
**Information technology — User
interfaces — Universal remote
console —**

**Part 3:
Presentation template**

*Technologies de l'information — Interfaces utilisateur — Console à
distance universelle —*

Partie 3: Modèle de présentation

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 24752-3 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 35, *User interfaces*.

ISO/IEC 24752 consists of the following parts, under the general title *Information technology — User interfaces — Universal remote console*:

- *Part 1: Framework*
- *Part 2: User interface socket description*
- *Part 3: Presentation template*
- *Part 4: Target description*
- *Part 5: Resource description*

Introduction

A presentation template (PreT) in the presentation template markup language is a user-oriented representation of a target described in a user interface socket specification. It maps user interface socket elements to interaction (presentation and user input) mechanisms. It provides a structure into which elements of the presentation are embedded. The presentation elements themselves are modality-independent, i.e. capable of adaptation to any delivery context.

The main content of a presentation template is a structured set of abstract interactors. These are user interface elements that describe a choice for the user to make, some input to obtain from the user, or some output to convey to the user. Each interactor is bound to a single socket element.

NOTE The PreT markup language is similar to the XForms form controls. However, significant differences exist. Firstly, PreT markup language does not include the specification of natural language atomic resources such as labels and help texts. These atomic resources are defined externally. Secondly, PreT interactors bind to user interface socket elements, and XForms form controls bind to elements in an XForms data model.

As a brief introduction to the presentation template concept, a short example is presented, showing a complete presentation template for a digital thermometer whose user interface socket is included in Annex B.

The thermometer is always on, as it is connected to the mains. It displays the current temperature, maximum and minimum temperatures, and can do this in Fahrenheit or centigrade. It includes a command for resetting the maximum and minimum temperatures. It requires the user to provide confirmation of a reset operation.

EXAMPLE

```
<?xml version="1.0" encoding="UTF-8"?>
<pret name="http://example.com/thermometer/pret.xml"
  id="pret"
  xmlns="http://myurc.org/ns/pret"
  xmlns:dcterms="http://purl.org/dc/terms">
  <dcterms:conformsTo>http://myurc.org/iso24752-3/2007</dcterms:conformsTo>
  <group id="readings">
    <output id="temperature" ref="http://example.com/thermometer/socket#temperature"/>
    <output id="maximum" ref="http://example.com/thermometer/socket#maximum"/>
    <output id="minimum" ref="http://example.com/thermometer/socket#minimum"/>
  </group>
  <select1 id="scale" ref="http://example.com/thermometer/socket#scale"/>
  <trigger id="reset" ref="http://example.com/thermometer/socket#reset"/>
  <modalDialog id="checkReset" ref="http://example.com/thermometer/socket#checkReset">
    <trigger id="confirmReset" ref="http://example.com/thermometer/socket#confirmReset"/>
    <trigger id="cancelReset" ref="http://example.com/thermometer/socket#cancelReset"/>
  </modalDialog>
</pret>
```

Each of the constants, variables, commands and notify elements within the socket is represented by an interactor within the presentation template, and a grouping structure is provided, grouping the temperature readings together. The structure also provides a default order for presentation of the elements (the order of appearance within the description) and indicates which elements are relevant when the user is being asked to confirm a 'reset' command (notify state "checkReset" is active).

NOTE Resources such as labels, help texts and keywords pertaining to elements of a presentation template are not included within the presentation template itself but provided separately. Resources reference presentation template elements using the presentation template's name (URI) and the element ids. Refer to ISO/IEC 24752-5 for further details.

Information technology — User interfaces — Universal remote console —

Part 3: Presentation template

1 Scope

ISO/IEC 24752 is a multi-part International Standard to facilitate operation of information and electronic products through remote and alternative interfaces and intelligent agents.

This part of ISO/IEC 24752 defines a language (presentation template markup language) for describing modality-independent user interface specifications, or *presentation templates*, associated with a user interface socket description as defined by ISO/IEC 24752-2.

The purpose of a presentation template is to provide the URC with hints as to how to build a usable and consistent user interface for a target device or service that is described in a user interface socket description as referenced above. The hints are of an abstract nature, and are intended to apply to any delivery context. These hints primarily provide information on structuring, grouping and linearization of the socket elements. Elements within a presentation template can be referenced by atomic resources whose format is given by ISO/IEC 24752-5. Taken together, a presentation template, socket description, and appropriate atomic resources can be used to construct a user interface in any modality (e.g. visual, auditory, tactile, multimodal), through which a user can access and control a target.

2 Conformance

An extensible markup language (XML) file is a presentation template in conformance with this part of ISO/IEC 24752 if

- it has the MIME type specified in 5.2, if applicable, and
- its root element is the <pret> element as defined in Clause 6.

An XML file does not conform to this part of ISO/IEC 24752 if it uses any element, attribute or value that is not part of this specification.

NOTE 1 Target manufacturers who want to add information to a presentation template beyond the elements, attributes and values specified in this part of ISO/IEC 24752 can do so by externally providing (proprietary) resource descriptions that point into the structure of a presentation template. Refer to ISO/IEC 24752-5 for details.

NOTE 2 Future versions of this part of ISO/IEC 24752 might add new elements, attributes and values. They might also drop the policy of strict language conformance in favor of allowing for language extensions. Therefore, URC manufacturers are encouraged to implement their URCs so that unrecognized markup is ignored without failing.

3 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 24752-1, *Information technology — User interfaces — Universal remote console — Part 1: Framework*

ISO/IEC 24752-2, *Information technology — User interfaces — Universal remote console — Part 2: User interface socket description*

ISO/IEC 10646, *Information technology — Universal Multiple-Octet Coded Character Set (UCS)*

ISO 15836:2003, *Information and documentation — The Dublin Core metadata element set*

DCMI Metadata Terms, <http://dublincore.org/documents/dcmi-terms/>

IETF RFC 2046, Multipurpose Internet Mail Extensions (MIME) Part Two: Media Types, November 1996, <http://www.ietf.org/rfc/rfc2046.txt>

IETF RFC 3986, Uniform Resource Identifier (URI): Generic Syntax, January 2005, <http://www.ietf.org/rfc/rfc3986.txt>

W3C Recommendation: Extensible Markup Language (XML) 1.0 (Third Edition), 04 February 2004, <http://www.w3.org/TR/2004/REC-xml-20040204/>

W3C Recommendation: Namespaces in XML, World Wide Web Consortium 14 January 1999, <http://www.w3.org/TR/1999/REC-xml-names-19990114/>

W3C Recommendation: XML Schema Part 2: Datatypes, W3C Recommendation 02 May 2001, <http://www.w3.org/TR/2001/REC-xmlschema-2-20010502/>