

## **README.1b.docx** Directory summary for IEEE Std 11073-10101a-2015 XML, XSLT and HTML files

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This directory contains the XML, XSLT and HTML files for **IEEE Std 11073-10101a-2015**, with additional files listed in Annex A of this document.

«**README.1b.docx**» and «**README.1b.pdf**» This writeup  
«**ieee10101a.1k.x5gt.2015-12-02T16.xml**» IEEE Std 11073-10101a-2015 as XML  
«**makeHTMLfromSimpleXML.3c.xsl**» XSLT that renders the XML as an HTML table  
«**XSL Output.1k.x5gt.x3c.2015-12-02T16.html**» The rendered HTML table

### **XML file format – general**

A single XML file contains all the terminology tables in IEEE P11073-10101a, and includes table titles, table section headings and footnotes. It also uses html `<i>`, `<b>`, `<sub>`, `<sup>` and `<br>` markup tags to preserve the essential formatting in the published standard and can be rendered as html tables using the attached XSLT. The markup information is intended to be preserved on the NIST RTMMS so that new terms can be submitted to and maintained on the RTMMS in ‘camera ready’ format that can be easily uploaded to the IEEE and elsewhere.

The tables are copies of the term tables in Annexes A and F combined with the `<Disc>` and `<CF_CODE10>` information from Table C.2. Including this information in a single table makes it easier to use and verify. The column headings in the XML files are translated from the original standard to eliminate spaces and otherwise shorten the XML tag names, as described in Annex B of this document. As noted earlier, the XML file contains table titles, section headings and footnotes, and together with the markup information can produce html tables that look (and are) surprisingly similar to the tables in the published standard.

A `<header>` element has been added to specify the title of the standard, version, copyright notice and other information. Also, all `<u>` *underline formatting* and `<s>` *striktthrough text* has been removed to match how this information is published in the final standard.<sup>1</sup>

To further simplify processing, all markup has been processed and removed from the REFID column. This allows the **REFID**, **PartCode**, **Disc** and **CF\_CODE10** to be accessed and processed as ‘plain text’ while preserving the typographic precision and clarity (and complexity) of HTML markup for other columns.

Annex C of this document describes the overall structure of the XML file.

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<sup>1</sup> Implementations should support `<u>` *underline* and `<s>` *striktthrough* markup to indicate changes to a previous version of a standard. The `<u>` and `<s>` markup will be removed when published by the IEEE-SA.

## XSLT transform – general

The «**makeHTMLfromSimpleXML.3c.xsl**» transform can be used to render the XML file as a set of HTML tables using the attached XSLT. The markup formatting is preserved, and, in cases where multiple REFIDs are listed, the REFID-synonyms after the preferred REFID are displayed using an italic font.

The **style** attribute `<br style="mso-data-placement:same-cell;"/>` is used to keep line breaks together in same table cell when the html is copied to Excel or MS-Word. *This has been verified by successfully copying HTML Table A.7.4.8 into Excel using MS-Explorer (using Google Chrome causes spurious rows to be added).*

## Annex A: Additional Files

The discriminator definitions listed in Table C.1 in IEEE Std 11073-10101a-2015 are specified by the XML file «**NOM\_10101a\_discrim.1b.2015-02-16T17.xml**». This file validates to the W3C Schema «**discrim.8f.xsd**» that was originally developed for IEEE Std 11073-10102:2012 aECG and IEEE Std 11073-10103:2012 IDC but uses the shorter **@id** identifier tokens specified by the <Disc> column.

The discriminator definitions can be used to expand terms in «ieee10101a.1k.x5gt.2015-12-02T16.xml» to create an exhaustive expansion of all base terms with their discriminators. It can also be used as part of a comprehensive solution for semi-automatic assignment and validation of new codes on IEEE 11073 term management systems such as the NIST RTMMS, especially when used in conjunction with terms and discriminators defined by other IEEE 11073 PoCD and PHD nomenclature standards.

## Annex B: IEEE Std 11073-10101a-2015 column title to XML tag mapping

```
<xsl:variable name="colTagMap">
  <map from="Systematic name" to="SysName"/>
  <map from="Common term" to="CommonTerm"/>
  <map from="Acronym" to="Acronym"/>
  <map from="Description/Definition" to="Description"/>
  <map from="Description" to="Description"/>
  <map from="Description/Definition/Use" to="Description"/>
  <map from="Reference ID" to="REFID"/>          <!-- as="xs:string+" to support REFID synonyms -->
  <map from="Part::Code" to="PartCode"/>
  <map from="Dimension" to="Dimension"/>
  <map from="Unit of measurement" to="Unit"/>
  <map from="Symbol (not normative)" to="Symbol"/>
  <map from="Ref" to="Ref"/>
  <map from="Mnemonic" to="Mnemonic"/>
  <map from="Attribute name" to="AttrName"/>
  <map from="DIM name" to="DIMName"/>
  <map from="Derived from" to="DerivedFrom"/>
  <map from="Attribute ID" to="REFID"/>          <!-- these must be labeled as REFIDs -->
  <map from="Attribute type" to="AttrType"/>
  <map from="Figure key" to="Key"/>
  <map from="Disc" to="Disc"/>
  <map from="CF_CODE10" to="CF_CODE10"/>
</xsl:variable>
```

## Annex C: Structure of XML file

The <standard> root node may contain multiple tables with different column ordering and column labels.

A single <header> element provides the title, ieee-designation, publication date and copyright notice for the IEEE 11073 nomenclature standard. The <header> element follows the W3C conventions and can be expanded to include additional information.

Table rows are conveyed by <term> elements.

Table columns are specified by term/\* child nodes listed by any \$colTag/map/@to attribute, e.g. <REFID>. The <REFID>, <PartCode>, <Disc> and <CF\_CODE10> elements are always present, the latter provided as a convenience for IHE PCD implementations using the 32-bit 'context-free' numeric identifiers.

**standard** **xmlns**="http://www.ieee.org/11073/nomenclature"

header?

title?

ieee-designation?

pubdate?

copyright?

**table+**

**tableTitle** e.g. «Table A.7.4.8—Nomenclature and codes for respiratory measurements»

**tableSection?** e.g. «Respiratory Rates – method specific»

**term+**

**REFID** as xs:string+

**PartCode** as xs:integer :: xs:integer, possibly with [...], {...} or #..., e.g. 2::20586 or [2::20506] .

**Disc** as xs:string (later as xs:string+ to support multiple mid-string and tail-end discriminators)

**CF\_CODE10** as xs:integer

*any other element* listed by \$colTag/map/@to, cardinality 0..1,  
with mixed content <i>, <b>, <sub>, <sup>, <br>, <u> and <s><sup>2</sup>  
and Unicode symbols such as Ω, Δ, μ and τ.

tableNote\*

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<sup>2</sup> Implementations should also support <u> underline and <s> ~~striketrough~~ markup to indicate changes to a previous version of a standard. The <u> and <s> markup has been removed from the published IEEE Std 11073-10101a-2015 standard and the XML file.