

LABNAF 7 PowerShell Reference Guide

Contents

Related Resources	2
Labnaf PowerShell and Labnaf PowerScripts	3
Overview.....	3
Labnaf PowerShell Examples	4
Run the script only ones	4
Run and restart the script after 120 seconds; Stop restarting after 720 minutes following the initial start	4
Every morning at 8:00:00, run the script and restart 120 seconds after completion; Stop restarting after 720 minutes following the initial start i.e. at 20:00:00	4
Sample Contents of ' Enrich_And_Distribute_Architecture_Data.ipsc ' PowerShell file.....	4
SMTP Server Configuration File	5
Labnaf PowerShell Commands	6
Commands qualified as "(Labnaf)" are, for the time being, compatible with the Labnaf language only.	6
AutoConnectorsDelete (Labnaf).....	6
AutoConnectorsGenerate (Labnaf)	6
BackupToFile / BackupToAccessFile	6
BackupToZipFile.....	6
CalculateTaggedValues.....	7
ClonePackage	7
CreatePackage	7
DeleteGeneratedCharts.....	8
DeleteGeneratedDiagrams.....	8
DeleteImportedConnections	8
DeleteSelectedElements.....	8
ExitOnError	9
ExportToXmi	9
GenerateCharts	9
GenerateDiagrams (Labnaf)	9
GenerateDoc	10
GenerateHTML	10
GenerateImplicitData (Labnaf)	10
GenerateTabularReports (Labnaf).....	11
ImportConnections.....	11

ImportFromXmi	12
ImportTabularReport.....	13
MoveElementsToCalculatedParent.....	14
MoveElementsToPackage	14
MovePackagesToPackage.....	14
RenameItem	15
ScheduleCommand.....	15
Set.....	15
SetDiagramProperty	16
SqlExportToCsv	16
SetProperty.....	16
UpdateAllDiagramImages.....	17
Validate (Labnaf)	17

Related Resources

- **Labnaf PowerShell User Guide:** https://www.labnaf.one/EndUserMaterial/Labnaf_PowerShell/Labnaf%20PowerShell%20-%20User%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 and Labnaf PowerScripts

Overview

- “LNPS” is the name of the **Labnaf PowerShell program**. Full path is “C:\Program Files\Labnaf\PowerShell\lnps.exe”
- You can either execute commands from a Windows script file (.cmd),
or you can execute multiple commands from a **Labnaf PowerScript file** (.lpsc) as detailed below.

LABNAF POWERSCRIPT FILE USAGE : lnps {labnaf_PowerScript.lpsc} {RepoPathName} [SecondsBeforeRestart]
[MaxMinutesRestartAfterFirstRun]

DESCRIPTION: This executes commands from a '{LabnafScriptFileName}.lpsc' file within a single Sparx EA session.
All commands refer to the same repository {RepoPathName} specified in the Windows command line,
so there's no need to include a repository argument inside the Labnaf PowerScript file itself.

If specified, the script will run iteratively:

- Resumes after {SecondsBeforeRestart}
- Concludes after {MaxMinutesRestartAfterFirstRun}

If only {SecondsBeforeRestart} is provided, the script continues until halted by the admin via the ESC key in the console window.

- **Commands and script files:** the first LNPS argument is either a Labnaf PowerShell command or a Labnaf PowerScript file which contains Labnaf commands. Labnaf PowerScript file names have a “.lpsc” extension.
- **Variables:** Labnaf PowerScript files can set and use environment variables. **SQL queries** that are used by the PowerScript commands can also use these variables.

Example:

```
GenerateTabularReports %OUTPUT_DIR% Capability /* OUTPUT_DIR is variable that was set earlier */  
GenerateTabularReports %OUTPUT_DIR% LBN_Application "Application List[CP=utf-8].CSV"
```

- **Log files:** Commands execution yields log files (in addition to standard output).
Each log file name includes a time stamp, the name of the command or of the Labnaf PowerScript, and additional context when applicable.

The log directory path is specified by the “OUTPUT_DIR” environment variable. By default, the provided Windows command scripts (.cmd) set the following value to this variable: “...Labnaf_PowerShell\SCHEDULED\Output”.

If the environment variable “OUTPUT_DIR” is not set then log files are created in “...\\Desktop\\Labnaf_Cmd_Output\\Log”.

If the first LNPS argument is a single Labnaf PowerShell command, then a log file is generated for the execution of that command.

If, instead, the first LNPS argument is a Labnaf PowerScript file (.lpsc) then a single log file is generated for the complete execution of the PowerScript. The single log file then provides information about the execution of all commands included in the Labnaf PoweScript file.

Labnaf PowerScript Examples

Run the script only ones

"C:\Program Files\Labnaf\PowerShell\Inps.exe" **Enrich_And_Distribute_Architecture_Data.ipsc** Repository.eap

Run and restart the script after 120 seconds; Stop restarting after 720 minutes following the initial start

"C:\Program Files\Labnaf\PowerShell\Inps.exe" **Enrich_And_Distribute_Architecture_Data.ipsc** Repository.eap **120 720**

Every morning at 8:00:00, run the script and restart 120 seconds after completion; Stop restarting after 720 minutes following the initial start i.e. at 20:00:00

NB: One day = 1440 minutes; 12 hours = 720 minutes.

"C:\Program Files\Labnaf\PowerShell\Inps.exe" **ScheduleCommand RunScript.cmd 08:00:00 1440**

Content of **RunScript.cmd**: "...\\Inps.exe" **Enrich_And_Distribute_Architecture_Data.ipsc** Repository.eap **120 720**

Sample Contents of '**Enrich_And_Distribute_Architecture_Data.ipsc**' PowerScript file

```
// Labnaf PowerScript File
/* Can include comments using common programming language delimiters.
   There is no parameter specifying the applicable repository since the repository is open once for the entire script */

ExitOnError

ImportTabularReport "..\Input\ImportTabularReport\Import - Application Incident History.xlsx" - LABN_Application

GenerateImplicitData

CalculateTaggedValues

GenerateDiagrams "{8D6CDB63-5FC3-4714-9BA3-440E94E41907}"

BackupToZipFile "%OUTPUT_DIR%\RepositoryBackups" "%OUTPUT_DIR%\Tmp"

Validate "..\Input\Validate\ValidationConfigs.xml" "..\Input\Validate\SmtpServerConfig.xml"

GenerateTabularReports "..\Output"

GenerateDoc "..\Output\GeneratedDocument.docx" "{E07513A3-0C37-42a9-8F3C-AE7AD3A61715}" "Generic Report -
Diagrams Only"

GenerateHTML "..\Output\HTML" "{E07513A3-0C37-42a9-8F3C-AE7AD3A61715}" LABN
```

SMTP Server Configuration File

Some commands like **ExitOnError** and **Validate** can generate email error messages to specific users.

These commands require a SMTP server configuration file path to be specified as an argument on the command line.

This configuration file is an xml file, for example “SmtpServerConfig.xml”.

The format of the configuration file follows the following pattern:

```
<?xml version="1.0" encoding="utf-8"?>
<SmtpServerConfiguration xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
<Host>127.0.0.1</Host>
<ClientPort>25</ClientPort>
<EnableSSL>false</EnableSSL>
<UserName>alain@labnafdemo.com</UserName>
<Password></Password>
</SmtpServerConfiguration>
```

Labnaf PowerShell Commands

Commands qualified as “(Labnaf)” are, for the time being, compatible with the Labnaf language only.

AutoConnectorsDelete (Labnaf)

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

Usage: LNPS AutoConnectorsDelete [arguments]

Arguments:

- **RepoPathName:** Path name of the source repository (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **

AutoConnectorsGenerate (Labnaf)

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: LNPS AutoConnectorsGenerate [arguments]

Arguments:

- **RepoPathName:** Path name of the source repository (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **

BackupToFile / BackupToAccessFile

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

Usage: LNPS BackupToFile [arguments]

Arguments:

- **RepoPathName:** Path name of the source database repository (EAP file containing a connection string). ** NOT NEEDED IN A LABNAF POWERSCRIPT FILE (.lpsc) **
- **DestPathName:** Path name of the destination file-based repository (.qea, .qeax, .feap, eadb, .eap, .eapx,).
- **DetailedLogFilePath:** Alternative path for the detailed log file (supersedes the default detailed log file path).

BackupToZipFile

Description: Backup a DBMS repository to a date-stamped, zipped .qea file.

Usage: LNPS BackupToZipFile [arguments]

Arguments:

- **RepoPathName:** Path name of the source database repository (EAP file containing a connection string). ** NOT NEEDED IN A LABNAF POWERSCRIPT FILE (.lpsc) **
- **OutputDir:** Output directory.
- **TmpDir:** Directory used for temporary files.
- **DetailedLogFilePath:** Alternative path for the detailed log file (supersedes the default detailed log file path).

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.

Periodical Value Calculation elements that have a name starting with "--" will be ignored.

Usage: LNPS CalculateTaggedValues [arguments]

Arguments:

- **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **[ElementPrototypeName]:** A specific element stereotype for which tagged values must be calculated.
- **[TagName]:** The name of a specific tagged value that must be calculated.

ClonePackage

Description: Create a clone of a source package and make it a child of a target parent package.

Usage: LNPS ClonePackage [arguments]

Arguments:

- **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **SourcePackageGUID:** The GUID of the package to be cloned.
- **TargetParentPackageGUID:** The GUID of the parent package where the source package must be cloned as a child.
- **[NewPackageName]:** An optional name for the new package. By default it is the same name as the source package to be cloned

CreatePackage

Description: Create a package, with an optional stereotype, and make it a child of a target parent package then send the guid of the new package to the output

Usage: LNPS CreatePackage [arguments]

Arguments:

- **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **TargetParentPackageGUID:** The GUID of the parent package where the source package must be cloned as a child.
- **NewPackageName:** The name of the new package to be created.

- **[Stereotype]**: An optional package stereotype to be set. If no stereotype must be set then use '-' instead.
- **[OutputStringWithOptionalPackageGUIDVariable]**: An optional string containing the variable {PackageGUID} which will be replaced by the GUID of the new package.
 - The resulting string will then be sent to the output.
 - This can be used to create a command that sets an environment variable to the new package GUID.

DeleteGeneratedCharts

Description: Delete generated charts.

Usage: LNPS DeleteGeneratedCharts [arguments]

Arguments:

- **RepoPathName**: Path name of the source repository (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **

DeleteGeneratedDiagrams

Description: Delete generated diagrams.

Usage: LNPS DeleteGeneratedDiagrams [arguments]

Arguments:

- **RepoPathName**: Path name of the source repository (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **

DeleteImportedConnections

Description: Delete imported connections.

To prevent any error from causing damage, this command can only delete imported connections.

Usage : LNPS DeleteImportedConnections [arguments]

Arguments:

- **RepoPathName**: Repository path name (EAP file). ** NOT NEEDED IN A LABNAF POWERSCRIPT FILE (.lpsc) **
- **ALL | Unlabeled | Label={Label} | SqlFileName={SqlFileName}**: Defines which imported connections will be deleted.
 - **All**: Delete all (labeled or unlabeled) imported connections.
 - **Unlabeled**: Delete unlabeled imported connections.
 - **Label={Label}**: Delete imported connections labeled {Label} (see ImportConnections).
 - **SqlFileName={SqlFileName}**: Delete imported connections selected by a query stored in a file.
The query is expressed as a SQL statement selecting the IDs of the connections to be deleted.

DeleteSelectedElements

Description: Delete elements selected by a SQL SELECT command stored in a file. To prevent any error from causing damage, this command can only delete generated or imported elements.

Arguments:

- **RepoPathName**: Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **SqlSelectElementIDsFileName**: The path name of a file that contains a SQL statement to select the element IDs of the elements to be deleted

ExitOnError

Description: When an error is encountered, exit the current script, and optionally send an error email.

Either all email parameters or no email parameter need to be provided.

This command is applicable to Labnaf PowerScripts only.

Usage : LNPS ExitOnError [arguments]

Arguments:

[ErrorMessageSender={ErrorMessageSender}]: On error, a message will be sent from this sender email.

[ErrorMessageSendTo={ErrorMessageSendTo}]: On error, a message will be sent to these email recipients.

[SmtpServerConfigFile={SmtpServerConfigFile}]: Path name of the SMTP Server configuration file.

For further information about the content of the SMTP Server configuration file, please read the section called “SMTP Server Configuration File” in the present document.

ExportToXmi

Description: Export a package to an XMI file.

Usage: LNPS ExportToXmi [arguments]

Arguments:

• **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **

• **SourcePackageGUID:** The GUID of the package to be cloned.

• **DestXMIFilePath:** The full path of the XMI file to be created.

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: LNPS GenerateCharts [arguments]

Arguments:

RepoPathName: Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **

[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.

GenerateDiagrams (Labnaf)

Description: Generate diagrams in a model repository.

Usage: LNPS GenerateDiagrams [arguments]

Arguments:

- **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **GenerationScopeDiagramGUID:** A diagram containing organizations elements and/or a package of enterprise functions for which diagram generation is required.

GenerateDoc

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

Usage: LNPS GenerateDoc [arguments]

Arguments:

- **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **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

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

Usage: LNPS GenerateHTML [arguments]

Arguments:

- **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **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=Spax EA default template).

GenerateImplicitData (Labnaf)

Description: Generate implicit data 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.
- risk information for entities and for elements that are, directly or indirectly, exchanging entities.

See 'Implicit Data' on the Labnaf guidance web site to learn more about enabling and disabling options.

Usage: LNPS GenerateImplicitData [arguments]

Arguments:

RepoPathName: Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **

GenerateTabularReports (Labnaf)

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

Tabular report templates that have a name starting with “—” will be ignored.

Usage: LNPS GenerateTabularReports [arguments]

Arguments:

- **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **OutputDirectoryPath:** Directory path name where the spreadsheets must be generated.
 - The name of each spreadsheet file is the name of the template report.
- **[ElementPrototype]:** A specific element prototype name, a stereotype or a friendly stereotype name (e.g. 'Application') for which all or specific tabular report templates must be applied.
- **[TabularReportTemplateName]:** The name of a specific tabular report template to be applied.

By default, the resulting file is in Excel format.

To generate a CSV, add a '.CSV' extension to the tabular report template name.

The name of the CSV file can define the CSV character encoding and column delimiter.

The syntax is: '...[CP={code page number or name};DELIM={COMMA|SEMICOLON|TAB|SPACE|a character code number}]...CSV

If no format is specified in the file name, then the default values are '[CP=utf-8;DELIM=COMMA]'

For further information, see '[Inbound/Outbound Content Formatting](#)' on the Guidance Web Site

ImportConnections

Description: Import connections from a CSV or Excel file.

Identify the 'From' and 'To' elements to be connected using

- EITHER the element guid,
- OR an optional element stereotype + a unique key that can be a property or tagged value. 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 connection if unique elements are found for the two sides of the connection.

In the input file, the first line can contain the following headers:

ConnectorType,
ConnectorStereotype,
From#Type,
From#Stereotype,
From#GUID,
From#Name,
From#MyUniqueKey,
From#Alias,
To#Type,
To#Stereotype,
To#GUID,
To#Name,

```
To#MyUniqueKey,  
To#Alias
```

Providing either the ConnectorType or the ConnectorStereotype is mandatory so that the connectors can be created. Same for the From and Target element types.

The stereotype suffices for languages known by the Labnaf PowerShell, as it will derive the type from the stereotype.

If a field name mapping file (CSV) is provided, the first line must contain the following headers:

```
Input_Column_Names, Target_Column_Names
```

Usage: LNPS ImportConnections [arguments]

Arguments:

- **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **SourceFile:** A CSV or Excel file containing the data that needs to be imported.
 - The name of the CSV file can define the CSV character encoding and column delimiter.
 - The syntax is: '...[CP={code page number or name};DELIM={COMMA|SEMICOLON|TAB|SPACE|a character code number}]...CSV
 - If no format is specified in the file name, then the default values are '[CP=utf-8;DELIM=COMMA]'
 - For further information, see '[Inbound/Outbound Content Formatting](#)' on the Guidance Web Site.
- **[ColumnMappingFile]:** An optional CSV file containing the mapping between the input and output column names.
- **[SourcePackageGuid={SourcePackageGuid}]:** Connections will be created only for source elements located in a package with such Guid.
- **[TargetPackageGuid={TargetPackageGuid}]:** Connections will be created only for target elements located in a package with such Guid.
- **[SourcePackageStereotype={SourcePackageStereotype}]:** Connections will be created only for source elements located in packages with such stereotype.
- **[TargetPackageStereotype={TargetPackageStereotype}]:** Connections will be created only for target elements located in packages with such stereotype.
- **[SetConnectorLabel={LabelValue}]:** A label that will be added to the alias of the imported connections.
 - => All imported connections will have an alias with the value 'GENERATED_{LabelValue}'.

ImportFromXmi

Description: Export a package to an XMI file.

Usage: LNPS ImportFromXmi [arguments]

Arguments:

- **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **SourceXMIFilePath:** The full path of the XMI file to be imported.
- **TargetPackageGUID:** The GUID of the package where the content must be imported.
- **Copy | Merge:** Indicates how the imported content that already exists in the repository will be imported
 - Copy = Create new GUIDs => If the imported content already exists in the repository then a new copy is created with new GUIDs.
 - Merge = Keep existing GUIDs => If the imported content already exists then it is merged based on the matching GUIDs found in the repository.

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 QEA and 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 add either '#' or 'UNIQUE_KEY_' 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.

When the import is completed, a textual log file is created in a 'Log' folder.

The Log folder is created in the same folder that the one where the imported file is located.

The log file name is derived from the imported file name: { Import file name }_Log.txt

Usage: LNPS ImportTabularReport [arguments]

Arguments:

- **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **SourceFile:** A CSV or Excel file containing the data that needs to be imported.
 - The name of the CSV file can define the CSV character encoding and column delimiter.
 - The syntax is: '...[CP={code page number or name};DELIM={COMMA|SEMICOLON|TAB|SPACE|a character code number}]...CSV'
 - If no format is specified in the file name, then the default values are '[CP=utf-8;DELIM=COMMA]'
 - For further information, see '[Inbound/Outbound Content Formatting](#)' on the Guidance Web Site
- **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.
- **ElementTypeAndOrStereotype:** The type and/or stereotype of the elements that need to be created or updated.
 - If both type and stereotype are provided, they must be separated by a '/'.
 - Example: 'Component/LABN_Application'.
- If only a type is provided it must be a valid Sparx Systems' EA element type.
 - Example: 'Class'.
- If only a stereotype is provided it must be a Labnaf element stereotype.
 - Example: 'LABN_Application'.
- If the stereotype is not a Labnaf stereotype, then the type is mandatory, and the stereotype must be fully qualified.
 - Example: 'Component/ArchiMate3::ArchiMate_ApplicationComponent'
- **[EnableCreate]:** Enable creation of new elements if they are not found.
- **[TargetPackageGuidForNewElements]:** The package where the new elements must be stored.

MoveElementsToCalculatedParent

Description: Select any elements and make them child of their calculated parent.

Parent calculation is based on element stereotype, connector stereotype and connector direction.

Usage: LNPS MoveElementsToCalculatedParent [arguments]

Arguments:

- **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **ChildElementStereotype:** The stereotype of the child elements to be selected and to be moved to their selected calculated parent.
- **ParentElementStereotype:** The stereotype of the parent elements that need to contain the selected child elements OR '*' if the parent stereotype is not a selection criteria.
- **ConnectorStereotype:** The stereotype of the connector between the parent and the child which is used to calculate the desired target parent child hierarchy in the model.
- **ChildToParent|ParentToChild:** The connector direction used to define which is the parent and which is the child
- **SqlSelectStatementFileName:** The path name of a file that contains some SQL statement to select specific child elements to be moved.
- **[Verbous]:** Display the name of each element being moved along with the name of its new parent.

MoveElementsToPackage

Description: Select any elements and move them to a package.

Usage: LNPS MoveElementsToPackage [arguments]

Arguments:

- **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **TargetPackageGUID:** The GUID of the package where the selected elements must be moved.
- **SqlSelectStatementFileName:** The path name of a file that contains some SQL statement to select specific elements to be moved.

MovePackagesToPackage

Description: Select any packages and move them to a package.

Usage: LNPS MovePackagesToPackage [arguments]

Arguments:

- **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **TargetPackageGUID:** The GUID of the package where the selected elements must be moved.
- **SqlSelectStatementFileName:** The path name of a file that contains some SQL statement to select specific packages to be moved.

The result set must contain a column called 'Package_ID'.

Example 1: SELECT * FROM t_package
Example 2: SELECT Package_ID FROM t_package
Example 3: SELECT PDATA1 AS Package_ID FROM t_object
 WHERE object_type='Package' AND stereotype='LNCAT_Process'

- **[NewMovedPackageStereotype]**: The optional new stereotype of the packages after they have been moved.
By default the stereotype is unchanged
Provide an empty string ("") to remove the stereotype if any.

RenameItem

Description: Rename a package, an element or a diagram based on a GUID

Usage: LNPS RenameItem [arguments]

Arguments:

- **RepoPathName**: Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **GUID**: The GUID of the package, element or diagram that needs to be renamed.
- **NewItemName**: The new name of the package, element or diagram.

ScheduleCommand

Description: Schedule a task to run periodically starting at a specific time. This command cannot be included in a Labnaf script file (.lpsc).

Usage: LNPS 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.

Set

Description: Set a Windows environment variable. The variable can be used in the script and in the SQL statements that are referenced by commands used in the script. The variable will be available only to the current process and its child processes.

Usage: LNPS Set [arguments]

Arguments:

- **Variable=String**: Name and value of the new or existing variable.

SetDiagramProperty

Description: Select diagrams and set one of their property value.

Usage: LNPS SetDiagramProperty [arguments]

Arguments:

- **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **SqlSelectStatementFileName:** The path name of a file that contains some SQL statement which selects diagrams. The result set must contain a column called 'Diagram_ID'.
 - Example 1: SELECT * FROM t_Diagram
 - Example 2: SELECT Diagram_ID FROM t_Diagram
- **DiagramPropertyName:** The name of a diagram property (FreezeVisible | Locked | Name | Stereotype) for which the value must be updated.
- **DiagramPropertyValue:** The new value of the diagram property. Boolean values can be 'True' or 'False'.

SqlExportToCsv

Description: Run SQL statement in a model repository and save the result into a CSV.

Usage: LNPS SqlExportToCsv [arguments]

Arguments:

- **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **SqlSelectStatementFileName:** The path name of a file that contains some SQL Select statement.
- **OutputCsvFileName:** The path name of the CSV file that will contain the result set.
 - The name of the CSV file can define the CSV character encoding and column delimiter.
 - The syntax is: '...[CP={code page number or name};DELIM={COMMA|SEMICOLON|TAB|SPACE|a character code number}]...CSV'
 - If no format is specified in the file name, then the default values are '[CP=utf-8;DELIM=COMMA]'
 - For further information, see 'Inbound/Outbound Content Formatting' on the Guidance Web Site
- **[NoHeader]:** Do not generate headers in first row.

SetProperty

Description: Select any elements or packages and set some property value.

Usage: LNPS SetProperty [arguments]

Arguments:

- **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **
- **PropertyName:** Name of the property that will get a new value. The property/tag will be created if it does not exist.
- **PropertyValue:** New value for the property.
- **SqlSelectStatementFileName:** The path name of a file that contains some SQL statement to select specific elements or packages that needs a property value to be set.

UpdateAllDiagramImages

Description: Update all diagram images in a model repository.

Diagram images are used by Prolaborate when it presents diagrams in its user interface.

These images are created when you manually save a diagram in Sparx Systems' EA.

But they are not updated when you change an element or connector (for example rename) by other means.

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

Arguments:

- **RepoPathName:** Repository path name (EAP file). ** NOT NEEDED IN A LABNAF POWERSCRIPT FILE (.lpsc) **

Validate (Labnaf)

Description: Validate model repository and send potential error messages to assigned individuals. Error message routing is based on architecture management assignments. Error messages are generated as an error element with notes under each assigned individual in the model repository. If the error cannot be assigned to any specific individual, then the error element is generated under the unique package of type 'Architecture Management'. Error messages are also sent to assigned individuals by email, if email is configured.

Usage: LNPS Validate [arguments]

Arguments:

RepoPathName: Repository path name (EAP file). ** NOT NEEDED IN A LABNAF SCRIPT FILE (.lpsc) **

ValidationConfigurationFile: Path name of the model validation configuration file.

SmtpServerConfigurationFile: Path name of the SMTP Server configuration file.

[IgnoreTemporaryTraceConnections] : Indicates that Temporary Trace Connections will not be reported as errors.

For further information about the content of the SMTP Server configuration file, please read the section called "SMTP Server Configuration File" in the present document.