

## Simple Publishing Interface

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ICS 35.240.30; 35.240.99

English Version

## Simple Publishing Interface

Interface de publication simple

Schnittstelle für einfaches Publizieren (Simple Publishing Interface - SPI)

This European Standard was approved by CEN on 22 May 2014.

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# Contents

Page

Foreword.....	3
1 Scope .....	4
2 Terms and definitions .....	4
3 Requirements and design principles.....	5
3.1 General.....	5
3.2 Syntactic versus semantic interoperability .....	6
3.3 “By reference” and “by value” publishing.....	6
3.4 Flexible application.....	6
3.5 Objectives.....	7
4 SPI Model.....	7
4.1 General.....	7
4.2 Submit a resource.....	8
4.2.1 General.....	8
4.2.2 Resource submission by value .....	9
4.2.3 Resource submission by reference .....	10
4.3 Delete resource .....	12
4.4 Submit metadata .....	12
4.5 Delete metadata .....	14
4.6 Errors .....	14
4.6.1 General.....	14
4.6.1.1 Introduction .....	14
4.6.1.2 Method not supported .....	14
4.6.1.3 Invalid authorization token.....	14
4.6.1.4 Package type not supported .....	14
4.6.1.5 Content type not supported .....	14
4.6.1.6 Deletion not allowed .....	15
4.6.1.7 Invalid identifier.....	15
4.6.1.8 Invalid source location .....	15
4.6.1.9 Schema not supported .....	15
4.6.1.10 Metadata validation failure .....	15
4.6.1.11 Resource validation failure .....	15
4.6.1.12 Resource not retrieved .....	15
4.6.1.13 Overwriting not allowed .....	15
4.6.1.14 Method failure.....	15
4.7 SPI target configurations .....	15
4.8 Authentication.....	16
5 Conclusion .....	17
Bibliography .....	18

## Foreword

This document (EN 16425:2014) has been prepared by Technical Committee CEN/TC 353 “Information and Communication Technologies for Learning, Education and Training”, the secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2015, and conflicting national standards shall be withdrawn at the latest by January 2015.

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

This document contains the requirements for the Simple Publishing Interface (SPI), a protocol for storing educational materials in a repository.

This protocol facilitates the transfer of metadata and content from tools that produce learning materials to applications that persistently manage learning objects and metadata, but is also applicable to the publication of a wider range of digital objects.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Scope

This European Standard specifies the Simple Publishing Interface (SPI), an abstract protocol for publishing digital content and/or the metadata that describes it into repositories in a way that preserves the references between the two. This protocol is designed to facilitate the transfer of learning materials from tools that produce learning materials to applications that manage learning objects and metadata. It is also applicable to the publication of a wider range of digital objects.

The objectives behind SPI are to develop practical approaches towards interoperability between repositories for learning and applications that produce or consume educational materials. Examples of repositories for learning include educational brokers, knowledge pools, institutional repositories, streaming video servers, etc. Examples of applications that produce these educational materials are query and indexation tools, authoring tools, presentation programs, content packagers, etc.

Whilst the development of the SPI specification draws exclusively on examples from the education sector, it is recognised that the underlying requirement to publish content and metadata into repositories crosses multiple application domains.

This abstract model has been designed to be implemented using existing specifications such as v1.3 Simple Web-service Offering Repository Deposit (SWORD) profile [SWORD], Package Exchange Notification Services [PENS] and the publishing specification that was developed in the ProLearn Network of Excellence [PROLEARN SPI]. The intent of this work is thus not to create yet another specification but to create a model that can be bound to existing technologies in order to make sure that these technologies are used in a way that takes into account requirements specific to the learning domain, where it is necessary to publish both content and metadata that references it in a way that preserves these references.

The SPI model enumerates the different messages that are interchanged when publishing metadata and content.

## 2 Terms and definitions

For the purposes of this document, the following terms and definitions apply and are used to distinguish the requester from the system that publishes an entity (a metadata instance or a learning object):

### 2.1

#### **source**

system that issues a publication request. Alternatively, this system can be labelled as requester

### 2.2

#### **target**

system to which publication requests are sent. This can be a repository component or a middle layer component. Such a middle layer component can fulfil several tasks. It can generate and attach metadata to a resource, disaggregate and publish more granular components or act for instance as an adapter to a third party publishing API (application programming interface)

**NOTE** The terms “client” and “server” have not been used in order to avoid any bias towards an interface that is only applicable in client/server applications. Moreover, the scenarios in which the API is used also envisage a source running on a server (e.g., publishing from within an LMS). In the remainder of this document, the terms “resource”, “digital content”, “learning object” and “educational material” are used interchangeably.