



Software **E**ngineering
& **P**roject **M**anagement

SEPM Products

Release 2019-01

New Features

Document Information	
Abstract	This document describes new features in the SEPM product release 2019-01
Version	2019-01
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1 Overview

1.1 Changes Overview

This Release **2019-01** covers the following improvements:

- The **SEPM X-Translator Bundle** now includes the new GDAL source format. This allows importing vector data implemented by the open source GDAL/OGR library
- Improvements of the **SEPM NEPLAN Interface**, especially support for NEPLAN 360 / NEPLAN V10
- Improvements of the **SEPM SIA405 Schnittstelle**: A configuration for the NRM District Heating application has been added
- New product **SEPM GDAL Dataset** to display GIS vector data implemented by the open source GDAL/OGR library
- Data migration through the **SEPM X-Database VSE** opens new opportunities for the integration of Swiss geographic electric data
- Beta version of the **SEPM X-Planung Interface and X-Database**

1.2 Installation/Upgrade

1.2.1 System-Requirements

SEPM Products 2019-01 are supported on Smallworld 400 to 430, as well as Smallworld 5. The jars for Smallworld 5 have been generated with Smallworld 5.1.9.1. If you intend to use the SEPM Software with an earlier release of Smallworld 5 (e.g. 5.1.7), then you'll need to delete the existing jars and regenerate them with the *xtr_sw5_compile_all_modules.magik*.

SEPM NEPLAN DLLs require NEPLAN Desktop 5.5.4 or higher.

The **RealDWG™-based AutoCAD DWG/DXF format** requires .net 4.7.

The **SEPM ISYBAU Interface** Requires NRM Wastewater for Smallworld 4.3

The **NeplanAcp** uses the Neplan Calculation DLL 10.7.9.2.

1.2.2 Upgrade of Software Modules

The upgrade can be done as usual with following steps

- Replace product **x_translator**
- Copy SEPM customer modules without any changes
- Copy license files from the old to the new version (unless you have configured the path to the license files *x_base_settings.licenses_dir*)

1.2.3 Upgrade of the SEPM NEPLAN Interface

The **SEPM NEPLAN Interface** has been enhanced to support NEPLAN360 (NEPLAN V10). If you want to change from NEPLAN Desktop to NEPLAN360, some changes in the Magik customer configuration will be necessary, please check in with support.

1.2.4 RealDWG™-based AutoCAD DWG/DXF Format

The setup now includes some components marked as optional but still required by some DWGs. Therefore it's recommended to install the version bundled with this release:

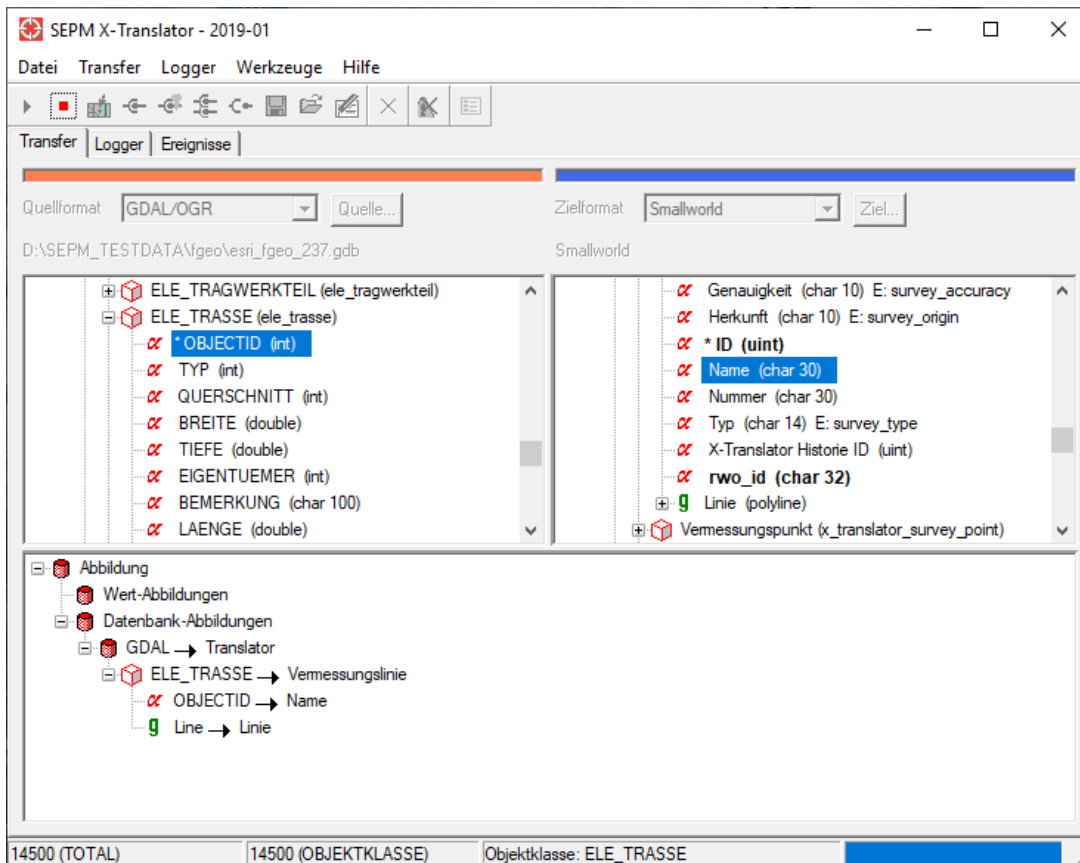
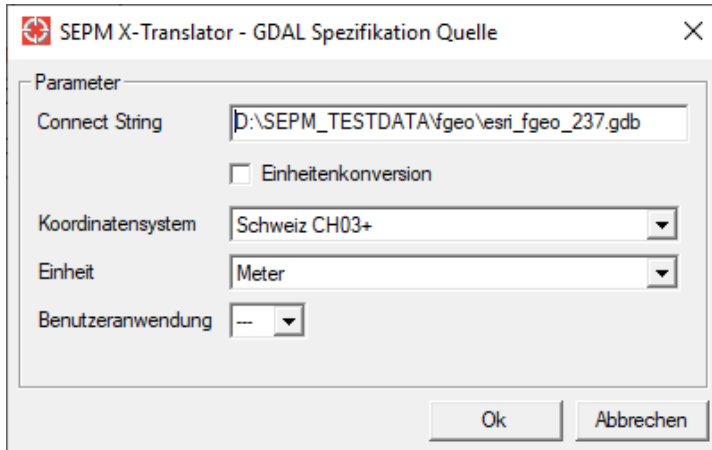
- Uninstall any existing *DwgAcpSetup.msi*. Please make sure that the installed files have been completely removed from the system
- Install the new *DwgAcpSetup.msi* from this release 2019-01. The installation directory should not contain any spaces (for example *C:\DwgAcp50*)
- Make sure that the *SW_ACP_PATH* includes the directory used in the setup.

2 SEPM X-Translator

2.1 GDAL Format

2.1.1 GDAL source

A GDAL/OGR source format has been added. This allows importing vector data of the open source GDAL/OGR library. Currently the same limitations as for the product **SEPM GDAL Dataset** exist (see below).



Example import of ESRI File Geodatabase data

2.1.2 GDAL target format

A GDAL target format is in development and will be available in a future SEPM version.

3 SEPM NEPLAN Interface

3.1 SEPM NEPLAN Interface for NIS Strom

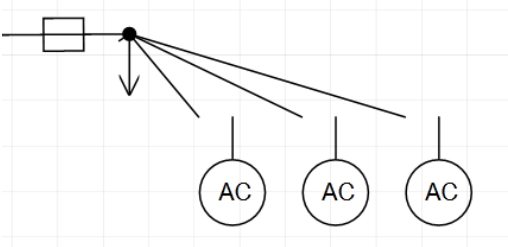
3.1.1 SNI-Variables

The *SepmNeplanImport.dll* (SNI) allowed to transfer values from the GIS to Neplan Desktop, that could not be conveyed through the NEPLAN CDE format. In NEPLAN360 a new XML file format is available for this purpose.

In this release the SNI-variables used by customers have been analysed and included into the SEPM standard where possible. Therefore when upgrading to version 2019-01, in many cases the calls for defining a new variable (*x_translator_settings.register_neplan_dyn_attribute()*) can be removed (the actual implementation of the variable must of course remain).

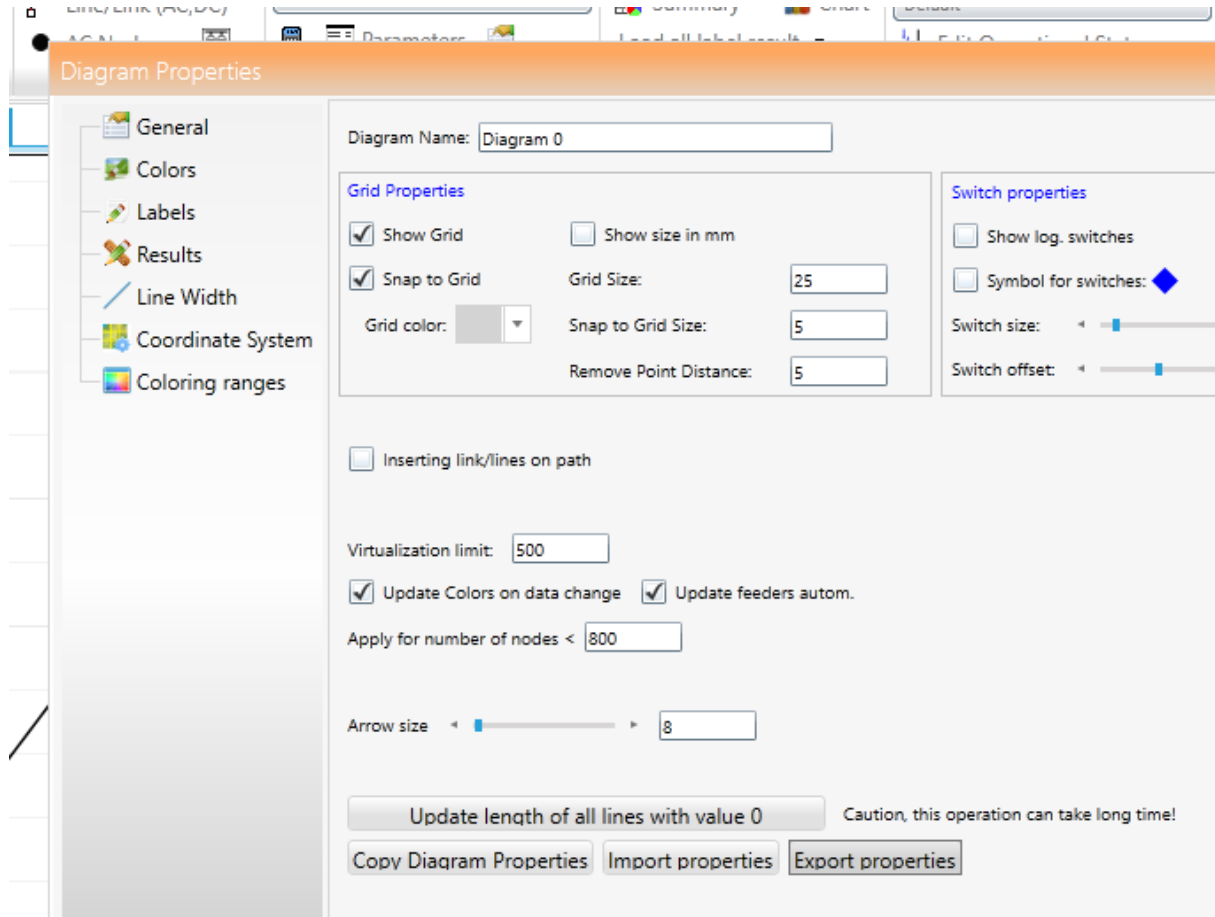
3.1.2 Placement of generators and loads

The new setting ***:arrange_node_objects_mode*** allows placing generators (and optionally loads) schematically near the corresponding node:

Setting, possible values	Description
:arrange_node_objects_mode <ul style="list-style-type: none"> • _unset • :lineup 	When using the value :lineup objects are arranged as configured in the shared constant <i>x_translator_settings.neplan_arrange_node_objects_offsets</i> : 

3.2 SEPM NeplanAcp

3.2.1 Preservation of diagram properties



In NEPLAN360 it is now possible to save diagram properties to a file. When using the NeplanAcp such saved properties can be applied to a project:

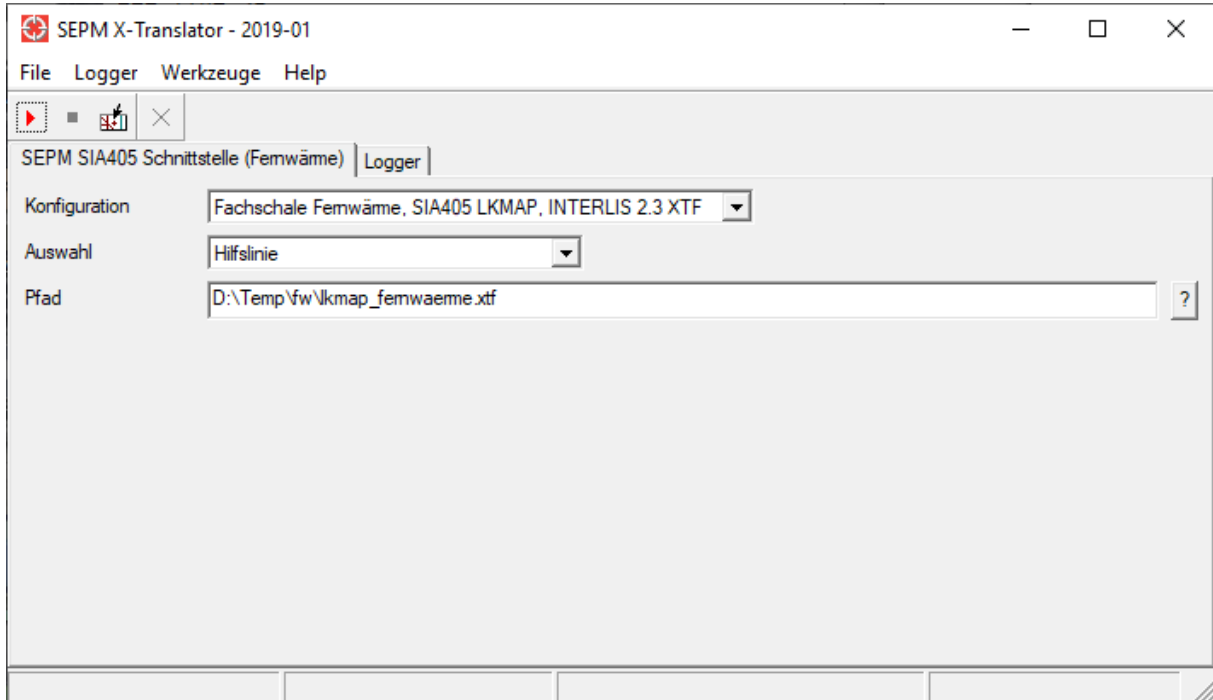
```
n << neplan_acp.new()
n.start_acp()
n.init_neplan()
n.open_project( l_library_path, l_project_path )
n.import_diagram_properties( l_diagram_properties_path )
n.run_load_flow()
n.export_project( l_neplanacp_dir + "beispiel.nep360" )
```

Example usage of the SEPM NeplanAcps.

4 SEPM SIA405 Interface

4.1 District Heating Export to SIA405 LKMap

The product "Export from Smallworld Applications to SIA Geo405 LK/WI" (100.I0.001) now includes a configuration for SIA405-LKMap for the NRM District Heating application.

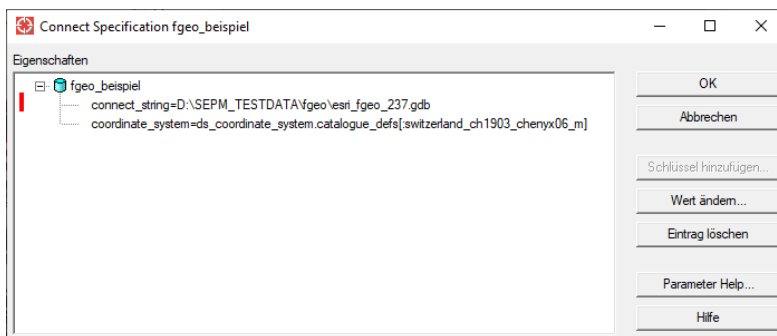


Export of District Heating data to SIA405-LKMap

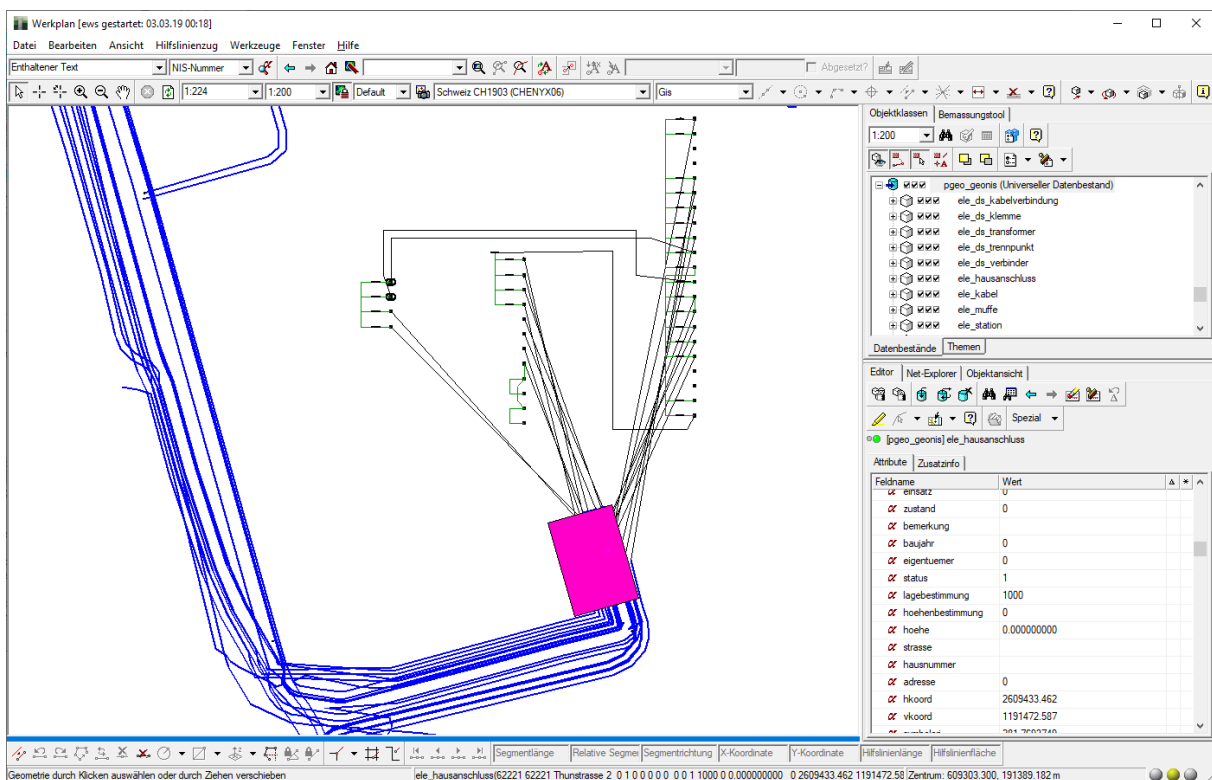
5 SEPM GDAL Dataset

This version 2019-01 includes the first version of the new product **SEPM GDAL Dataset**. This dataset allows direct access to vector formats implemented by the *Open Source GDAL/OGR library*. It uses the *Smallworld Universal RWO Toolkit* and can therefore be opened with `manage_soc()` like other Smallworld datasets.

tested GDAL formate	Description
FGeo	ESRI File Geodatabase
Pgeo	ESRI Personal Geodatabase
ODBC	Zugriff auf eine im System eingerichtete ODBC-Datenquelle



Connection to a ESRI File Geodatabase



Access to a ESRI Personal Geodatabase

In this release only a subset of possible GDAL geometry types and formats are supported. It is planned to expand the set of supported GDAL data structures in the future.

6 Migration through the SEPM X-Database VSE

This chapter is available only in German

7 XPlanung Interface (Beta)

This chapter is available only in German