The Extron Annotator
An Annotation Processor That’s User and Integration Friendly

The new Extron Annotator is a high performance, hardware-based annotation processor that gives a presenter powerful communication tools to draw, point, add text, and highlight portions of electronic presentation materials in real-time. These tools allow the presenter to add emphasis, enhance clarity, and draw attention to important areas of a graphic image or video content. The Extron Annotator features a user-friendly graphical user interface that makes it easy to access and create annotations. At the same time, it incorporates high performance switching and scaling to make it easy for you to integrate annotation into your A/V system designs.

The Extron Annotator is a hardware-based graphics and video processor designed to deliver the performance and operational reliability demanded in mission-critical applications. This sets it apart from PC-based annotation solutions which may be subject to unexpected software or hardware crashes during critical presentations. The Annotator offers an additional advantage in that live video sources can be marked up directly without having to capture them first on the PC.
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Integrated Switcher and Scaler for Streamlined Integration

A typical presentation environment includes various input sources and presentation displays. Traditional or PC-based annotation processors are usually not equipped with switching and scaling to integrate all three devices. Therefore, system designs requiring annotation need additional outboard A/V equipment to complete the system, which increases complexity and overall cost. As illustrated in the diagram on page 2, a traditional annotation system design needs to provide scaling to ensure that all input sources output the same rate to the annotation processor. To manage multiple sources and displays, the system may also require a matrix switcher. Furthermore, to support archiving needs, the system design should include a scan converter plus a video printer, or a PC equipped with a VGA frame grabber.

The Extron Annotator utilizes advanced Extron switching and scaling technology to deliver the same capabilities and performance of other popular Extron products including scalers, video processors, and presentation switchers. It can dramatically simplify many system designs by providing essential system integration functions while reducing equipment requirements. As the diagram illustrates, the Annotator can serve as the A/V centerpiece in many presentation systems.

The Annotator features a multi-format presentation switcher that accepts up to seven input sources including composite video or S-video, component video, HDTV, high resolution computer-video, DVI, and as an option, SDI or HD-SDI. The Annotator offers seamless switching between RGB and video inputs with selectable cut or fade to black transitions.

Traditional Annotation System Design

Traditional annotation A/V systems typically require scalers, a matrix switcher, and a scan converter plus video printer to complete essential signal processing, routing, and archiving requirements.

Streamlined Designs Using Extron Annotator

In smaller annotation A/V systems, a matrix switcher would not be necessary since the Extron Annotator offers integrated seven-input source switching.

The Extron Annotator dramatically simplifies equipment requirements for supporting annotation. Built-in high performance scaling replaces the need for external signal processing, and any networked PC and standard printer can be used for archiving.
The Annotator includes a high performance 30-bit scaling engine with the ability to scale standard definition video, high definition, and computer-video signals up or down in resolution. To support multiple presentation displays, three standard outputs are provided, including RGB, VGA, and Extron MTP - Mini Twisted Pair. The output can be set for RGB or component video at any of 72 available rates up to 2048x1080 and 1920x1200, and HDTV 1080p. The Annotator also includes a configurable fourth output for use with optional DVI, HD-SDI, or scan converter output boards. With input and output capability for DVI and HD-SDI, the Annotator is ready for connection to sources and displays with digital video inputs and outputs, and can easily be integrated into digital video environments.

For archiving, the Annotator does not require specialized equipment. It features an image capture function that takes a snapshot of the current on-screen image. This snapshot is then automatically saved as a BMP file in the unit, or streamed over the network to a PC installed with the Quick Capture software application. The software can be set so that each time the PC receives a capture, a BMP file is automatically saved and is printed on a standard network printer.

A User Friendly Interface Makes it Easy to Create Annotations

The Annotator is designed so that a presenter can create real-time annotations with minimal effort, and without requiring technical expertise or familiarity with annotation systems. An intuitive graphical user interface provides a palette of clear, easy-to-follow icons, each depicting a specific tool to mark up a presentation by drawing freehand or lines, adding rectangular or elliptical shapes, typing in text, and highlighting any area of the presentation. Selecting each of these icons is very similar to working on a PC—the presenter simply clicks on a mouse or a taps on a touch screen.

The Annotator’s intuitive pop-up graphical user interface features icons that enable the user to perform powerful marking and system control functions. Some of these are shown below.

**Inputs**
- **Inputs**
  - Select video source for display

**Pointer**
- **Pointer**
  - Direct attention without marking on the screen

**Auto Image**
- **Auto Image**
  - Set input signal parameters automatically

**Freehand**
- **Freehand**
  - Draw freely on screen

**Line**
- **Line**
  - Draw a line between two points

**Arrow**
- **Arrow**
  - Draw an arrow between two points

**Rectangle**
- **Rectangle**
  - Draw a rectangle by pointing to two corners

**Ellipse**
- **Ellipse**
  - Draw an ellipse by pointing to two corners

**Text**
- **Text**
  - Use a keyboard to place text on screen

**Highlighter**
- **Highlighter**
  - Freehand translucent marking

**Size**
- **Size**
  - Select line thickness and text size

**Erase**
- **Erase**
  - Rub out onscreen annotations

**Clear**
- **Clear**
  - Remove all onscreen annotations

**Pan**
- **Pan**
  - Move displayed area of zoomed image

**Capture**
- **Capture**
  - Save screen to memory or network

**Spotlight**
- **Spotlight**
  - Gray out all outside a defined ellipse

**Zoom**
- **Zoom**
  - Enlarge a defined area

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Works with Popular Touch Screens?

The Extron Annotator offers plug-and-play compatibility with popular touch screen models from Elo TouchSystems, Wacom, and 3M. Two USB ports are available with support for up to 32 peripherals simultaneously through up to three USB hubs. In addition, two PS/2 ports are provided for a standard keyboard and mouse. The Annotator therefore does not require a proprietary touch panel or PC for operation. This saves considerable cost, especially in applications where multiple, simultaneous annotation devices are needed.

Extron is continually adding support for touch screen models from additional manufacturers. Please visit www.extron.com/annotator for the latest drivers available for download.

Additional tools include an enlarged arrow cursor so the presenter can point to objects on-screen, and a “spotlight” to isolate a specific area and darken the rest of the image. Other icons are provided for selecting annotation options including sizing and coloring for text and graphics. The presenter also has the capability to zoom and pan within the image, freeze a live image, and save an image with annotation to a file or send it over the network to a PC or a printer for archiving. The presenter can also use the GUI to control basic system functions such as input source switching.

The GUI can also be customized through the Annotator control software. By creating a streamlined palette of annotation tool icons, you can further simplify operation for the presenter.

Features That Enhance Integration and Presentations

The Extron Annotator includes several features and functions that serve to increase flexibility for you and facilitate professional quality presentations. An Extron MTP twisted pair output supports transmission of the output signal to an Extron MTP Series twisted pair receiver over a single CAT 5-type cable. With the MTP output, the Annotator can simultaneously serve presentation displays in local and remote locations.

For quick set-up of a newly connected input source, the Annotator features Auto-Image™, a mainstay of Extron’s well-regarded scalers and video processing products. With the touch of a button on the front panel or the touch screen, the Annotator analyzes and automatically adjusts to the incoming signal. Once the source has been set up, Auto Input Memory automatically stores image settings, and recalls them whenever the same incoming signal is detected again.

The outputs of the Annotator can be configured as Program and Preview outputs. Each offers options for turning on or off the GUI and the annotation. In a typical application, the Preview output would include the GUI and annotation for the presenter, while the Program output delivers just the annotated video to the audience. A system operator, if present, has the ability to control the presentation by using the Preview output to view annotations first, before routing to the Program output.

A Unique Product for Annotation and Integration

The Extron Annotator makes it easy for a presenter to create real-time annotations with a user friendly GUI and an input device of choice, whether a touch screen or a mouse and keyboard. With built-in, high performance switching and scaling, the Annotator stands alone in the industry as a truly integration-centric product for annotated presentations that simplifies system design, enhances operational reliability, and significantly reduces overall cost.