Australian Standard®

Supervisory control and data acquisition (SCADA)—Generic telecommunications and interface protocol

Part 2: Fire alarm systems

This Australian Standard was prepared by Committee IT/24, Supervisory Control and Data Acquisition. It was approved on behalf of the Council of Standards Australia on 14 June 1996 and published on 5 August 1996.

The following interests are represented on Committee IT/24:

Agriculture and Resource Management Council of Australia and New Zealand

Association of Consulting Engineers Australia

AUSTEL

Australian Electrical and Electronic Manufacturers Association

Australian Fire Authorities Council

Australian Gas Association

Australian Pipeline Industry Association

Australian Security Industry Association

Australasian Railway Association

AUSTROADS

CIGRE AP35

Electricity Supply Association of Australia

Fire Protection Industry Association of Australia

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PREFACE

This Standard was prepared by the Standards Australia Committee IT/24 on Supervisory Control and Data Acquisition.

The objective of this Standard is to provide fire equipment manufacturers and fire alarm monitoring organizations with a telecommunications protocol for connecting fire alarm systems to fire control stations, in order to achieve system and equipment interoperability. Other industry groups may also find the requirements applicable.

This Standard is consistent with requirements developed by IEC and published in IEC 870, *Telecontrol equipment and systems*. This Part has been prepared as one of a possible series of Standards for SCADA applications. AS 4418.1 defines the general requirements, including security and addressing, for SCADA networks and this Part is a specific fire alarm monitoring application. The two Parts should be read in conjunction.

Other applications which could form further Parts of this series of Standards could cover areas such as systems for service utilities, transport and security.

Concurrently, Standards Australia/Standards New Zealand Committee FP/2 on Automatic Fire Detection, Warning and Intercom Systems is preparing a product Standard for alarm signalling equipment designed to utilize this telecommunications protocol. In addition, Committee FP/2 is preparing a standard which will specify minimum alarm monitoring network performance parameters which network designers will be able to use to ensure adequate performance of monitored fire alarm systems.

The term ‘informative’ has been used in this Standard to define the application of the appendix to which it applies. An ‘informative’ appendix is only for information and guidance.

CONTENTS

First published as AS 4418.2— 1996.

STANDARDS AUSTRALIA

Australian Standard

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE The purpose of this Standard is to standardize the monitoring of fire alarm systems installed in remote premises, and connected to a fire control station.

1.2 APPLICATION The protocol defined in this Standard is for connection-oriented networks. If a connectionless protocol is required, ITU-T Rec.X.400 addressing shall be used. Supervisory control and data acquisition (SCADA) networks for fire alarm monitoring applications shall comply with the relevant parts of AS 4418.1 and this Standard.

Whilst this Standard specifies many features and a high degree of functionality, smaller lower technology systems can still be accommodated. Most responses from a controlled station allow a particular message from an individual controlled station to not be implemented. This can be used by manufacturers to enable the production of partially functional, yet fully compliant, alarm system DTE. In addition, the text area available for the description of the location of the actuating devices may be used to describe the area of coverage of an individual alarm zone circuit, thus permitting the connection of collective control and indicating equipment (CIE). In this case, references to actuating devices should be read as alarm zone circuits.

NOTE: To assist manufacturers to detail the level of functionality available with individual alarm systems DTEs, Appendix A provides a simple tick-the-box information supplement to enable monitoring network providers and end users to make direct comparisons between equipment suppliers.

Whilst this Standard may be more easily implemented using dedicated point-to-point links, it may also be implemented using switched or packet networks as allowed in IEC 870-1-4.

1.3 REFERENCED AND RELATED DOCUMENTS

1.3.1 Referenced documents The following documents are referred to in this Standard:

AS	
4418	Supervisory control and data acquisition (SCADA)—Generic telecommunications interface and protocol
4418.1	Part 1: General
2484	Fire—Glossary of terms
2484.2	Part 2: Fire protection and fire fighting equipment
IEC	
870	Telecontrol equipment and systems
870-1-3	Part 1: General considerations—Section 3: Glossary