



Unified Framework for Driving Transformations

Labnaf PowerShell

User Guide

Labnaf PowerShell Commands

1. Overview
2. Strategy and Architecture Operations
3. Systems Integrations and Content Refactoring
4. Command Compatibility Matrix

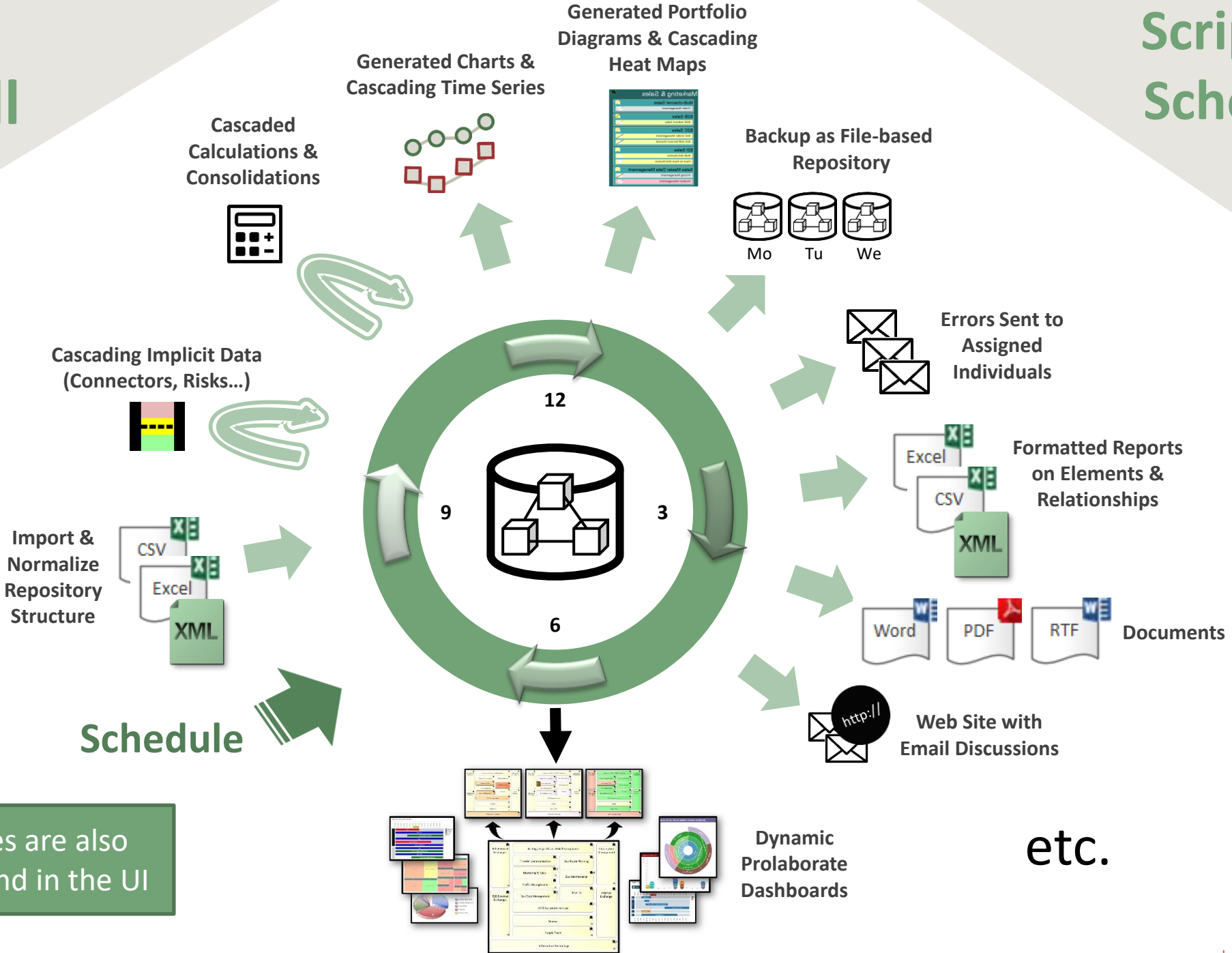
Related resources (latest versions)

- **Labnaf PowerShell Reference Guide:** https://www.labnaf.one/EndUserMaterial/Labnaf_PowerShell/Labnaf%20PowerShell%20-%20Reference%20Guide.pdf
- **Labnaf On-line Guidance:** <https://www.labnaf.one/guidance/index.html?guid=569FF62A-5210-4359-923F-4EB00EB03D61>
- **Sample data:** Provided with the Labnaf PowerShell software



Labnaf PowerShell

Scripting & Scheduling



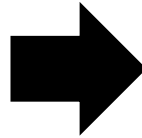
The same features are also available on demand in the UI

etc.



Running commands on the command line

Inps



Labnaf PowerShell Program

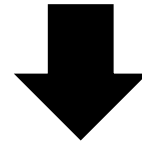
- “LNPS” is the name of the Labnaf PowerShell program.
- Full path is “C:\Program Files (x86)\Labnaf\PowerShell\Inps.exe”

```
Usage : "C:\Program Files (x86)\Labnaf\PowerShell\Inps.exe" [-]Command [arguments]
Available Commands: (Prefix the command name with '-' to run in non verbose mode)
  AutoConnectorsDelete
  AutoConnectorsGenerate
  BackupToAccessFile
  CalculateTaggedValues
  ClonePackage
  CreatePackage
  DeleteGeneratedCharts
  DeleteGeneratedDiagrams
  ExportToXmi
  GenerateCharts
  GenerateDiagrams
  GenerateDoc
  GenerateHTML
  GenerateImplicitData
  GenerateTabularReports
  ImportConnections
  ImportFromXmi
  ImportTabularReport
  MoveElementsToCalculatedParent
  MoveElementsToPackage
  MovePackagesToPackage
  RenameItem
  ScheduleCommand
  SetDiagramProperty
  SqlExportToCsv
  Validate
  ? => Show details for all commands
```



Running commands on the command line

Inps ?



Shows a detailed description of all commands and their usage

```
C:\Program Files (x86)\Labnaf\PowerShell>Inps ?  
  
Command: AutoConnectorsDelete  
  
Description: Delete generated connectors for child elements following defined element stereotype hierarchies.  
Usage : Inps AutoConnectorsDelete [arguments]  
  
Arguments:  
    SourceRepoPathName: Path name of the source repository (EAP file).  
  
Command: AutoConnectorsGenerate  
  
Description: Generate connectors for child elements following defined element stereotype hierarchies.  
Usage : Inps AutoConnectorsGenerate [arguments]  
  
Arguments:  
    SourceRepoPathName: Path name of the source repository (EAP file).  
  
Command: BackupToAccessFile  
  
Description: Backup a DBMS or Access repository to an Access Repository.  
Usage : Inps BackupToAccessFile [arguments]  
  
Arguments:  
    SourceRepoPathName: Path name of the source repository (EAP file).  
    DestEapPathName: Path name of the destination Access repository (EAP file).  
    LogFilePath: Path name of the log file name.  
  
Command: CalculateTaggedValues  
  
Description: Calculate values for some defined tags and elements. The elements to be selected, the tags to be updated and the calculation formulas are all defined in the model repository.
```



Running commands on the command line

Inps [-]{command name}



Example: if you type « Inps GenerateTabularReports » you get the following info.

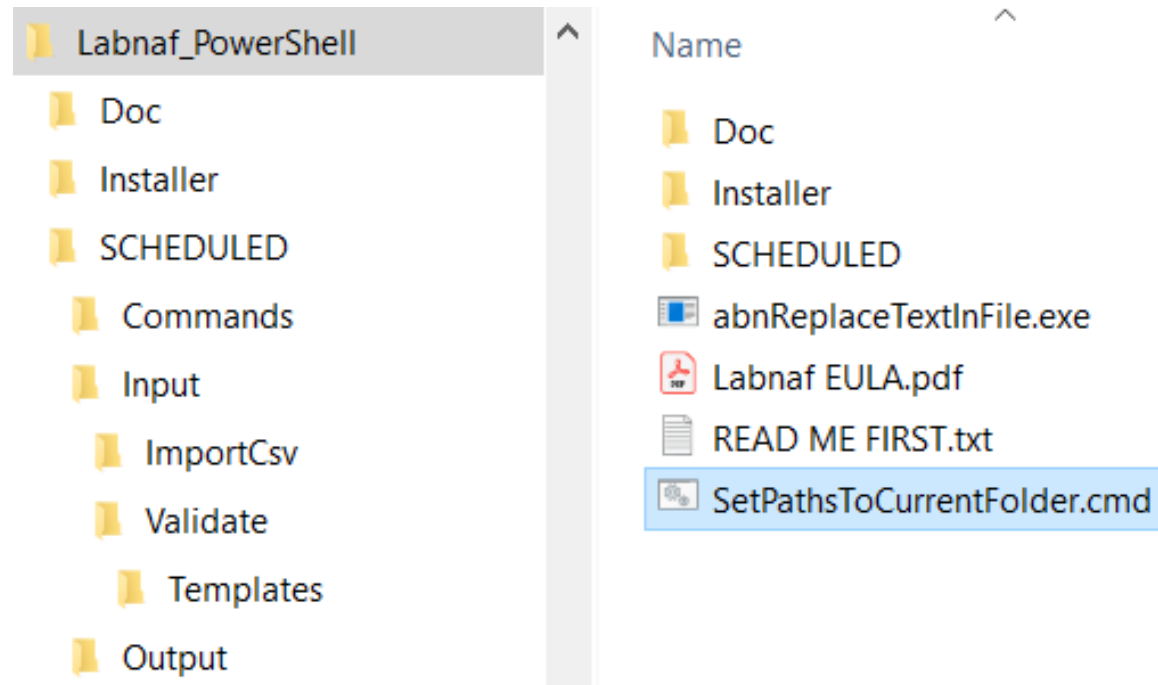
```
Command: GenerateTabularReports
Description: Generate spreadsheets from a model repository based on configuration stored in that same repository.
Usage : Inps GenerateTabularReports [arguments]
Arguments:
  SourceRepoPathName: Path name of the source model repository (EAP file).
  OutputDirectoryPath: Directory path name where the spreadsheets must be generated.The name of each spreadsheet file is the name of the template report.
  [ElementPrototypeName]: The name of a specific element prototype name for which all embedded tabular report templates must be applied.
  [TabularReportTemplateName]: The name of a specific tabular report template to be applied.
```

Prefix the command name with '-' to run in non verbose mode

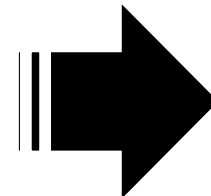


Automatic configuration

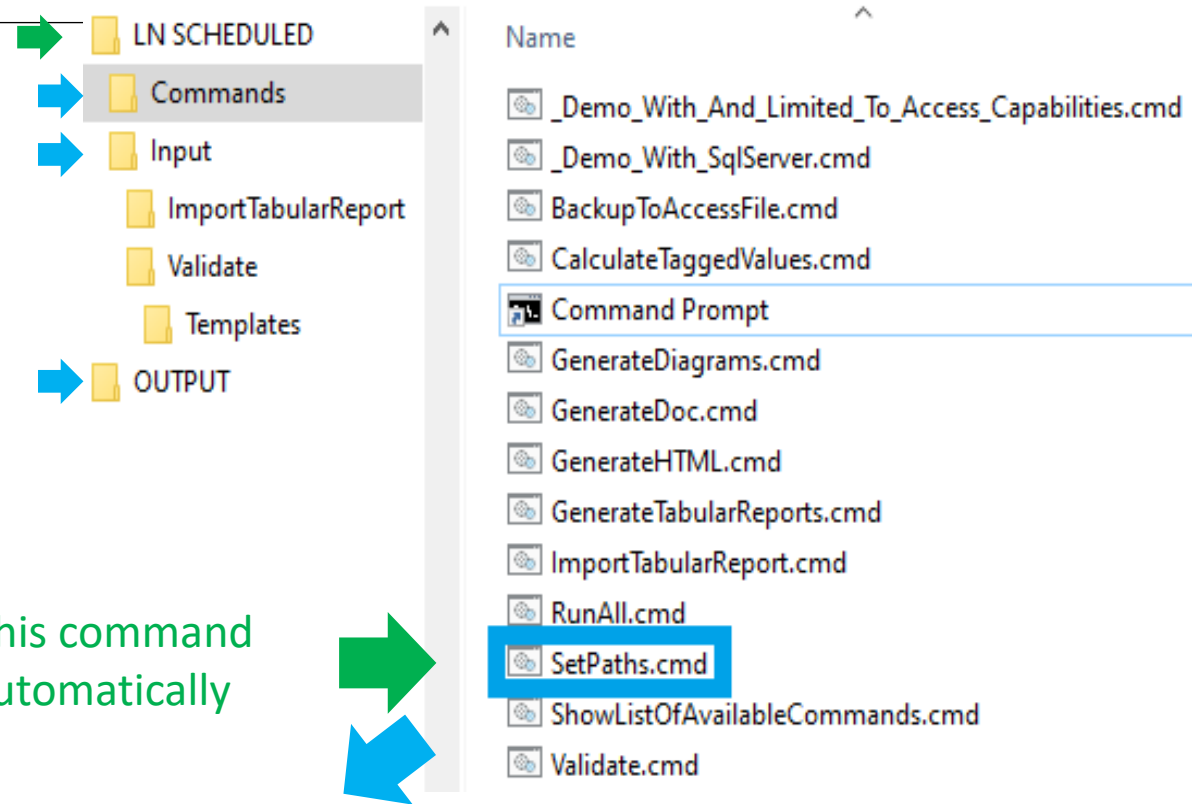
- Copy the Labnaf_PowerShell folder anywhere you want on your file system
- Double-click on “SetPathsToCurrentFolder.cmd”



This updates the Labnaf PowerShell configuration files following the “Labnaf_PowerShell” folder location.



Preconfigured
batches calling
commands with
predefined
settings



The paths in this command
were reset automatically

```
SetPaths.cmd x
```

```
1 set LABNAF_POWERSHELL=C:\Program Files (x86)\Labnaf\PowerShell\lnps.exe
2
3 set SCHEDULED_DIR=C:\Users\User\Desktop\Labnaf_PowerShell\SCHEDULED
4 set COMMANDS_DIR=%SCHEDULED_DIR%\Commands
5
6 set INPUT_DIR=%SCHEDULED_DIR%\Input
7 set OUTPUT_DIR=C:\Users\User\Desktop\Labnaf_PowerShell\SCHEDULED\Output
8
9 set REPOSITORY=%INPUT_DIR%\Repository.eap
```



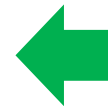
Preconfigured Command Scheduling

- SCHEDULED
 - Commands
 - Input
 - ImportCsv
 - Validate
 - Templates
 - Output

Name

- Commands
- Input
- Output
- _ScheduleAllMultipleThreads.cmd
- _ScheduleAllSingleSequence.cmd
- Command Prompt
- Schedule_BackupToAccessFile.cmd
- Schedule_CalculateTaggedValues.cmd
- Schedule_GenerateDiagrams.cmd
- Schedule_GenerateDoc.cmd
- Schedule_GenerateHTML.cmd
- Schedule_GenerateTabularReports.cmd
- Schedule_ImportCsv.cmd
- Schedule_Validate.cmd
- ScheduleSequence.cmd
- SetEnvVars.cmd
- SetTimes.cmd

```
SetTimes.cmd
1 REM -- SINGLE START TIME --
2 Set StartTime_AllSingleSequence=00:00:00
3
4
5 REM -- SPECIFIC START TIME FOR EACH TASK --
6
7 Set StartTime_Cleanup_BackupToAccessFile=22:00:00
8 Set StartTime_Cleanup_GenerateHTML=22:00:05
9
10 Set StartTime_ImportCsv=22:30:00
11
12 Set StartTime_CalculateTaggedValues=23:00:00
13 Set StartTime_GenerateDiagrams=23:30:00
14
15 Set StartTime_BackupToAccessFile=00:00:00
16 Set StartTime_Validate=01:00:00
17
18 Set StartTime_GenerateTabularReports=02:00:00
19 Set StartTime_GenerateDoc=02:30:00
20 Set StartTime_GenerateHTML=03:00:00
21
22
23 REM -----
24
25 set SCHEDULED_MINUTES_UNTIL_RESTART=1440
```



Labnaf PowerShell Commands

1. Overview
2. Strategy and Architecture Operations
3. Systems Integrations and Content Refactoring
4. Command Compatibility Matrix



Labnaf PowerShell commands for **Strategy and architecture operations**

- **Import Tabular Report** (Excel, CSV)
- **Auto Connectors Generate / Delete**
- **Generate Implicit Data**
- **Calculate Values**
- **Validate** and send emails to assigned individuals
- **Generate Charts / Delete Generated Charts**
- **Generate Diagrams**
- **Generate Tabular Report** (Excel, CSV), **Doc** (Word, RTF, PDF), **Html**
- **Backup To File**
- **Schedule Command** (not only Labnaf PowerShell commands)



ImportTabularReport

Sample input data for updating tagged values of existing elements

File to be imported can be .CSV or .XLSX (Excel)

	A	B	C	D	E
1	guid	application_owner	application_owner_delegates	it_responsible_service	legal_owner
2	{D303A068-2CAA-438d-9E81-287EE9777F1D}	homer.simpson@labnaf.local		Microsoft development	Labnaf
3	{305AA65E-A3F8-435b-81EC-C22EB7DF01C4}	marge.simpson@labnaf.local	lisa.simpson@labnaf.local	Enterprise Architecture	Labnaf
4	{07F7FA8B-A01C-4aed-B5C2-80C9D62BD3FF}	bart.simpson@labnaf.local		SAP development	Labnaf

OPTIONAL repository column mappings are stored in a .CSV file

	A	B
1	Input_Column_Names	Target_Column_Names
2	guid	ea_guid
3	application_owner	IT_Contact
4	application_owner_delegates	IT_Contact_Delegates
5	it_responsible_service	IT_ResponsibleService
6	legal_owner	Legal_Owner



To start the import:

```
C:\Program Files (x86)\Labnaf\PowerShell>lnps ImportTabularReport

Command: ImportTabularReport

Description: Import elements, properties and tagged values from a CSV or Excel file into a SQL Server database.

    If a field name mapping file (CSV) is provided, the first line must contain the following headers:
        Input_Column_Names, Target_Column_Names
    Works also with Access databases but only for updating existing elements.

    Identify existing elements using
        either the ea_guid,
        or an alternative unique key.
    To define a unique key, you simply add a '#' in front of the property or tag name
    If multiple unique keys are provided, they are searched in this order: Tagged Value, Name, Alias.

    Create the element if the element is not found and if 'EnableCreate' option is present on the command line.
    The package where new elements are added is identified by a package guid provided on the command line
    Initial value calculation applies to any imported new element.

Usage : lnps ImportTabularReport [arguments]

Arguments:

    RepoPathName: Path name of the model repository (EAP file).

    SourceFile: A CSV or Excel file containing the data that needs to be imported.

    ColumnMappingFile: An optional CSV file containing the mapping between the input and output column names or '-' if all input and output column names are the same.

    ElementStereotypeName: The stereotype of the elements that need to be updated.

    [EnableCreate]: Enable creation of new elements if they are not found.

    [TargetPackageGuidForNewElements]: The package where the new elements must be stored.
```



Import Tabular Report (cont.)

Beware of the different definitions of the “Notes” / “Note” property name in Sparx EA.

In the Sparx EA API, the property name is called “Notes”.

In the database, the corresponding column name is called “Note”.

For Imports

- In the import file use the word « **Notes** » (and not « Note »)

For SELECT statements

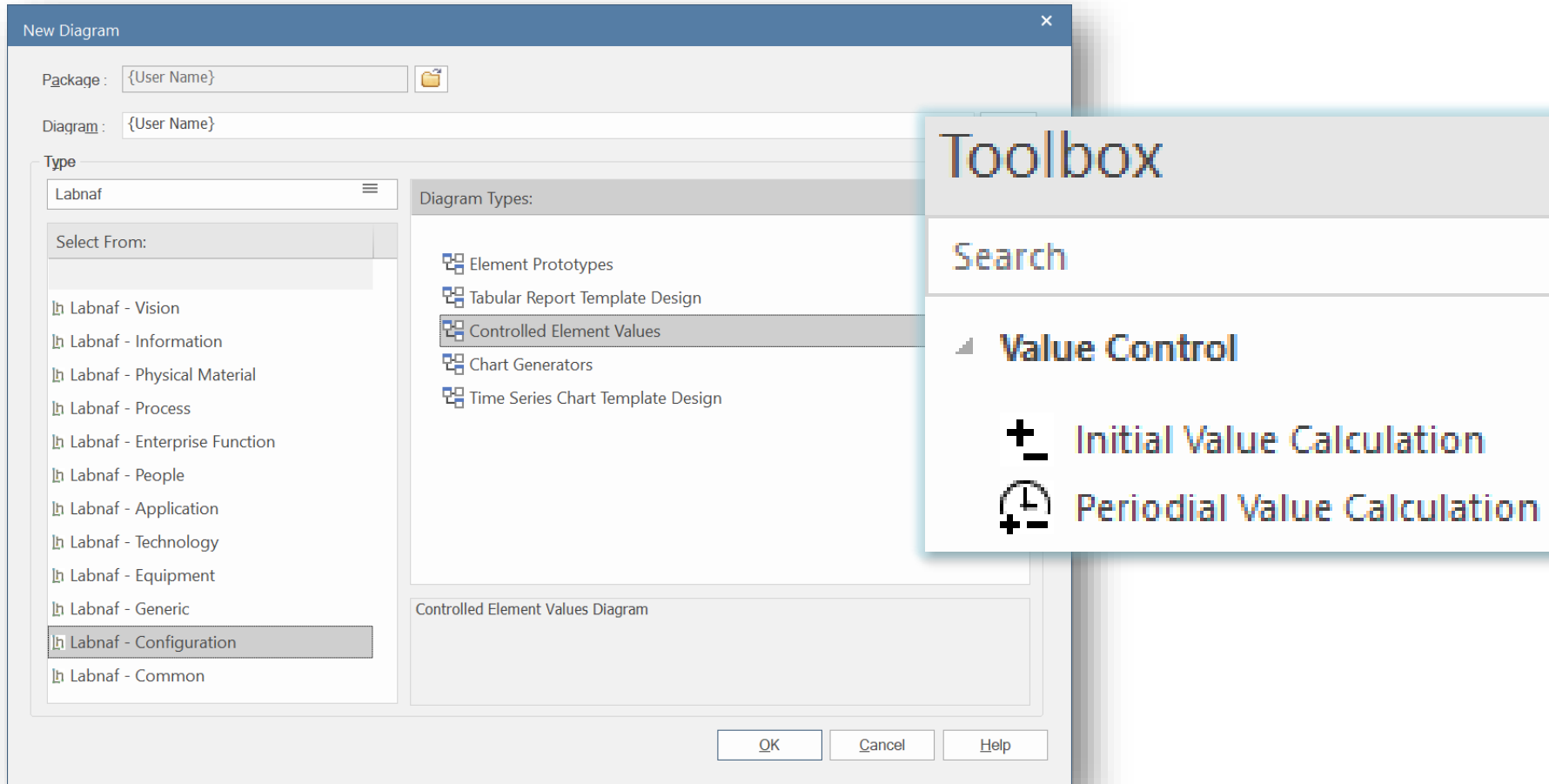
- In SQL Server, use the word « **Note** » in queries.
Example: `select Name, Note from t_Object`
- In the Sparx EA user interface, use « Note as {Something} ». Indeed « Note » is a reserved word.
Example: `select Name, Note as Element_Notes from t_Object`



Calculate Tagged Values

You first need to model your value calculations

See the **Value Calculation** [User Guide document](#) and the [examples on the Guidance Web Site](#)



Calculate Tagged Values (cont.)

To start calculation:

Command: CalculateTaggedValues

Description: Calculate values for some defined tags and elements. The elements to be selected, the tags to be updated and the calculation formulas are all defined in the model repository.

Usage : Inps CalculateTaggedValues [arguments]

Arguments:

RepoPathName: Repository path name EAP file).

[ElementPrototypeName]: A specific element stereotype for which tagged values must be calculated.

[TagName]: The name of a specific tagged value that must be calculated.



AutoConnectorsGenerate

To start implicit connector generation:

Command: AutoConnectorsGenerate

Description: Generate implicit connectors following numerous patterns and options, including:

- for child elements following defined element stereotype hierarchies (this option is enabled by default)
 - for information elements (entities) used, owned, aggregated or exchanged directly or indirectly by any other element.
- See 'Implicit Connectors' on the Labnaf guidance web site to learn more about enabling and disabling options.

Usage : Inps AutoConnectorsGenerate [arguments]

Arguments:

SourceRepoPathName: Path name of the source repository (EAP file).

The generated implicit connectors are aggregations.

See the different [implicit connector generation options on the guidance web site](#).

Benefits of implicit connector generation

- Know which information is used by whom, by which role, organization, function, process, activity, data flow, application, component, data store, server, equipment, network, etc
- Know which information is stored where (for example in which country)
- Dramatically simplifies information security and GDPR compliance analysis
- Simplifies traceability as embedded elements get aggregation connectors
- Normalizes the way elements are related in a repository i.e. based on connectors
- Enables powerful reporting capabilities including Prolaborate charts



AutoConnectorsDelete

To start deletion of generated connectors:

```
Command: AutoConnectorsDelete
```

```
Description: Delete generated connectors for child elements following defined element stereotype hierarchies.
```

```
Usage : Inps AutoConnectorsDelete [arguments]
```

```
Arguments:
```

```
SourceRepoPathName: Path name of the source repository (EAP file).
```

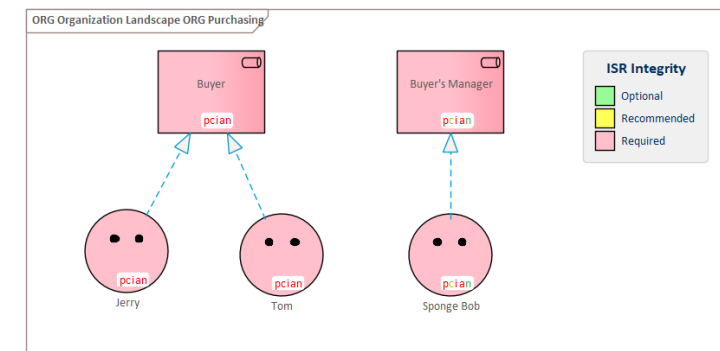
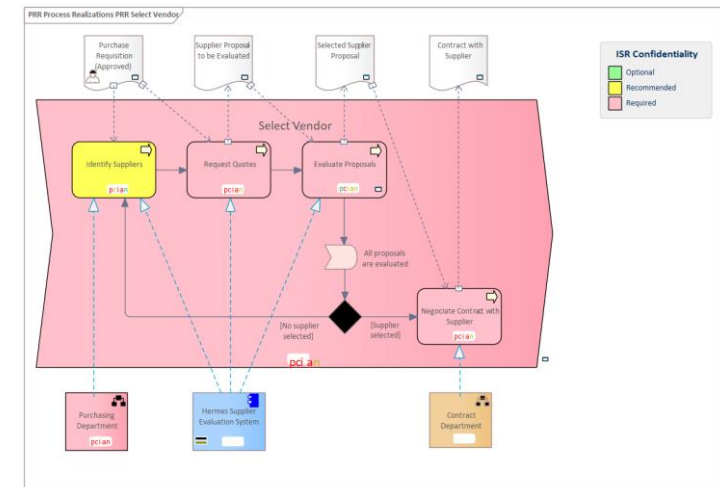
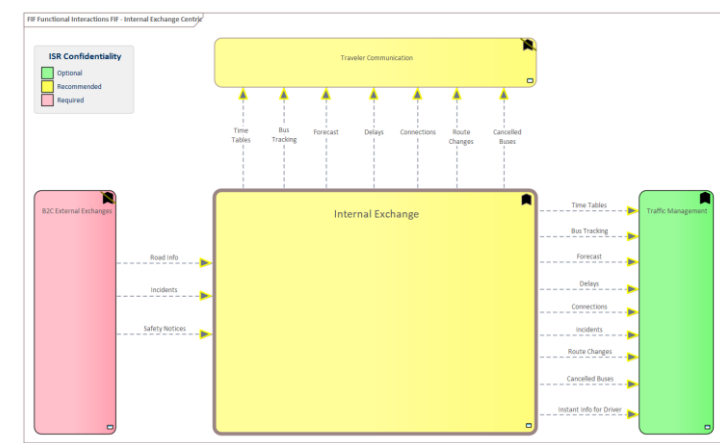
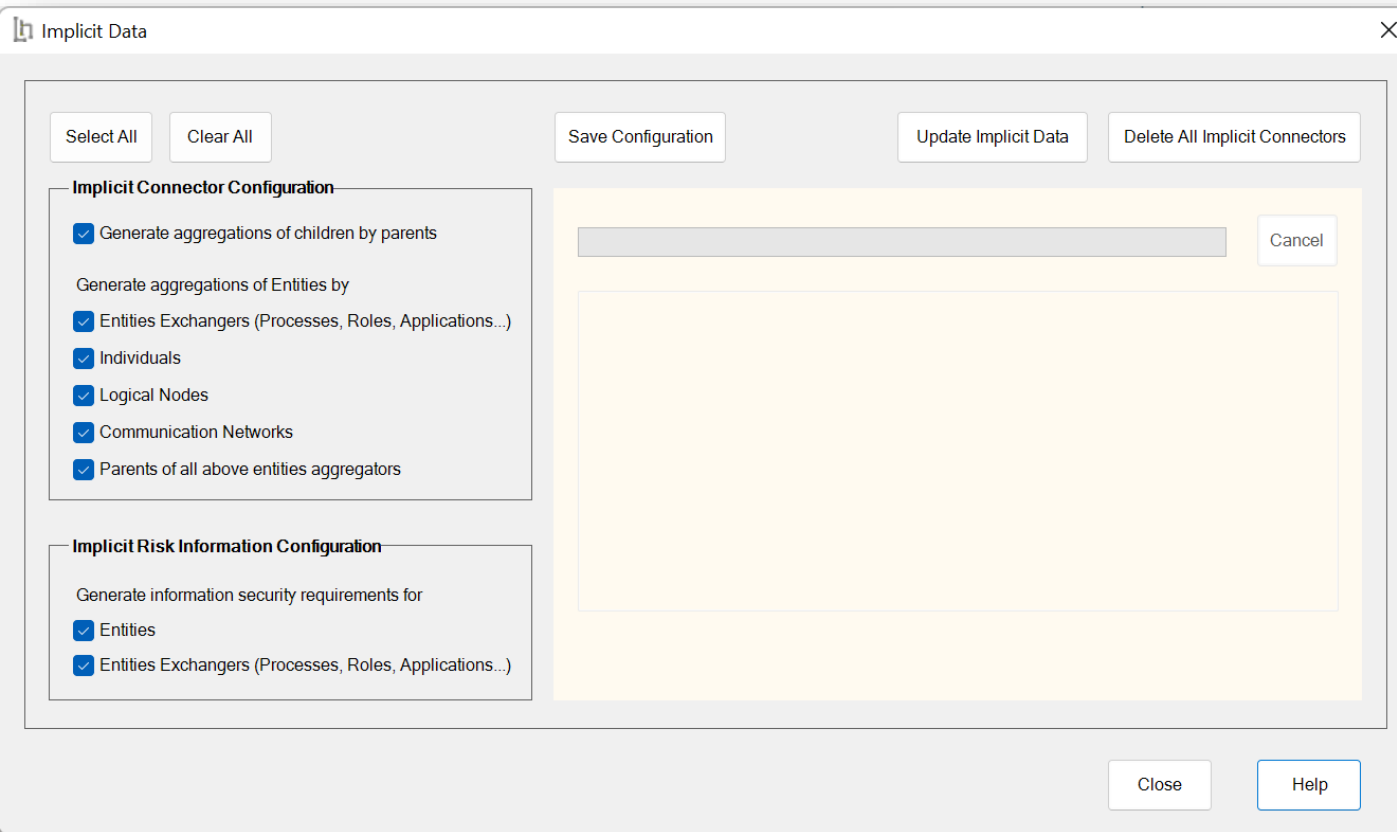
The generated connectors are aggregations.



GenerateImplicitData

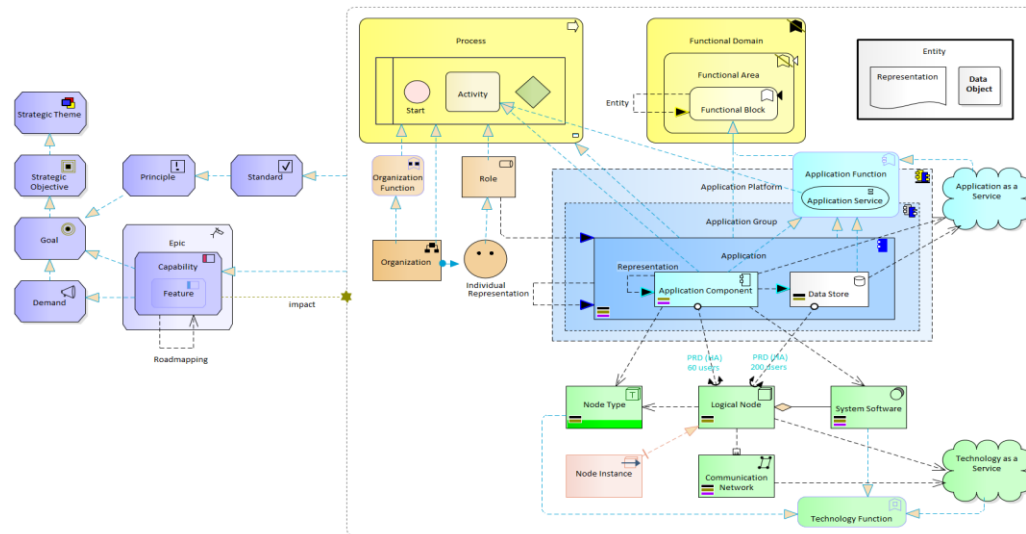
Implicit Data Generation is configured using Labnaf AddIn user interface

See [Implicit Data Generation on the Guidance Web Site](#)



Validate

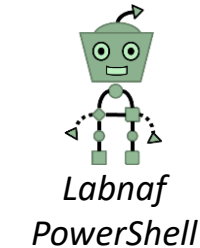
The Language Metamodel is used both for documentation & automatic model validation



While Modeling

Existing Invalid Connectors

Prevent creation of invalid connectors



Send Error Emails to Relevant Recipients



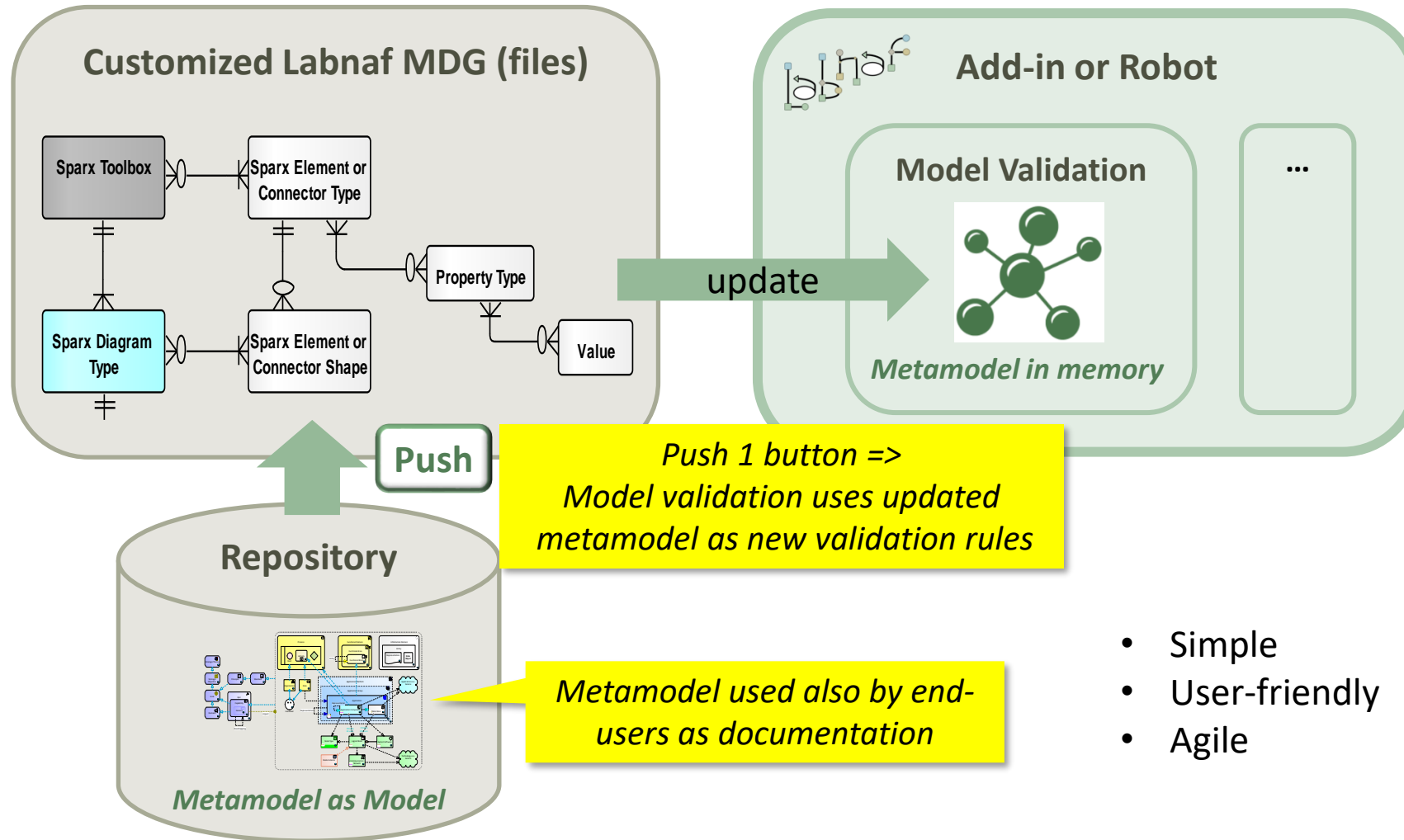
Why do we need periodical validation?

How could we have errors if we prevent users from entering errors?

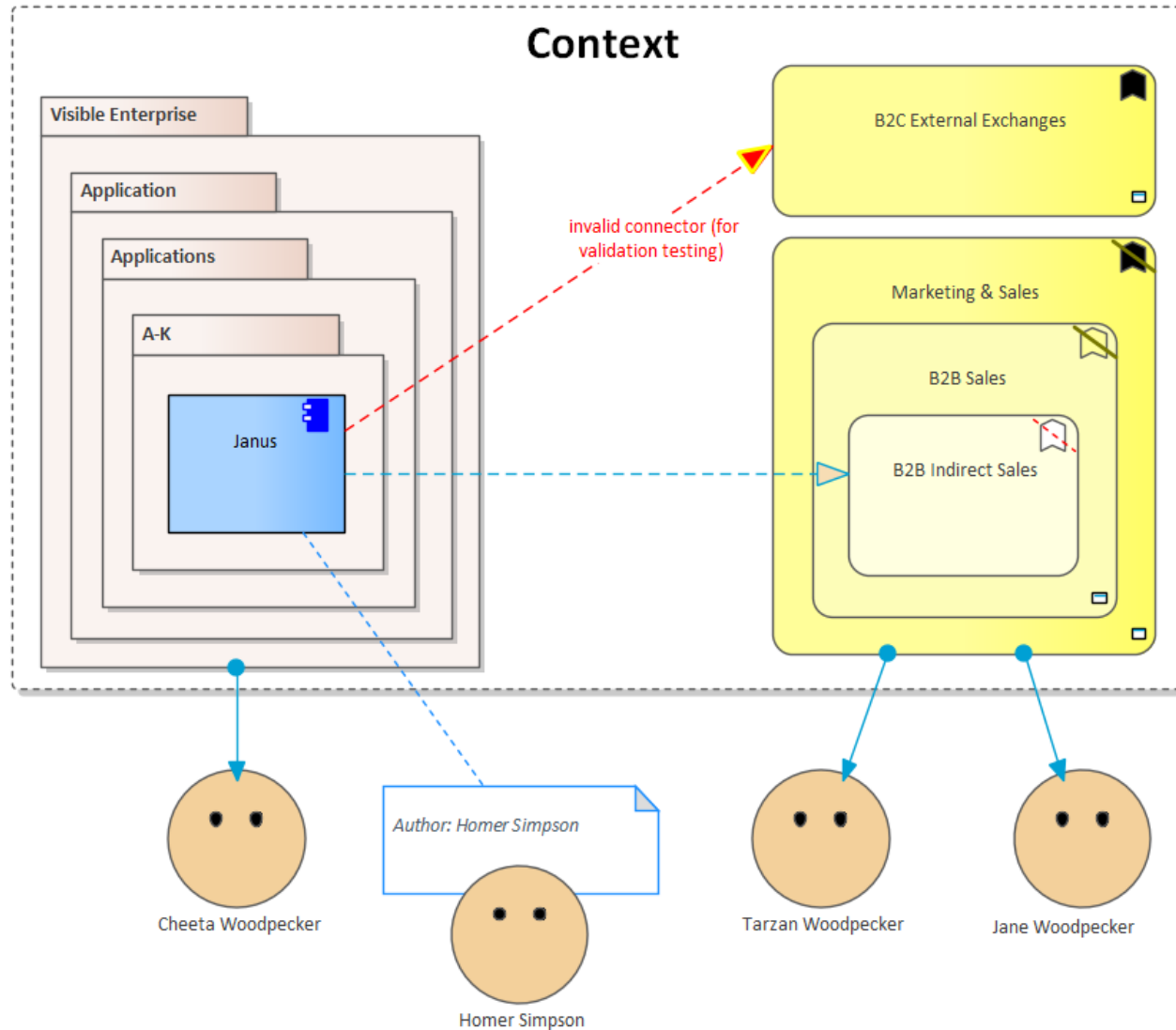
- At the beginning, informal (invalid) models can be imported and their language can be transformed e.g. from ArchiMate to Labnaf.
- Then, every time you update the metamodel to adapt to your enterprise specificities, some existing model repository content becomes invalid... according to your new rules.



The default metamodel can be very easily updated:
One click on a connection in your production repository.



Error message routing is based on architecture management assignments



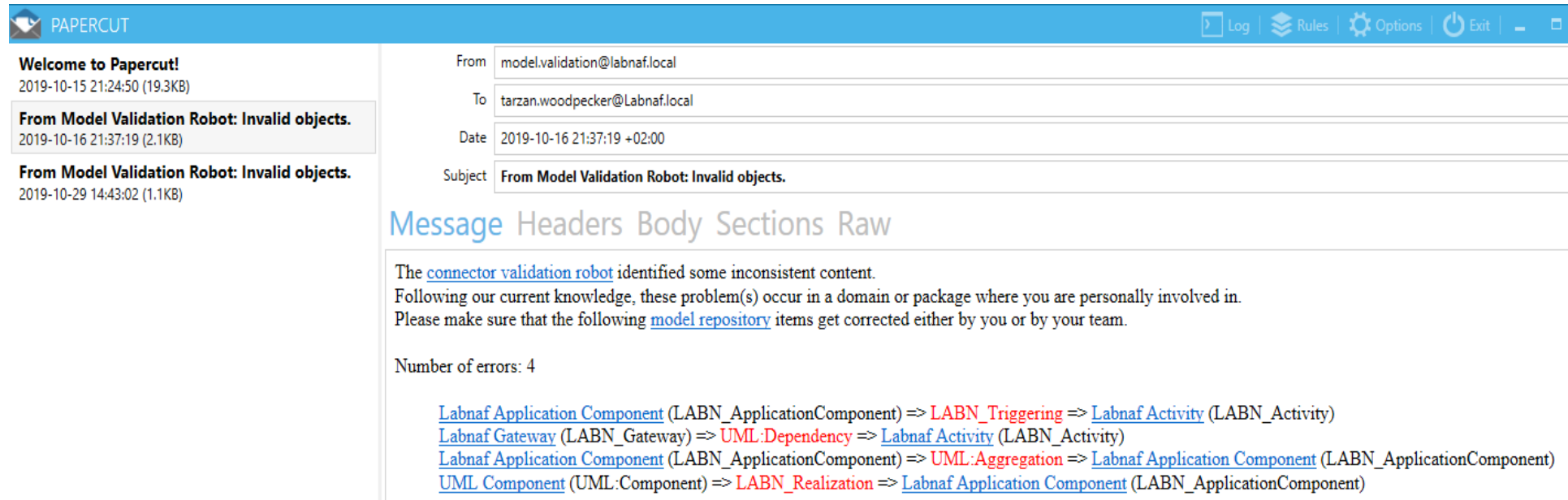
Error message distribution depends on

- recent authors
- individuals assigned to packages
- individuals assigned to domains
- default recipients
- and rules that you can use to combine these different combinations

The catalog of individuals includes email addresses



Sample error message sent to an assigned individual



The screenshot shows the Papercut email client interface. The top bar includes the Papercut logo and navigation icons for Log, Rules, Options, and Exit. The left sidebar displays a list of messages, with the selected one being "From Model Validation Robot: Invalid objects." dated 2019-10-16 21:37:19 (2.1KB). The main pane shows the email headers and body. The subject is "From Model Validation Robot: Invalid objects." The body text states that the connector validation robot identified inconsistent content and lists four specific errors related to Labnaf Application Component, Labnaf Gateway, and UML Component relationships.

Message Headers

From: model.validation@labnaf.local
 To: tarzan.woodpecker@Labnaf.local
 Date: 2019-10-16 21:37:19 +02:00
 Subject: From Model Validation Robot: Invalid objects.

Message Body

The [connector validation robot](#) identified some inconsistent content. Following our current knowledge, these problem(s) occur in a domain or package where you are personally involved in. Please make sure that the following [model repository](#) items get corrected either by you or by your team.

Number of errors: 4

- [Labnaf Application Component](#) (LABN_ApplicationComponent) => [LABN_Triggering](#) => [Labnaf Activity](#) (LABN_Activity)
- [Labnaf Gateway](#) (LABN_Gateway) => [UML:Dependency](#) => [Labnaf Activity](#) (LABN_Activity)
- [Labnaf Application Component](#) (LABN_ApplicationComponent) => [UML:Aggregation](#) => [Labnaf Application Component](#) (LABN_ApplicationComponent)
- [UML Component](#) (UML:Component) => [LABN_Realization](#) => [Labnaf Application Component](#) (LABN_ApplicationComponent)



Validation rules can be further customized

```

<ValidationConfiguration xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd=
"http://www.w3.org/2001/XMLSchema">
  <SelectElementsInScope>
    SELECT * FROM t_object WHERE stereotype like 'LABN_%' AND Package_ID IN (SELECT PDATA1
    from t_object where Object_Type='Package' and Stereotype like 'LNCAT_%') ORDER BY Name
  </SelectElementsInScope>
  <Sender>model.validation@labnafdemo.com</Sender>
  <SendTo>
    <FirstAvailableAlternativeOnly>true</FirstAvailableAlternativeOnly>
    <PeopleAssignedToDomain>true</PeopleAssignedToDomain>
    <AuthorDuringMonthsAfterElementCreated>120</AuthorDuringMonthsAfterElementCreated>
    <PeopleAssignedToPackage>true</PeopleAssignedToPackage>
    <DefaultEmailAddresses>lisa.simpson@labnaf.local</DefaultEmailAddresses>
  </SendTo>
  <PublishedRepositoryWebSiteUrl>http://localhost/guidance</PublishedRepositoryWebSiteUrl>
  <DocumentationReferences>
    <GuidanceWebSiteUrl>http://www.Labnaf.one/guidance</GuidanceWebSiteUrl>
    <DiagramGuids>
      <ConnectorValidation>{269E2D0C-3B9E-4d85-915A-87905EB7271F}</ConnectorValidation>
      <ModelRepository>{EF41E336-AC6B-4407-88D9-3ECC41725132}</ModelRepository>
    </DiagramGuids>
  </DocumentationReferences>
</ValidationConfiguration>

```

If you want to be specific about the elements to be validated. By default all Labnaf elements are validated.

Error messages are sent from this email address.

Who will receive the error messages.

Error messages contains urls to invalid elements. HTML publication should be scheduled as well



Smtp Server configuration is straightforward

```
<?xml version="1.0" encoding="utf-8"?>  
<SmtpServerConfiguration xmlns:xsi="http://w  
  <Host>127.0.0.1</Host>  
  <ClientPort>25</ClientPort>  
  <EnableSSL>>false</EnableSSL>  
  <UserName>alain@labnafdemo.com</UserName>  
  <Password></Password>  
</SmtpServerConfiguration>
```

Needed to send error messages to assigned individuals

To start validation:

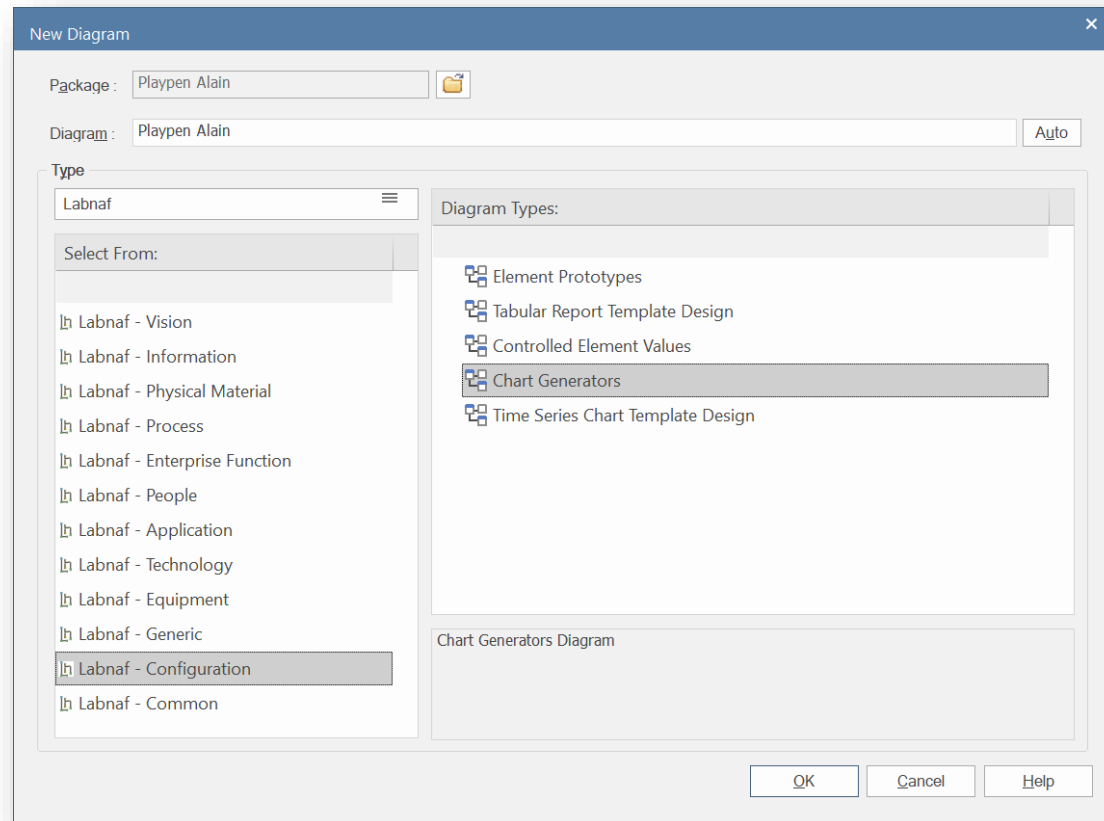
```
C:\A\LT\SparxDev\VSPProjects\Alain\LabNaf\PowerShell\bin\Release\Dotfuscator>lnps validate  
Command: Validate  
Description: Validate model repository.  
Usage : lnps Validate [arguments]  
Arguments:  
  RepoPathName: Repository path name (EAP file).  
  ValidationConfigurationFile: Path name of the model validation configuration file.  
  SmtpServerConfigurationFile: Path name of the SMTP Server configuration file.
```



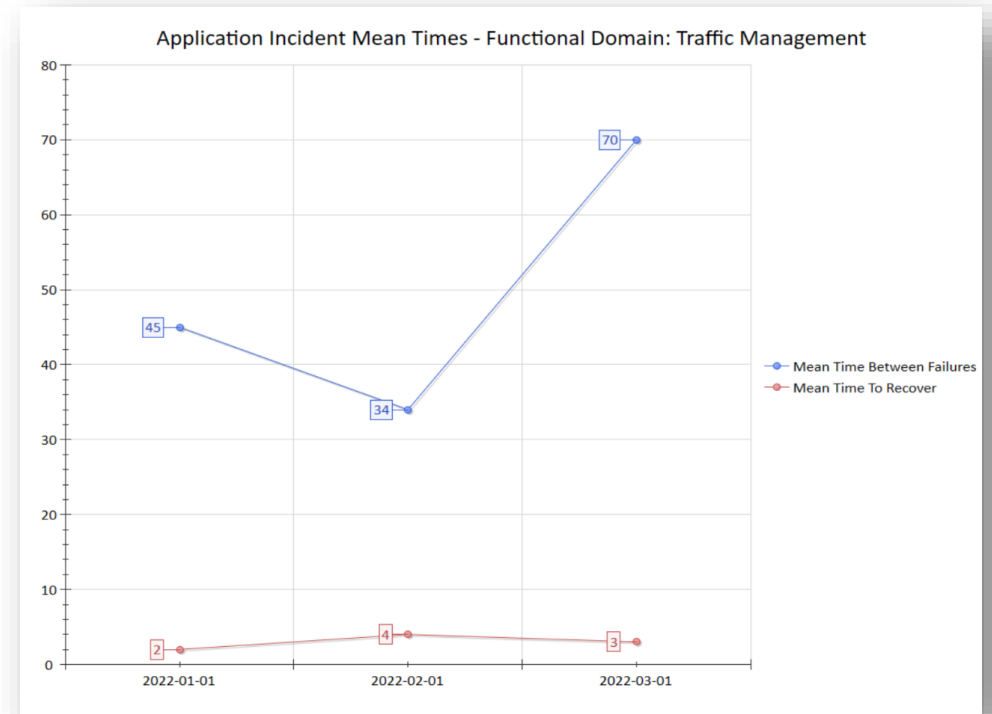
GenerateCharts

Labnaf comes with predefined chart templates, but you might want model your own chart templates

See [Chart Generation on the Guidance Web Site](#)



Sample Generated Time Series Chart



Generate Charts (cont.)

To start chart generation:

```
Command: GenerateCharts

Description: Generate charts for some configured types of element.
            The elements to be selected and the charts to be generated are all defined in the model repository.
            Chart Generator elements that have a name starting with "--" will be ignored.
Usage : "C:\Program Files (x86)\Labnaf\PowerShell\lnps.exe" GenerateCharts [arguments]

Arguments:
  RepoPathName: Repository path name (EAP file).
  [ElementPrototypeName]: A specific element stereotype for which charts must be generated.
  [TemplateChart]: The template chart name defining the type of chart diagram and chart element to be generated.
```

To delete all generated charts:

```
Command: DeleteGeneratedCharts

Description: Delete generated charts.
Usage : "C:\Program Files (x86)\Labnaf\PowerShell\lnps.exe" DeleteGeneratedCharts [arguments]

Arguments:
  SourceRepoPathName: Path name of the source repository (EAP file).
```



Enterprise Function Taxonomy & Applications Supporting Level 1

Marketing & Sales

- Multi-channel Sales
 - Order Management
- B2B Sales
 - B2B Indirect Sales
- B2C Sales
 - B2C Order Management
 - B2C Self-Service Channel
- B2I Sales
 - Bulk Distribution
 - Face-to-Face Distribution
- Sales Master Data Management
 - Pricing Management
 - Product Management

List of applications supporting the domain.

'Application Name'
Ares
Athena Cash Desk
Customer Mobile Application
Demeter
Hera
Janus
Jupiter Cash Desk
LOGIN B2B
Neptune
Venus Cash Desk
Zeus Pricing
Zeus Sales Records Management

Legend for Business Functions

Differentiator = ?	
= Y	
= N	

Externalized = Y	◀ Entirely externalized
= P	◀ Partially externalized
= N	Not externalized (default)

Nb of Applications / Business function

	0
	1
	2 or more

Other diagram(s) for this enterprise function:

[FULSales](#)

Applications managed by organizations

IT

- IT for IT
 - CMDB
 - Labnaf Powered by Enterprise Architect
- IT Marketing & Sales Apps
 - Athena Cash Desk
 - Customer Mobile Application

Application Lifecycle / Vision

- New
- Invest
- Maintain
- Phase Out
- ?

Other diagram(s) for this organization:

[Configuration](#)



Sample Diagram Templates

Enterprise Function Taxonomy & Applications Supporting Level 1

The screenshot displays the Labnaf software interface for the 'Applications Supporting Functional Domain' diagram template. On the left, a tree view shows the hierarchy: Configuration > Core Configuration > Diagram Generation > Diagram Templates > Applications Supporting Functional Domain. The selected item is 'FAL - Applications Supporting Functional Domain'. The main diagram area shows a 'Functional Domain' container with a 'Functional Area' and 'Functional Block' sub-elements. A table titled 'List of applications supporting the domain.' is present but empty. On the right, a legend defines business function attributes: 'Differentiator = ?' (Y for green, N for grey), 'Externalized = Y' (Entirely externalized), 'Externalized = P' (Partially externalized), and 'Externalized = N' (Not externalized/default). A color key indicates the number of applications per business function: 0 (red), 1 (grey), 2 or more (yellow). A link for 'Configuration' is also visible.

Applications managed by organizations

The screenshot displays the Labnaf software interface for the 'Applications Owned By Organization' diagram template. The left tree view shows: Applications Supporting Organization > OBO - Applications Owned By Organization > Organization1 > Organization2 > Organization3 > Organization4 > Organization5 > Application1-5. The main diagram area shows a nested structure of 'Organization1' through 'Organization5', each containing one or more application boxes (Application1-5). On the right, a legend titled 'Application Lifecycle / Vision' uses colored boxes to represent: New (yellow), Invest (green), Maintain (grey), Phase Out (pink), and ? (red). A link for 'Configuration' is also visible.



The screenshot displays a software interface for generating diagrams. On the left is a tree view under 'Configuration' with the following structure:

- Configuration
 - Labnaf Configuration
 - Core Configuration
 - Diagram Generation
 - Diagram Generation
 - Periodical Diagram Generation - Elements or Packages In Scope** (highlighted)
 - Diagram Templates
 - Applications Supporting Functional Domain
 - FAL - Applications Supporting Functional Domain
 - List of applications supporting the domain.
 - Functional Domain
 - Functional Area
 - Functional Block
 - Applications Supporting Functional Area
 - FAL - Applications Supporting Functional Area
 - Functional Area
 - Application2
 - Functional Block
 - Application1
 - Applications Supporting Organization
 - OBO - Applications Owned By Organization
 - Organization1
 - Organization2
 - Organization3
 - Organization4
 - Organization5
 - Application1
 - Application2
 - Application3
 - Application4
 - Application5

On the right, a panel titled 'Enterprise Functions' contains a list of functions, each with an unselected radio button:

- B2C External Exchanges
- B2B External Exchanges
- Information Management
- Internal Exchange
- Strategy, Legal Affairs, Risk & Compliance
- Traveler Communication
- Marketing & Sales
- Traffic Management
- Station Management
- Bus Route Planning
- Bus Maintenance
- Security
- HR & Corporate services
- Finance
- Supply Chain
- Information Technology

A yellow callout bubble points to this list with the text: **This is optional**
By default, all elements are selected from the related catalog



Generate Diagrams (cont.)

To start diagram generation:

```
Command: GenerateDiagrams
```

```
Description: Generate diagrams in a model repository.
```

```
Usage : lnps GenerateDiagrams [arguments]
```

```
Arguments:
```

```
    RepoPathName: Path name (EAP file) of the repository where the diagrams must be generated.
```

```
    GenerationScopeDiagramGUID: A diagram containing organizations elements and/or a package of enterprise functions for which diagram generation is required.
```



Generate Tabular Report (cont.)

Labnaf comes with many tabular report templates, but you might want model your own templates

See the **Tabular Report Generation** [User Guide document](#) and the [examples on the Guidance Web Site](#)

To start tabular report generation:

```
Command: GenerateTabularReports

Description: Generate spreadsheets from a model repository based on configuration stored in that
same repository.

Usage : lnps GenerateTabularReports [arguments]

Arguments:

    SourceRepoPathName: Path name of the source model repository (EAP file).

    OutputDirectoryPath: Directory path name where the spreadsheets must be generated.The name of
each spreadsheet file is the name of the template report.

    [ElementPrototypeName]: The name of a specific element prototype name for which all embedded
tabular report templates must be applied.

    [TabularReportTemplateName]: The name of a specific tabular report template to be applied.
```

By default, all scheduled report templates will be applied. But you can also be specific.

When a report template name ends with ‘.CSV’ a CSV file is generated instead of Excel.



Generate Tabular Report (cont.)

To start tabular report generation:

```
Command: GenerateTabularReports
```

```
Description: Generate spreadsheets from a model repository based on configuration stored in that same repository.
```

```
Usage : Inps GenerateTabularReports [arguments]
```

```
Arguments:
```

```
    SourceRepoPathName: Path name of the source model repository (EAP file).
```

```
    OutputDirectoryPath: Directory path name where the spreadsheets must be generated. The name of each spreadsheet file is the name of the template report.
```

```
    [ElementPrototypeName]: The name of a specific element prototype name for which all embedded tabular report templates must be applied.
```

```
    [TabularReportTemplateName]: The name of a specific tabular report template to be applied.
```

By default, all report templates will be applied. But you can also be specific.

When a report template name ends with '.CSV' a CSV file is generated instead of Excel.



GenerateDoc

(Word, RTF, PDF)

To start document generation:

Command: `GenerateDoc`

Description: `Generate a Word, RTF or PDF document from a model repository package.`

Usage : `lnps GenerateDoc [arguments]`

Arguments:

`SourceRepoPathName`: Path name of the source model repository (EAP file).

`OutputPath`: Path name of the document file to be generated.

The file extension specified will determine the format of the generated document - for example, RTF, PDF

`PackageGuid`: The GUID of the package or master document to run the report on.

`TemplateName`: The document report template to use; if the PackageGUID has a stereotype of MasterDocument, the template is not required.



GenerateHtml

To start HTML generation:

Command: `GenerateHTML`

Description: Generate an HTML web site from a model repository package.

Usage : `lnps GenerateHTML [arguments]`

Arguments:

`SourceRepoPathName`: Path name of the source model repository (EAP file).

`OutputPath`: The path of the file system folder where the HTML pages must be generated.

`SourcePackageGUID`: The GUID of the repository package for which HTML must be generated.

`[WebSiteTemplateName]`: The optional name of a web style template used for HTML generation (default=Sparx EA default template).

On the web site, you can email a stable link to the current page by clicking on the little envelope.



BackupToFile

To start the backup to a file:

Command: BackupToFile

Description: Backup a DBMS repository to a file-based Repository (.eap, .eapx, .eadb, .feap).

Usage : "C:\Program Files\Labnaf\PowerShell\lnps.exe" BackupToFile [arguments]

Arguments:

SourceRepoPathName: Path name of the source repository (EAP file containing a connection string).

DestPathName: Path name of the destination file-based repository (.eap, .eapx, .eadb, .feap).

[DetailedLogFilePath]: Alternative path for the detailed log file (supersedes the default detailed log file path)

SourceRepoPathName (EAP) must point to a DBMS repository



ScheduleCommand

Alternatives to « ScheduleCommand » (If you prefer):

- **Windows Task Scheduler** (<https://docs.microsoft.com/en-us/dynamics365/business-central/dev-itpro/developer/devenv-task-scheduler>)
- **Your company standard scheduler**

To schedule a **nightly** command **starting at midnight**:

- **InitialStartTime = 00:00:00** **Don't schedule 2 commands starting exactly at the same time**
- **PeriodAsMinutes = 1440** There are 1440 minutes in one day

To start the scheduler:

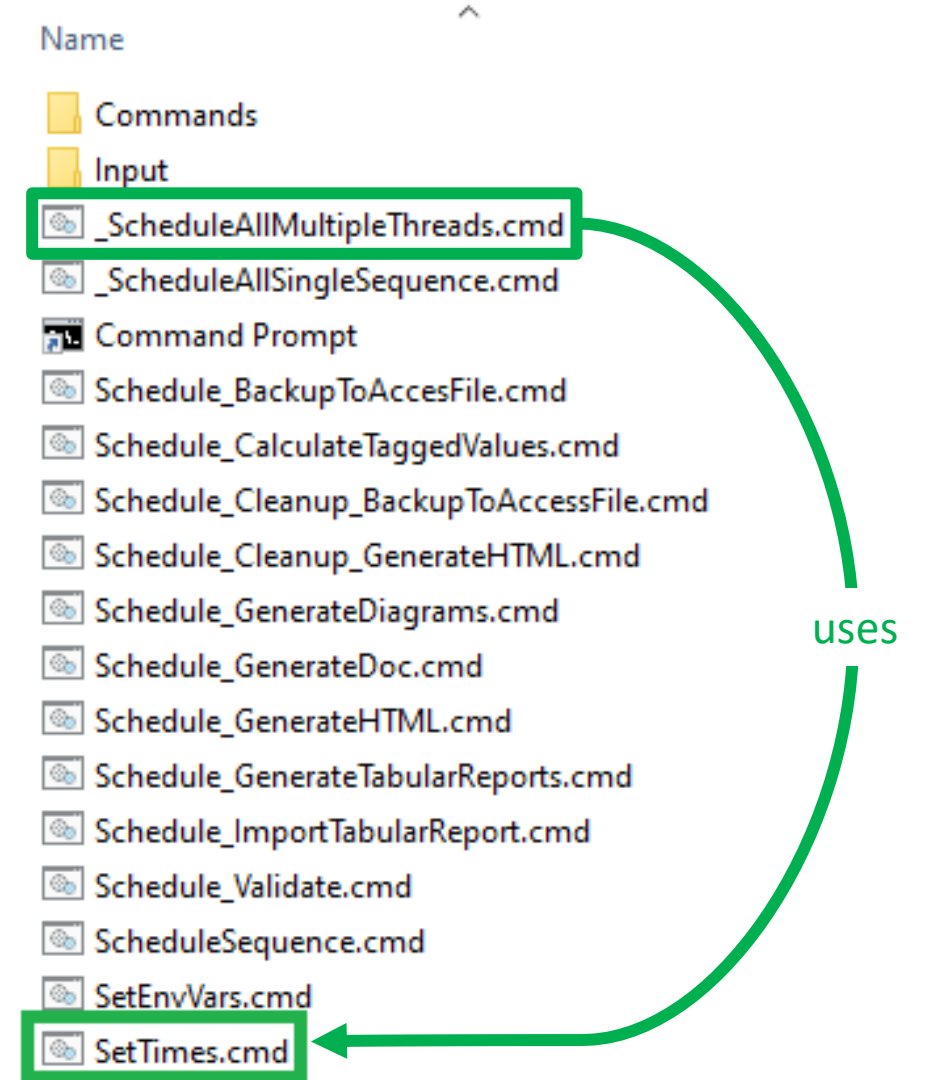
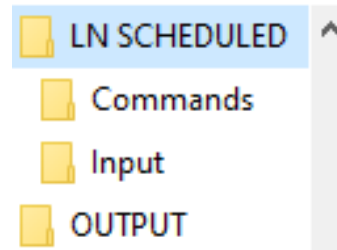
```
Command: ScheduleCommand
Description: Schedule a task to run periodically starting at a specific time.
Usage : Inps ScheduleCommand [arguments]
Arguments:
    CommandPathName: Path name of the command that needs to be periodically started (.cmd or .bat).
    InitialStartTime: The initial start time for the task (HH:MM:SS).
    [PeriodAsMinutes]: The length of a period expressed in minutes.
```



Final Recommendation in case you use "ScheduleCommand"

- Use the preconfigured batches and settings

```
SetTimes.cmd
1 REM -- SINGLE START TIME --
2 Set StartTime_AllSingleSequence=00:00:00
3
4
5 REM -- SPECIFIC START TIME FOR EACH TASK --
6
7 Set StartTime_Cleanup_BackupToAccessFile=22:00:00
8 Set StartTime_Cleanup_GenerateHTML=22:00:05
9
10 Set StartTime_ImportTabularReport=22:30:00
11
12 Set StartTime_CalculateTaggedValues=23:00:00
13 Set StartTime_GenerateDiagrams=23:30:00
14
15 Set StartTime_BackupToAccessFile=00:00:00
16 Set StartTime_Validate=01:00:00
17
18 Set StartTime_GenerateTabularReports=02:00:00
19 Set StartTime_GenerateDoc=02:30:00
20 Set StartTime_GenerateHTML=03:00:00
21
22
23 REM -----
24
25 set SCHEDULED_MINUTES_UNTIL_RESTART=1440
```



- Take computer reboots into account



Labnaf PowerShell Commands

1. Overview
2. Strategy and Architecture Operations
3. Systems Integrations and Content Refactoring
4. Command Compatibility Matrix



Labnaf PowerShell commands for Systems integrations and content refactoring

- ClonePackage
- CreatePackage
- ExportToXmi
- ImportConnections
- ImportFromXmi
- ImportTabularReport
- MoveElementsToCalculatedParent
- MoveElementsToPackage
- MovePackagesToPackage
- RenameItem
- ScheduleCommand
- SetDiagramProperty
- SqlExportToCsv

Detailed information in the
Labnaf PowerShell Reference Guide

Latest version:

https://www.labnaf.one/EndUserMaterial/Labnaf_PowerShell/Labnaf%20PowerShell%20-%20Reference%20Guide.pdf



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Labnaf PowerShell Command Compatibility Matrix

Legend

-> UI : Use the Labnaf AddIn
i.e. the user interface

| Power Shell Commands | Sql Server | Pro Cloud Server | Access |
|--------------------------------|------------|------------------|--------|
| AutoConnectorsDelete | X | X | -> UI |
| AutoConnectorsGenerate | X | X | -> UI |
| BackupToFile | X | X | |
| CalculateTaggedValues | X | X | |
| ClonePackage | X | X | X |
| CreatePackage | X | X | X |
| ExportToXmi | X | X | X |
| GenerateCharts | X | X | X |
| GenerateDiagrams | X | X | |
| GenerateDoc | X | | |
| GenerateHTML | X | | |
| GenerateImplicitData | X | X | |
| GenerateTabularReports | X | X | X |
| ImportConnections | X | X | |
| ImportFromXmi | X | X | X |
| ImportTabularReport | X | X | -> UI |
| MoveElementsToCalculatedParent | X | X | X |
| MoveElementsToPackage | X | X | X |
| MovePackagesToPackage | X | X | X |
| RenameItem | X | X | X |
| ScheduleCommand | X | X | X |
| SetDiagramProperty | X | X | X |
| SetProperty | X | X | X |
| SqlExportToCsv | X | X | X |
| Validate | X | X | X |

