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Australian Standard®

Telecontrol equipment and systems

Part 1.2: General considerations—Guide for specifications

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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 23 September 1997 and published on 5 January 1998.

The following interests are represented on Committee IT/24:

Association of Consulting Engineers Australia

AUSTEL

Australasian Railway Association

Australian Electrical and Electronic Manufacturers Association

Australian Fire Authorities Council

Australian Gas Association

Australian Pipeline Industry Association

Australian Security Industry Association

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PREFACE

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

The Standard is identical with and has been reproduced from IEC 60870-1-2:1989, *Telecontrol equipment and systems*, Part 1: *General considerations*, Section 2—*Guide for specifications*.

IEC has decided to apply a new numbering system, the 60000 series, to all its existing and future publications, including amendments to existing Standards. As a consequence, IEC has modified the bibliographic references in its databases to accord with the new numbering system. All IEC publications issued since the beginning of 1997 will carry references in terms of the 60000 series numbering. Publications printed earlier than 1997 will continue to carry the old series of numbers. For example, a reference to the IEC 60870 series of Standards will be to IEC 870 if the current edition of the Standard was printed prior to 1997.

This Standard is identical to a pre-1997 document; therefore, it uses the old series of numbers.

The objective of this Standard is to provide manufacturers and users of telecontrol equipment and systems with guidelines for establishing their specifications in order to ensure their consistency with other such standards to be adopted in Australia.

As this Standard is reproduced from an international Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) In the source text 'this International Standard' should read 'this Australian Standard'.

(c) A full point substitutes for a comma when referring to a decimal marker.

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INTRODUCTION

Planning of telecontrol systems and defining the specifications of a system and of its equipment are complex and demand a large amount of detailed information. There are not only application functions of the system to be defined but also the operational parameters, the local environmental conditions and the data transmission paths available as well as their characteristics. The interfaces between the components of the system and other equipment facilities such as power supply requirements shall also be specified.

Many aspects of this field are covered by standards within the IEC 870 series on telecontrol equipment and systems but many decisions are still left to the engineers who have to plan a system and establish the specifications.

1. Scope

This series of standards applies to telecontrol equipment and systems with coded bit serial data transmission for monitoring and control of geographically widespread processes.

2. Object

This section presents guidelines but not standards for establishing specifications for telecontrol systems and equipment following the other IEC standards on telecontrol systems and other relevant international standards and recommendations such as CCITT recommendations. It also facilitates the comparison of equipment of different manufacturers.

The planning of telecontrol systems should be subdivided into clearly defined steps:

– The first step involves a consideration of the operational requirements of telecontrol systems (clause 3 of this section).

– In the second step, the conditions and limitations of the data transmission network are considered and the most suitable utilization is specified (clause 4 of this section).