TECHniques™
Application Notes From Communications Specialties

USING COMPUTER VIDEO AND VIDEO SPLITTERS IN SECURITY APPLICATIONS

MARKET: Security **DOC. NUMBER: T-10**

Overview:

Computer video splitters (sometimes called "distribution amplifiers") can play a valuable role in expanding the use of computers in security and surveillance operations. Increasingly, PCs of all types are being used for monitoring purposes and to perform access control and camera control functions.

This TECHniques will describe how the line of splitter products from Communications Specialties can be employed to facilitate remote and multi-point monitoring of PC-based operations.

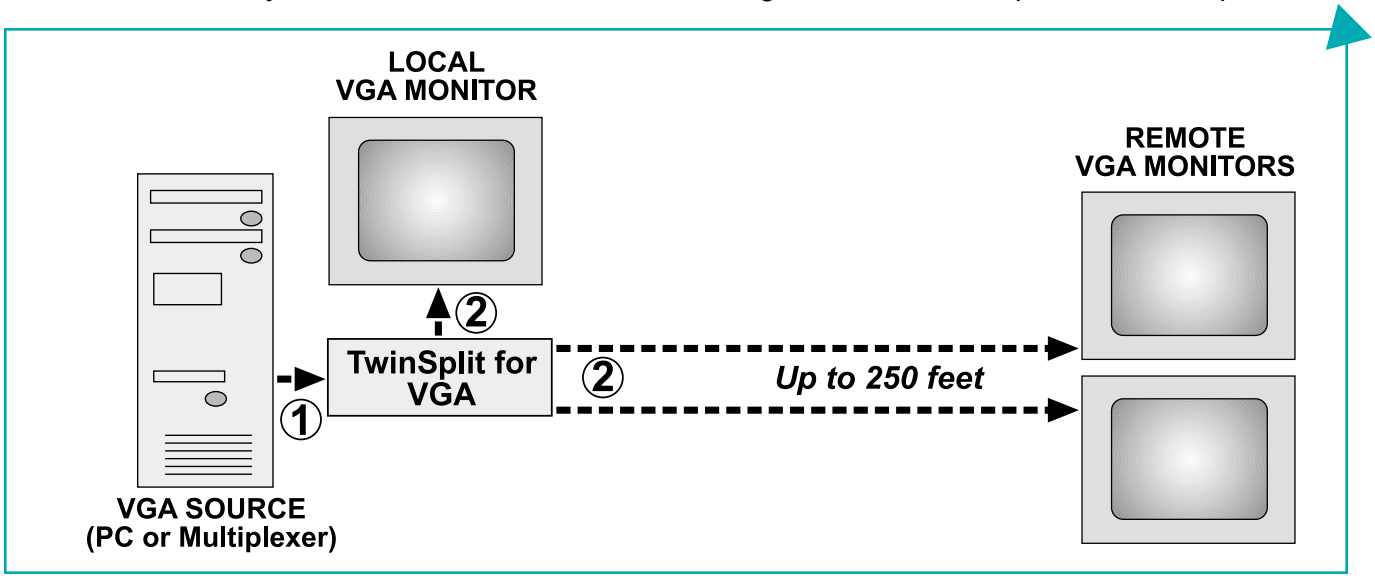
Details:

The VGA (or SVGA) output of a PC is designed to drive only one monitor, which may be located a maximum distance of 10 to 15 feet from the PC. Video multiplexers, which allow for the split screen presentation of multiple cameras on a single monitor, often have high-resolution VGA compatible outputs and are therefore subject to the same distance and single monitor restrictions.

VGA splitters enable the user to overcome these limitations. For example, using a TwinSplit® for VGA, two computer monitors, located up to 250 feet away from the source, may be connected to the PC's or multiplexer's VGA output. In addition, the TwinSplit allows for the continued operation of the original monitor located next to the PC or multiplexer. Communications Specialties offers five VGA-compatible splitter models that provide up to 10 simultaneous outputs, with each output driving a monitor at distances of up to 250 each. CSI also provides the necessary VGA extension cable, CAB-19, in both standard and custom lengths.

The diagram below shows how to connect the VGA splitter to a PC or multiplexer. The additional outputs provided by the splitter can be used to simultaneously send video to multiple monitoring locations, such as guard desks, security rooms and supervisory locations. Splitters may also be cascaded to extend the monitoring locations beyond ten and to create the most optimum topology for a given installation.

CSI also manufactures a line of splitters for standard video and S-video signals. One example of how these may be used is for distributing the video output from a fiber optic video transmission system. After the video signal has been sent from transmitter to receiver, the receiver's output may be fed to a splitter for video, for distribution to multiple monitors or VCRs located up to 250 feet away. In addition, a splitter might be used at the input to the fiber optic trans-



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mitter to allow for the simultaneous transmission and local viewing or routing of the video at the source.

Suggestions:

Always locate the splitter as close to the video input source (PC, multiplexer, fiber optic receiver, etc…) as possible. Communications Specialties includes a 6-foot input cable with all its Splitters for VGA.

Single and double-unit rackmount kits are available for use with all splitter models.

For distances beyond 250 feet, a long-distance version of TwinSplit for VGA is available. TwinSplit E.D. (model 1067) can drive two monitors up to 700 feet each.

In some situations, it may be desirable to route one of the VGA outputs from a splitter to a VCR or DVR for recording purposes. In this case, a computer-to-video scan converter, such as Scan Do® Select, may be connected to a splitter output in place of a VGA monitor. Scan Do Select will convert the VGA signal to standard NTSC or PAL, so that it may be fed to the VCR or DVR device.

CSI Products Used In This TECHnique:

- TwinSplit® for VGA 1302
- QuadSplit® for VGA 1302
- HexiSplit® for VGA 1306
- OctoSplit® for VGA 1308
- DeciSplit® for VGA 1310
- HexiSplit for Video 1706
- TwinSplit for S-Video 1802
- HexiSplit for S-Video 1806
- Scan Do Select 1290
- CAB-19 VGA Extension Cable 1119
- CAB-27 Long-Distance VGA Ext. Cable 1290

Related TECHniques:

- T-03 Using Computer Video Scan Converters in Security Applications

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