Australian/New Zealand Standard™

Information technology—CDIF semantic metamodel

Part 4: Data models





AS/NZS ISO/IEC 15476.4:2007

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 3 November 2006 and on behalf of the Council of Standards New Zealand on 17 November 2006.

This Standard was published on 17 January 2007.

The following are represented on Committee IT-015:

University of Technology, Sydney

Vendor Interests, NZ

Australian Computer Society
Australian Electrical and Electronic Manufacturers Association
Australian Society or Technical Communications
Australian Software Metrics Association
Engineers Australia/ACTS Joint Board in Software Engineering
Griffith University
National Association of Testing Authorities Australia
National ICT Australia
New Zealand Organisation for Quality
Software Quality Association, ACT
Software Quality Association, NSW
Systems Engineering Society of Australia
The University of Queenslands
University of South Australia

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at www.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR 06512.

AS/NZS ISO/IEC 15476.4:2007

Australian/New Zealand Standard™

Information technology—CDIF semantic metamodel

Part 4: Data models

First published as AS/NZS ISO/IEC 15476.4:2007.

COPYRIGHT

© Standards Australia/Standards New Zealand

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

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

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 vendors and users of modelling tools and meta-data repositories with definition of the portion of the CDIF semantic metamodel that supports general Data Modelling. This includes Entity-Relationship-Attribute Modelling as well as Logical Database Design.

This Standard is identical with, and has been reproduced from ISO/IEC 15476-4:2005, *Information technology—CDIF semantic metamodel—*Part 4: *Data models*.

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 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:

Reference to International Standard		Australian/New Zealand Standard		
ISO/IEC		AS/NZS ISO/IEC		
15474	Information technology—CDIF	15474	Information technology—CDIF	
	framework		framework	
15474-1	Part 1: Overview	15474.1	Part 1: Overview	
15474-2	Part 2: Modelling and extensibility	15474.2	Part 2: Modelling and extensibility	
15476	Information technology—CDIF semantic metamodel	15476	Information technology—CDIF semantic metamodel	
15476-1	Part 1: Foundation	15476.1	Part 1: Foundation	
15476-2	Part 2: Common	15476.2	Part 2: Common	
15476-3	Part 3: Data definitions	15476.3	Part 3: Data definitions	

CONTENTS

Page

1	Scope	1
2	Conformance	2
_ 2.1	General	
2.2	Input conformance	
2.3	Output conformance	
2.4	Round-trip conformance	
3	Normative references	
	Terms and definitions	
4 4.1	From other International Standards	
4.1 4.1.1	ISO/IEC 15474-1	
4.1.1 4.1.2	ISO/IEC 13238-1	
4.1.2 4.1.3	For this International Standard	
4.1.3		
5	Symbols (and abbreviated terms)	
5.1	Naming, diagramming and definition conventions	4
5.2	Abbreviations	
5.3	Notation for this subject area	4
6	Data models subject area overview	5
6.1	Introduction	
6.2	Diagrams	
6.2 6.3	Entities	
6.4	Relationships	
6.4.1	Binary relationship	
6.4.1 6.4.2	N-ary relationship	
6.4.2 6.4.3	Simple relationship	
6.4.4	Complex relationship	
6.4.4 6.5	Roles	
6.6	Cardinalities	
6.6.1	Outer cardinalities	
6.6.2	Inner cardinalities	
6.6.∠ 6.7	Multi-player roles	
	• •	
6.8	Role constraints	
6.9	Attributes	
6.10	Keys and access paths	
6.11	Referential integrity	
6.12 6.12.1	Supertypes and subtypes	
6.12.1		
6.12.2		
	Inheritance	
6.12.4		
	Refinement of inherited characteristics	
6.13.1 6.13.2	Refinement of attribute characteristics	
6.14	Subsets	
6.15 6.16	Clusters	
	Projections	
6.17		
7	Data models subject area summary	.43
7.1	AttributableMetaObject hierarchy	.43
7.2	MetaEntity summary	45



The is a new provider i arenade and chare publication at the limit below	This is a free preview.	Purchase the	entire publication	at the link below:
--	-------------------------	--------------	--------------------	--------------------

Product Page

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation