

Australian/New Zealand Standard™

**Information technology—Open
Distributed Processing—Trading
function**

Part 1: Specification



AS/NZS ISO/IEC 13235.1:2006

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee IT-015, Software and Systems Engineering. It was approved on behalf of the Council of Standards Australia on 27 October 2006 and on behalf of the Council of Standards New Zealand on 10 November 2006.
This Standard was published on 11 December 2006.

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This Standard was issued in draft form for comment as DR 06504.

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First published as AS/NZS ISO/IEC 13235.1:2006.

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Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 7904 2

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee IT-015, Software and Systems Engineering.

The objective of this Standard is to provide an organization with a Reference Model of Open Distributed Processing (RM-ODP) framework. It defines an architecture within which support of distribution, interoperability and portability can be integrated. The trading function provides the means to offer a service and the means to discover services that have been offered. This Standard provides architecture for systems implementing the trading function and the specification of interfaces within the architecture.

This Standard is identical with, and has been reproduced from ISO/IEC 13235-1:1998, *Information technology—Open Distributed Processing—Trading function: Specification*.

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

- (a) Its number appears on the cover and title page while the international standard number appears only on the cover.
- (b) In the source text ‘this Recommendation/International Standard’ should read ‘this Australian/New Zealand Standard’.
- (c) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>	<i>Australian/New Zealand Standard</i>
ISO/IEC	AS/NZS
14750 Information technology—Open Distributed Processing—Interface Definition Language	14750 Information technology—Open distributed processing—Interface definition language

Only normative references that have been adopted as Australian or Australian/New Zealand Standards have been listed.

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INTRODUCTION

The rapid growth of distributed processing has led to a need for a coordinating framework for the standardization of Open Distributed Processing (ODP). The Reference Model of Open Distributed Processing (RM-ODP) provides such a framework. It defines an architecture within which support of distribution, interoperability and portability can be integrated.

One of the components of the architecture (described in RM-ODP Part 3: Architecture) (ITU-T Rec. X.903 | ISO/IEC 10746-3) is the ODP Trading function. The trading function provides the means to offer a service and the means to discover services that have been offered. This Recommendation | International Standard provides an architecture for systems implementing the trading function and the specification of interfaces within the architecture.

NOTE – The specification of computational interfaces in this Recommendation | International Standard is technically aligned with the OMG Trading Object Service.

The goals of this Recommendation | International Standard are:

- to provide a standard which is independent of any implementation;
- to ensure implementations are capable of being made to interoperate (i.e. can be federated);
- to provide sufficient detail to allow conformance claims to be assessed.

Annex A is a normative ODP-IDL specification of the trading function interface signatures.

Annex B is a normative specification of the ODP trading function constraint language.

Annex C is a normative specification of the ODP trading function constraint recipe language.

Annex D is an informative description of a Service Type Repository.

AUSTRALIAN/NEW ZEALAND STANDARD

Information technology—Open Distributed Processing—Trading function**Part 1: Specification****1 Scope and field of application**

The scope of this Recommendation | International Standard is:

- an enterprise specification for the trading function;
- an information specification for the trading function;
- a computational specification for traders (i.e. objects providing the trading function);
- conformance requirements in terms of conformance points.

It is not a goal of this Recommendation | International Standard to state how the trading function should be realized. Therefore this Recommendation | International Standard does not include an engineering specification.

The field of application for this Recommendation | International Standard is any ODP system in which it is required to introduce and discover services incrementally, dynamically and openly.

2 Normative References

The following Recommendations and International Standards contain provisions which, through reference in this text, constitute provisions of this Recommendation | International Standard. At the time of publication, the editions indicated were valid. All Recommendations and Standards are subject to revision, and parties to agreements based on this Recommendation | International Standard are encouraged to investigate the possibility of applying the most recent edition of the Recommendations and Standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards. The Telecommunication Standardization Bureau of the ITU maintains a list of currently valid ITU-T Recommendations.

- ITU-T Recommendation X.901 (1997) | ISO/IEC 10746-1:1998, *Information technology – Open distributed processing – Reference Model: Overview*.
- ITU-T Recommendation X.902 (1995) | ISO/IEC 10746-2:1996, *Information technology – Open Distributed Processing – Reference Model: Foundations*.
- ITU-T Recommendation X.903 (1995) | ISO/IEC 10746-3:1996, *Information technology – Open Distributed Processing – Reference Model: Architecture*.
- ITU-T Recommendation X.920 (1997) | ISO/IEC 14750:1998, *Information technology – Open Distributed Processing – Interface Definition Language*.
- ISO/IEC 13568¹⁾, *Information technology – The Z Specification Language*.

3 Notations

The information specification of the trading function is described using the Z formal description language. The signature of the computational interface for the trading function is described using ODP Interface Definition Language, in clause 8 and in Annex A.