

# Recommended Practice for Pipeline SCADA Displays

API RECOMMENDED PRACTICE 1165  
FIRST EDITION, JANUARY 2007

REAFFIRMED, JANUARY 2018



AMERICAN PETROLEUM INSTITUTE

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## Pipeline Segment

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# Recommended Practice for Pipeline SCADA Displays

## 1 Scope

### 1.1 PURPOSE

This Recommended Practice (RP) focuses on the design and implementation of displays used for the display, monitoring, and control of information on pipeline Supervisory Control and Data Acquisition Systems (SCADA). The primary purpose is to document industry practices that provide guidance to a pipeline company or operator who want to select a new SCADA system or update or expand an existing SCADA system.

This RP assists pipeline companies and SCADA system developers in identifying items that are considered best practices when developing human machine interfaces (HMI). Design elements that are discussed include, but are not limited to, software, navigation, colors, fonts, symbols, data entry, and control / selection techniques.

### 1.2 SCOPE LIMITATIONS

This RP was created by an API Cybernetics Subcommittee task force, based on industry practices used on liquid pipeline SCADA systems. Most participants operate crude, product, chemical, and natural gas pipeline systems.

It is recognized that each pipeline company has unique operating philosophies and SCADA systems; therefore, not all elements of this recommended practice may be applicable.

For example:

- Some pipeline control centers are a combination of several different SCADA systems.
- Some of these SCADA systems may not have the developer tools necessary to implement the recommended practices.
- Some operators may have existing display techniques that bridge over into unique operating philosophies.

This RP is not all-inclusive. It is intended to cover best practices and provide examples for display techniques only, not dictate operational control philosophy or overall SCADA system functionality. The reader should have a good working knowledge of pipeline operations and display techniques, and may have to refer to other publications for background or additional information.

This RP compliments but does not replace other procedures and effective display techniques or industry standards that are used for software development and implementation. Regulatory and individual company standards are not addressed in this publication.

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