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Australian Medicines Terminology v2.51 Release Note

20 December 2013

Approved for external use

National E-Health Transition Authority

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Document information

Key information

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Version	Date	Author	Status and nature of amendments
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2.49 Revision 001	2013-10-31	NCTIS	Additional unresolved issue added.
2.50	2013-11-27	NCTIS	Release note for AMT.
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Related documents and artefacts

Name	Version / Release / Date
Release file bundle https://nehta.org.au/aht	2013-12-20
AMT terminology viewers for Windows® and Mac OSX® https://nehta.org.au/aht	2013-12-20

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1 Introduction

1.1 Statement of purpose

The Australian Medicines Terminology (AMT) delivers standardised identification of brand (trade) products and equivalent generic medicines along with associated components that are supported through standard naming conventions that accurately describe medications.

The AMT has been developed to be fit for the purpose of unambiguously identifying for clinicians and computer systems commonly used medicines* in Australia and can be implemented in clinical information systems for the following activities:

- Prescribe
- Record
- Review
- Issue – including dispense
- Administer
- Transfer of information

*Note: Currently this includes PBS/RPBS, TGA AUST R and a range of AUST L items.

1.2 Intended audience

This document is directed towards implementers of computer systems and clinicians that will employ or refer to the AMT.

1.3 Scope

This document provides information about the current release of the AMT. Although it is not a guide to implementing AMT in computer systems, some implementation guidance is provided.

1.4 Background

The AMT is updated, verified and validated, and released monthly to incorporate new clinical content, enhance existing content and make use of the terminology more effective. Routine updating continuously improves and extends the AMT's coverage of the clinical content used in the Australian health sector.

1.5 Questions and feedback

NCTIS's product development relies on the input and co-operation of the healthcare community. We value your feedback and encourage questions, comments or suggestions about our products.

To provide feedback, or for further information regarding licensing, please contact us via:

email: help@nehta.gov.au

mail: Product Lead - AMT,
National Clinical Terminology & Information Service,
NEHTA,
Level 25, 56 Pitt Street
Sydney NSW 2000.

2 About this terminology release

2.1 AMT December 2013 Release 2.51

The latest Australian Medicines Terminology (AMT) release is now available for download from the NCTIS website (https://nehta.org.au/aht).

The NCTIS website contains resources and associated information on licensing, guides and tools for both the Systematized Nomenclature of Medicine, Clinical Terms (SNOMED CT®[1]) and the AMT.

The resources included in this release are:

- This release note.
- A release file bundle containing terminology files and supporting documentation.
- AMT terminology viewers for Windows® and Mac OSX® operating systems.

2.2 Implementation guidance

All AMT concepts have a Fully Specified Name (FSN) which is intended to provide an unambiguous name for the concept, and a Preferred Term (PT), which is intended to capture the common word or phrase used by Australian clinicians. System developers and end users should implement only Preferred Terms as these are the concepts developed for use by clinicians in Australia.

System developers should ensure that the complete Preferred Term is used as the display name in vendor applications.

System developers should note that the scope for AMT does not include 'Dose Checking' or groupings used for decision support.

Special Safety Note: System developers should be aware that there is a potential safety risk for items such as 'amphotericin B' where 'B' could be read as '8' if it is followed by a 'strength'.

For further AMT implementation assistance please refer to:

- *AMT v2 Technical Specification* [1]
- *SNOMED CT Technical Implementation Guide* [2]

2.2.1 Using AMT with other medicines data

Numerical codes, whether derived from AMT or other sources, should not be added in the descriptions presented to end users.

Where system editorial rules have the potential to introduce duplicate information into application-derived descriptions, this conflict should be resolved before descriptions are exposed to system end users.

[1] This material includes SNOMED Clinical Terms® (SNOMED CT®) which is used by the permission of the International Health Terminology Standards Development Organisation (IHTSDO®). All rights reserved. SNOMED CT was originally created by The College of American Pathologists. IHTSDO®, SNOMED® and SNOMED CT® are registered trademarks of the IHTSDO.

2.3 What's new in this release

2.3.1 New content additions

This release of AMT contains the Australian marketed products that are included on the Schedule of Pharmaceutical Benefits, including the Repatriation Pharmaceutical Benefits Schedule (RPBS).

This release includes the eight reference sets that are listed in Section 3.2.3. For information about reference sets and their implementation, see the *SNOMED CT RF2 Reference Set Specifications* [3], which is included in the release bundle. Additional documentation can also be downloaded from the SNOMED CT, Australian Release (SNOMED CT-AU) support materials or the International Health Terminology Standards Development Organisation (IHTSDO) website[2].

2.3.2 Updated content

The figures quoted here have been extracted from the notable concept reference sets. See *AMT v2 Development Approach for Reference Sets* [4] for information about these reference sets and the members of the reference sets.

Concept	Current count	Changes since last release
Medicinal Product (MP)	1833	6
Medicinal Product Unit of Use (MPUU)	4670	17
Medicinal Product Pack (MPP)	8284	20
Trade Product (TP)	5109	20
Trade Product Unit of Use (TPUU)	10535	36
Trade Product Pack (TPP)	15776	37
Containered Trade Product Pack (CTPP)	16717	40
Total	62924	176

2.4 Resolved issues

The following issues have been resolved with this release.

ID	Resolved issues
6367	The following product has been retired and replaced with a new product with amended Basis of Strength Substance (BoSS) and strength; • ARTG ID 18777 Celestone Chronodose injection: suspension, 5 x 1 mL ampoules

[2] http://ihtsdo.org/fileadmin/user_upload/doc/.

2.5 Known issues

2.5.1 EFFECTIVETIME field

AMT's release files are in a format that is an extension of SNOMED CT Release Format 1 (RF1). AMT's file format adds trailing columns, which append Universally Unique Identifiers (UUIDs) and an EFFECTIVETIME field.

The EFFECTIVETIME field was designed to indicate the time that each row in the data files was last modified. This was a precursor to SNOMED CT's Release Format 2 (RF2) standard. However, due to technical limitations AMT data has never populated this EFFECTIVETIME field, leaving it set to 28 September 2007.

Therefore consumers of AMT must disregard the EFFECTIVETIME field in AMT's extended RF1 format files. The history of change to AMT data may still be interpreted using the standard methods used for SNOMED CT RF1 data.

The EFFECTIVETIME field will remain set to 28 of September 2007 for AMT data released using AMT's Version 2 model (2.xx), in AMT's current extended RF1 format.

Note: The EFFECTIVETIME field within the reference sets is correctly set to the appropriate effective date.

2.5.2 Other issues

For other known issues please see Appendix A.

2.6 Access to the release files

Automated access to the release file bundle is now available on the NCTIS site.

To use this option please see following instructions:

- The URL to access the service is: https://nehta.org.au/aht/releases/amt/RELEASE.
- To access the service, you must use the HTML POST method, with the following data:
- "user=[USERNAME]&pass=[PASSWORD]"
- Where `[USERNAME]` is a valid username for the NCTIS website and `[PASSWORD]` is the password that matches that username.
- An example using the cURL[3] command line tool (v7.30.0, SSL enabled):
- curl --remote-header-name --remote-name --insecure --data "user=aFakeUserName&pass=FakePassw0rd101" https://nehta.org.au/aht/releases/amt/RELEASE

Executing the previous command would result in the file `NEHTA_xxxx_2012_AMT_Data_v2.nn.zip` being downloaded to your current folder. (Where nn is the current release version and xxxx is an internal NEHTA ID).

Please contact help@nehta.gov.au if you have any questions about using this option.

[3] Available from http://curl.haxx.se/download.html. SSL-enabled versions of cURL are available for each platform, as indicated on the downloads page.

3 Terminology release contents

3.1 Release Note

This Release Note accompanies the AMT terminology deliverables. Its purpose is to provide a brief description of the AMT terminology deliverables and their location, and also to provide links to supporting documentation relevant to the release.

3.2 Release file bundle

The Release file bundle contains terminology files along with associated documentation in ZIP file format. The terminology files, reference sets and documentation are listed below and are described in the accompanying documentation.

3.2.1 Australian Medicines Terminology Release content

Data associated with this release is provided in three UTF-8 encoded, tab-delimited text files. The three text files are tabulated below.

SNOMED CT file type	File name
Concepts	Uuid_sct_concepts_au.gov.nehta.amt.standalone_2.51.txt
Descriptions	Uuid_sct_descriptions_au.gov.nehta.amt.standalone_2.51.txt
Relationships	Uuid_sct_relationships_au.gov.nehta.amt.standalone_2.51.txt

These files may be loaded into your preferred SNOMED CT compliant environment, however be aware that the NCTIS has provided additional content to each of these files which may require your attention prior to importing this data. These additions are felt necessary to model medicines terminology appropriately and are outlined in the *AMT v2 Technical Specification* [1].

Please note that the data files are not compatible with the CliniClue® browser.

3.2.2 History mapping reference set

The Australian Medicines Terminology now makes use of SNOMED CT status guidelines for concepts, their associated descriptions, and relationships. This means that the AMT release files now contain inactive components. To assist with this change, an additional text file named `History Mapping reference set_2.51.txt` is included within the release.

This file describes these changes in status, provided in a machine-readable format. The file currently does not conform to SNOMED CT reference set specifications, but does use elements of what will be delivered as a reference set in future releases. The delivery date of this upcoming reference set is still to be finalised.

3.2.3 Reference sets

The following reference sets are included within the AMT data set:

- *Containered trade product pack reference set*
- *Medicinal product reference set*
- *Medicinal product pack reference set*
- *Medicinal product unit of use reference set*
- *Trade product reference set*
- *Trade product pack reference set*
- *Trade product unit of use reference set*
- *Substance to SNOMED CT-AU mapping reference set*

For complete details of these reference sets you should refer to the following documents:

- *AMT v2 Development Approach for Reference Sets* [4]
- *NCTIS reference set library* [5]

3.2.4 Documentation

AMT v2 Development Approach for Reference Sets *[4]*

This document captures and describes the development approach used in creating reference sets for use by the AMT community of practice. It also includes an explanation of the types of reference sets and how they are categorised for various purposes.

SNOMED CT release format 2 – reference set specifications

This document describes the reference set specifications released as part of the SNOMED CT Release Format 2. It has also been incorporated into the *SNOMED CT Technical Implementation Guide* [2].

3.3 Supporting documentation

The NCTIS provides documentation specific to the Australian Medicines Terminology Release. Users should also refer to documentation provided with the SNOMED CT International and SNOMED CT-AU terminology releases.

AMT and SNOMED CT-AU supporting documentation can be downloaded from the NCTIS website[4]. These files are available only to current licence holders.

3.3.1 AMT supporting documentation

3.3.1.1 *AMT v2 Editorial Rules* [6]

This document provides the editorial rules that the NCTIS uses to govern the development of SNOMED CT-compliant terminology specific to medicines. The most recent revision of the *AMT v2 Editorial Rules* [6] was published in December 2011, to reflect changes to the models and recommendations from external stakeholders.

[4] https://nehta.org.au/aht.

3.3.1.2 *AMT v2 UML Class Diagram* [7]

This document outlines the UML data model used for developing the Australian Medicines Terminology.

3.3.1.3 *AMT v2 Technical Specification* [1]

This document specifies the data model for the AMT (v2 model), giving special attention to how the concepts, relationships and descriptions are structured in the AMT. It was updated in April 2012 to reflect small changes to the v2 model over time, to remove certain sections that may not be relevant to implementers and add to guidance in relation to strength details extraction and AMT maintenance.

3.3.2 SNOMED CT-AU supporting documentation

3.3.2.1 *NCTIS reference set library* [5]

This document is a register of the clinical reference sets for use by the terminology community of practice. The reference sets have been developed by the NCTIS within NEHTA.

3.3.3 IHTSDO supporting documentation

In past releases, various documents from the IHTSDO were re-released as part of the SNOMED CT-AU release. The following documents are now available online at:

- http://www.ihtsdo.org/links

Accordingly, these documents will no longer be provided within the SNOMED CT-AU release bundle.

- *SNOMED CT Technical Implementation Guide* [2]
- This document is produced by the IHTSDO to accompany the SNOMED CT International Release and provides guidance for SNOMED CT technical implementers such as vendors. The guide assumes information technology and software development experience. The following documents have now been incorporated into it:
  - *File naming conventions;*
  - *RF2 data specifications;*
  - *RF2 reference set specifications;* and
  - *RF2 update guide.*
- *SNOMED CT User Guide* [8]
- This document is produced by the IHTSDO to accompany the SNOMED CT International Release and provides guidance for modellers and implementers on the content and principles used to model SNOMED CT. This guide is designed for project leaders, clinical staff, and product managers.

3.4 AMT terminology viewers for Windows and Mac operating systems

The AMT is released in a terminology viewer, which enables users to browse the content of the AMT. The package of items within the ZIP format terminology viewer bundle consists of:

- *AMT Viewer: installation and user guide* [9] (in PDF format);
- AMT Viewer Licence (in PDF format); and either:
  - AMT Viewer for Windows Operating System; or
  - AMT Viewer for Mac Operating System.

Appendix A Known issues list

Users should note that known issues listed in the *AMT Release Note* have been revised to ensure that only those issues that affect content accuracy are listed. This has resulted in the removal of a number of issues. These issues still remain logged within internal NEHTA issue management systems for future resolution.

The following types of issues have been removed:

- Minor changes to descriptions that do not affect interpretation or understanding of the description. However, a minor error resulting in internal inconsistency within the description will be retained.
- Product availability issues.
- Future work items.

Retained issues include:

- Data errors, for example an incorrect strength dosage form.
- Major changes to product trade names that may occur as sponsors update product packaging.
- Issues that require changes to release dosage forms will remain in the published list.

In addition to the above, users should note that:

- The ID number is the internal NEHTA issue identifier. This ensures that a published issue can be tracked against the NEHTA issue management system.
- TGA Label Names are generally used wherever issues include product names.
- The TGA registration number (the ARTG or Licence ID number) is also included.
- In cases where the product is not registered by the TGA, a NEHTA identifier has been included.

ID	Known issues
585	The unit dose form type of ‘ampoule’ will amended to ‘unit dose’ in a future release, for ARTG 55364 OCUFEN flurbiprofen sodium 300 microgram/mL eye drops ampoule.
1040	Telfa 2140C MPP should read ‘dressing non adherent 7.5 cm x 10 cm dressing, 6’. Telfa 6020C MPP and MPUU should both include ‘self adhesive’. Telfa 7650C MPUU should include ‘self adhesive’. These will be amended in a future release.
1125	The Other Identifying Information will be amended to ‘10 x 75 international units (5.46 microgram) vials, 10 x 1 mL diluent syringes’ in a future release for ARTG 93043 GONAL F 75 follitropin alfa (rch) 5.46 microgram (packs of ten).
2190	AMT ingredient ‘poliomyelitis virus type 3 (Sabin strain (Leon 12a1b)) live oral attenuated vaccine’ should be ‘poliomyelitis virus type 3 (Sabin strain (Leon 12a1b)) live attenuated oral vaccine’. This will be corrected in a future release.

ID	Known issues
2229	The TF suffix of 'Forte' will be removed in a future release for ARTG 67248 CREON 25,000 pancreatic extract 300mg capsule bottle.
3409	The current ingredient 'Sorbitol solution (70 per cent) (non-crystallising)' will be amended to 'sorbitol' with a strength of 70% in a future release for ARTG 11287 Pfizer (Perth) SORBILAX.
4887	The *Medicinal product unit of use reference set* contains the following concepts which will be removed from the reference set in a future release: • 933216461000036108 cyclopentolate 2.23 mg/0.5 mL eye drops, 0.5 mL unit dose (medicinal product unit of use) • 933216471000036100 cyclopentolate 4.45 mg/0.5 mL eye drops, 0.5 mL unit dose (medicinal product unit of use) • 45430011000036101 ropivacaine 333.7 mg/200 mL injection, bags • 34955011000036100 fentanyl 400 microgram/200 mL + ropivacaine 333.7 mg/200 mL injection, 200 mL bag (medicinal product unit of use) • 34957011000036105 fentanyl 800 microgram/200 mL + ropivacaine 333.7 mg/200 mL injection, 200 mL bag (medicinal product unit of use) • 76021000036101 orphenadrine 58.37 mg tablet (medicinal product unit of use) • 83051000036106 oxybuprocaine 1.79 mg/0.5 mL eye drops, unit dose (medicinal product unit of use) • 95861000036101 gadopentetic acid 2.79 g/10 mL injection, 10 mL syringe (medicinal product unit of use) • 142871000036100 olmesartan 15.97 mg tablet (medicinal product unit of use) • 142881000036103 olmesartan 31.97 mg tablet (medicinal product unit of use) • 142951000036104 adefovir 5.45 mg tablet (medicinal product unit of use) • 142911000036103 olmesartan 15.97 mg + hydrochlorothiazide 12.5 mg tablet (medicinal product unit of use) • 142901000036100 olmesartan 31.97 mg + hydrochlorothiazide 12.5 mg tablet (medicinal product unit of use) • 142891000036101 olmesartan 31.97 mg + hydrochlorothiazide 25 mg tablet (medicinal product unit of use) • 142941000036102 olmesartan 15.97 mg + amlodipine 5 mg tablet (medicinal product unit of use) • 142931000036107 olmesartan 31.97 mg + amlodipine 5 mg tablet (medicinal product unit of use) • 142921000036105 olmesartan 31.97 mg + amlodipine 10 mg tablet (medicinal product unit of use) These reference set members should not be used in the context of the implementation of this reference set.

ID	Known issues
6051	In AMT v2 the relationship details concepts are linked back to the relationship they are annotating using a description type of ‘relationship id’ where the description's text is the UUID of the relationship they are annotating. The Australian Medicines Terminology Viewer application displays an incorrect UUID in the ‘relationship id’ description. This issue affects instances of all types of relationship details concepts including: • MPP has MPUU (MHM) • MPUU has specific active ingredient (MPUUSAI) • TPP has TPUU (THT) • TPUU has pharmaceutical ingredient (TPUUPI) As these relationships will be replaced with concrete domain reference sets in AMT v3, a decision has been made to not fix this minor issue. There is no known error in the release files.

Appendix B Towards standards for health information exchange in Australia

B.1 NEHTA

The National E-Health Transition Authority Limited (NEHTA) is a company established by the Australian, State and Territory governments in 2005 to develop better ways of electronically collecting and securely exchanging health information. As a collaborative vehicle, NEHTA has been assigned responsibility for a number of related projects, all aimed at establishing the foundations for the widespread and rapid adoption of electronic health (e-health) across the Australian health sector.

E-health is the electronic collection, management, use, storage and sharing of healthcare information. This information can include individual items such as test results, discharge summaries, vaccination history, medication history and diagnoses, as well as comprehensive medical records which keep all of this information about a person in one place. The governments of Australia recognise that e-health and a personally controlled electronic health record (PCEHR) are vital to the achievement of major health reform in the next decade.

E-health systems that can securely and efficiently exchange data can significantly improve how important clinical and administrative information is communicated between healthcare professionals. As a result, e-health systems have the potential to unlock substantially greater quality, safety and efficiency benefits. E-health has the capacity to benefit all Australians – individual consumers, healthcare providers and healthcare funders.

Over the next three years, NEHTA will deliver key components of the National E-Health Strategy, endorsed by Australian Health Ministers in late 2008. NEHTA will support the National E-Health Strategy within its current mandate and sets a clear vision for e-health in Australia:

> *To enhance healthcare by enabling access to the right information, for the right person, at the right time and place.*[5]

NEHTA's work programme will provide national infrastructure and accelerated adoption supporting this strategic direction, and build towards a future personally controlled electronic health record system.

[5] *National E-Health Strategy* [10]

B.2 National Clinical Terminology and Information Service

The National Clinical Terminology and Information Service (NCTIS), established by NEHTA, is developing the terminology and information products to support the requirements of e-health for the Australian healthcare community.

In order for e-health information systems to be interoperable and act intelligently (i.e. decision support) they must be able to record, read and interpret clinical information which is exchanged between systems (e.g. drug names, diagnoses and the like). A task for the NCTIS is therefore to identify methods of supporting the implementation of clinical terminology and clinical information standards across the Australian healthcare industry.

B.3 Clinical information

Interoperability across health sectors and geographical boundaries is a core requirement to enable information sharing across e-health systems. Seamless flow of information across the health sector is essential to healthcare delivery and reform in the future. Nationally-defined clinical information standards, and their adoption within products developed by industry, will help instil confidence that products are fit for purpose, and are interoperable across healthcare providers.

The NCTIS is responsible for establishing the structure of, and data contained in, clinical communications such as referrals, discharge summaries, pathology results and prescriptions. The clinical information specifications will be standardised across all health IT systems, and will be built upon existing standards, extending these as necessary.

B.4 Clinical terminology

A clinical terminology is a structured vocabulary used in clinical practice to accurately describe the care and treatment of patients. Clinical terminology covers complex concepts such as diseases, operations, treatments and medicines. Healthcare providers need to capture and record this type of information about their patients, to provide a history of care for their own purposes and to share with other providers. Consistent and accurate articulation and interpretation of this information is critical to the process of safe exchange. For example, errors in recording the name of a medicine or transcribing from one place to another can lead to serious consequences for the patient.

A standard clinical terminology in conjunction with e-health information systems that can intelligently interpret the clinical information being input, will significantly reduce these errors and deliver more accurate and improved recording and checking of information.

The NCTIS within NEHTA is responsible for managing, developing and distributing SNOMED CT-AU and the AMT in Australia. This responsibility extends to distributing and licensing SNOMED CT on behalf of the IHTSDO.

B.5 SNOMED CT and SNOMED CT-AU

SNOMED CT, the internationally pre-eminent clinical terminology, has been recommended by NEHTA and endorsed by the Australian, State and Territory governments as the preferred clinical terminology for Australia. SNOMED CT is considered to be the most comprehensive, multilingual clinical healthcare terminology. When implemented in software, SNOMED CT represents clinically relevant information consistently, reliably and comprehensively as an integral part of the electronic health record.

SNOMED CT-AU is the Australian extension to SNOMED CT, and includes the international resources along with all Australian-developed terminology and documentation for implementation in Australian clinical IT systems. SNOMED CT-AU provides local variations and customisations of terms relevant to the Australian healthcare sector. All terminology files are prepared to a format and standard that is consistent with the IHTSDO releases.

SNOMED CT-AU is designed to:

- Provide a standard clinical language to support effective health data exchange.
- Represent clinically relevant information, as an integral part of producing electronic health records.
- Provide a logical structure for terminology components that is simple to navigate.
- Provide integrated documentation and implementation guidance that is applicable for all released terminology components.

The SNOMED CT-AU release bundle also includes reference sets that have been developed by the NCTIS. A reference set is a restricted list of SNOMED CT components to fulfil a particular purpose. Terms that are not relevant to the Australian healthcare sector are not included in the reference sets in SNOMED CT-AU.

B.6 International Health Terminology Standards Development Organisation

To advance the uptake of SNOMED CT globally, NEHTA worked with nine other countries to establish the International Health Terminology Standards Development Organisation (IHTSDO). The IHTSDO owns and administers the rights to SNOMED CT, and supports and works to enable the uptake and appropriate use of SNOMED CT in health systems, services and products around the world.

Further information on the IHTSDO can be found at http://www.ihtsdo.org.

Glossary

Acronym	Term	Notes
AMT	**Australian Medicines Terminology**	
CTPP	**Containered Trade Product Pack**	
FSN	**Fully Specified Name**	
IHTSDO	**International Health Terminology Standards Development Organisation**	
MP	**Medicinal Product**	
MPP	**Medicinal Product Pack**	
MPUU	**Medicinal Product Unit of Use**	
NCTIS	**National Clinical Terminology and Information Service**	
PCEHR	**Personally Controlled Electronic Health Record**	
PT	**Preferred Term**	
RPBS	**Repatriation Pharmaceutical Benefits Schedule**	
RF1	**Release Format 1**	A SNOMED CT release format
RF2	**Release Format 2**	A SNOMED CT release format
SNOMED CT-AU	**SNOMED CT, Australian Release**	Australian extension to SNOMED CT
SNOMED CT	**Systematized Nomenclature of Medicine, Clinical Terms**	
TP	**Trade Product**	
TPP	**Trade Product Pack**	
TPUU	**Trade Product Unit of Use**	
UUID	**Universally Unique Identifier**	

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