The modern commercial conference room embraces communication and multi-media technology from projectors and video conferencing, to automated shades and screens and even interactive whiteboards. In addition, the conference room may be the only room guests or customers are exposed to within the company.

For these reasons the lighting and control systems in these spaces need to be well designed and intuitively controlled. Lighting scenes need to be pre-configured but adjustable so multiple users can easily change the settings for their particular meetings. The system should be powerful enough to control all the electronics in the space with just the press of a button on a touchscreen. The right system should take the complexity of the conference room and control it using only a few well configured scenes.
APPLICATION DESCRIPTION

Conference Room

20’ x 30’

10’

Along One Side of Room

Direct and Indirect Fluorescent, Cans, Cove, 0-10V and Forward Phase Dimming

Full On, Presentation Mode, Daylighting

CONTROL NEEDS & SOLUTIONS

• Dimming, presentation mode, daylighting, occupancy sensor. (n.1)

• Equinox 40 control station at entry, single load control and lighting scenes. (n.2)

• Light sensor for daylighting, occupancy sensor for energy management. (n.3)

• Tie in for controlling projection screen (low-voltage relay), IRX II for control of projector and audio/video switching. (n.4)

• Low Voltage Relay or RS-485 for shade control. (n.5)

• InFusion Controller in a surface mounted enclosure or a DIN controller. Remote located LVOS Station for 0-10 control or Power Boosters/ScenePoints for forward phase control with an LVOS station and an Equinox station, the entire system can be wired via Cat6/Ethernet. (n.6)
DESIGN CONSIDERATIONS

- The Vantage System allows for complete control over the conference room environment. Preset scenes for presentations and meetings can incorporate the control of lighting, motorized shades, motorized screens, projectors and A/V systems, sensors and temperature. With the press of one button on the Vantage Equinox 40 keypad, you can lower the shades, dim the lights, drop the screen and power up the projector in preparation for a presentation or meeting.

- Occupancy sensors allow for energy savings as lights can turn off and comfort settings can be set back based on the room being empty. Light sensors can help control and maintain the level of light in the room to take full advantage of natural light during meetings.
Each InFusion Controller to have separate dedicated circuit breaker.

Main feed to circuit breaker panels furnished and installed by electrical contractor.

All lighting circuits shall be fed by 20A line feeds and load wires shall be wired with 12AWG wire.
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<td>IRX II</td>
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INSTALLATION NOTES

• Install the InFusion Controller remote from the conference room in a temperature conditioned electrical closet.

• Vantage two conductor station bus cabling is run from the controller to keypads and thermostats. Topology is completely open but total bus length limitations and maximum distance limitations exist (2000’ maximum per bus, 1000’ maximum distance).

• Occupancy sensors wire either to low-voltage keypads or Equinox 40s via 22AWG cable, with a minimum of three conductors.

• Thermostats are located remotely with local flush wall-mount temperature sensor (maximum run 160 ft, 18AWG 2C).

• A variety of window shade motor control options exist. Whether line voltage or low-voltage, direct drive or serial port controlled, the hardware to affect the solution will vary accordingly.

• Vantage 850D-DA and IRX II connected to Premises LAN via Cat6, on the same network as the InFusion Controller. IRX II is used for control of audio sources (provided by integrator) such as satellite radio, iPod docks, music library devices, tuners, CD players. Speaker placement and zones to be specified by the integrator based on the requirements of the management.

• An Ethernet port to the InFusion Controller allows for centralized and remote system access as well as enabling interface apps on fixed location and portable devices.

• LVOS Station for lighting can be remotely located with the InFusion Controller, or centrally located in a ceiling or crawl space in the conference room. LVOS station connected to Vantage controller via 16/2 station bus, or Cat6. Alternatively, Power Boosters or ScenePoints can be used for lighting load control and are located centrally in the room, or remotely.
The content in Vantage reference designs for conference rooms is intended to provide a starting point for designers anticipating a project including conference rooms with lighting control and integrated automation. The photos included, unless labeled, are not exact project replicas but are representative of this type of project.