AS/NZS ISO/IEC 15476.6:2007
ISO/IEC 15476-6:2006

AS/NZS ISO/IEC 15476.6:2007

Australian/New Zealand Standard™

Information technology—CDIF semantic metamodel

Part 6: State/event models

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.
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Australian Software Metrics Association
Engineers Australia/ACTS Joint Board in Software Engineering
Griffith University
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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.

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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 a definition of the State/Event Subject Area of the CDIF semantic metamodel. (This subject area contains meta-objects that describe the entities of state transition diagrams and state transition tables, and also meta-relationships and meta-attributes that are necessary for available state transition).

This Standard is identical with, and has been reproduced from ISO/IEC 15476-6:2006, *Information technology—CDIF semantic metamodel*—Part 6: *State/event 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 framework	15474	Information technology—CDIF 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

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

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INTRODUCTION

This International Standard will assist the vendors and users of modelling tools and meta-data repositories in developing mechanisms for interchanging information. This International Standard specifies an element of a family of related International Standards. When used together, these International Standards specify a mechanism for transferring information between tools.

ISO/IEC 15474-1:2002**,** *Information technology - CDIF framework - Part 1: Overview* and ISO/IEC 15474-2:2002**,** *Information technology - CDIF framework - Part 2: Modelling and extensibility* should be read first when initially exploring CDIF. The first explains the overall CDIF architecture and how the family of International Standards fits together. The second explains the scope, and modelling approach in CDIF. The CDIF meta-metamodel and extensibility mechanism are also defined in that document.

This International Standard explains the State/event models subject area of the CDIF semantic metamodel, that defines objects in state transition diagrams and state transition tables. The CDIF semantic metamodel is used to ensure that the information transferred by tools communicating using CDIF is expressed with an agreed meaning.

This International Standard has been developed with the wide support and participation of vendors, users, academia and government involved in or familiar with the CASE industry, its products and the general requirements associated with interchanging information between these products.

This document is organized into the following Clauses:

— Clause 1 to 5 are prescribed ISO/IEC Clauses.

— Clause 6: Subject area overview:

  This Clause gives an overview of the coverage of this subject area.

— Clause 7: Subject area summary:

  This Clause gives an overview of the content of this subject area.

— Clause 8: Subject area specification:

  This Clause gives the formal specification of all the objects defined in the subject area, and the formal reference to those used, but not defined in the subject area.

This document is intended to be used by anyone wishing to understand and/or use CDIF. This document provides a definition of a single subject area of the CDIF semantic metamodel. It is suitable for:

— Those evaluating CDIF;

— Those who wish to understand the principles and concepts of a CDIF transfer; and

— Those developing importers and exporters.

This document, ISO/IEC 15474-1:2002*, Information technology - CDIF framework - Part 1: Overview,* and the framework document ISO/IEC 15474-2:2002*, Information technology - CDIF framework - Part 2: Modelling and extensibility,* should be read first when initially exploring CDIF and before attempting to read other documents in the CDIF family of standards.

While there are no specific prerequisites for reading this document, it will be helpful for the reader to have familiarity with the following:

— Entity-Relationship-Attribute modelling;

— Modelling (CASE) tools;

— Information repositories;

— Data dictionaries;

— Multiple meta-layer modelling.

NOTES

AUSTRALIAN/NEW ZEALAND STANDARD

Information technology — CDIF semantic metamodel —

Part 6:
State/event models

1 Scope

The CDIF family of International Standards is primarily designed to be used as a description of a mechanism for transferring information between modelling tools. It facilitates a successful transfer when the authors of the importing and exporting tools have nothing in common except an agreement to conform to CDIF. The language that is defined for the transfer format also has applicability as a general language for import/export from repositories. The CDIF semantic metamodel defined for CASE also has applicability as the basis of standard definitions for use in repositories.

The International Standards which form the complete family of CDIF standards are documented in ISO/IEC 15474-1:2002*, Information technology — CDIF framework — Part 1: Overview.* These standards cover the overall framework, the transfer format and the CDIF semantic metamodel.

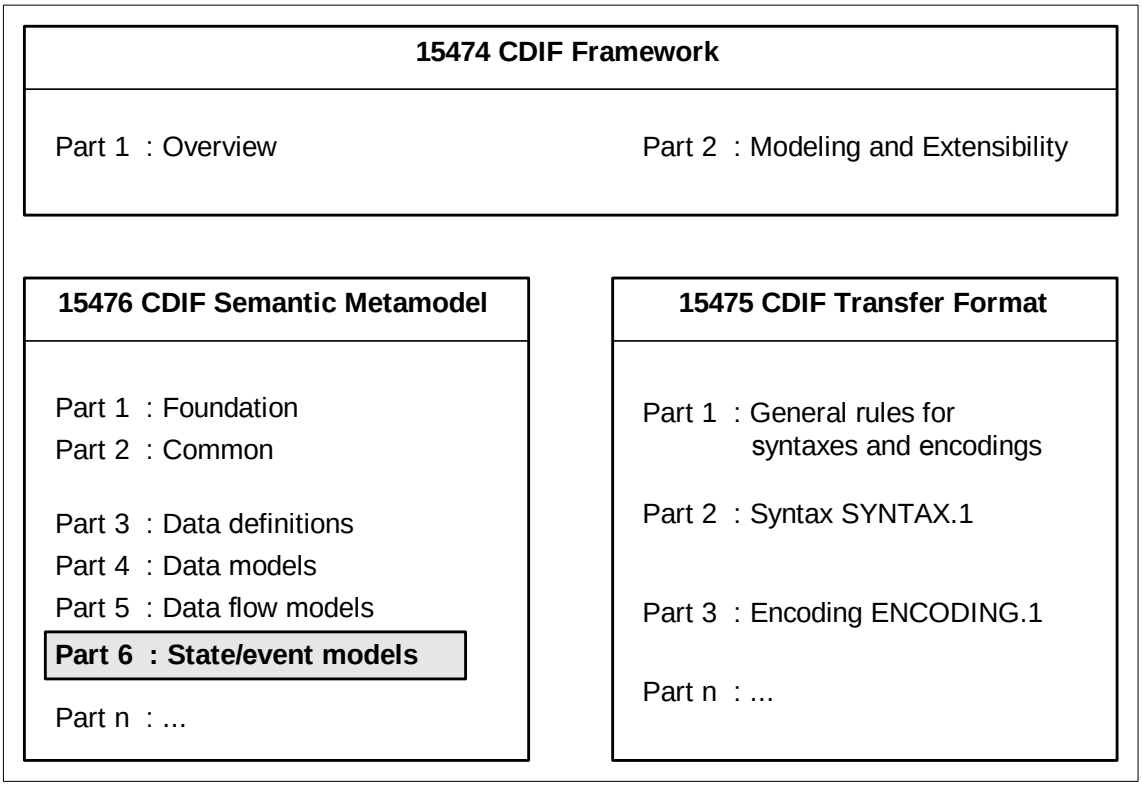

Figure 1 – CDIF family of International Standards

The diagram in Figure 1 depicts the various International Standards that comprise the CDIF family of standards. The shaded box depicts this International Standard and its position in the CDIF family of standards.