



European
Commission

Ref2Link

[ISA² LegIT 2016.38 d]



Legal Service

SJ.01.IT

Ref2Link – What is it?

- ✓ Ref2Link is a text-mining software component designed to **detect and value legal references or citations** detected in unstructured texts.
- ✓ Developed initially in 2015 as an in-house tool for the Legal Service of the European Commission, Ref2Link has joined the **ISA²** program in 2018 (Action “Legislation Interoperability Tools” - LegIT 2016.38).



Legal references and citations in unstructured text

Pourvoi formé contre l'ordonnance du Tribunal de l'Union européenne du 16 février 2016 dans l'affaire T-296/15, recours visant l'annulation partielle du règlement d'exécution (UE) 2015/408 de la Commission, du 11 mars 2013, relatif à l'application de l'article 80, paragraphe 7, du règlement (CE) n° 1107/2009 du Parlement européen et du Conseil concernant la mise sur le marché des produits phytopharmaceutiques (...) elle ne peut pas servir de fondement à une interprétation contra legem du droit national (voir arrêts Impact, C-268/06, EU:C:2008:223, point 100; Dominguez, C-282/10, EU:C:2012:33, point 25, et Association de médiation sociale, C-176/12, EU:C:2014:2, point 39).



Ref2Link: Links automation

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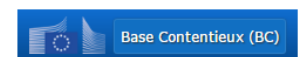
Ref2Link: Multi-target links

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Decide

ARES
Advanced Records System



(...)

Main features

- ✓ Uses flexible and declarative, **detection rules**, which can be designed or tuned for **various domains**
- ✓ Supports **multiple targets** on the same reference
- ✓ Supports **multiple environments** allowing the use of context-dependent sets of rules
- ✓ Supports complex patterns, such as **lists and/or subparts**
- ✓ Returns the **same text enriched with links or a table of detected references**, grouped together when identical



Main detection features

- ✓ Out-of-the-box:
 - **EU law and case law in all official languages**
 - ECHR case law
 - Permanent Court of Arbitration disputes
 - WTO legal texts and disputes, GATT provisions
 - Antitrust, State aid and Merger cases dealt with by the European Commission
 - EU institutions administrative references covering the decision-making process
- ✓ Supports EU standards **ELI** , **ECLI** and CELEX ids
- ✓ Configurable for national law domains



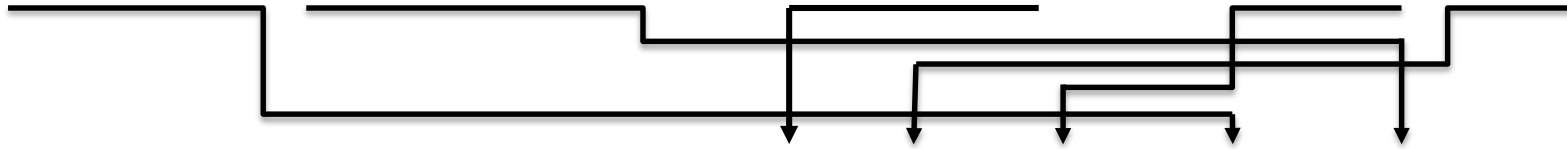
Enforcing EU Law standards

- ✓ **ELI (European Legislation Identifier)**
 - ✓ A method for organising and classifying legal information across EU Member States so that it can be easily and durably searched, exchanged or reused.
- ✓ **ECLI (European Case Law Identifier)**
 - ✓ A method to facilitate the correct and unequivocal citation of judgements from European and National courts.
- ✓ **Based on three pillars**
 - ✓ Identifiers
 - ✓ Metada data
 - ✓ Semantics



ELI features

✓ Detect citations acts/treaties, incl. Lists & subdivisions
[article 80, paragraphe 7, du règlement \(CE\) n° 1107/2009](http://data.europa.eu/eli/reg/2009/1107/art_80/par_7/oj)



http://data.europa.eu/eli/reg/2009/1107/art_80/par_7/oj

[articles 61](http://data.europa.eu/eli/treaty/tec_2006/art_61/oj) and [65 EC](http://data.europa.eu/eli/treaty/tec_2006/art_65/oj)



http://data.europa.eu/eli/treaty/tec_2006/art_61/oj

http://data.europa.eu/eli/treaty/tec_2006/art_65/oj



ECLI features

✓ Detect Identifiers with possible subdivision:

- ✓ ECLI:EU:C:2014:2 point 19 →
 - [to EUR-Lex](#)
 - [to curia](#)
 - [to e-justice portal](#)

- ✓ ECLI:NL:HR:2016:764 →
 - [to e-justice portal](#)
 - [to de rechtspraak](#)





Ref2Link

USE CASES

Ref2Link - Use cases

- ✓ Web applications filled with legal references:
 - ✓ Add hyperlinks to unstructured text sections
 - ✓ Automation for contributors in Web Content Management Systems
 - ✓ Delegate hyperlinks building logic for any data
- ✓ Legislative drafting systems: automation of references structuration e.g. links, footnotes
- ✓ Text analytics: through references extraction
- ✓ Format validation, Quality control
- ✓ User self-service (**LinkPad**)
 - ✓ Build your own hyperlinks
 - ✓ Quick reference-based access to legal resources

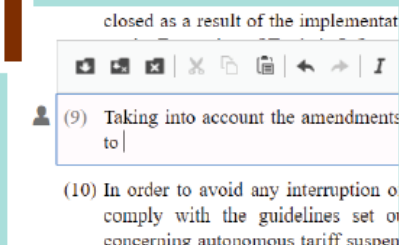




Ref2Link for Leos

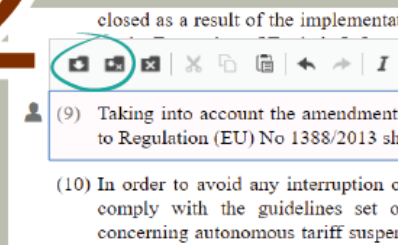
How to

1



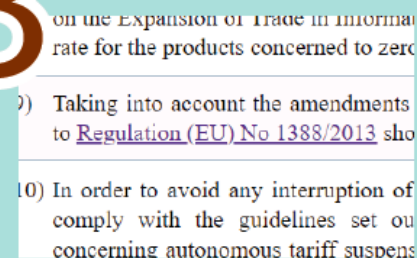
Fill in your text

2



Click Save

3



And you're done!

Features

- ✓ automates the detection of EU law references
- ✓ generates ELI-based hyperlinks (European Law Identifier)
- ✓ allows quick access to referenced legal acts for drafters

Contact

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Ref2Link

BENEFITS

Benefit: productivity

For:

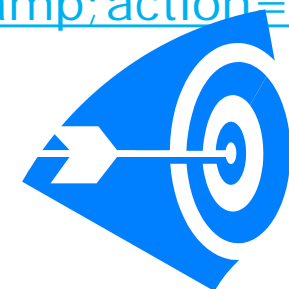
✓ **Business users:** enjoy direct links that would not exist otherwise

✓ Silo-breaking effect

✓ **Web contributors:** spare the time-consuming process of manually creating static links that might become broken

✓ No more need to 'insert link' like this one:

<http://eur-lex.europa.eu/Notice.do?checktexts=checkbox&val=437994%3Acs&pos=7&page=2&lang=en&pgs=10&nbl=17&list=438048%3Acs%2C437999%3Acs%2C437998%3Acs%2C437997%3Acs%2C437996%3Acs%2C437995%3Acs%2C437994%3Acs%2C&hwords=&action=GO∓visu=%23texte>



Benefit: sustainability

- ✓ Supports/benefits from European standards:
 - ✓ European Law Identifier (**ELI**)
 - ✓ European Case Law Identifier (**ECLI**)
- ✓ When Links are generated on-the-fly:
 - ✓ A simple display effect
 - ✓ No modification of original web pages & data
 - ✓ Sticks to evolutions in URLs building logics: limits broken links

Benefit: quality & interoperability

Use of Ref2Link fosters:

- ✓ Proper encoding of references & citations
- ✓ Use of links which subsequently avoid duplication of content
- ✓ System suppliers to deliver a consistent and stable URIs policy or at least 'how-to-link' guidelines..



Current limitations

- ✓ Matched patterns have to be self-sufficient for web links construction
- ✓ References need to be clean of formatting elements
- ✓ Aliases & nicknames
- ✓ Orphan subdivisions
- ✓ Generated links do not guarantee:
 - ✓ Availability of the target IT system
 - ✓ Existence of the resource with matched reference
 - ✓ Access rights to the resource
 - ✓ Direct access to the required level of granularity



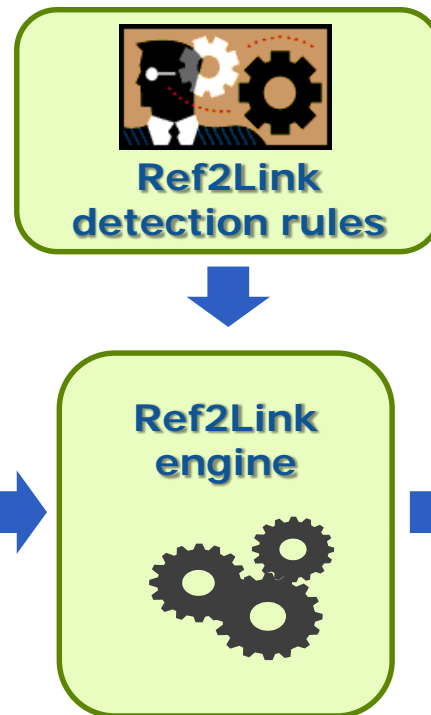


Ref2Link

DESIGN & FEATURES

Ref2Link – How does it work?

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Ref2Link – Where is it?

- ✓ **IT building block**: enhance existing IT business systems or web sites with the same detection features. It comes with a full API available for client or backend **integration**.
- ✓ Frontend app **LinkPad** on Testa: end users can generate their own hyperlinks or experience quick access to legal references.



Ref2Link – Upcoming developments

- ✓ **Use of Linked Data:** add some meta-data to hits and exploit semantic links to improve user experience.
- ✓ **Batch tool:** for integration in processing chains, test automation..
- ✓ **Multilingual support:** in addition to multilingual mode: language specific distributions to improve speed and accuracy.
- ✓ **Continuous support of standards:** e.g. deeper ELI subdivisions, national implementations ECLI & ELI.
- ✓ **Integration projects**
- ✓ **New backend, EU Login**
- ✓ **Aliases, Nicknames**



Demo & Questions



- ✓ [ISA² Ref2Link page](#)
- ✓ [LinkPad on Testa](#)

Contact : SJ-REF2LINK-SUPPORT@ec.europa.eu