ASM Consortium Guidelines
Effective Operator Display Design

Get the Benefits
An ASM® style interface can have a measurable improvement on how quickly operators respond to faults and detect events. Early event detection means that an accident is less likely to occur and more likely to be handled proactively at an early stage. Faster fault response and earlier event detection mean a safer and more productive process.

Get the Information
These guidelines provide guidance for directing display design projects or display retro-fitting projects and can help project managers to set objectives for their display projects. The detailed information in these guidelines is most suitable for personnel designing or developing new displays.

- Display
  - Types
  - Content
  - Style
  - Layout
  - Navigation
- Use of color
- Use of symbols and process connections
- Use of text and numbers
- Interaction with the display
- Alarm configuration schemes
- Audible and visual alarm annunciation
- Design of training programs for new displays
- On-line guidance systems
- Human factors design methodology
- Management of change

Get the Savings
A study was conducted with operators using an ASM® display compared with the use of a more traditional interface in a high fidelity process simulator. It was reported that with the ASM® interface, operators:

- Recognized problems faster and more consistently;
- Responded and solved problems faster and more consistently; a 6.5–9.7 min improvement (35–48%) on four scenarios of 15–20 minute durations;
- Were more likely to successfully solve the problems, demonstrating a 25% higher success rate for participant using the ASM® interface versus a traditional interface.

These performance differences were correlated with expected ranges of incidents per year and incident costs. From the simulation, they estimated the economic benefits of using an ASM® interface for a 1.8 billion lb/yr ethylene plant to be about $1M/yr in Canadian dollars (about $850 k/yr in USD, Jan 5, 2005).

Get the Guidelines

For further information about the ASM Consortium, please refer to the Consortium Director; send email to HL-ASM-Director@honeywell.com

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