The Labnaf Strategy & Architecture Framework

Labnaf Language Transformer

User Guide

See also the "**Labnaf Language Transformer - Reference Guide**"

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WARNING

NEVER use the language transformer on your production repository before performing all necessary tests.

ALWAYS test your language transformer commands using a repository backup.

ALWAYS carefully check the resulting transformations and possible side effects. For example items could be deleted because you misspelled a type.

ALWAYS remember that type and stereotype names are case sensitive.

The Labnaf Language Transformer has been tested using Sparx Systems' Enterprise Architect versions 13.5 to 15.1

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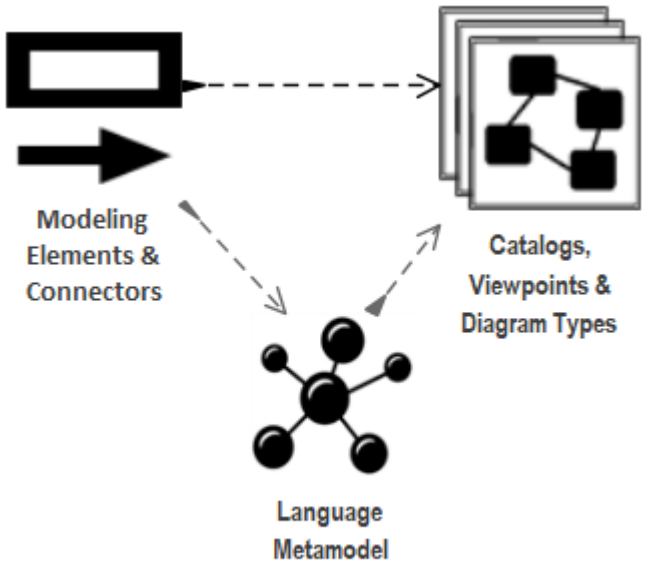
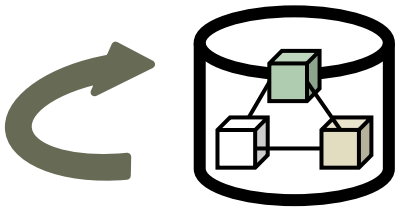
Labnaf Customization Steps

1. Customize the language following your organization requirements



2. Adapt existing repository content



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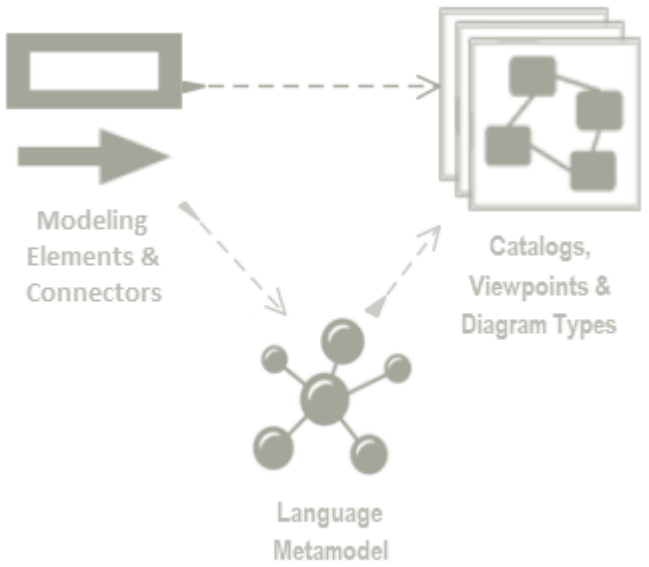
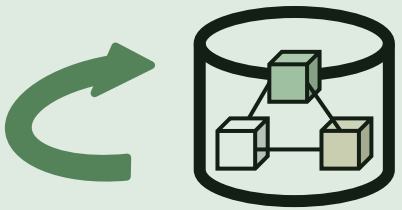
Labnaf Language Transformer

1. Customize the language



2. **Adapt existing repository content**



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ARCHIMATE®

BPMN™

UNIFIED MODELING LANGUAGE™

Visio

Any other language

Transform any language…

We all speak the same language

ARCHIMATE®

BPMN™

UNIFIED MODELING LANGUAGE™

SysML™

Any other language

… in any direction

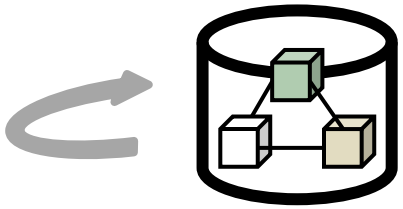
labnaf

One **Single**
Strategy & Architecture
Modeling **Language**

You are never locked in Labnaf !

The Language Transformer adapts the language in existing repository content

- **ChangeElementType**
- **ChangeConnectorType**
- **ChangeDiagramType**
- **ChangeDiagramTypesDefinedInCsv**
- **TemplateMetamodelFromActiveMetamodel**
- **TvRename**
- **TvDelete**



See the **Language Transformer Reference Guide** for command specific information.

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Prerequisites

Install the Language Transformer using the

Installer/LabnafLanguageTransformerSetup.msi

Unzip the sample language transformations files stored in

Doc/SampleLanguageTransformations.zip

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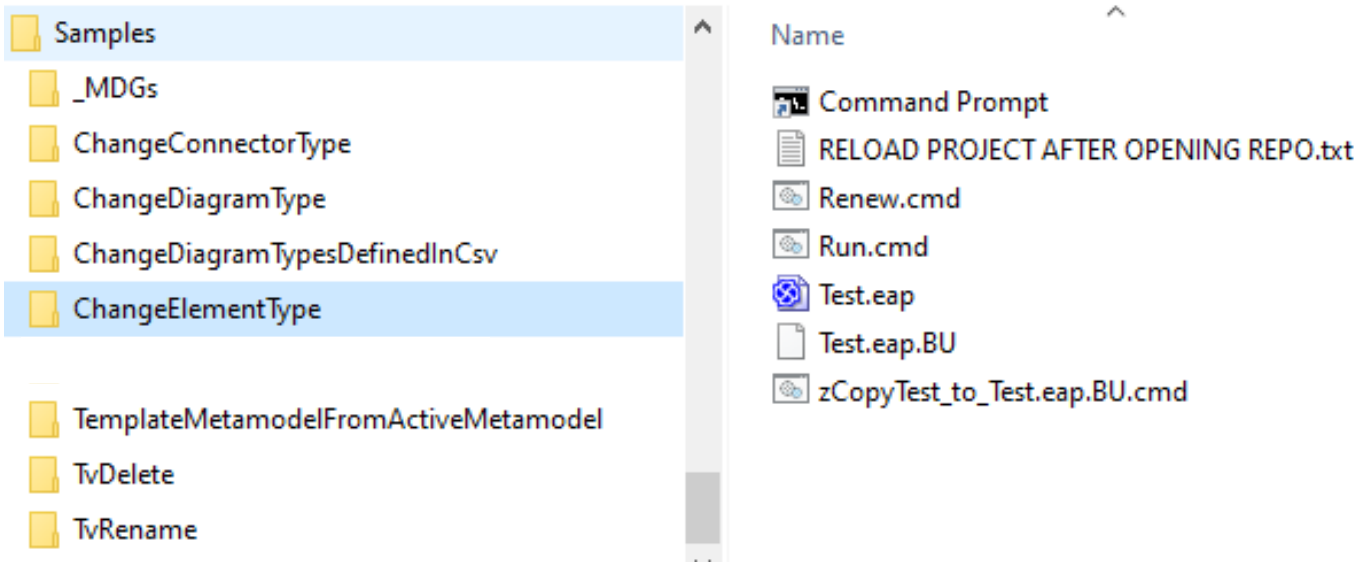
Prerequisites

Review the content of the Sample language transformations folder that you unzipped



For each Language Transformer command, there is a sample folder with an example. Folder names are language transformer command names.

The folders have a common structure. The file names are about the same.
The content of the “Run.cmd” and “Test.eap” files are specific to each folder/command.

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Development Lifecycle

- To transform a language in a repository, you will need a combination of transformer commands.
- We advise to address each command separately and in that order:
  - **ChangeElementType**
  - **ChangeConnectorType**
  - **ChangeDiagramType or ChangeDiagramTypesDefinedInCsv**
  - **TvRename**
  - **TvDelete**

The development lifecycle is the same for each command.

Keep backups of your different versions.

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Develop and Test Your Script (cont.)

Edit and run the test script

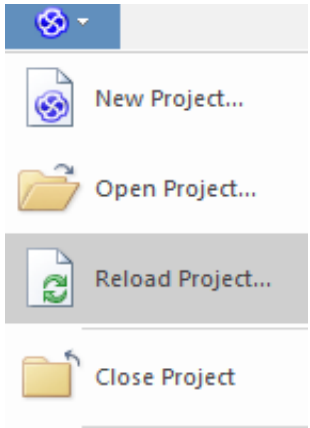
- Edit **Run.cmd.** Put your own transformation commands
- Execute **Run.cmd**

See the language transformation results

- Open **Test.eap**
- **In Sparx EA**
  - Reload the project

    => the shapes are updated in the diagram
  - Remove the shapes from the diagram and move the back in the diagram

    => the icons are updated in the project browser



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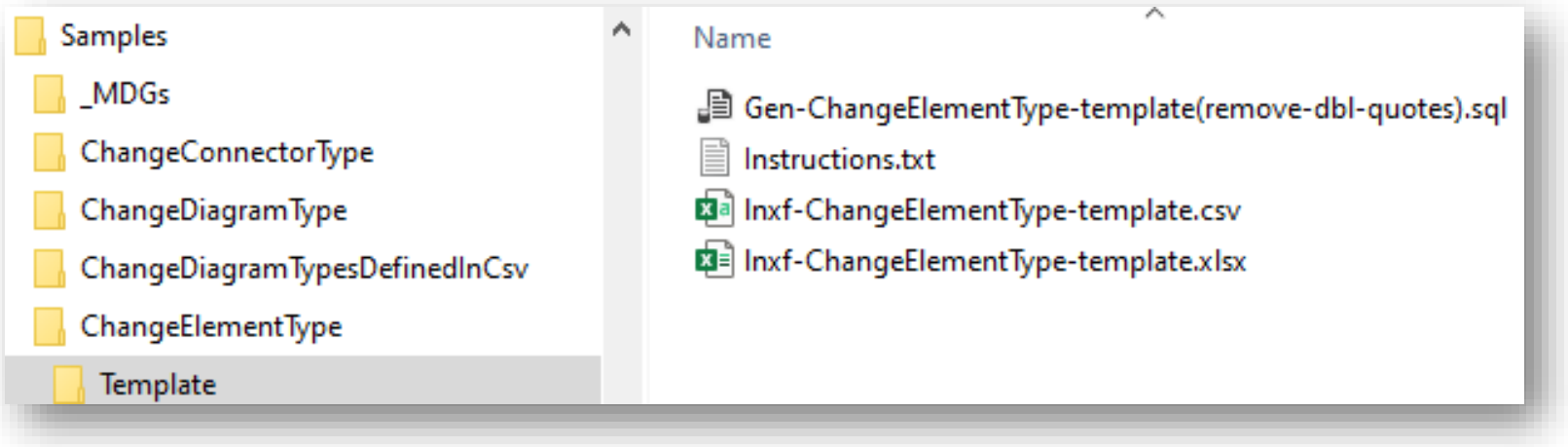
Use the Excel Templates to define your mappings



- Map source to target types and stereotypes in Excel

	A	B	C	D	E	F	G	H	I
1	Inxf	ChangeElementType	{RepositoryFilePath}	{FromType}	{FromStereoType}	Component	LABN_AccessPoint	{ToTagName}	{ToTagValue}
2	Inxf	ChangeElementType	{RepositoryFilePath}	{FromType}	{FromStereoType}	Activity	LABN_Activity	{ToTagName}	{ToTagValue}
3	Inxf	ChangeElementType	{RepositoryFilePath}	{FromType}	{FromStereoType}	Component	LABN_Application	{ToTagName}	{ToTagValue}
4	Inxf	ChangeElementType	{RepositoryFilePath}	{FromType}	{FromStereoType}	Collaboration	LABN_ApplicationAsAService	{ToTagName}	{ToTagValue}
5	Inxf	ChangeElementType	{RepositoryFilePath}	{FromType}	{FromStereoType}	Component	LABN_ApplicationComponent	{ToTagName}	{ToTagValue}

- Create your transformation commands based on the Excel

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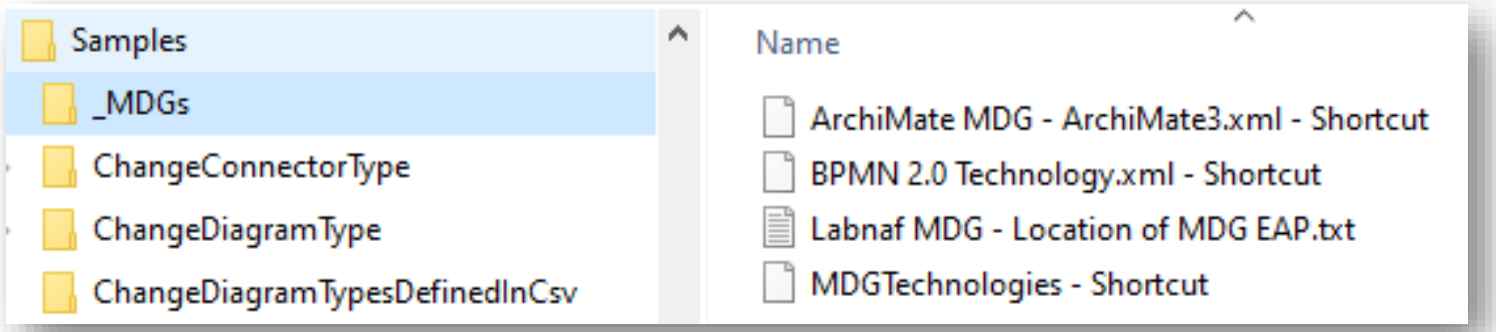
To find out what types and stereotypes are

- Look inside the MDG XML files



- Search for **Stereotype name="*{stereotype I am looking for}*"**

  Or **metatype="*{metatype I am looking for}*"**

```
<Stereotype name="ArchiMate_BusinessRole" metatype="BusinessRole" notes="" bgcolor="1
  <Icon type="bitmap" xmlns:dt="urn:schemas-microsoft-com:datatypes" dt:dt="bin.base6
    Qk02AwAAAAAAADYAAAAoAAAAEAAAABAAAAABABgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
    wMDAwMDAwMDAwMDAwMDAwMDAwMDAwMDAwMDAwMDAwMDAwMDAwMDAwMDAwMDAwMDAwMDAwMDAwMDAwMDA
```

- See the extended type

```
<AppliesTo>
  <Apply type="Class">
```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Develop and Test Your Script

Adapt the test data as needed

- Execute **Renew.cmd**
  - to copy the backup database into a fresh **Test.eap**

- Open and edit **Test.eap.**
  - Replace the content by you own test data
  - Close **Test.eap**

- Execute "**zCopyTest_to_Test.eap.BU.cmd**"
  - to create a new backup database from **Test.eap.** So you will then be able to Renew the test database with your own data before running each test.

Keep backups of your different versions.

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Test on real data

- Backup your PROD repository into an Access repository (EAP).
- Replace “Test.eap” by that backup repository.
- Execute the transformation script “Run.eap” and see the result

Run your transformation script on the PROD repository

- Ensure nobody is working on the repository
- Make a backup of you PROD repository
- Replace “Test.eap” by a shortcut to your PROD repository.
- Execute the transformation script “Run.eap” and see the results

Keep backups of your different versions.

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To create a **new metamodel** from scratch

- Use **TemplateMetamodelFromActiveMetamodel**

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