

**Summary of Crestron e-Control2 Remote LAN Interface architectural specifications are as follows. Minimum requirements are as follows:**

- Control System Remote LAN Interface Software shall provide for a remote control system interface/GUI from a variety of platforms (i.e. Computer, Pocket-PC, Web-Tablet) over a LAN/WAN/Internet.
- Control System Remote LAN Interface is shall be based upon Microsoft COM ActiveX foundation, which provides a transformable platform from Crestron's VTPRO-e software to allow such solutions as Xpanel EXE (stand-alone executable from Windows/PC), Xpanel Emulator (E-Control/Web-Browser simulator), Xpanel IE (Control System Remote LAN Interface for IE/Web-Browser), & Xpanel PDA (Control System Remote LAN Interface for Pocket-PC's/Web-Tablets).
- Control System Remote LAN Interface Software shall be created using the same developmental software tools, from the control system manufacturer, that is used to create touchpanel pages.
- Control System Remote LAN Interface Software will be capable of emulating the exact "look & feel" (i.e. graphics, text, multi-mode buttons, animations, sub-page/pop-ups, etc.) of the control system touchpanels, and can be created easily by converting existing touchpanel files.
- Control System Remote LAN Interface can be used to generate a stand-alone executable emulator file, which can be sent to clients for evaluation, with the ability to be run on a PC in order to simulate actual GUI operation and flow.
- Control System Remote LAN Interface shall require no additional 3<sup>rd</sup>-Party hardware or software for development or use.
- Control System Remote LAN Interface GUI can be launched as a stand-alone .exe file from a LAN/PC (increasing speed w/virtually 0-seconds load-time, and increasing security, as only those persons who have the specific .exe file on their PC have access to the control system over the LAN/WAN), a Pocket-PC (PDA) or Web-Tablet, or via a Web-Browser (IE). With Control System Remote LAN Interface using a Web-Browser, the client shall have the option of serving up the Control System Remote LAN Interface Web-Pages from any PC/Server located on the LAN/WAN, or from the control system's built-in web-server.
- Control System Remote LAN Interface/IE shall provide smart loading of Web pages: when accessing Control System Remote LAN Interface via IE/Web-Browser and the built-in control system web-server, all project pages can be loaded onto the PC on the first connection. The projects objects/pages shall be able to be cached on the PC so a reconnection is instantaneous. Control System Remote LAN Interface shall support built-in smart loading, which checks the connection to see if objects/pages need to be updated and then updates only those necessary objects/pages,

thus providing faster loading and quicker response time than traditional Java-Based Web Browsing.

- Control System Remote LAN Interface shall be compatible with multi-user/multi-socket control processor operation.
- Control System Remote LAN Interface shall be compatible with control processors that support all of the following features and functionality:
  - ü 10/100 BaseT Dual or Single Port TCP/IP Communications
  - ü Compact-Flash storage and operation (i.e. web-page server)
  - ü Built-in Network Address Translator (NAT), Router, & Firewall
  - ü DHCP and DNS Support
  - ü 802.11b and Bluetooth Compatibility
  - ü Native Email Client
  - ü Remote Diagnostics
  - ü Remote Program Loading and Administration
  - ü Built-In Web Server
  - ü FAT32 File System for easy data management
  - ü SSL security plug in
  - ü Native NAT/Fire-Wall/Router w/dual port option
  - ü PDA Integration and Control, XPanel PDA - Pocket PC 2002
  - ü WebTablet Integration and Control – Microsoft Tablet PC
  - ü Self Generating Executable GUI, XPanel EXE – Microsoft Family of OS
  - ü Self Generating ActiveX powered IE Integration and Control, XPanel IE
  - ü Self Generating Java powered Web Integration and Control.