Dashboard for Controls

Design Guide

A Guide for the Creation of Touchpanel Control Interfaces for AV Systems

infoComm
INTERNATIONAL®

| VHS PLAYER | AUDIO CASSETTE | SATELLITE RECEIVER | LOCAL PC |

| TABLE LAPTOP 2 | TABLE LAPTOP 3 | TABLE LAPTOP 4 |

Foreword

April 30, 2005

The content in this document has been developed by industry volunteer experts working on behalf of the InfoComm International®, in support of the "Dashboard for Controls" effort. While the "Dashboard" is about making AV controls easier to use for the individual user, the process leading to its creation is about individuals working together for a common cause. I hope you'll find that cause, the Dashboard for Controls and its various elements, to be of benefit to your work and the industry as a whole.

More than 50 InfoComm member volunteers have contributed to the project since it began in the spring of 2001. Be it concept development, critical review, peer dialog or simply monitoring our activities, we owe thanks to all for the many, many contributions along the way. Space prevents listing all contributors; but perhaps you are one of those who contributed. If so, I (and the Dashboard for Controls Steering Committee) thank you. I'd offer that you should take satisfaction on those elements you can identify as "your own" and further consider those with which you may have taken exception. You'll be in good company.

Special thanks, and credit, go to dedicated individuals who over the last year have given extra, as steering committee members, in the sprint to the "finish line." Indulge me while I tell a few stories. Andrew Faunce was at the InfoComm End User Summit in March of 2002 when we first conceived of the Dashboard project. At

key points since then, he has continued to thoughtfully consider and contribute to shaping the Dashboard. Rick Nimtz and Rem Remington "raised their hands" when the InfoComm End User (Technology Manager) Council looked for sub-committee members to work on the Dashboard at our annual meeting. They've hung in there for years; and may think twice next time we're looking for hands (just kidding)! Tim Cape and Dave Silberstein "returned my calls" in the summer of 2002 when I asked for their participation in the then newly developed "cross-council" work group for Dashboard. Sometimes advocates, sometimes voices of reason, they've been there throughout, contributing with the wealth of knowledge they have on this topic. Last, but not least, are Greg Maderic and Howard Nunes, both of whom participated as representatives of the fledgling InfoComm Independent Programmers Council. Starting "cold" on the project in fall of 2004, they immediately immersed into "all things Dashboard." Writing, and editing, the Dashboard Reference, they lent their expertise to add a dimension to the project that I hadn't let myself dream would be achievable.

Thanks go to InfoComm, and its skilled staff, for providing a platform for this work to occur and shepherding the volunteer effort. If you believe there are errors or omissions in this work, or simply want to help further develop the concepts, please contact the InfoComm membership department. We welcome your input.

Greg Bronson, CTS-D
Chair, Dashboard for Controls Working Group
Classroom Technology Project Leader, Cornell University

Dashboard for Controls
Touch Panels and Control Screens
Design Guide

Overview

Note: This document is intended to complement the InfoComm Dashboard for Controls Design Reference. The purpose of the Design Reference, and this Design Guide, is to help guide the creation of Pro-AV touchpanel controls to promote intuitive end-user operation of professionally installed AV systems.
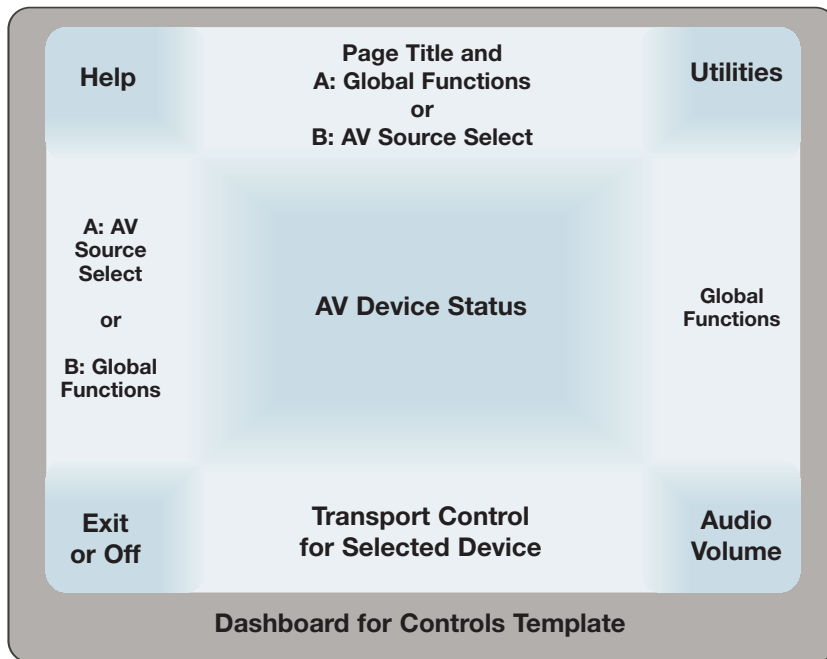
The "Dashboard for Controls" uses the basic premise that operation of a professionally-installed AV presentation system should be as easy to operate as driving a car. By way of standardization on some basics of user interface design and identification of fundamental AV system functions, the environment of the future will increase end-user confidence that the most frequently used functions will "look and feel" like others they have previously used. Advanced features or specialized systems will continue to be served by custom interfaces unique to the application and thus restricted to advanced users.

Using the car dashboard as a metaphor, the Dashboard for Controls embraces the following:

- It is assumed that end-users may need to be trained on the system prior to first use. However, after that first use, and by exposure to similar "Dashboard" implementations, a user will rapidly gain confidence (by learned experience and exposure of similar implementations) for what to expect in other Dashboard observant systems.

- Like the automotive dashboard, the Dashboard for Controls embraces the uniqueness of application and style of the implementers. When designing with this guideline, control systems programmers have sufficient latitude to create "signature" control interface products. Some controls may look very utilitarian, while others may present a refined graphic appeal.

This version of the Dashboard Templates is intended specifically for the class of control panels in the 10" to 18" range. However, we acknowledge that many of these recommendations could be successfully adapted to larger or smaller touch panels.

The Template

Help	Page Title and A: Global Functions or B: AV Source Select	Utilities
A: AV Source Select or B: Global Functions	AV Device Status	Global Functions
Exit or Off	Transport Control for Selected Device	Audio Volume

Dashboard for Controls Template

Legend

Page Title	Title of the overall page reflecting the current mode of operation.
Help	Access to Help or Support functions. Leave blank or expand adjacent Global or Source Select functions if not used.
Global Functions	Control of Environmental and AV-related systems such as projection screen, lights, drapes, etc.
Utilities	Access to advanced End-User or Technician functions. Leave blank or expand adjacent Global or Source Select functions if not used.
AV Source Select	Area for selection of AV device to be displayed, previewed or controlled.
AV Device Status	Area for the video preview and status of the currently selected device. This may be video preview or other status such as current channel or connection status. This area can also indicate the currently selected input for multiple devices of the same type such as multiple PC video inputs displayed on a floor plan, for example.
Transport Control	Controls for the currently selected AV device. Expand upward if more area required.
Audio Volume	Audio volume and mute functions for speech, program or other audio signals. Expand upward if more area required.
Exit or Off	Exit current mode and/or shut down down the system. This area can include access to other support functions

Applying the Template

The template shows the relative positioning of functional areas as described in the Legend for laying out AV control devices (i.e., touchpanels and web interfaces) which has been endorsed by the InfoComm Dashboard for Controls sub-committee. In applying these to your AV control projects, we'd also encourage you to observe the principles outlined in the Dashboard for Control Design Reference (also available from InfoComm). Two options are available for the template configuration:

- Option A is a western format left-to-right flow with AV source select on the left and Global Functions at the top.

- Option B is a western top-down activity flow with AV Source Select at the top and Global Functions on the left.

In both cases, items that are likely to be the first (and impacting other, remaining choices) for AV operation are given highest priority (relative to top left corner).

The template regions are intended to imply a relative guideline. While general orientation and placement of each region is considered very important, the amount of screen area allocated for each component may vary from system to system. For example, if AV Transport Control needs more space and AV Status can do with less, by all means make the shift in space usage accordingly.

When specified, the Dashboard for Controls should be considered the minimum requirement for observing an industry accepted practice of layout and implementation. In a contract, it encompasses only the conformance to the relative layout of the areas identified in the template. The Dashboard is not a "button by button" function matrix and it is not a standard dictating exact shape, color, and size of elements within the interface. The metrics and design of these elements must be specified separately within the contract. As such, each implementation of the Dashboard relies heavily on the process and knowledge of skilled professionals.

We encourage you to consider using the Dashboard for Controls (Design Reference and Design Guide) for your project(s) and hope you'll find it to be easy to use and apply. We believe that the more the Dashboard is applied, the more end-users will gain familiarity and confidence in AV controls customized and built for their special needs.

Thank you,

InfoComm Dashboard for Controls Steering Committee

About InfoComm International

InfoComm International® is the international trade association of the professional audiovisual and information communications industries. Established in 1939, InfoComm's 3,600 members include manufacturers, systems integrators, dealers and distributors, independent consultants, programmers, rental and staging companies, end-users and multimedia professionals from more than 70 countries. InfoComm International is the leading resource for AV market research and news. Its training and education programs, along with its separately administered Certified Technology Specialist (CTS) and corporately administered company credentials, set a standard of excellence for AV professionals. InfoComm International is the founder of InfoComm, the largest annual conference and exhibition for AV buyers and sellers worldwide. The association also co-sponsors Integrated Systems shows in Europe, Asia, China and India. Additional information is available at www.infocomm.org

Visit www.infocomm.org for news and information gathered from industry sources and publications.

Contact InfoComm at 800/659-7469 or 703/273-7200 for more information.

_info_Comm
INTERNATIONAL®

11242 Waples Mill Road
Suite 200
Fairfax, VA 22030
www.infocomm.org