data4pt

EPIP – XSD/artefacts

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Data4PT website...

Some assets available on Data4PT website...

○ A set of adapted XSD files implementing the NeTEx European Passenger Information Profile (EPIP)

○ A set of adapted XSD files that covers many real-world NeTEx use-cases

○ A first simple EPIP example file based on a modified Luxemburg export

Using Data4PT adapted NeTEx XSD-files :

Assisting with EPIP compliance

Simplifying C# code generation

o Experience shows that it is challenging to try to start from the full NeTEx schema.

o Possible to auto generate C#-code such as Microsoft standard tools and open-source tools such as mgaNSS

o Data4 PT provides two sets of adapted NeTEx XSD-files (partly identical).

Two sets of XSD-files

Name	Date modified	Type	Size
_content_NeTEx_EPIP.xsd	2021-01-15 11:18	W3C XML Schema	464 KB
gml_combo_v3_2_1_simplified.xsd	2021-01-15 11:17	W3C XML Schema	16 KB
NeTEx_publication_EPIP.xsd	2021-01-15 13:04	W3C XML Schema	423 KB
NeTEx_publication_EPIP-NoConstraint.xsd	2021-01-15 13:04	W3C XML Schema	6 KB

Name	Date modified	Type	Size
_content_NeTEx_reduced.xsd	2021-01-29 16:32	W3C XML Schema	598 KB
gml_combo_v3_2_1_simplified.xsd	2021-01-15 11:17	W3C XML Schema	16 KB
NeTEx_publication_reduced.xsd	2021-01-15 11:20	W3C XML Schema	424 KB
NeTEx_publication_reduced-NoConstrai...	2021-01-15 11:19	W3C XML Schema	8 KB

○ Reduced to four files in one directory respectively

○ An unfair comparison: Full NeTEx is 379 files in 31 directories

Set 1: EPIP XSD that is adapted to the TS

○ Elements and attributes removed and set as mandatory according to CEN/TS 16614-4:2020

Set 2: A wider XSD for code generation

○ Excluding part 3 for now

○ Adds VehicleScheduleFrame, and many constructions not included in EPIP such as Calls etcetera.

○ Method: Analysed a number of XML-files from Norway, Netherlands and other countries to try to see what parts are of interest to be covered.

○ "Flattened" into four files. Copied parts from full schema, Removed certain complexity and rewrote certain constructions.

○ Used verification XML-files to assure that XML-files valid according to this XSD are also valid according to the official XSD

A simple first EPIP example document

How to create and validate EPIP XML

○ When creating EPIP XML it will be easier to use this XSD as a starting point compared with using the full schema.

○ After an EPIP-file is created it should:

- Firstly, be validated towards the official NeTEx_publication.xsd
- Secondly, be validated towards the EPIP xsd.
- Thirdly, additional tools could be used for advanced validation

Data4PT website and WIKI...

Thank you for your attention