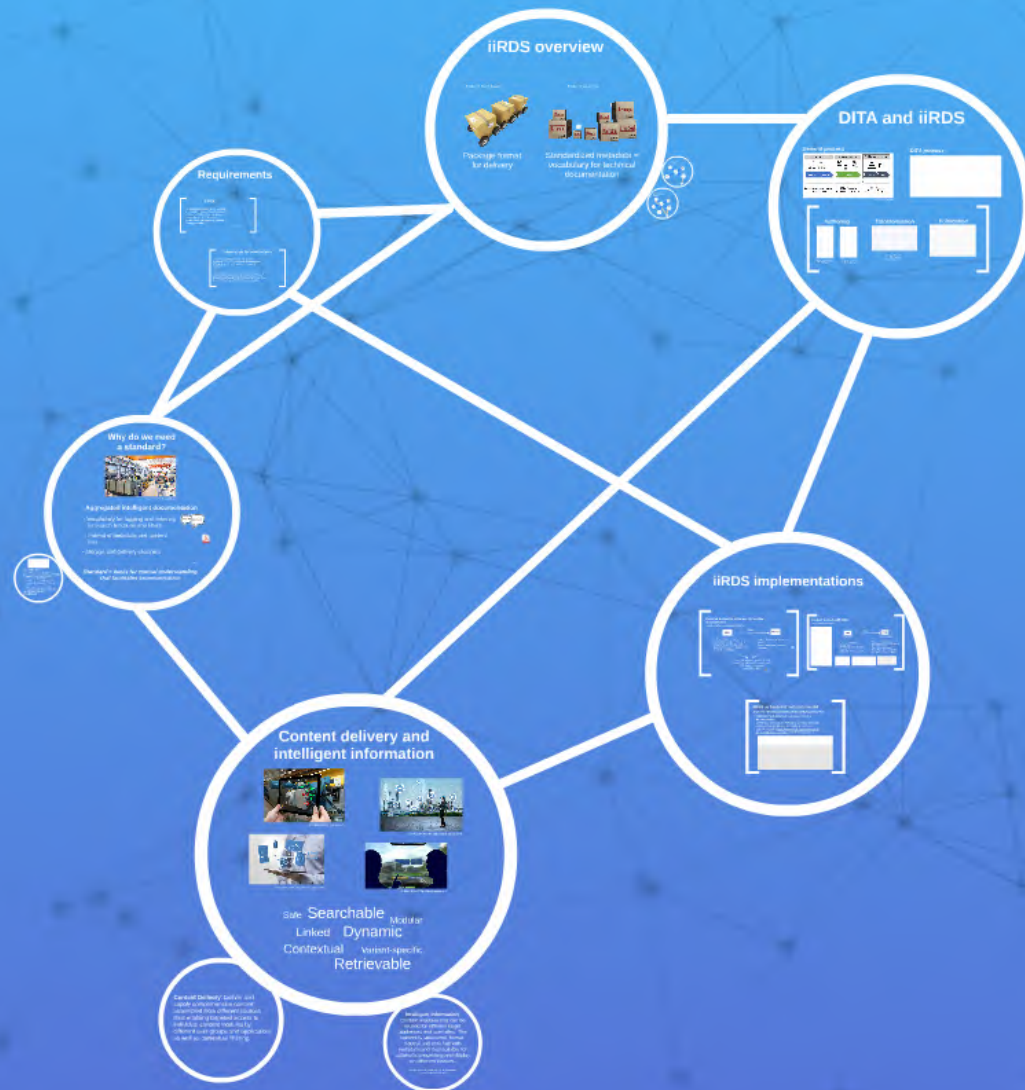


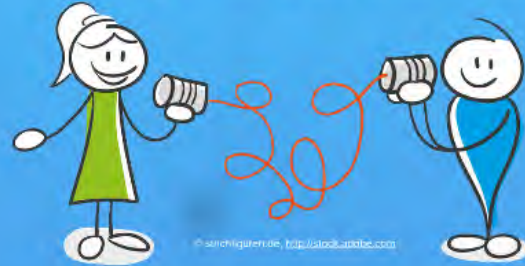


Content Delivery with iiRDS

intelligent information Request and Delivery Standard



Speakers



Ulrike Parson

Mark Schubert

Is-SC-Chair

Is-WG-Convener



Is-CEO

Is-Senior-Consultant

parson

Twitter: #cmsconference

@parson_u

@parson_ag

Content delivery and intelligent information



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Safe Searchable Modular
Linked Dynamic
Contextual Variant-specific
Retrievable

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Content Delivery: Deliver and supply comprehensive content assembled from different sources

Intelligent Information:

Intelligent Information:
Content modules that can be reused for different target audiences and scenarios. The content is structured, format-neutral and enriched with metadata and thus suitable for automatic processing and display on different devices.

See also: Intelligent Content: A Primer by Ann Rockley, Charles Cooper, and Scott Abel.

Content Delivery: Deliver and supply comprehensive content assembled from different sources thus enabling targeted access to individual content modules by different user groups and applications as well as contextual filtering.

Why do we need a standard?



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Aggregated intelligent documentation

- Vocabulary for tagging and indexing for search functions and filters
- Format of metadata and content files
- Storage and delivery channels



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***Standard = basis for mutual understanding
that facilitates communication***



- Open source standard
 - 31 members in iIRDS consortium
 - Steering Committee for roadmap and budget
 - Working groups for technical tasks
 - Developing the standard
 - Coordinating with other standards, bodies and organisation, e.g. DITA und VDI
 - International Standardization
 - Reference implementation and tools
 - New members welcome!
- <https://iirds.org/>

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- Open source standard
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 - Coordinating with other standards, bodies and organisation, e.g. DITA und VDI
 - International Standardization
 - Reference implementation and tools
- New members welcome!
- <https://iirds.org/>



Requirements

Error

As an **administrator** who is notified of an **error**, I want to get information on how to **fix** the error and **behave correctly** so that I can put the system back into operation without **losing any data**.



Information for maintenance

As a **service technician**, I only want to find the **information** required for the **scheduled maintenance** of the plant so that I only need to read necessary information.



As a **machine**, I want to retrieve information on **tools** and **supplies** required for **scheduled maintenance** from the technical documentation so that I can reserve the tools for the duration of the maintenance and also order supplies.

Error

As an **administrator** who is notified of an **error**, I want to get information on how to **fix** the error and **behave correctly** so that I can put the system back into operation without **losing any data**.



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Information for maintenance

As a **service technician**, I only want to find the **information** required for the **scheduled maintenance** of the plant so that I only need to read necessary information.



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As a **machine**, I want to retrieve information on **tools** and **supplies** required for **scheduled maintenance** from the technical documentation so that I can reserve the tools for the duration of the maintenance and also order supplies.

iiRDS overview

Fotolia, © Frank Boston



Package format
for delivery

Fotolia, © stockninja



Standardized metadata =
vocabulary for technical
documentation

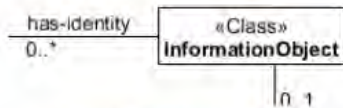


Data model

InformationUnit = Representation of metadata for technical documentation content

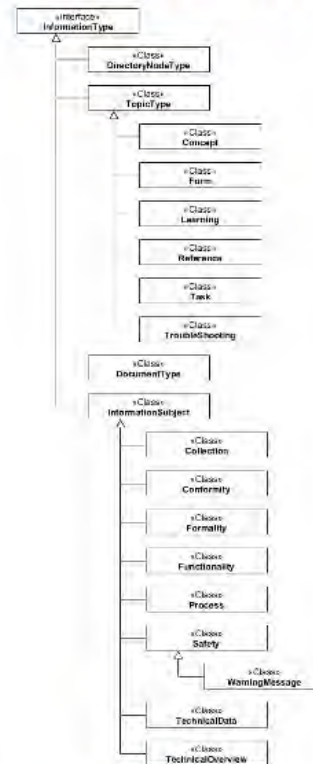


Version-independent information object

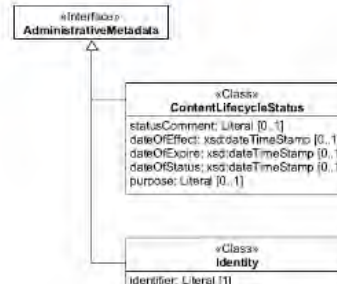


Example: Module in CCMS with unique ID

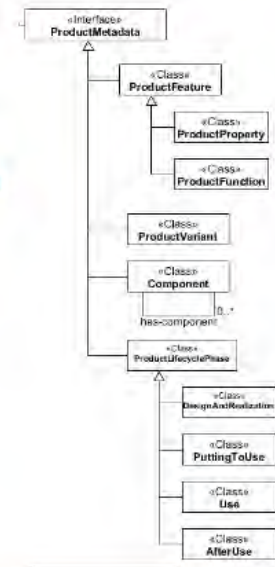
Information types



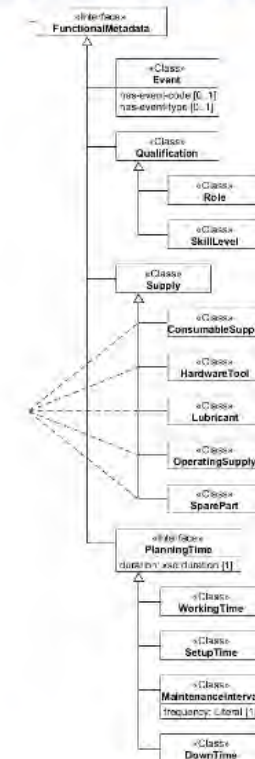
Administrative metadata



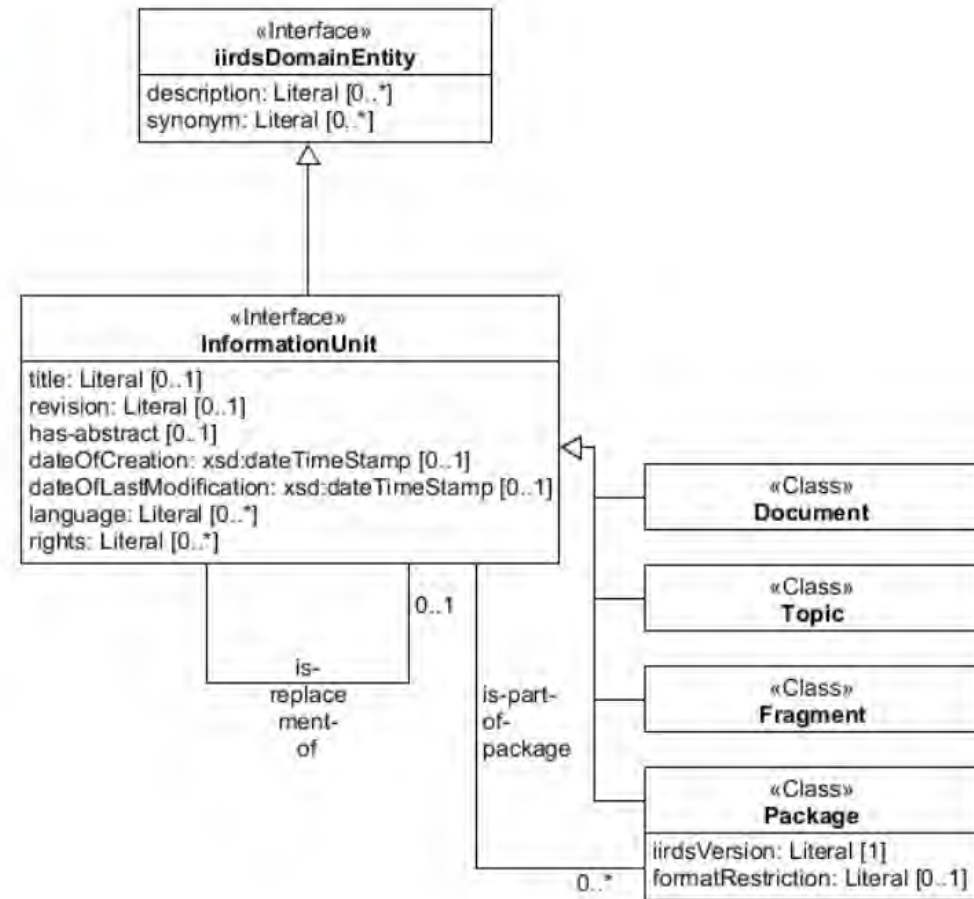
Product metadata



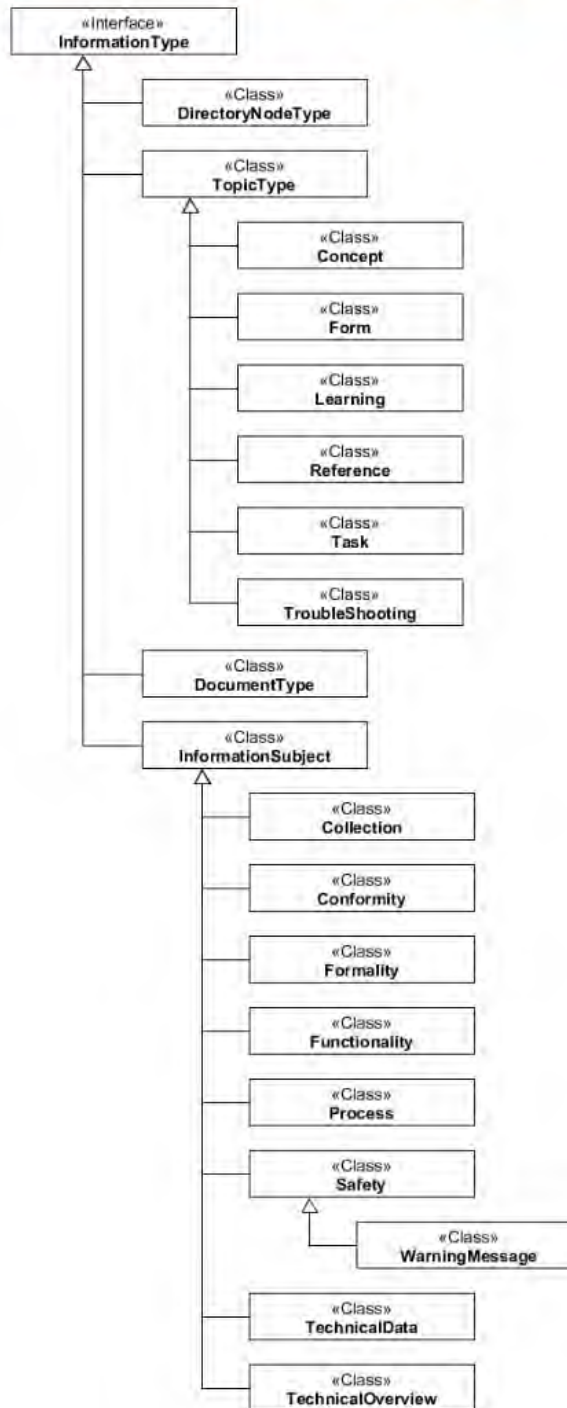
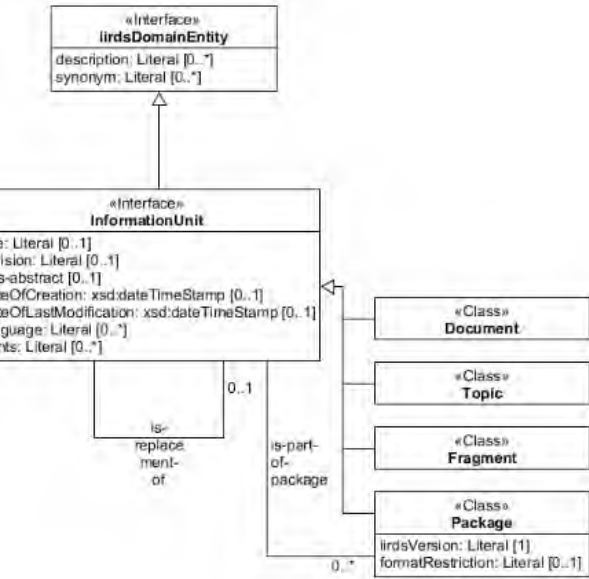
Functional metadata



InformationUnit = Representation of metadata for technical documentation content

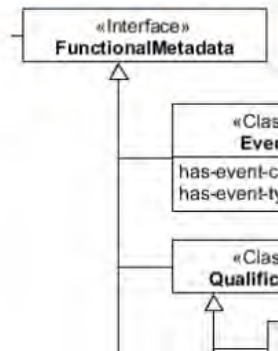


Information types



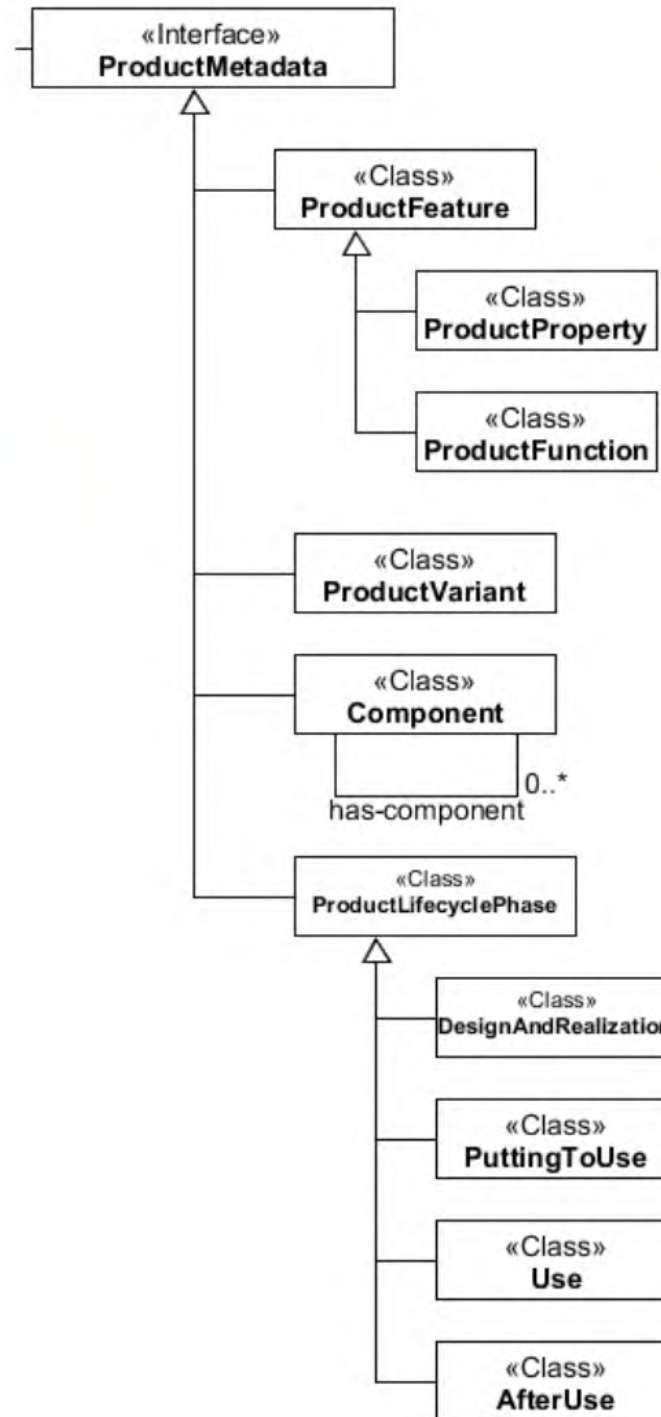
Product metadata

Functional metadata

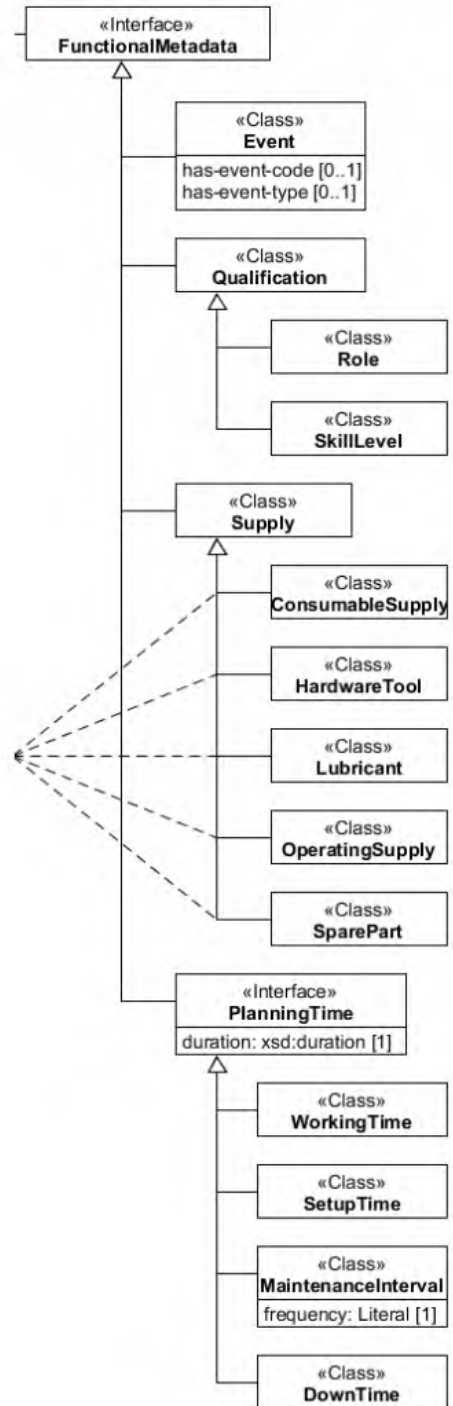
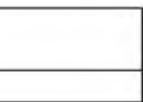
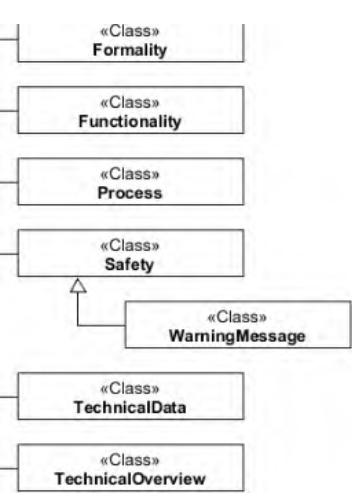


pes

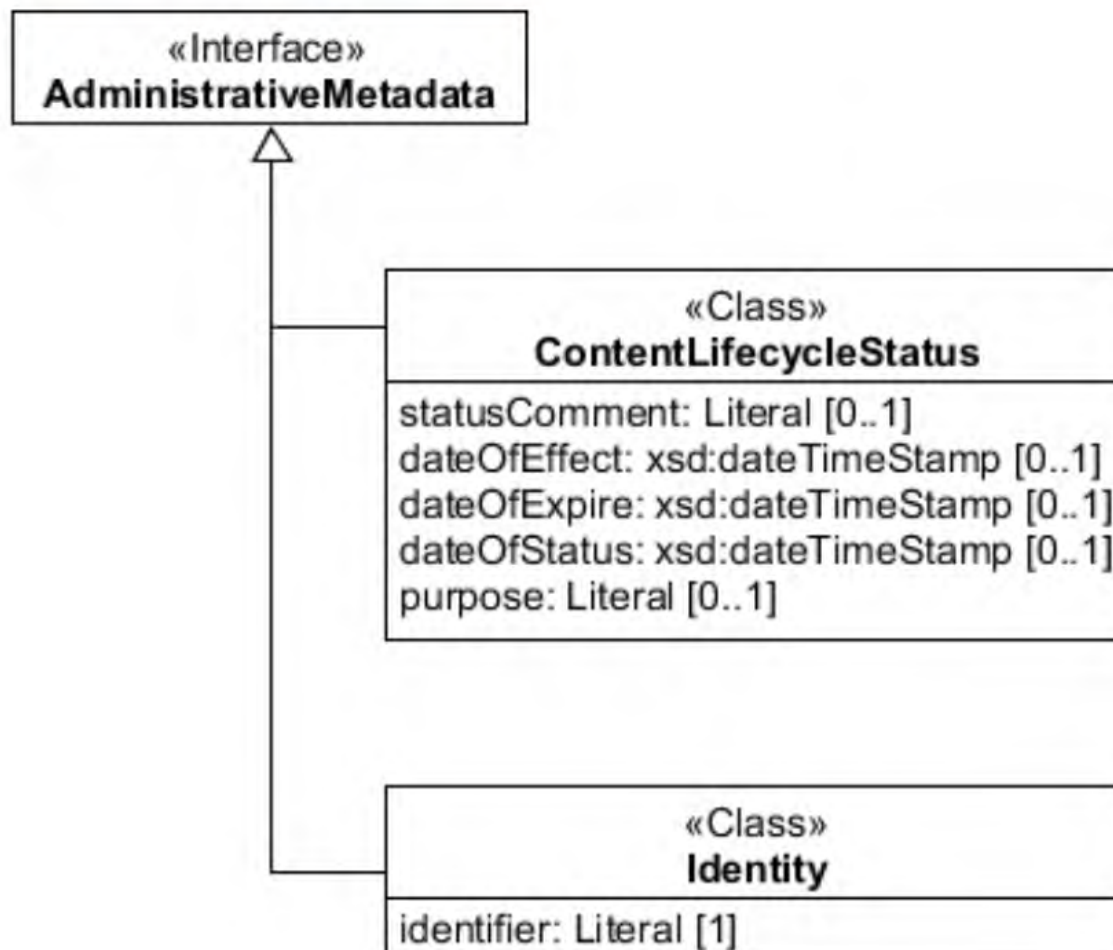
Product metadata



Functional metadata

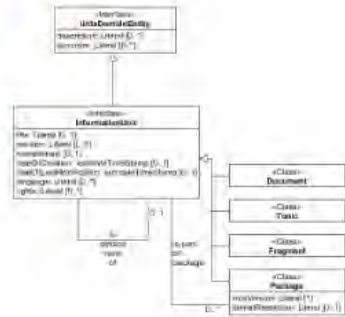


Administrative metadata

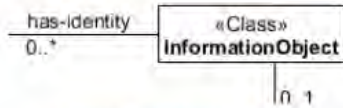


Data model

InformationUnit = Representation of metadata for technical documentation content

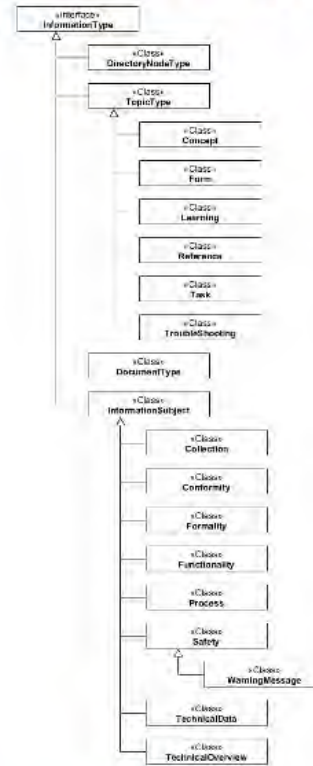


Version-independent information object

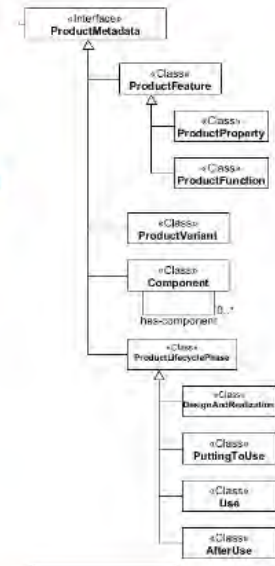


Example: Module in CCMS with unique ID

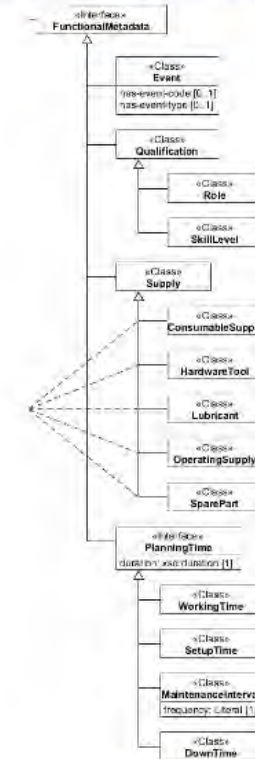
Information types



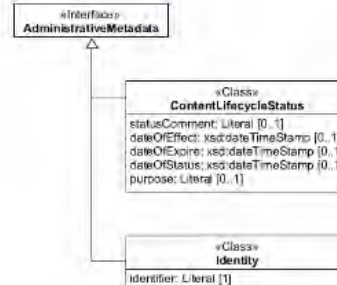
Product metadata



Functional metadata



Administrative metadata



iiRDS overview

Fotolia, © Frank Boston



Package format
for delivery

Fotolia, © stockninja



Standardized metadata =
vocabulary for technical
documentation



Error-related information



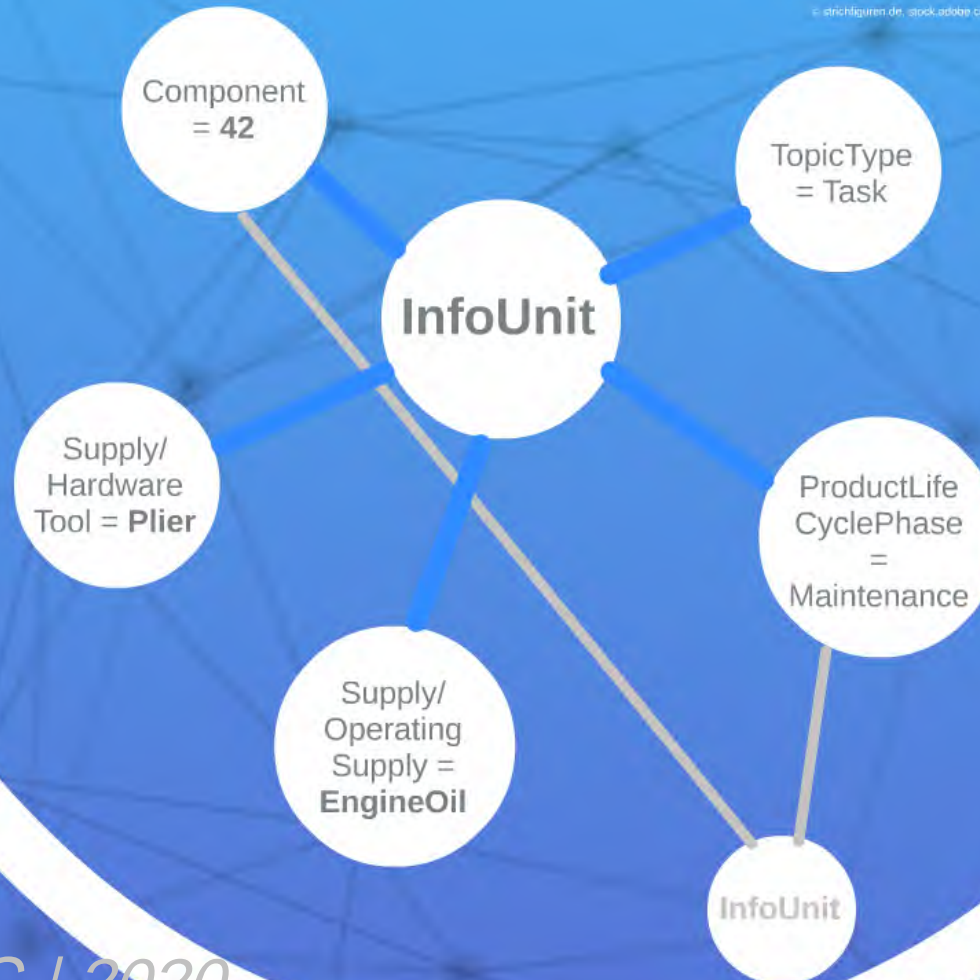
© strichfiguren.de, stock.adobe.com



Information for scheduled maintenance including tools and supplies



© stichfiguren.de, stock.adobe.com



DITA and iIRDS

General process

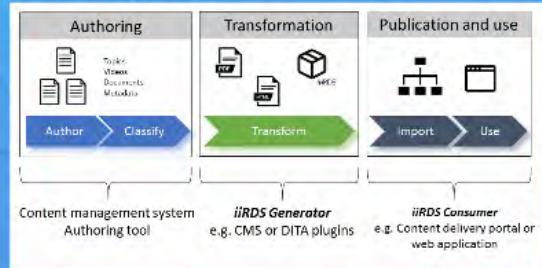


Image source: erpsoft

DITA process



Authoring



iIRDS format elements, related iIRDS classes and subclasses



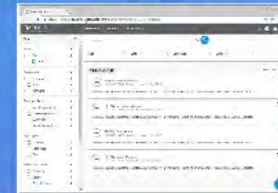
iIRDS attributes, classes and subclasses provided via @iirdschema.map

Transformation



Generation of output format via content files, and of PDF via xsl transformation. Publishing in iIRDS container.

Publication



General process

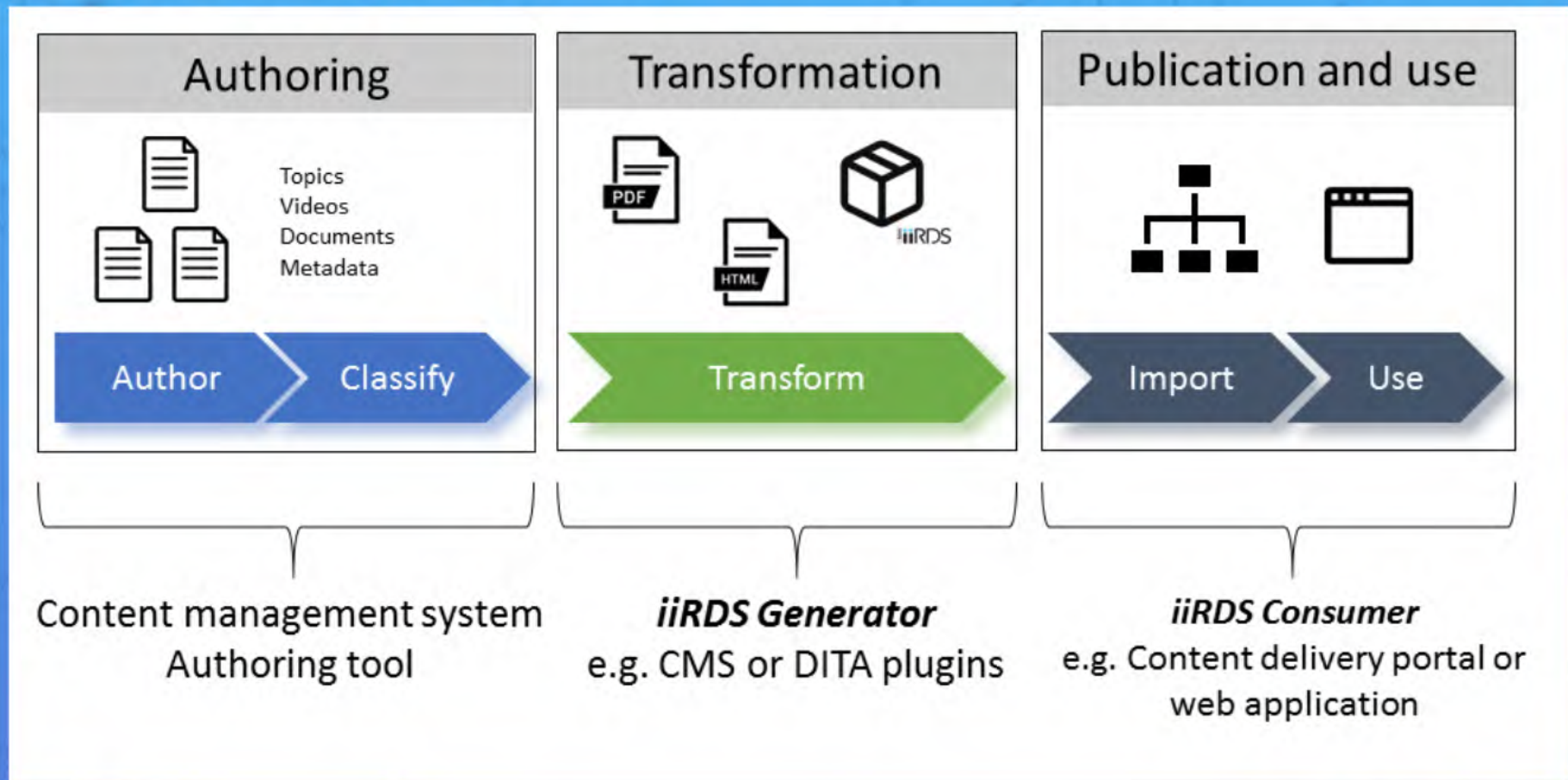
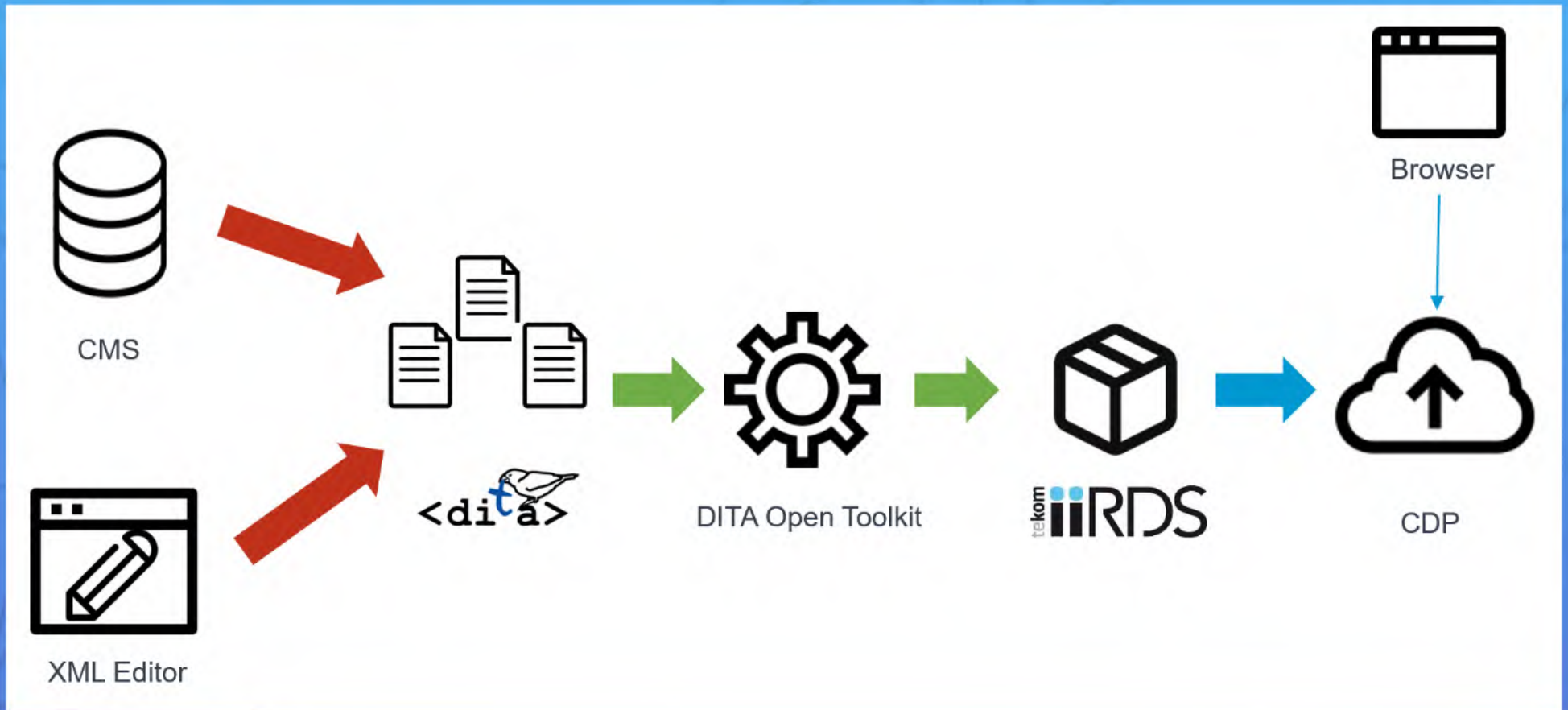


Image source: empolis

DITA process



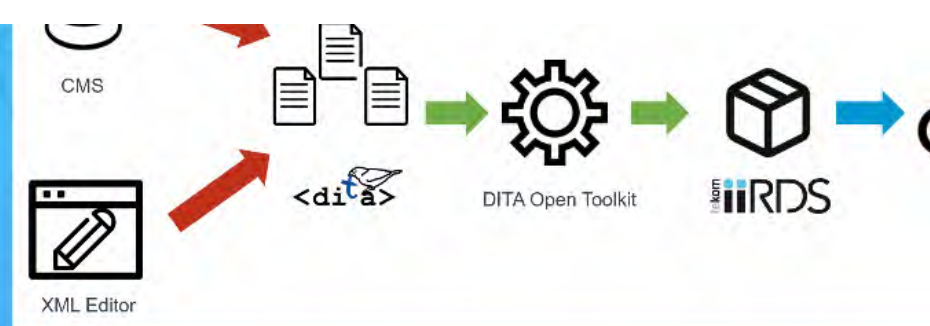
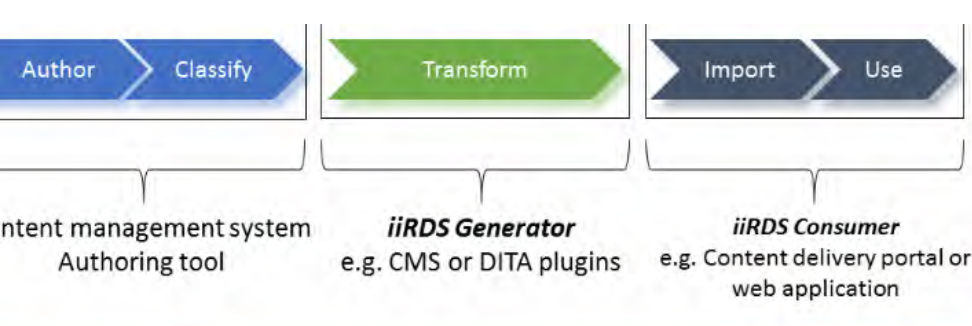


Image source: empolis

Authoring



iiRDS domain: elements reflect iiRDS classes and subclasses



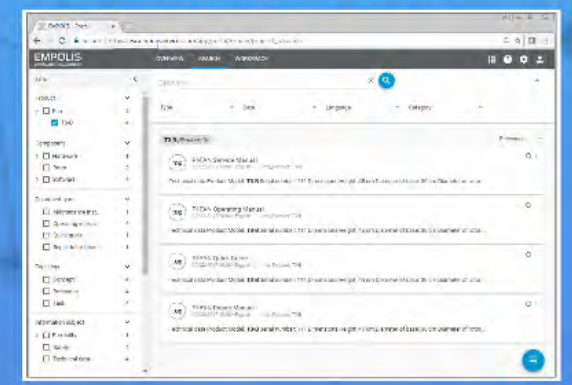
iiRDS attributes: classes and subclasses provided via subject scheme map

Transformation

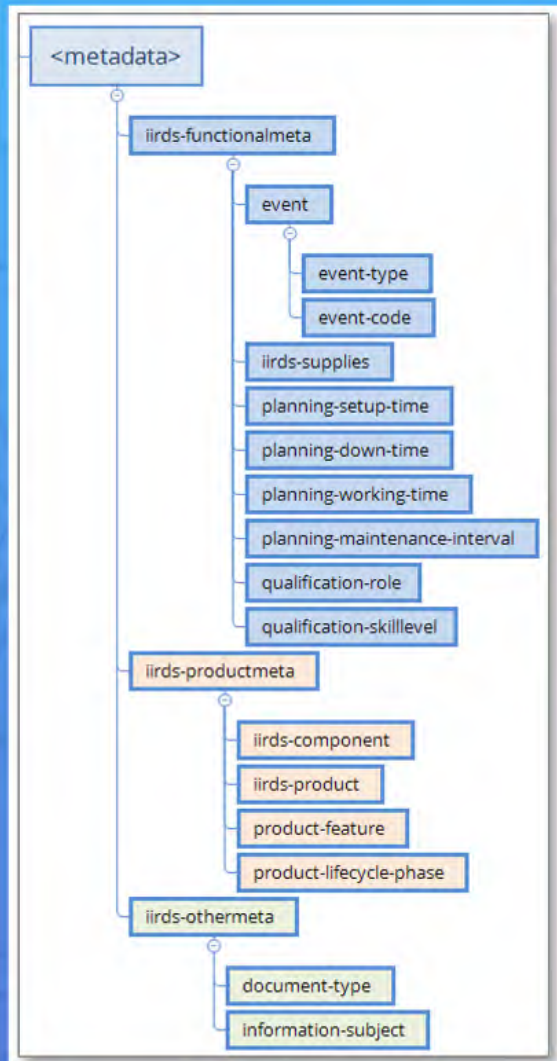


Generation of output format for content files and of RDF file with metadata. Packing to iiRDS container.

Publication



Authoring



iIRDS domain: elements reflect iIRDS classes and subclasses

- ▶ ● subjectdef "document-typeClass"
- ▶ ● subjectdef "administrator-guide"
- ▶ ● subjectdef "operation-instructions"
- ▶ ● subjectdef "ce-declaration-conformity"
- ▶ ● subjectdef "installation-guide"
- ▶ ● subjectdef "quick-guide"
- ▶ ● subjectdef "assembly-instructions"
- ▶ ● subjectdef "repair-instructions"
- ▶ ● subjectdef "specification"
- ▶ ● subjectdef "parts-catalog"
- ▶ ● subjectdef "transport-instructions"
- ▶ ● subjectdef "sales-catalog"
- ▶ ● subjectdef "maintenance-instructions"
- ▶ ● enumerationdef
- ▶ ● subjectHead
- ▶ ● subjectdef "information-subjectClass"
- ▶ ● subjectdef "formality"
- ▶ ● subjectdef "functionality"
- ▶ ● subjectdef "conformity"
- ▶ ● subjectdef "risk-assessment"
- ▶ ● subjectdef "retechnical-report"
- ▶ ● subjectdef "safety"
- ▶ ● subjectdef "technical-data"
- ▶ ● subjectdef "technical-overview"
- ▶ ● subjectdef "collection"

iIRDS attributes: classes and subclasses provided via subject scheme map

Transformation

```
<subjectScheme>
  <subjectHead><subjectHeadMeta><navtitle>Skill level</navtitle></subjectHeadMeta>
</subjectHead>
<subjectdef keys="qualification-roleClass">
  <subjectdef keys="service-technician">
    <topicmeta><navtitle>Service technician</navtitle></topicmeta>
  </subjectdef>
  <subjectdef keys="operator">
    <topicmeta><navtitle>Operator</navtitle></topicmeta>
  </subjectdef>
</subjectdef>
</subjectScheme>
```

Subject Scheme

```
<metadata>
  <iirds-functionalmeta>
    <qualification-role qualification-role="service-technician"/>
  </iirds-functionalmeta>
</metadata>
```

DITA Topic

```
<iirds:requires-qualification>
  <iirds:Role>
    <rdfs:label>Service technician</rdfs:label>
  </iirds:Role>
</iirds:requires-qualification>
```

iiRDS RDF

Generation of output format
for content files and of
RDF file with metadata.
Packing to iiRDS container.

Publication

The screenshot shows the EMPOLIS portal interface. The browser address bar displays the URL: https://esc.empolisservices.com/app/portal/#/main/project1_p/search. The page header includes the EMPOLIS logo and navigation tabs for OVERVIEW, SEARCH, and WORKSPACE. A search bar at the top right contains the text "Search for ...".

On the left side, there is a filter panel with the following sections:

- Product:** Fan (4), T3-B (4) [checked]
- Component:** Hardware (1), Rotor (3), Software (4)
- Document type:** Maintenance inst... (1), Operating instruc... (4), Quick guide (1), Repair instructions (1)
- Topic type:** Concept (4), Reference (4), Task (4)
- Information subject:** Formality (1), Safety (4), Technical data (4)

The search results are displayed in a list format, filtered by "T3-B (Product)". Each result includes a "top" button, the document title, a date and language indicator, and a snippet of technical data. The results are:

- PI-FAN Service Manual** (10/22/2017 20:00 - English) - Technical data Product Model: **T3-B** Serial number: 111 Dimensions Height: 45 cm Diameter of base: 30 cm Diameter of rotor: ...
- PI-FAN Operating Manual** (10/22/2017 20:00 - English) - Technical data Product Model: **T3-B** Serial number: 111 Dimensions Height: 45 cm Diameter of base: 30 cm Diameter of rotor: ...
- PI-FAN Quick Guide** (10/22/2017 20:00 - English) - Technical data Product Model: **T3-B** Serial number: 111 Dimensions Height: 45 cm Diameter of base: 30 cm Diameter of rotor: ...
- PI-FAN Repair Manual** (10/22/2017 20:00 - English) - Technical data Product Model: **T3-B** Serial number: 111 Dimensions Height: 45 cm Diameter of base: 30 cm Diameter of rotor: ...

A "Relevance" dropdown menu is visible in the top right of the results area. A blue circular button with a hamburger menu icon is located in the bottom right corner of the page.

Content delivery with iiRDS

SMA, i-views and ICMS

SMA Solar Technology AG



Type	Aktiengesellschaft
Traded as	FWB: S92
Industry	Solar Technology
Founded	1981
Founder	Werner Kleinkauf, Günther Cramer (1952-2015), Peter Drews and Reiner Wettlaufer
Headquarters	Niestetal, Germany
Key people	Pierre-Pascal Urbon (CEO), Erik Ehrentraut (Chairman of the supervisory board)
Products	Inverters for solar energy systems
Revenue	€ 891.0 million
Number of employees	3,213 (December 2017)
Website	www.sma.de

CMS
Schema ST4

iiRDS

Portal

i-views content

- Authoring of modular documentation
- Classification based on iiRDS metadata
- Generation of iiRDS packages

- Import of iiRDS packages
- Creating a semantic network of all information objects
- Users research technical information based on metadata and relations between objects





Dokument

STP 50-40-BE
STP 50_AT-Baugruppen-SG
EDMM-10-BE
FAQ

Version

1.0
5.2
4.1
4.0

Komponente

CORE1
Wechselrichter

Produktlebenszyklusphase

Demontage
Entsorgung
In Nutzung nehmen
Nutzungsende
Update



The screenshot shows the SMA documentation website interface. On the left is a navigation sidebar with categories like 'Dokument', 'Version', 'Komponente', and 'Produktlebenszyklusphase'. The main content area displays search results for 'Wechselrichter spannungsfrei schalten'. The search bar at the top right contains the text 'Wechselrichter spannung' and a search icon. Below the search bar, there are sorting options: 'Sortieren nach: Relevanz', 'Titel', 'Dokument', 'Version', 'Sprache', and 'Kapitel-Pfad'. The search results list several documents, each with a title, a brief description, and metadata like 'Dokument', 'Version', 'Sprache', and 'Kapitel-Pfad'.

SMA Wechslerichter spannung redakteur

Dokument

- STP 50-40-BE (59)
- STP 50_AT-Sauggruppen-SG (22)
- EDMM-10-BE (12)
- FAQ (1)

Version

- 1.0 (94)
- 5.2 (49)
- 4.1 (2)
- 4.0 (2)

Komponente

- CORE1 (4)
- Wechselrichter (2)

Produktlebenszyklusphase

- Demontage (2)
- Entsorgung (1)
- In Nutzung nehmen (1)
- Nutzungsende (1)
- Update (1)

Meinten Sie... Poly-String-Wechselrichter or Modul-Wechselrichter or Zentral-Wechselrichter or Topologie or Freischalten or Windenergie-Wechselrichter or Batterie-Wechselrichter

Suchergebnisse

« 1-7 / 149 »

Sortieren nach: **Relevanz** | Titel | Dokument | Version | Sprache | Kapitel-Pfad

Wechselrichter spannungsfrei schalten

... Vor allen Arbeiten am **Wechselrichter** den **Wechselrichter** immer wie in diesem Kapitel beschrieben **spannungsfrei schalten** ... Den DC-Lasttrennschalter des **Wechselrichters** auf Position O stellen. Den DC-Lasttrennschalter ... **Spannungsfreiheit** ...

Dokument: STP 50-40-BE **Version:** 1.0 **Sprache:** Deutsch

Firmware-Update durchführen

... öffnen **Wechselrichter spannungsfrei schalten** ... **spannungsfrei schalten** ... Wenn für den **Wechselrichter** kein automatisches Update im Kommunikationsprodukt (z. B. Cluster Controller ...

Dokument: STP 50-40-BE **Version:** 1.0 **Sprache:** Deutsch **Kapitel-Pfad:** Fehlersuche

Voraussetzungen für den DC-Anschluss

... , den **Wechselrichter** immer wie in diesem Dokument beschrieben **spannungsfrei schalten Wechselrichter spannungsfrei schalten** ... die Leerlaufspannung des PV-Generators niemals die maximale Eingangsspannung des **Wechselrichters** überschreiten ... für die Eingangsspannung und den Eingangsstrom des **Wechselrichters** müssen eingehalten sein Technische Daten ...

Dokument: STP 50-40-BE **Version:** 1.0 **Sprache:** Deutsch **Kapitel-Pfad:** Elektrischer Anschluss > DC-Anschluss

Wechselrichter spannungsfrei schalten

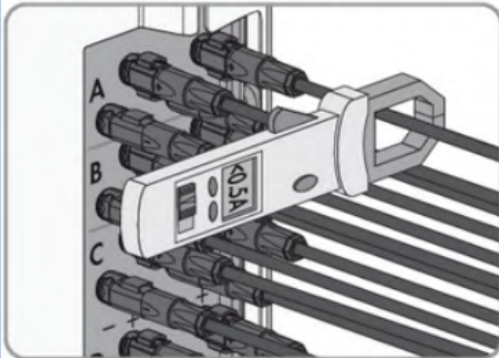
Vor allen Arbeiten am Wechselrichter den Wechselrichter immer wie in diesem Kapitel beschrieben spannungsfrei schalten. Dabei immer die vorgegebene Reihenfolge einhalten.

Zerstörung des Messgeräts durch Überspannung

Nur Messgeräte mit einem DC-Eingangsspannungsbereich bis mindestens 1000 V oder höher einsetzen.

Vorgehen:

Den AC-Leitungsschutzschalter ausschalten und gegen Wiedereinschalten sichern. Den DC-Lasttrennschalter des Wechselrichters auf Position **O** stellen. Den DC-Lasttrennschalter mit einem geeigneten Vorhängeschloss gegen Wiedereinschalten sichern. Wenn das Multifunktionsrelais verwendet wird, gegebenenfalls Versorgungsspannung des Verbrauchers abschalten. Warten, bis die LEDs erloschen sind.



Stromfreiheit mit Zangenamperemeter an allen DC-Kabeln feststellen.

Downloads

Datenblatt SUNNY TRIPOWER CORE1

Firmware STP 50-40 / STP 50-JP-40 (CORE1)

Videos

How to connect your SMA Inverter to a Wi-Fi network

Komponente

CORE1

Wechselrichter

Produktlebenszyklusphase

In Nutzung nehmen

Questions?



Bildquelle: Fotolia, © Anatoly Maslennikov

<https://iirds.org>

ulrike.parson@parson-europe.com
mark.schubert@parson-europe.com

Content Delivery with iiRDS

intelligent information Request and Delivery Standard

