A Language Built in its Native Framework

The Labnaf Strategy & Architecture Framework

Labnaf Language Transformer

User Guide

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

WARNING

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

ALWAYS <u>test</u> your language transformer commands <u>using a repository backup.</u>

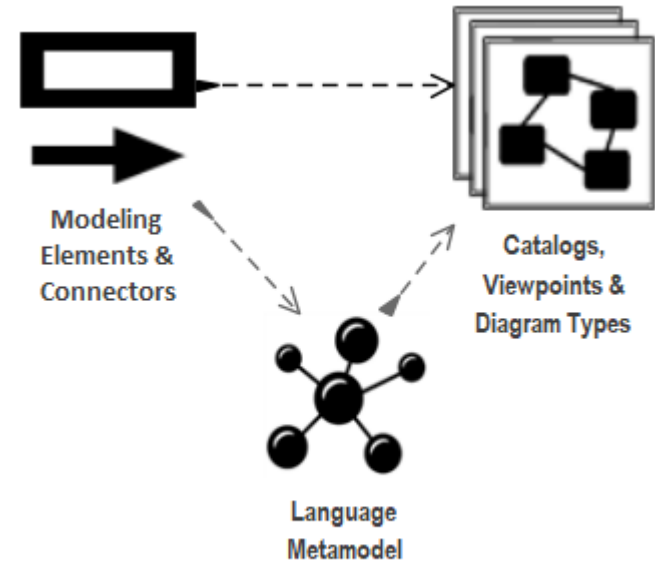**ALWAYS carefully check the resulting transformations and possible side effects. For example items could be deleted because you misspelled a type.**

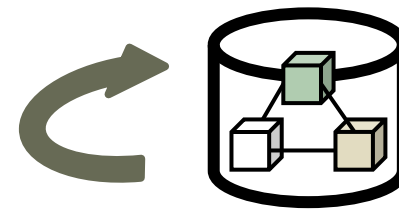**ALWAYS remember that type and stereotype names are <u>case sensitive</u>.**

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

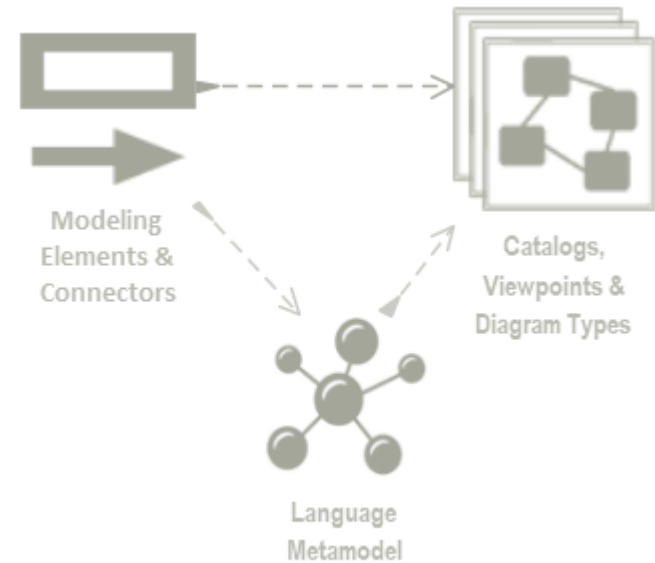1. Customize the language following your organization requirements

Modeling Elements & Connectors
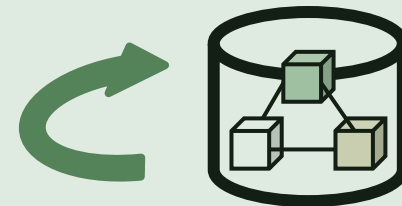
Language Metamodel

Catalogs, Viewpoints & Diagram Types

2. Adapt existing repository content

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Labnaf Language Transformer

1. Customize the language

Modeling
Elements &
Connectors

Catalogs,
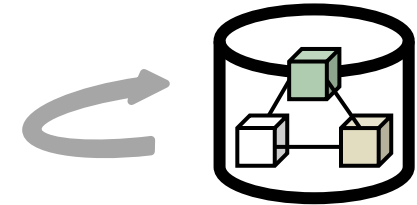Viewpoints &
Diagram Types

Language
Metamodel

2. Adapt existing repository content

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The Language Transformer adapts the language in existing repository content
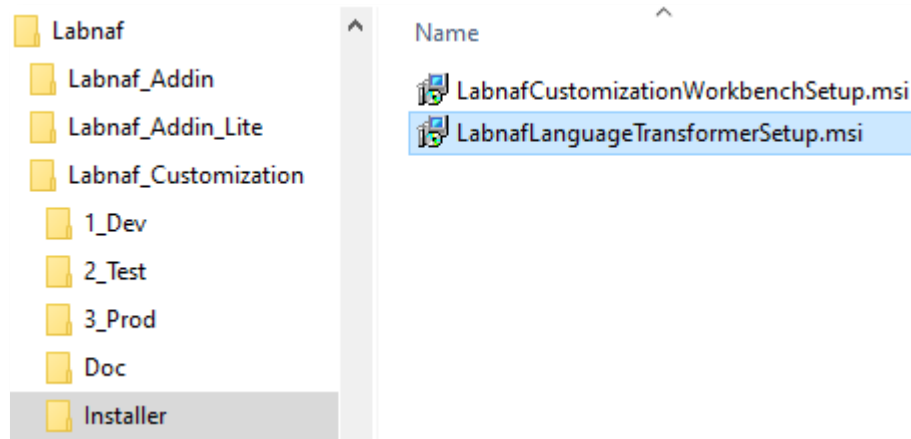
- **ChangeElementType**

- **ChangeConnectorType**

- **ChangeDiagramType**

- **ChangeDiagramTypesDefinedInCsv**

- **SynchronizeStereotypesExtended**

- **TemplateMetamodelFromActiveMetamodel**
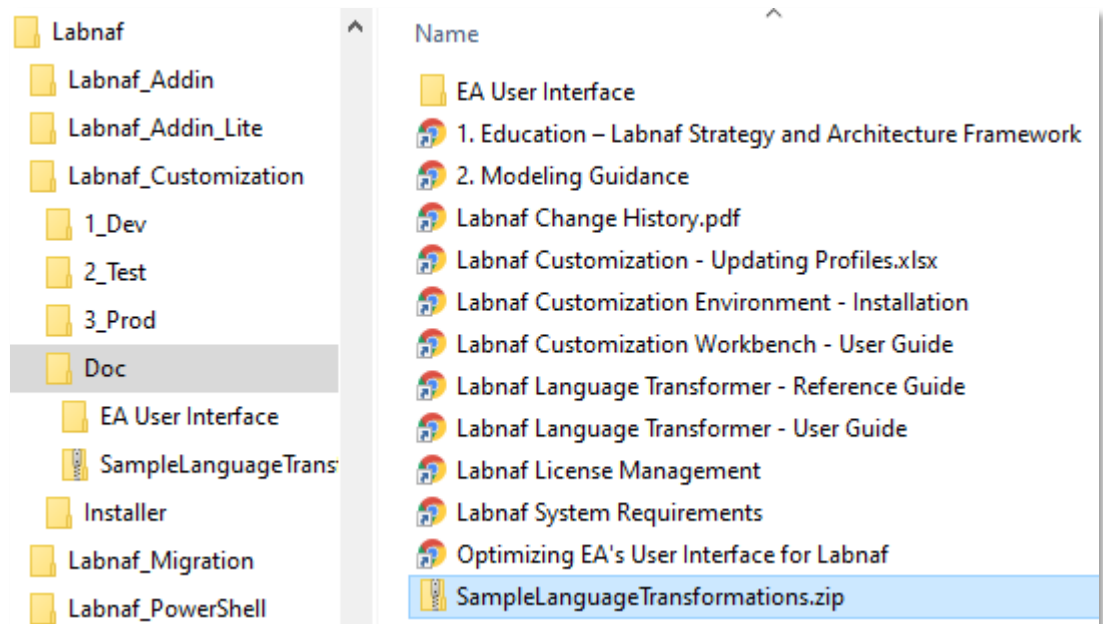
- **TvRename**

- **TvDelete**

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

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Prerequisites
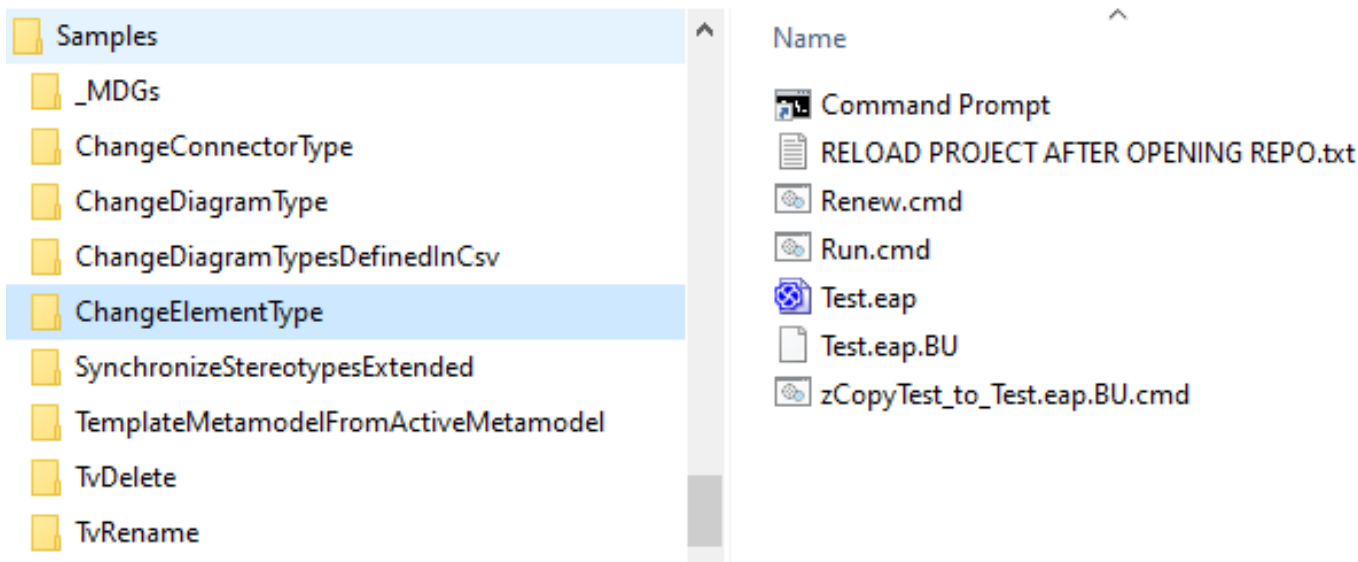
Install the Language
Transformer

Unzip the sample
language
transformations

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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

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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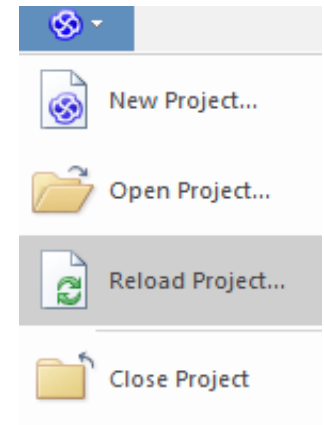Keep backups of your different versions.

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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

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 align the tag grouping **in the repository** with the tag grouping **in your MDG**

- **TemplateMetamodelFromActiveMetamodel** (can also be used to create a new metamodel from scratch)
- Use **SynchronizeStereotypesExtended**

To create a **new metamodel** from scratch

- Use **TemplateMetamodelFromActiveMetamodel**

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