouts

A common recording situation occurs at the end of a presentation when the speaker has finished with his/her prepared slides and a Q&A segment begins. The recorder operator would like to remove the content window from the stream/recording and use the video camera feed (previously the PIP window) to fill in the wide-screen space available.

Windows re-arrangements such as this can be easily accomplished through use of the serial command set. See the *Presentation Recorder Serial Interface Specification* manual for complete details. The frame size may not be changed during a recording (i.e. one cannot switch from a 1280x720 recording frame to 640x360 frame). All windows are placed/located within the underlying frame.

Swap

There is a swap command (SW) which exchanges the Main and PIP feeds. The coordinates and placement of the Main and PIP windows are not altered by this command.

Graphical Overlay On/Off

Graphical overlays covering up a dead content window (sometimes in conjunction with use of the Swap command) will eliminate unwanted content from the recording. See the OG0 command and the OG1,n to OG4,n commands.

Text Overlay On/Off

Text overlay windows may also be used to cover dead content. See the OT0 command and the OT1,n to OT4,n commands.

PIP On/Off

The PIP window may be added or removed. See the p0 and p1 commands.

Window Setting - Main

The command W,x,y,w,h will set the Main window to position (x,y) with w=width and h=height.

Window Setting - PIP

The command w,x,y,w,h will set the PIP window to position (x,y) with w=width and h=height. The PIP window will cover the Main window.

Window Setting – Alternate Versions

There are alternate forms of the W and w commands to reposition the windows. For example, it is possible to move a window to the "bottom-right corner".

Window Inputs

The feeds to the Main and PIP windows (which input connector is used) may be changed at any time using the Gn and Vn commands.

Example – Podium Left Layout

Sets the Main window to position (320,0) with a width x height of 960x720. The position (0,0) is the upper left corner of the frame. Sets the PIP window to position (0,0) with a width x height of 320x240. Turns of all graphical overlays and then turns Graphical Overlay 1 on. Enables the PIP window. The semicolons shown in these examples are command separators (line-feeds or <lf> codes) and are not actually sent over the serial link.

W,320,0,960,720;w,0,0,320,240;OG0;OG1,1;p1;

Example – Podium Right Layout

Sets the Main window to position (0,0) with a width x height of 960x720. The position (0,0) is the upper left corner of the frame. Sets the PIP window to position (960,0) with a width x height of 320x240. Turns of all graphical overlays and then turns Graphical Overlay 3 on. Enables the PIP window.

W,0,0,960,720;w,960,0,320,240;OG0;OG3,1;p1;

Example – Presentation Only

Sets the Main window (the presentation or VGA feed) to position (0,0) with a width x height of 1280x720. All overlay graphics are turned off. The PIP window is disabled.

W,0,0,1280,720;OG0;p0;

Example – Presenter Only

Sets the PIP window (the presenter or podium video camera) to position (0,0) with a width x height of 1280x720. This will completely obscure any Main window content. All overlay graphics are turned off. The PIP window is enabled.

w,0,0,1280,720;OG0;p1;

Support

For questions or help in resolving any problems email "support@ncast.com" or better yet, create a support ticket on our website. Downloading and attaching the .zip files of the logs from each unit will be most helpful to tech support in resolving any issues.

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