

Release Notes NET 13.0

Summary

NET 13 brings support for AutoCAD Map 3D 2024 to all included products.

In addition, there are many bug fixes and improvements to workflows in NET Engineering, and NET Build integration has been significantly improved.

Part of the new version is an update to our licensing solution, which fixes some minor issues.

Users of the TKI PostgreSQL provider must update to version 4.1 of the new provider to ensure compatibility with NET.

Supported Software

- Autodesk AutoCAD Map 3D
 - Autodesk AutoCAD Map 3D 2022.0.1 - Autodesk AutoCAD 2022.1.3 or later
 - Autodesk AutoCAD Map 3D 2023.0.2 - Autodesk AutoCAD 2023.1.1 or later
 - Autodesk AutoCAD Map 3D 2024.0.1 - Autodesk AutoCAD 2024.1 or later
- TKI PostgreSQL Provider 4.1.0
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1
- TKI Lizenzierung 13.0
(Only required for a manual installation on the network license server)

Release NET 13.0 in detail



AutoCAD Map 3D 2024 is supported for NET Field Survey, NET Design, NET Engineering and NET Operations.

NET Design

Conversion to low level design

- When a splicing error occurs, the affected cable and target device are now explicitly displayed.

NET Engineering

General

- Fixed an issue that caused the network tracing to get stuck and ever finished. Mainly reports are affected by this bugfix.
- The user interface of NET Engineering Options has been improved so that the texts are easily readable at different screen scales.

Workflows

- The texts of the selected options in the Duct connection editor workflow and in the NET Engineering options have been adjusted so that they are now consistent.
- If the option "Connect only ducts of the same color" is activated in the NET options, ducts of the same color can now be connected without errors in the "Set duct fitting" workflow.
- In the "Set duct fitting" workflow, it is now no longer possible to create invalid fittings.
- An error of the automatic duct length calculation within the "Edit segment und duct assignments" function has been fixed.
- The selection of an incorrect object in the map led to the abortion of the workflow "Set duct insertion". The workflow has been adapted so that a corresponding message now informs the user if an incorrect object has been selected.
- An error when applying the color scheme in the "Create and assign ducts (w/o geometry)" workflow has been fixed.
- A note text in the "Split segment" workflow has been adjusted.
- A message with the result is now displayed in the "Create duct insertion" workflow after execution.
- The workflows "Create FO cable loop" and "Create telephony cable loop" have been completely revised to improve the output on high-resolution displays and in the dark colour theme.
- The feature selection of the workflows has been standardized so that it is now also possible to transfer features from the form filter for some workflows.

Reports

- In the "Duct Connections" report, the name is now displayed left-justified and on all pages.
- When displaying the report "Duct connections", the first page displayed was always a blank page. This error has been fixed.
- The text in the field "Info" in the report "FO Splice Plan" is now limited and truncated if it is too long, so that display errors no longer occur when the report is output.
- The designation of the connectors and pins in the report "Work order" is now uniform. In addition to the connector or pin, the name, number or FID of the same is displayed.

Forms

- The copy and paste function using F7 and F8 works again in the forms.
- In the form "FM Pin" the field "Name" is now editable.
- Fixed a problem when creating a device with a switching point.

Structure updates

- Fixed a structure update error under Oracle that always occurred when the SQL statement " `SDO_FILTER` " was stored for a control.

NET Build integration

- The NET Build Push function for NET Engineering projects now supports buried/aerial cables.
- The NET Build Push function for NET Engineering projects now supports the transfer of connector type, tray type and closure side for splice information.
- The NET Build push function causes an exception when pushing empty trenches (without ducts inside). This error is fixed now.
- The call of the function for data transfer according to NET Build has been changed internally so that users now no longer need admin or service rights to execute the data transfer.
- During data transfer to NET Build, planning objects of the type "Closure" receive a new attribute to map the relationship to the building structure.
- Segments without cables are now also transmitted to NET Build.
- When synchronising the field reports, connector types, tray types and closure sides of the trays for the splice information are now also transferred to NET Engineering.
- Synchronize NET Build field reports in the NET Engineering now supports Datepicker options with the NET Build object type "Production Report" which allows to choose desired start and end date.

Redlining

- The "Redlining Measurement Point Type" has been supplemented with the "Ball marker" type.
- The relationship between the survey points and the parent objects (closure,trench,terminator, structure, fitting) is now set correctly.
- When synchronising the field reports, connector types, tray types and closure sides of the trays for the splice information are now also transferred to NET Engineering.
- Increased the performance of redlining to engineering data transfer. It will now only load the required objects via a spatial filter instead of loading everything.

Connection editor

- When working with work orders now the tray connection is counted and displayed correctly.

Licensing

- The version of the network license server by Revenera is being updated from Version 2022.09.0 to 2023.10.0.
- There was an error when creating the request file for the offline activation of a licence in the network licence server. This error has been fixed.
- A spelling error in the TKI licensing has been fixed.

Changes to the data model since NET 12.0

NET Field Survey

12.1

- New entries in the domain table `TC_DF_CONNECTION_TYPE_TBD` :
 - 13 - Infrastructure up to the property line (HP+)
 - 14 - Infrastructure up to the property line (HP+) without distribution cable

12.3

- New column `IS_PRIVATE` in table `TC_DF_TRENCH`
- New entry in domain table `TC_DF_CABLE_CLASS_TBD`
 - 4 - unknown
- New entry in domain table `TC_DF_PROVIDER_TBD`
 - 4 - unknown
- New entry in domain table `TC_DF_TRENCH_CLASS_TBD`
 - 4 - unknown

12.4

- New columns `SOURCE_KEY` and `SOURCE_LAYER` in the tables:
 - `TC_DF_CLUSTER`
 - `TC_DF_DUCT_TYPE_CONSTR`
 - `TC_DF_STREET`
- New column `SYNC_DATE` in table `TC_DF_CLUSTER`
- New column `ZIPCODE` in table `TC_DF_PERSON`
- Column `FID_DUCT_TYPE_CONSTRAINT` removed from table `TC_DF_STREET`

12.5

- *No changes to the data model - structure update only for new forms and reports*

13.0

- *No changes to the data model - structure update only for new forms and reports*

NET Field Survey - BMVI Data Model

12.2

- Extension of the `TC_DF_ADDRESS_POINT` table with the following columns:
 - `BMVI_AMOUNT_SOCIOECONOMICS`
 - `BMVI_CONSTR_COMP`
 - `BMVI_IS_AGRICULTURE`
 - `BMVI_IS_BUSINESS_AREA`
 - `BMVI_IS_MEV_AGAIN`
 - `BMVI_IS_SEE`
 - `BMVI_IS_SUPPLY`
 - `BMVI_SOCIOECONOMICS_COM`

- `BMVI_SUPPLY_COM`
- `BMVI_TECH_1_YEAR`
- `BMVI_TECH_3_YEAR`
- `BMVI_TECH_IS`
- `BMVI_UID`
- `ID_BMVI_FTTH_B` with relation to `TC_DF_BMVI_TECH_TBD`
- `ID_BMVI_HFC` with relation to `TC_DF_BMVI_TECH_TBD`
- `ID_BMVI_MEV_IS` with relation to `TC_DF_BMVI_SUPPLY_PLAN_TBD`
- `ID_BMVI_MEV_PLAN` with relation to `TC_DF_BMVI_SUPPLY_PLAN_TBD`
- `ID_BMVI_MEV_PLAN1` with relation to `TC_DF_BMVI_SUPPLY_PLAN_TBD`
- `ID_BMVI_SOCIOECONOMICS` with relation to `TC_DF_BMVI_SOCIOECONOMIC_TBD`
- Extension of the `TC_DF_STRUCTURE` table by the column `BMVI_IS_COLLOCATION`
- New domain table `TC_DF_BMVI_SOCIOECONOMIC_TBD`
- New domain table `TC_DF_BMVI_SUPPLY_PLAN_TBD`
- New domain table `TC_DF_BMVI_TECH_TBD`

12.3

- Column `BMVI_UID` in table `TC_DF_ADDRESS_POINT` was renamed `BMVI_UUID`

12.4

- *No changes to the data model - structure update only for new forms and reports*

NET Design

12.0.3

- New table `TC_PL_HOME_POINT`
- New column `FID_HOME_POINT` in table `TC_PL_RESIDENT`

12.0.4

- New column `IS_PRIVATE` in table `TC_PL_STREET_CL`
- New column `ABBREVIATION` in table `TC_PL_HOME_POINT`
- New column `CITY` in table `TC_PL_HOME_POINT`
- New column `HOUSENR` in table `TC_PL_HOME_POINT`
- New column `POSTCODE` in table `TC_PL_HOME_POINT`
- New column `STREET` in table `TC_PL_HOME_POINT`
- New entries in the domain table `TC_PL_DEMAND_CONN_TYPE_TBD` :
 - 13 - Infrastructure up to the property boundary (HP+)

- 14 - Infrastructure up to the property boundary (HP+) without distribution cables
- New column `DIRECT_CABLES` in view `TC_PL_V_OUT_DUCT`

12.1.1

- New domain table `TC_PL_DUCT_LAYOUT_TBD`
- New column `ID_DUCT_LAYOUT` in `TC_PL_DUCT` with relation to `TC_PL_DUCT_LAYOUT_TBD`

12.2

- New column `FID_FORCED_CABLE_TYPE` in `TC_PL_BUILDING` with relation to `TC_PL_CABLE_TYPE`
- New column `FID_FORCED_CABLE_TYPE` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_CABLE_TYPE`
- New table `TC_PL_ROLLOUT_AREA`
- New column `DEPLOYMENT` in the tables:
 - `TC_PL_OUT_CABLE`
 - `TC_PL_OUT_DEVICE`
 - `TC_PL_OUT_DUCT`
 - `TC_PL_OUT_SPLITTER`
 - `TC_PL_OUT_STRUCTURE`
 - `TC_PL_OUT_USED_TRENCH`

12.3

- New column `EXCLUDED_LAYERS` in table `TC_DF_DUCT`

12.4

- *No changes to the data model - structure update only for new forms and reports*

12.5

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13.0

- *No changes to the data model - structure update only for new forms and reports*

NET Design - BMVI Data Model

12.2

- Extension of the table `TC_PL_DEMAND_POINT` by the following columns:
 - `BMVI_CONSTR_COMP`
 - `BMVI_IS_AGRICULTURE`

- BMVI_IS_BUSINESS_AREA
- BMVI_IS_MEV_AGAIN
- BMVI_IS_SEE
- BMVI_IS_SUPPLY
- BMVI_SOCIOECONOMICS_COM
- BMVI_SUPPLY_COM
- BMVI_TECH_1_YEAR
- BMVI_TECH_3_YEAR
- BMVI_TECH_IS
- BMVI_UID
- ID_BMVI_BUSINESS with relation to TC_PL_BMVI_YESNORESIDENT_TBD
- ID_BMVI_FTTH_B with relation to TC_PL_BMVI_TECH_TBD
- ID_BMVI_HFC with relation to TC_PL_BMVI_TECH_TBD
- ID_BMVI_HOSPITAL with relation to TC_PL_BMVI_YESNORESIDENT_TBD
- ID_BMVI_MEV_IS with relation to TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_MEV_PLAN with relation to TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_MEV_PLAN1 with relation to TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_SCHOOL with relation to TC_PL_BMVI_YESNORESIDENT_TBD
- ID_BMVI_SOCIOECONOMICS with relation to TC_PL_BMVI_SOCIOECONOMIC_TBD
- Extension of the table TC_PL_STRUCTURE by the column BMVI_IS_COLLOCATION
- New domain table TC_PL_BMVI_SOCIOECONOMIC_TBD
- New domain table TC_PL_BMVI_SUPPLY_PLAN_TBD
- New domain table TC_PL_BMVI_TECH_TBD
- New domain table TC_PL_BMVI_YESNORESIDENT_TBD
- New domain table TC_PL_RESIDENT_TYPE_TBD

12.3

- Column BMVI_UID in table TC_PL_DEMAND_POINT was renamed BMVI_UUID

12.4

- *No changes to the data model - structure update only for new forms and reports*

12.5

- *No changes to the data model - structure update only for new forms and reports*

NET Engineering and Operations

12.0.2

- New view `TC_REP_SEGMENTCOSTS` - support for report "Segment costs"
- New view `TC_REP_CABLECOSTS` - support for report "Cable costs"

12.0.4

- Relation of `FID_DEVICE` in table `TC_BMVI_SUPPLY_AREA` is now "D" (delete if parent object is deleted)

12.1

- Adaptation of view `TC_M_SP_DUCT` - internal change, no changes to columns

12.2

- *No changes to the data model - structure update only for new forms and reports*

12.3

- Column `ID_TYPE` in `TC_NR_SCHEME` may no longer contain the value zero, new default value is 1
- New view `TC_V_CONN` - database optimised view for topological connections in which the `*_FROM` part is always the line object.
- Changed view `TC_V_CONN_DETAILS_PERF` - output identical, only internal changes.
- New column `VALUE_SHORT` in `TC_COLOR`
 - Short name for all standard colours is also filled in the update.
- Relation of `FID_PATCH_PANEL` in table `TC_FO_CONNECTOR` is now "P" (deny deletion if relation exists) - Patch panel must not be deleted if a connector is assigned.
- Optimisation of the label definitions of `TC_SP_DUCT_INSERTION` and `TC_SP_SEGMENT`. No changes to the output.

12.4

- New column `ARGB_COLOR` in view `TC_COLOR`
- Service specifications removed - The following tables have been deleted:
 - `TC_SD_SERVICE_DICT`
 - `TC_SD_SERVICE_DICT_ITEM`
 - `TC_SD_SERVICE_FEATURE`
 - `TC_SERVICE_POSITION_TYPE_TBD`
- New field `STATUS_NAME` in the views `TC_M_SP_DUCT_INSERTION` and `TC_M_SP_FITTING`
- Relation of fields `COLOR` and `COLOR2` in `TC_SP_DUCT` changed from `TC_V_COLOR` to `TC_COLOR`
- Label definitions of Duct Insertion for name and color in duct bundle adapted, no change in content

12.5

- *No changes to the data model - structure update only for new forms and reports*

13.0

- The views `TC_REP_WO_FO_PATCH` , `TC_REP_WO_FO_SPLICE` , `TC_REP_WO_TP_PATCH` and `TC_REP_WO_TP_SPLICE` have been updated.

The contents of the columns `ELEMENT_FROM` and `ELEMENT_TO` were changed to improved the related reports.

NET Engineering and Operations - BMVI Data Model

12.4

- New table `TC_BMVI_FUNDING_PROJECT`
- Update of view `TC_BMVI_M_BUILDING`
- Update of view `TC_BMVI_M_SP_SEGMENT`
- New column `FID_FUNDING_PROJECT` in tables
 - `TC_FO_CABLE`
 - `TC_FO_CLOSURE`
 - `TC_FO_TERMINATOR`
 - `TC_SP_DUCT`
 - `TC_SP_CABINET`
 - `TC_SP_MANHOLE`
 - `TC_SP_POLE`
 - `TC_SP_SEGMENT`
 - `TC_TG_BUILDING`

12.5

- *No changes to the data model - structure update only for new forms and reports*

Documentation Pack

12.0.3

- Type of `FID_SEQUENCE` column in `TC_PLOT_SEQUENCE_ELEMENT` changed to `numeric (10)`
- Type of `POSITION` column in `TC_PLOT_SEQUENCE_ELEMENT` changed to `numeric (10)`

12.0.4

- Adaptation of column changes from 12.0.3 in the `fdo_columns` table for SQLite industry models

Changes to forms/reports since NET 12.0

NET Design

12.0.4

- The width of the controls for the references in the "Demand point" form has been increased.
- The new column "Is Private" has been added to the Street centerline form. Is only visible for the atesio optimizer.
- The designations for the "Duct Type Restriction" have been unified in all forms.

12.2

- Forms "Building" and "Demand point" have been adjusted to show the forced cable type as well.
- New form for rollout phases.
- Forms for "Cable", "Duct", "Structure", "Splitter" and "Used Trench" in the planning result have been adjusted to show the attribute "Provision".
- The label for the length in the forms for "Cable", "Duct" and "Used Trench" in the planning result has been correctly translated to German.

12.3

- Added "Excluded network layers" controls in the "Duct" form

12.4

- Forms have been changed internally in the basic concept. This has changed the positioning and size of the forms, as well as the tab order. In addition, the forms for the views have been removed and a redirection to the main forms has been stored.

12.5

- Changed the identifier from "m ²" to "m²". The following forms are affected:
 - TC_PL_BUILDING
 - TC_PL_CLUSTER
 - TC_PL_OUT_CLUSTER
 - TC_PL_PARCEL
 - TC_PL_ROLLOUT_AREA
 - TC_PL_SUBAREA
- The General and General tabs are combined if they exist in existing projects.
- In existing projects the General tab is sorted, if necessary, to the first position in the form.

13.0

- FID field in all forms has been locked to allow the copy and paste function using F7 and F8 to work.

NET Engineering and Operations

12.0.1

- The identifier for the `STOP_SERVICE` field has been adjusted in the splitter type form (`TC_FO_SPLITTER_TYPE`).

12.1

- The identifier "Building" has been changed to "Installation location". Affected are the forms TP Terminator (`TC_TP_TERMINATOR`), TP Cable Section (`TC_TP_CABLE`), TP Closure (`TC_TP_CLOSURE`), FO Terminator (`TC_FO_TERMINATOR`), FO Cable Section (`TC_FO_CABLE`) and FO Closure (`TC_FO_CLOSURE`).
- Control for cable assignment in fiber optic cable reserve and TP cable reserve is now a drop-down list.
- Text for attached fiber and attached wire in fiber optic Connector and TP wire has been improved. Missing separators and spaces have been added.
- Selection field for manufacturer in fiber optic measuring device (`TC_FO_MEASUREMENT_DEVICE`), device rack type (`TC_SP_RACK_PANEL_MODEL`) and patch panel type (`TC_SP_PATCH_PANEL_MODEL`) has been corrected. The filter for the selection options and the display of the values has been corrected.

12.2

- Show status in duct point form.

12.3

- Revised report: Network route overview
- New report: Blow-in report for cable trunk
- Tab ID of controls in cluster form corrected.
- Form Building: Arrangement of "Cluster" and "House number" in the form corrected.
- Form Pole: Alignment of controls corrected to avoid collision of field calculations with the left margin.
- Form FO Terminator: Field for "Total connectors" corrected - only the number in the text field.
- Form FO splitter type: Position of "Manufacturer information" corrected to avoid collision with the separator line.
- FO splitter data: Length of separator line corrected
- Forms for "Cabinet", "Manhole" and "Pole": New buttons under "Details" to display the referenced objects for all current objects in the filter.
- Form for "Cluster": New buttons to open buildings, points, and lines for all clusters in the filter.
- Form "Document management": Identifier of field for name of creator corrected.

12.4

- Forms have been changed internally in the basic concept. This has changed the positioning and size of the forms, as well as the tab order. In addition, the forms for the views have been removed and a redirection to the main forms has been stored.

12.5

- The "General" and "General" tabs are combined if they exist in inventory projects.
- The General tab is sorted to the first position in the form in inventory projects, if necessary.
- Dynamic line breaks have been added to some reports to better display very long identifiers.
 - NET Engineering FO Splice overview closure
 - NET Engineering FO Splice overview terminator
 - Duct connections

13.0

- **FID** field in all forms has been locked to allow the copy and paste function using F7 and F8 to work.
- The field **NAME** in the "TP pin" form has been changed from a **SqlLabel** to a **SqlTextBox**. This allows the name editing the name directly.

Release Notes NET 13.0.1

Summary

The new version of NET includes two important bug fixes. On the one hand, the error that occurred when creating uncut fibers with the connection editor has now been fixed, and on the other hand, the login for area licensing is working again.

Another important improvement is the synchronization of NET Build field reports in NET Engineering, which no longer requires a NET Build account with superuser rights.

In addition to these two changes, a variety of smaller bug fixes and improvements have been made, especially to workflows in NET Engineering and integration with NET Build.

Supported Software

- Autodesk AutoCAD Map 3D
 - Autodesk AutoCAD Map 3D 2022.0.1 - Autodesk AutoCAD 2022.1.3 or later
 - Autodesk AutoCAD Map 3D 2023.0.2 - Autodesk AutoCAD 2023.1.1 or later
 - Autodesk AutoCAD Map 3D 2024.0.1 - Autodesk AutoCAD 2024.1 or later
- TKI PostgreSQL Provider 4.1.0
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1
- TKI Lizenzierung 13.0
(Only required for a manual installation on the network license server)

Release NET 13.0 in detail

NET Engineering

General

- The display of the NET version dialog has been optimized.
- If a duct insertion is topologically connected to a duct but is not assigned to it via the "duct" attribute and an attempt is made to change something on this duct, this leads to problems. In this case, a meaningful error message is now displayed.

Connection Editor

- Fixed an error in the connection editor that caused the editor to crash when trying to create an fiber connection that is uncut in the bundle.

Reports

- In the CO overview, there is now a new column for the start patch. This shows either the technical port or the connector and is only displayed if required.

Workflows

- In the "Join ducts" workflow, ducts without a duct type can now also be joined.
- An error in the workflow "Create and assign ducts (w/o geometry)" regarding the validation of the color scheme values has been fixed.
- In the "Create cross section template" workflow, problems occurred when cross section templates were created with excessive spacing. A restriction has been added to the corresponding distance fields.
- A meaningful error message is now displayed in the "Create cross section template" workflow if an attempt is made to create a cross section template with invalid geometry.
- In the "Create cross section template" workflow, the existing cross section templates are no longer displayed for information purposes in the workflow. Instead, an error is displayed if an attempt is made to create a cross section template with an existing name.
- A tooltip, which explains how the selectable duct types are filtered, has been added to the create ducts workflow.

Dialogs

- If a Duct template is removed in the "Duct" form, this is now applied correctly in the graphic.
- Fixed a bug in the "FO Cable Section" and "TP Cable Section" forms that caused problems when updating the "Name" and "Type" attributes together.
- Fixed a display error of the connector in the "Building unit" form.
- The error handling of the dialog import during the structure update has been improved in regard to the detail dialogs.

NET Build Integration

Synchronising field reports

- When synchronising the field reports, an error occurred when transferring the service items in connection with additional work order requests. This error has been fixed.
- When synchronising the NET Build field reports, an error occurred during the loading of the measurements if the NET Build objects were of the "Design element" type. This error has been fixed.
- Service items are now updated when possible instead of being created each time.
- The Datepicker options with the NET Build object type "Production Report", caption to choose desired start and end date mentioned as "Date filter" Instead of Submitted. This is now corrected and the filter works perfectly.
- When synchronising the field reports, the corresponding forms can now be opened by double-clicking on the warnings displayed in the log.
- The method of accessing NET Build has been altered to allow access to the production reports using accounts, that are not marked as service or administrator accounts in NET Build. General user accounts work now, provided they are allowed to execute integration scripts.
- When synchronising the NET Build field reports repeatedly, the number of redlining cables was incorrectly increased each time. This problem has been fixed.
- Carrying out multiple times load all survey in NET Build field reports and performing the redlining pull created incorrect cable assignments. This problem has been solved.

NET Build Synchronization

- A missing tool tip has been added to the dialogue for data transfer to NET Build.
- The NET Build Synchronization, now has the same view as in NET Build scope selection window
- The translation of the dialogue elements in the dialogue for data transfer to NET Build has been completed.
- The functionality for displaying warnings and errors during data transfer according to NET build has been improved.

Redlining

- Fixed a bug that caused structure relations to be set incorrectly.
- In Redlining Trasse, the pipes and cables are sorted according to their FID, This issue has been solved now they are sorted in the tree view by position number and then by name and then by FID.
- The redlining data transfer to NET Engineering now supports the transfer of the tray side as well as the cassette and connector type.

TNIM data exchange

- At TNIM import, there is no longer an error if duplicated points within lines are to be imported. Corresponding geometries are now cleaned up during import.

Licensing

- An authentication issue with the area license system has been resolved. This affected the login the license system for low level conversion licenses and GIS-NB area licenses.

Release Notes NET 13.0.2

Summary



The first release of NET in 2024.

The new version contains some bug fixes, focusing mainly on our NET Build integration and workflows in NET Engineering.

Supported Software

- Autodesk AutoCAD Map 3D
 - Autodesk AutoCAD Map 3D 2022.0.1 - Autodesk AutoCAD 2022.1.3 or later
 - Autodesk AutoCAD Map 3D 2023.0.2 - Autodesk AutoCAD 2023.1.1 or later
 - Autodesk AutoCAD Map 3D 2024.0.1 - Autodesk AutoCAD 2024.1 or later
- TKI PostgreSQL Provider 4.1.0
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1
- TKI Lizenzierung 13.0
(Only required for a manual installation on the network license server)

Release NET 13.0.2 in detail

NET Design

atesio integration

- Improved the stability of the function "Fix Geometry" in NET Design projects using atesio.

Comsof Fiber integration

- The creation of protection pipes in crossings is now supported when using Comsof Fiber.

Import

- An error message occurred when importing a shape file with objects without geometry. This error has been fixed.

Validation

- The validation for the demand points now also considers the value "Is Included" during the validation.

Low level design conversion

- When creating a low level design, errors no longer occur if there are several devices in the same structure that are connected to each other by cables.
- When creating a low-level design, microducts within duct bundles are now separated at phase transitions in case of different status values, with the higher phase being assigned to the microducts.

NET Engineering

General

- It is now possible to delete duct assignments without problems if a linked snap point is missing (e.g. due to a data error).
- For the setting "Name scheme for persons" in the NET options, special functions for placeholders can now be used, which can already be used the low level conversion in NET Design.

Workflows

- An unnecessary control element has been removed from the "Verify duct geometries" workflow.
- An error in the calculation of the split factor has been fixed in the "Check split factor" workflow.
- In the "Check split factor" workflow, the "Allowed lower ratio" option now works correctly.
- In the "Create and assign fiber optic cables (without geometry)" and "Create and assign telephony cables (without geometry)" workflows, the naming of the created cables has been optimized.
- In the "Create and assign fiber optic cables (without geometry)" or "Create and assign telephony cables (without geometry)" workflows, it can happen that a cable with a cable type that contains a numbering or color scheme with too few values is to be created. In this case, a meaningful error message is now displayed.
- In the "Join ducts" and "Join segments" workflows, a note has been optimized with regard to the different assignments of the features to be joined.
- In the "Join ducts" workflow, an error in the display of the Second duct selection has been fixed.
- The performance of the "Split ducts" workflow has been improved.
- In various workflows, the feature selection has been improved so that if no features are (yet) selected, the Execute button is now inactive and a meaningful error message is displayed.

Dialogs

- A problem with the "Update cable sections" function in the "TP Cable Type" form with the display of the error message regarding too few name scheme values has been fixed.

Bill of materials

- In the material list, the value of the type of fiber optic splice has changed from "<empty>" to "splice" as the default. You can also change the name of the type in a new field that has been created on the NET options tab.

Connection Editor

- There were errors when showing data of additional columns in the connection editor so that entries in the columns partially remain empty. Now the data in the additional columns will be shown completely.

NET Build Push

- When data is transferred from NET Engineering to NET Build, buildings are sometimes assigned to the wrong clusters. this problem has been solved.
- During the redlining data transfer for the documentation, an error occurred in the "Link distribution network" action if the name of the network node was not entered for ducts. This error has been corrected.
- When NET Engineering to NET Build push proceed, the Pipe connections of the house connection route and the duct branch are sorted in NET Build.

Redlining

- When synchronising field reports between NET Build and NET Engineering, an error has been fixed which meant that no measurements were loaded for planning objects.
- During data transfer after NET Build, the software crashed if an attempt was made to transfer ducts without a segment assignment. This problem has been fixed. A corresponding error message is now displayed in the log during data transfer.
- When transferring documentation data till the link home connections action with Snapping priority: "house connection route" or "Longitudinal road", the Trasse were splitted and the remaining split routes were empty. This problem has been fixed.

Documentation Pack

- The success message for the "Find adjacent sheet numbers in plot sequence" function in the "Plot" form has been corrected and now shows how many plot frames from how many plot sequences have been updated.

Gernal

- It is now no longer possible to send error reports if the industry model contains an outdated data model. Error reports can only be sent again after a successful structure update.

Release Notes NET 13.1

Summary

Version NET 13.1 supports the creation of possible routes based on parcels in NET Design when using the Comsof Fiber optimiser. This allows a realistic route network to be generated automatically. It is still possible to create possible routes based on the road centrelines.

The data transmission to NET Build has been enhanced with validation functions to identify potential errors before transferring the data.

Additionally, there are numerous small improvements and bug fixes.

Supported Software

- Autodesk AutoCAD Map 3D
 - Autodesk AutoCAD Map 3D 2022.0.1 - Autodesk AutoCAD 2022.1.3 or later
 - Autodesk AutoCAD Map 3D 2023.0.2 - Autodesk AutoCAD 2023.1.1 or later
 - Autodesk AutoCAD Map 3D 2024.0.1 - Autodesk AutoCAD 2024.1 or later
- TKI PostgreSQL Provider 4.1.0
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1
- TKI Licensing 13.0
(Only required for a manual installation on the network license server)

Release NET 13.1 in Detail

NET Design

atesio integration

- With the planning setting of the atesio Optimizer "Split trenches", no lead ins, crossings and transitions are split. In addition, street trenches are no longer divided into sections shorter than 1 meter.

Comsof Fiber integration

- New function: Trench creation options
As of version 23, Comsof Fiber supports the creation of trenches not only based on the street center lines (StreetDoubler) with offset, but also takes parcel information into account using the new (TrenchesFromContours) command.
To ensure that no data loss occurs between street center lines and trenches, a new setting has been

introduced in the advanced options of Comsof Fiber. Here you can now choose between creation based on the street center lines or the parcels.

Dialogs

- Planning attribute value is now also displayed for the object classes parcel, rollout phases area and subarea.
- In the "Cable Type" form in the planning data, a button for the missing references is displayed after the structure update, which allows you to jump to the form for the respective object class.

Low level design

- The general export scheme no longer exports buildings without a device connection. The custom export schemes that export all buildings now correctly mark buildings without a device connection as such.

GIS-Nebenbestimmungen export

- The output of the house number and the house number suffix has been corrected.
- Links to the corresponding help pages have been added to the GIS-NB workflows.
- Handling of non-mandatory columns for version 5.0.1 corrected.
- Category for GIS-NB workflows renamed.
- Support GIS Nebenbestimmungen version 5.1.

NET Engineering

Workflows

- There has been a performance improvement in the "Verify FO cable geometries" and "Verify TP cable geometry" workflows.
- In the "Verify FO cable geometries" and "Verify TP cable geometry" workflows, cables assigned twice were not recognised as geometry errors. This error has been fixed.
- The duct length calculation is now carried out in the correct order and therefore correctly for inner ducts.
- The "Check split factor" workflow has been renamed "Check split ratio". In addition, some names within the workflow have been adapted and standardized.
- After execution, the "Check split ratio" workflow shows all FO Fibers for which the specified split ratio is not maintained. This form is no longer pushed into the background, but remains in the foreground.
- A question has been added in "Assign segments and ducts" as to whether the geometry should be created for elements that currently have no geometry.

Reports

- The text in the first and the last column of the "Duct Connection" reports was not correctly vertically aligned. This issue has been fixed.
- The sorting of the Endings overview has been optimized so that the order of the outgoing splitter paths is now also taken into account.
- The display of the "FO Splitter", "Duct Insertion" and "Duct Fitting" forms has been optimized by displaying all existing controls on all tabs.
- During the replacing of placeholders, e.g. in the information text of the detailed splice plan, relations to geometry features are now correctly resolved.

Dialogs

- The field for the "NET Build object" was too short in the redlining forms and the content was partially visible. This problem has been solved.
- Redlining measurement points can now be relationally linked to buildings.
- In the redlining extension, the forms for the survey line types and the survey point types have been revised. This enables a finer gradation and therefore differentiation of the various measurement points and measurement lines.
- The "Splice type" is now also displayed in the "FO Splice" form ("Stored fiber", "Uncut bundle", "Uncut fiber" or "Splice"). The "Execute filter" function can also be used to filter according to the "Splice type".

Data Model

- The redlining data model has been extended so that the relationship between structure and closure can be mapped.

NET Build integration

Transferring data to NET Build

- The settings for data transfer to NET Build contain a new option for updating user-defined fields for planning objects with at least one work item. There is no standard configuration, but the update is defined individually.
- When transferring data to NET Build, the names of the objects are now output in the log messages instead of the FIDs.
- The NET Build push has been expanded to include the option of performing data checks before the transfer.
 - A new validation has been added, that checks whether an attempt is made to transfer ducts that are not assigned to a segment to NET Build. If such ducts are detected, they are listed in the form of messages in the validation dialogue and the user can switch to the relevant form or have these objects highlighted on the map.
 - The validation "cables without start and end device" has been added for data transfer to NET Build. This checks if a cable is connected to only one or no device, a validation message is displayed for each affected cable.
 - A new validation that checks whether an attempt is made to transfer drop ducts with the same name to NET Build. If such drop ducts are detected, they are listed in the form of messages in the validation dialogue and the user can switch to the relevant form or have these objects highlighted on the map.
 - A new validation that checks whether an attempt is made to transfer buildings with the same address to NET Build. If such buildings are detected, they are listed in the form of messages in the validation dialogue and the user can switch to the relevant form or have these objects highlighted on the map.

Synchronizing field reports

- When synchronizing NET Build field reports, the additional option "Load completed planning objects without work" can now be selected. This means that planning objects can now also be transferred from NET Build that do not have work items.

- When synchronizing the field reports between NET Build and NET Engineering, the connections between structures and closures are now supported and entered accordingly in NET Engineering in the "Redlining closure" form.
- For data transmission to and from NET Build, partially underground cables and fully underground cables are now supported.
- When synchronizing field reports from NET Build, underground/above-ground cables are now also supported.

Redlining

- In the dialogue for redlining data transfer there is now a new option for selecting the positional accuracy so that it can be transferred to the objects of the site plan object class.
- An error occurred when documenting the data transfer with the "Connect house connection lines" action. This issue has been solved.
- In the Data Transfer documentation, the validation execution progress bar is now used to show the progress of the validation execution and the execution of the validations can be canceled.

GIS-Nebenbestimmungen export

- Message added for splitting of trenches for protective ducts.
- Handling of non-mandatory columns for version 5.0.1 corrected.
- Category for GIS-NB workflows renamed.
- Support GIS Nebenbestimmungen version 5.1.

NET Field Survey

Validations

- The validation of trenches was adjusted for crossing trenches, so that it no longer fails when a crossing trench is directly connected to a leadin trench.

Changes to the Data Model since NET 13.0

NET Design

Base Data Model

13.1

- Added additional target tables in `FID_FEATURE` to the table `TC_PL_ATTR_VALUE`.
 - `TC_PL_BOUNDARY.FID`
 - `TC_PL_PARCEL.FID`
 - `TC_PL_ROLLOUT_AREA.FID`
 - `TC_PL_SUBAREA.FID`

GIS-Nebenbestimmungen Data Model

13.1

- Removed "BMVI" from all captions.
- Added new column `BMVI_IS_TECH` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD`.
- Added new column `BMVI_PLAN_AUSB` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_PLAN_AUSB_TBD`.
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD`.
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD`.
- Added new domain table `TC_PL_BMVI_PLAN_AUSB_TBD`.
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_PL_BMVI_TECH_IS_TBD`.
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

NET Engineering

Base Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

Duct Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

Fiber Optic Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

Telephony Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

GIS-Nebenbestimmungen Data Model

13.1

- Added new column `BMVI_IS_TECH` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new column `BMVI_PLAN_AUSB` in `TC_TG_BUILDING` with relation to `TC_BMVI_PLAN_AUSB_TBD.ID`.
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new domain table `TC_BMVI_PLAN_AUSB_TBD`.
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_BMVI_TECH_IS_TBD`.
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

Redlining Data Model

13.1

- Added new column `FID_STRUCTURE` in `TC_RL_CLOSURE` with relation to `TC_RL_STRUCTURE.FID`.
- Additional target table for the relation from `TC_RL_MEASUREMENT_POINT.FID_FEATURE` to `TC_TG_BUILDING.FID`.
- Added new object class `TC_RL_MEASUREMENT_L_MODEL`.

- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_LINE` with relation to `TC_RL_MEASUREMENT_L_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_LINE`.
- Adjusted the view `TC_M_RL_MEASUREMENT_LINE` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_L_TYPE_TBD`.
- Added new object class `TC_RL_MEASUREMENT_P_MODEL`.
- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_POINT` with relation to `TC_RL_MEASUREMENT_P_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_POINT`.
- Adjusted the view `TC_M_RL_MEASUREMENT_POINT` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_P_TYPE_TBD`.

Changes to the dialogs since NET 13.0

NET Design

Base Data Model

13.1

- New dialog for Boundary (`TC_PL_BOUNDARY`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Parcel (`TC_PL_PARCEL`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Rollout Area (`TC_PL_ROLLOUT_AREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Subarea (`TC_PL_SUBAREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New references from Cable Type (`TC_PL_CABLE_TYPE.FID`)
 - to Building (`TC_PL_BUILDING.FID_FORCED_CABLE_TYPE`)
 - to Demand Point (`TC_PL_DEMAND_POINT.FID_FORCED_CABLE_TYPE`)

GIS-Specifications Data Model

13.1

- Dialog for Demand Point (`TC_PL_DEMAND_POINT`):
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from `BMVI_TECH_1_YEAR` to `BMVI_TECH_1_YEAR_INT` .
 - Changed control for "Technology within three years" from text field to dropdown. Database field changed from `BMVI_TECH_3_YEAR` to `BMVI_TECH_3_YEAR_INT` .
 - Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from `BMVI_TECH_IS` to `BMVI_IS_TECH` .
 - Added new dropdown "Expansion Plan" (`BMVI_PLAN_AUSB`)

NET Engineering

Fiber Optic Data Model

13.1

- Dialog for Fiber Optic Splice (`TC_FO_SPLICE`):
 - New named filters:
 - Show splices
 - Show stored fibers
 - Show uncut fibers in BA
 - Show uncut fibers
 - New SQL Label "Splice Type" (`SQLLABELSPLICETYPE`)

- Corrected positioning of Document Management (`$DOCUMENTMANAGER`)

Redlining Data Model

13.1

- Dialog for Redlining Closure (`TC_PL_CLOSURE`):
 - New reference field for Redlining Structure (`FID_STRUCTURE`)
 - Corrected positioning of Redlining Source Object (`SOURCE_OBJECT`)
- Dialog for Measurement Line (`TC_RL_MEASUREMENT_LINE`):
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Line Model (`TC_RL_MEASUREMENT_L_MODEL`)
- Dialog for Measurement Point (`TC_RL_MEASUREMENT_POINT`):
 - Extended target tables for parent object (`FID_PARENT`) to include Building (`TC_TG_BUILDING`)
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Point Model (`TC_RL_MEASUREMENT_P_MODEL`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Segment (`TC_RL_SEGMENT`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Structure (`TC_RL_STRUCTURE`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Terminator (`TC_RL_TERMINATOR`)

GIS-Specifications Data Model

13.1

- Dialog for Building (`TC_TG_BUILDING`):
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from `BMVI_TECH_1_YEAR` to `BMVI_TECH_1_YEAR_INT` .
 - Changed control for "Technology within three years" from text field to dropdown. Database field changed from `BMVI_TECH_3_YEAR` to `BMVI_TECH_3_YEAR_INT` .
 - Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from `BMVI_TECH_IS` to `BMVI_IS_TECH` .
 - Added new dropdown "Expansion Plan" (`BMVI_PLAN_AUSB`)

Changes of the reports since NET 13.0

NET Engineering

Base Data Model

13.1

- Support function to identify the location of images was updated in all reports.

Duct Data Model

13.1

- The vertical text alignment has been fixed in the columns for the start and end node in the “duct tap connections” report.
- Support function to identify the location of images was updated in all reports.

Fiber Optic Data Model

13.1

- Support function to identify the location of images was updated in all reports.

Telephony Data Model

13.1

- Support function to identify the location of images was updated in all reports.

Release Notes NET 13.1.1

Summary

This version contains improvements and solutions for various minor problems.

The DocPack in NET Engineering has been extended so that the schematic plans are available as part of the DocPack output.

Supported Software

- Autodesk AutoCAD Map 3D
 - Autodesk AutoCAD Map 3D 2022.0.1 - Autodesk AutoCAD 2022.1.3 or later
 - Autodesk AutoCAD Map 3D 2023.0.2 - Autodesk AutoCAD 2023.1.1 or later
 - Autodesk AutoCAD Map 3D 2024.0.1 - Autodesk AutoCAD 2024.1 or later
- TKI PostgreSQL Provider 4.1.0
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1
- TKI Licensing 13.0
(Only required for a manual installation on the network license server)

Release NET 13.1.1 in Detail

General

- In rare cases, arc geometries with only 3 support vertices caused errors in the NET functions. This has been fixed.

NET Design

Comsof Fiber Integration

- As of NET 13.1.1, the calculation in NET Design can only be started once the set of rules has been saved and closed.

NET Engineering

- An issue related to displaying the error report window has been resolved
- "Assign cable to further segments/ducts" workflow: When assigning the cable to a superior or subordinate duct, the assignment is not carried out after the corresponding note and the segment cross-section is correctly not updated if the answer is no.

- The unnecessary spaces that occur when entering a person's surname and company name has been fixed.
- If a project is closed, the editors for Name schemes and Attribute schemes are now also automatically closed.
- A problem with updating the segment cross section has been fixed.
- The assignment of a parent point to a line and the assignment of a building to a point via the graphic selection now works as expected again under PG.
- In the label collision resolution, changing the order via drag & drop now works as expected again.
- Corrected the displayed flow direction in the connection overview.
- When updating a project the configuration dialog required a click two times to access the details. This issue has been resolved.

Workflows

- If several segments containing a cable with incorrect geometry are selected via the map selection in the "Verify FO cable geometries" or "Verify TP cable geometries" workflows, this invalid geometry is now also recognized.
- If there is an error in the "Set duct insertion" workflow so that the desired duct insertion cannot be created, a meaningful error message is now displayed.
- In the "Create and assign ducts (w/o geometry)" workflow, an error message has been removed which, under certain circumstances, incorrectly prevented the creation of ducts in projects without duct types.

Connection editor

- If no tray is selected in the action 'Edit trays' the fields for editing the attributes will not be displayed anymore. Now there is a hint that no tray is selected.
- When creating fiber connections with the type 'Uncut fiber' the tray capacity was checked and an error message appeared. This problem has been solved.
- In the connection editor the possibility to select the fiber model when creating patch fibers has been added.

Dialogs

- With the "Assign cable to further segments/ducts" function, it is no longer possible to assign a cable to the same segment or duct more than once. Instead, a meaningful error message is displayed.
- With the "Assign duct to further segments/ducts" function, it is no longer possible to assign a duct to the same segment or duct more than once. Instead, a meaningful error message is displayed.

Bill of Materials

- If the start-and endpoints of a segment, duct or cable are outside a cluster, they are now correctly displayed in the bill of material again if the option "Also include objects that intersect the polygon" is selected.

GIS-Nebenbestimmungen

- The filter by funding project no longer changes the database.
- When calculating the reserves in a pipe, the export to GIS-NB takes into account the filter for status values on the cables.

TNIM

- During the TNIM import the mappings between rack panels and patch panels were not created correctly. This problem has been solved.
- The window for the TNIM-Data exchange import or export cannot be opened multiple times now. While the window is open the access to the AutoCAD Map3D window is prevented.
- In the TNIM export a new check box 'Overwrite sources' was added, that can be used to overwrite the source information as a data source for all objects in the TNIM data.

Redlining

- In the "Data transfer documentation", a programme crash occurred when executing the test run if there was not a single status in the project. This error has been corrected.
- Empty properties triggered an error during redlining validation. This is no longer the case.
- In the redlining extension, it is now clearly recognisable when data is transferred for documentation if it is a mandatory validation. This cannot be deselected and a tooltip also indicates this.
- When the "Snap redlining features" action was executed again, manually corrected segments were changed again. This error has been fixed.
- When performing the action 'Link devices' in 'redlining measurement', a warning will now appear if a structure has no link to a closure. This warning informs the user that the connection has been defined spatially.

NET Build Integration

- When transferring data to NET Build, an error occurred if the names of the planning objects created (e.g. the names of duct types) were too long (>255 characters) in the data to be transferred. This error has been fixed by shortening strings that are too long.
- When synchronizing the NET Build field reports, an error occurred when loading the measurements if the redlining measurement was no longer available. This error has been fixed.
- If you try to log in to NET Build with incorrect data during the data transfer to NET Build, a message is now displayed informing you why you cannot log in.
- If you try to log in to NET Build with incorrect data during synchronisation of the field reports, a message is now displayed informing you why you cannot log in.
- When synchronising the NET Build field reports, customfields of the markups are now transferred to NET Engineering.
- When using the NET Build Push, you can now select how segments are transferred. Segments can now be merged 1:1 or by category and type.

Documentation Pack

- In the output path for duct end plans now the attributes of the duct feature class can be used if the source is the cabinet feature class.
- The option names for the connection plan has been adapted.
- The DocPack now supports the output of FO connection diagrams.
- The DocPack now supports the output of duct end plans.
- The DocPack now supports the output of rack representations.
- The DocPack now supports the output of grouped splice plans.
- Fixed the error that was making DocPack crashing when there was a line return in the output path by replacing it with an underscore.

One-click-maintenance

- There is a new 1 Click Maintenance called "NET Engineering: Check duct insertions", which finds discrepancies between the duct reference of the duct insertion and the corresponding topology entry and fixes them if possible.
- The column names for the problems found in the TKI 1-Click Maintenance have been optimized.

NET Operations

Network routing

- It is now possible to filter and search in the drop-down list for the services in the network routing by typing in the editable field.
- The drop down list for the services in the network routing are now sorted alphabetically and no longer by FIDs.

NET Field Survey

Validation

- During validation of a cluster, only clusters from NET-Field Survey can be selected and not from a NET-Design or a NET-Engineering document.
- An error during validation with active cluster selection has been fixed.

Changes to the Data Model since NET 13.0

NET Design

Base Data Model

13.1

- Added additional target tables in `FID_FEATURE` to the table `TC_PL_ATTR_VALUE`.
 - `TC_PL_BOUNDARY.FID`
 - `TC_PL_PARCEL.FID`
 - `TC_PL_ROLLOUT_AREA.FID`
 - `TC_PL_SUBAREA.FID`

GIS-Nebenbestimmungen Data Model

13.1

- Removed "BMVI" from all captions.
- Added new column `BMVI_IS_TECH` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD`.
- Added new column `BMVI_PLAN_AUSB` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_PLAN_AUSB_TBD`.
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD`.
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD`.
- Added new domain table `TC_PL_BMVI_PLAN_AUSB_TBD`.
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_PL_BMVI_TECH_IS_TBD`.
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

NET Engineering

Base Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

Duct Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

Fiber Optic Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

Telephony Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

GIS-Nebenbestimmungen Data Model

13.1

- Added new column `BMVI_IS_TECH` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new column `BMVI_PLAN_AUSB` in `TC_TG_BUILDING` with relation to `TC_BMVI_PLAN_AUSB_TBD.ID`.
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new domain table `TC_BMVI_PLAN_AUSB_TBD`.
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_BMVI_TECH_IS_TBD`.
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

Redlining Data Model

13.1

- Added new column `FID_STRUCTURE` in `TC_RL_CLOSURE` with relation to `TC_RL_STRUCTURE.FID`.
- Additional target table for the relation from `TC_RL_MEASUREMENT_POINT.FID_FEATURE` to `TC_TG_BUILDING.FID`.
- Added new object class `TC_RL_MEASUREMENT_L_MODEL`.

- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_LINE` with relation to `TC_RL_MEASUREMENT_L_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_LINE`.
- Adjusted the view `TC_M_RL_MEASUREMENT_LINE` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_L_TYPE_TBD`.
- Added new object class `TC_RL_MEASUREMENT_P_MODEL`.
- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_POINT` with relation to `TC_RL_MEASUREMENT_P_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_POINT`.
- Adjusted the view `TC_M_RL_MEASUREMENT_POINT` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_P_TYPE_TBD`.

Changes to the dialogs since NET 13.0

NET Design

Base Data Model

13.1

- New dialog for Boundary (`TC_PL_BOUNDARY`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Parcel (`TC_PL_PARCEL`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Rollout Area (`TC_PL_ROLLOUT_AREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Subarea (`TC_PL_SUBAREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New references from Cable Type (`TC_PL_CABLE_TYPE.FID`)
 - to Building (`TC_PL_BUILDING.FID_FORCED_CABLE_TYPE`)
 - to Demand Point (`TC_PL_DEMAND_POINT.FID_FORCED_CABLE_TYPE`)

GIS-Specifications Data Model

13.1

- Dialog for Demand Point (`TC_PL_DEMAND_POINT`):
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from `BMVI_TECH_1_YEAR` to `BMVI_TECH_1_YEAR_INT` .
 - Changed control for "Technology within three years" from text field to dropdown. Database field changed from `BMVI_TECH_3_YEAR` to `BMVI_TECH_3_YEAR_INT` .
 - Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from `BMVI_TECH_IS` to `BMVI_IS_TECH` .
 - Added new dropdown "Expansion Plan" (`BMVI_PLAN_AUSB`)

NET Engineering

Fiber Optic Data Model

13.1

- Dialog for Fiber Optic Splice (`TC_FO_SPLICE`):
 - New named filters:
 - Show splices
 - Show stored fibers
 - Show uncut fibers in BA
 - Show uncut fibers
 - New SQL Label "Splice Type" (`SQLLABELSPLICETYPE`)

- Corrected positioning of Document Management (`$DOCUMENTMANAGER`)

Redlining Data Model

13.1

- Dialog for Redlining Closure (`TC_PL_CLOSURE`):
 - New reference field for Redlining Structure (`FID_STRUCTURE`)
 - Corrected positioning of Redlining Source Object (`SOURCE_OBJECT`)
- Dialog for Measurement Line (`TC_RL_MEASUREMENT_LINE`):
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Line Model (`TC_RL_MEASUREMENT_L_MODEL`)
- Dialog for Measurement Point (`TC_RL_MEASUREMENT_POINT`):
 - Extended target tables for parent object (`FID_PARENT`) to include Building (`TC_TG_BUILDING`)
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Point Model (`TC_RL_MEASUREMENT_P_MODEL`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Segment (`TC_RL_SEGMENT`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Structure (`TC_RL_STRUCTURE`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Terminator (`TC_RL_TERMINATOR`)

GIS-Specifications Data Model

13.1

- Dialog for Building (`TC_TG_BUILDING`):
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from `BMVI_TECH_1_YEAR` to `BMVI_TECH_1_YEAR_INT` .
 - Changed control for "Technology within three years" from text field to dropdown. Database field changed from `BMVI_TECH_3_YEAR` to `BMVI_TECH_3_YEAR_INT` .
 - Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from `BMVI_TECH_IS` to `BMVI_IS_TECH` .
 - Added new dropdown "Expansion Plan" (`BMVI_PLAN_AUSB`)

Changes of the reports since NET 13.0

NET Engineering

Base Data Model

13.1

- Support function to identify the location of images was updated in all reports.

Duct Data Model

13.1

- The vertical text alignment has been fixed in the columns for the start and end node in the “duct tap connections” report.
- Support function to identify the location of images was updated in all reports.

Fiber Optic Data Model

13.1

- Support function to identify the location of images was updated in all reports.

Telephony Data Model

13.1

- Support function to identify the location of images was updated in all reports.

Release Notes NET 13.1.2

Summary

With NET 13.1.2, NET Design now officially supports Comsof Fiber version 23.2. Among many new features, this version no longer supports FTTC networks where the last section to the customer is covered by copper cables. The corresponding extension for NET Design is no longer available to users of the new version of Comsof.

A change in NET Engineering affects the fiber optic connection editor. It's now possible to establish connections where a connector is simultaneously connected with a fiber and a splitter path.

Furthermore, the new version offers numerous improvements and bug fixes to optimize performance and stability.

Supported Software

- Autodesk AutoCAD Map 3D
 - Autodesk AutoCAD Map 3D 2022.0.1 - Autodesk AutoCAD 2022.1.3 or later
 - Autodesk AutoCAD Map 3D 2023.0.2 - Autodesk AutoCAD 2023.1.1 or later
 - Autodesk AutoCAD Map 3D 2024.0.1 - Autodesk AutoCAD 2024.1 or later
- TKI PostgreSQL Provider 4.1.0
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1 - Comsof Fiber 23.2
- TKI Licensing 13.0
(Only required for a manual installation on the network license server)

Release NET 13.1.2 in Detail

General

One-click-maintenance

- The 1-Click maintenance "TKI: Invalid control references" has been adapted so that spaces are now also recognized and removed.

Documentation Pack

- In the DocPack now in the tooltips for the attribute placeholders the captions of the attributes and the feature classes will be shown.
- If there are files being used in the DocPack output which are located on a network drive, now they will be copied to the temporary directory of the local drive and used in DocPack output.

NET Design

Comsof Fiber Integration

- Added support for Comsof Fiber 23.2.X version.

NET Engineering

General

- An error in the export of name schemes has been fixed.
- An error in the license selection has been fixed.
- For better readability, the highlighting of replacement tokens in input fields has been recoloured. This can be found, for example, in the conversion settings for detailed planning and in the DocPack.
- The length of the cables will be recalculated from the direct outer segments and ducts of the cables, when the geometry of the subordinate cables of a duct is deleted using the duct dialog

Comsof: Import material definition

- The labels for existing and non-existing splitters are now displayed as intended.

Workflows

- In the "Split ducts" workflow, the CAD length of all split ducts is now calculated correctly again if the NET option "Automatically re-calculate duct lengths" is activated.
- The German translation for the workflow "Recalculate duct and cable length" was improved.

Dialogs

- If the checkbox for the forms is deactivated during the structure update, these are now also not updated.
- When displaying the attenuation values in the form of the fiber the english translation has been added and the format of the number has been corrected.

Connection editor

- The FO connection editor can now connect a connector with a fiber and a splitter path at the same time.

NET Build Integration

- Conversion errors that led to a crash during NET Build Pull are now recorded in detail in the logs. These contain the exact cause of the error as well as recommended actions to rectify the problem.
- The synchronization between NET Build and NET Engineering now handles Yes/No values correctly.
- The data transfer to NET Build can now also transfer custom defined fields for distribution clusters.
- An error in the data transfer to NET Build has been fixed where customer-specific values were not transferred for manholes.
- A Custom Field Value of the Date-Time type is displayed correctly with milliseconds
- In redlining, production reports that do not contain service items are now also loaded.
- When synchronizing field reports from NET Build, the filter selection for production reports was ignored. This problem has been fixed.

- During the import of data from NET Build to Redlining, an error message with unassignable NET Build units may occur. An invalid value = 0 was displayed. This error has been fixed and the message improved at the same time.
- NET Build pull throws an error with account that does not have rights to run the integration scripts
- When synchronizing field reports from NET Build, unused custom attributes are now also transferred.

Redlining

- The documentation data transfer from redlining data now no longer displays a warning if all validations have been carried out without errors.
- The validation "Ducts with invalid start node" of the data transfer from Redlining to NET Engineering now no longer shows an error if there is an alternative closure with the name of the expected structure.
- During the "Link devices" action of the Redlining data transfer, an abort and error could occur. This problem has been fixed.
- In the redlining data transfer, an error has been fixed that prevented the "Link distribution network" action from being completed.
- In the redlining data transfer, redlining attributes are now also transferred.
- It is now possible to use the NET REST server to validate the accuracy of GPS measurements of points in field reports against a threshold.

NET Operations

Network routing

- When the user wanted to end the current network path search or delete all found paths, the search process was still running in the background. This problem has been solved.

NET Field Survey

Validation

- The validation of a cluster does not lead to a crash if a trench and the cluster boundary overlap.

Changes to the Data Model since NET 13.0

NET Design

Base Data Model

13.1

- Added additional target tables in `FID_FEATURE` to the table `TC_PL_ATTR_VALUE`.
 - `TC_PL_BOUNDARY.FID`
 - `TC_PL_PARCEL.FID`
 - `TC_PL_ROLLOUT_AREA.FID`
 - `TC_PL_SUBAREA.FID`

GIS-Nebenbestimmungen Data Model

13.1

- Removed "BMVI" from all captions.
- Added new column `BMVI_IS_TECH` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD`.
- Added new column `BMVI_PLAN_AUSB` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_PLAN_AUSB_TBD`.
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD`.
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD`.
- Added new domain table `TC_PL_BMVI_PLAN_AUSB_TBD`.
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_PL_BMVI_TECH_IS_TBD`.
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

NET Engineering

Base Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

Duct Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

Fiber Optic Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

Telephony Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

GIS-Nebenbestimmungen Data Model

13.1

- Added new column `BMVI_IS_TECH` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new column `BMVI_PLAN_AUSB` in `TC_TG_BUILDING` with relation to `TC_BMVI_PLAN_AUSB_TBD.ID`.
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new domain table `TC_BMVI_PLAN_AUSB_TBD`.
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_BMVI_TECH_IS_TBD`.
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

Redlining Data Model

13.1

- Added new column `FID_STRUCTURE` in `TC_RL_CLOSURE` with relation to `TC_RL_STRUCTURE.FID`.
- Additional target table for the relation from `TC_RL_MEASUREMENT_POINT.FID_FEATURE` to `TC_TG_BUILDING.FID`.
- Added new object class `TC_RL_MEASUREMENT_L_MODEL`.

- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_LINE` with relation to `TC_RL_MEASUREMENT_L_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_LINE`.
- Adjusted the view `TC_M_RL_MEASUREMENT_LINE` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_L_TYPE_TBD`.
- Added new object class `TC_RL_MEASUREMENT_P_MODEL`.
- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_POINT` with relation to `TC_RL_MEASUREMENT_P_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_POINT`.
- Adjusted the view `TC_M_RL_MEASUREMENT_POINT` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_P_TYPE_TBD`.

Changes to the dialogs since NET 13.0

NET Design

Base Data Model

13.1

- New dialog for Boundary (`TC_PL_BOUNDARY`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Parcel (`TC_PL_PARCEL`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Rollout Area (`TC_PL_ROLLOUT_AREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Subarea (`TC_PL_SUBAREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New references from Cable Type (`TC_PL_CABLE_TYPE.FID`)
 - to Building (`TC_PL_BUILDING.FID_FORCED_CABLE_TYPE`)
 - to Demand Point (`TC_PL_DEMAND_POINT.FID_FORCED_CABLE_TYPE`)

GIS-Specifications Data Model

13.1

- Dialog for Demand Point (`TC_PL_DEMAND_POINT`):
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from `BMVI_TECH_1_YEAR` to `BMVI_TECH_1_YEAR_INT` .
 - Changed control for "Technology within three years" from text field to dropdown. Database field changed from `BMVI_TECH_3_YEAR` to `BMVI_TECH_3_YEAR_INT` .
 - Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from `BMVI_TECH_IS` to `BMVI_IS_TECH` .
 - Added new dropdown "Expansion Plan" (`BMVI_PLAN_AUSB`)

NET Engineering

Fiber Optic Data Model

13.1

- Dialog for Fiber Optic Splice (`TC_FO_SPLICE`):
 - New named filters:
 - Show splices
 - Show stored fibers
 - Show uncut fibers in BA
 - Show uncut fibers
 - New SQL Label "Splice Type" (`$SQLLABELSPLICETYPE`)
 - Corrected positioning of Document Management (`$DOCUMENTMANAGER`)

Redlining Data Model

13.1

- Dialog for Redlining Closure (`TC_PL_CLOSURE`):
 - New reference field for Redlining Structure (`FID_STRUCTURE`)
 - Corrected positioning of Redlining Source Object (`SOURCE_OBJECT`)
- Dialog for Measurement Line (`TC_RL_MEASUREMENT_LINE`):
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Line Model (`TC_RL_MEASUREMENT_L_MODEL`)
- Dialog for Measurement Point (`TC_RL_MEASUREMENT_POINT`):
 - Extended target tables for parent object (`FID_PARENT`) to include Building (`TC_TG_BUILDING`)
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Point Model (`TC_RL_MEASUREMENT_P_MODEL`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Segment (`TC_RL_SEGMENT`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Structure (`TC_RL_STRUCTURE`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Terminator (`TC_RL_TERMINATOR`)

GIS-Specifications Data Model

13.1

- Dialog for Building (`TC_TG_BUILDING`):
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from `BMVI_TECH_1_YEAR` to `BMVI_TECH_1_YEAR_INT` .
 - Changed control for "Technology within three years" from text field to dropdown. Database field changed from `BMVI_TECH_3_YEAR` to `BMVI_TECH_3_YEAR_INT` .
 - Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from `BMVI_TECH_IS` to `BMVI_IS_TECH` .
 - Added new dropdown "Expansion Plan" (`BMVI_PLAN_AUSB`)

Changes of the reports since NET 13.0

NET Engineering

Base Data Model

13.1

- Support function to identify the location of images was updated in all reports.

Duct Data Model

13.1

- The vertical text alignment has been fixed in the columns for the start and end node in the “duct tap connections” report.
- Support function to identify the location of images was updated in all reports.

Fiber Optic Data Model

13.1

- Support function to identify the location of images was updated in all reports.

Telephony Data Model

13.1

- Support function to identify the location of images was updated in all reports.

Release Notes NET 13.2 (English)

Summary

With the new NET 13.2 version, NET Design users now have access to the Infas 360 data importer. This importer can be used to retrieve address data from infas360. This data import is subject to a charge. Please contact the sales department for a quote.

In addition, the new version also supports the current version of atesio Strategic, namely version 2022.

A bug in the GIS-NB integration in NET Engineering has been fixed. The check as to whether pipes need to be separated at the transition from protective pipes to route laying has been significantly improved and now only strikes if it is really necessary. This check is now only active for GIS-NB versions 3.1 and 3.2 and for trade call 1.0. If the installation depth in the protective pipe and in the route is identical, separation is also not necessary.

There is an extension for the DocPack that makes it possible to automatically link the documents created there to the respective data record via the document management. In combination with the function for uploading data from the document management system to NET Cloud, the documentation for a project can be made available in NET Cloud in just a few steps.

In addition, numerous minor adjustments and bug fixes have been made to further improve the quality and stability of the software solution.

Supported Software

- Autodesk AutoCAD Map 3D
 - Autodesk AutoCAD Map 3D 2022.0.1 - Autodesk AutoCAD 2022.1.3 or later
 - Autodesk AutoCAD Map 3D 2023.0.2 - Autodesk AutoCAD 2023.1.1 or later
 - Autodesk AutoCAD Map 3D 2024.0.1 - Autodesk AutoCAD 2024.1 or later
- TKI PostgreSQL Provider 4.1.0
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1 - Comsof Fiber 23.2
- TKI Licensing 13.0
(Only required for a manual installation on the network license server)

Release NET 13.2 in Detail

General

- Document upload to NET cloud is successfully carried out without any errors

Dialogs

- The error in the display of domain tables has been fixed.

Documentation Pack

- The DocPack output now displays the elements to be output in alphabetical order.
- The DocPack output now detects and corrects invalid folder structures for subfolders.
- Opening a template in the DocPack configurator has been noticeably accelerated if several sub templates reference the same layout file.
- A new database view for plots has been added.
- The DocPack has been expanded to include a new function that makes it possible to link generated documents with the document management. Whether this functionality should be used can be specified using an option in the DocPack Output.

NET Design

- There is now a new importer "Import from Infas geodata" which can be used to import demand points to NET Design. Please get in touch with our sales team for more information.
- Before values are transferred from NET Design to NET Field Survey or vice versa, a validation takes place to check whether the length of the value in the source is greater than the maximum capacity of the field in the target data model. A corresponding message is then displayed to indicate whether the transfer was successful or not. If the transfer was not successful, a message is displayed indicating the cause and the source of the problem.

Dialogs

- Length attributes in the dialog are now by default limited to two decimal places.

atesio Integration

- As soon as the user clicks on the "Cancel" button, the button is deactivated and the process is canceled. No stack trace, error reports etc. are displayed in the log.

Comsof Fiber Integration

- Changed to the attribute "duct type restriction" are now correctly detected and reset the area preparation data. This allows the changed to take effect during the next calculation without manually resetting the area preparation data.

NET Engineering

- Connection overview: Duct insertions and fittings are not shows as either start- or endpoint.
- The list of start- and endpoints in the connection overview is now being sorted.
- All map views of the datamodels NET Engineering Base, Duct, FO and TP now contain the fields date_created, date_modified, user_created and user_modified from the corresponding attribute class.
- The report "segment costs" has been corrected.
- A name scheme has been corrected so that it is now valid and can be used.
- The FO Connector type "LC/APC" is now automatically created with Angled polish = "Yes". In existing databases, the value is corrected if Angled polish = "No" is stored.
- Fixed a bug that caused a fitting to not be recognized and displayed in the duct connection editor if the start or end point of its connected ducts match the start point of the duct connection editor, but the fitting's geometry is located somewhere else. In addition, such a fitting is now correctly recognized and displayed in the duct connection editor when opened through the fitting's form.

Workflows

- The functions "Assign duct to further segments", "Assign duct to further segments/ducts", "Assign existing ducts", "Assign cable to further segments", "Assign cable to further segments/ducts", "Assign existing cables" and "Edit segment und duct assignments" have been fundamentally revised and standardized.
- If the "Assign existing ducts" or "Assign existing cables" functions would result in incorrect geometry due to the assignment, there is now a query asking whether this action should still be executed or canceled. In addition, an option in this query window can be used to select whether this query should be displayed again within the current session or until the project is closed.
- The display of the light/dark colour scheme and scaling of the "Create duct template" workflow has been optimized.
- The functions "Assign duct to further segments" and "Assign cable to further segments" now display a meaningful error message if the assignment would result in an invalid geometry.

Dialogs

- If the "Remove geometry of all child cables" function is canceled, an error no longer occurs.
- In several forms, the info fields have been optimized with regard to maximum number of characters, field height, line breaks and word wraps.
- The correct Splitter is now displayed again behind the Splitter paths in the "FO Splice" form.
- The functions for selecting and filtering the Duct template have been improved in the "Duct type" and "Duct" forms.
- There are now two new buttons in the "FO Terminator", "FO Closure", "TP Terminator" and "TP Closure" forms, which display all incoming and outgoing cables for all data records in the filter.

Reports

- The length of a cable section is now displayed in the splice plan from tracing.
- Duct Tap: The report "duct connections" shows the colors of all ducts correctly once again.
- Work order: The handling of line breaks in the report has been improved.
- If an attempt was made to call up a report without a data record being selected, an error occurred. This behaviour has been corrected and a message is now displayed stating that the report is empty.

GIS-Nebenbestimmungen

- Output of the state in empty ducts works again for all versions.
- The installation depth check has been removed for non-relevant versions.
- The obsolete designation "BMVI" has been removed and replaced by GIS-NB.

TNIM

- The TNIM import now also accepts unpacked files with the extension ".tnim".
- The default source in TNIM v2.1 for SQLite projects was previously called "Default", now the name of the project is used instead.
- The TNIM key and TNIM source fields are now editable in all forms.

Redlining

- When transferring data from Redlining to NET Engineering, an incorrect behavior was corrected in the "Link fiber connections" action, which meant that the action could not be completed.
- There is a new validation, which checks if there are any objects without geometry.

- A new function was added to the redlining dialogs. This allows navigating from the redlining objects to the assigned service positions.
- When transferring data from Redlining to NET Engineering, the performance of the "Link distribution network" action has been significantly improved.
- Removed the FID_PARENT attribute from redlining fittings - as a result, a validation that checked if a redlining segment had enough fittings was also removed.
- The help link in the Redlining forms of the each individual object classes now leads to the appropriate pages in the online help.
- When transferring the redlining data to NET Engineering, not only the segments but also the fittings and structures are now moved during the "Snap redlining features" action.

NET Build Integration

- When synchronizing field reports from NET Build, clusters are now also transferred.
- When transferring data from NET Build to NET Engineering (redlining), an error report occurred if the configuration for the transfer was not available. This error has been fixed.
- Data transfer from NET Build Push to Redlining is not supported with the IMBatch.
- When synchronizing field reports from NET Build, only service items and materials with quantity greater than 0 are now transferred.
- When transferring data from NET Build to the redlining data model, an error occurred if the abbreviation of the building was more than 4 characters long. This error has been fixed.
- When transferring data from NET Engineering to NET Build, it is now possible to select status values for the objects to be transferred.
- When transferring data from NET Engineering to NET Build, the "status" of the planning objects is now also transferred.
- For the validation window of the data transfer from NET Engineering to NET Build, improvements have been made to the display of texts.
- A new validation "Segments with invalid geometry" has been added for data transfer to NET Build. This checks whether there are segments with invalid geometry that are to be transferred to NET Build. A validation message is displayed for each affected segment.
- A new validation has been added to the data transfer to NET Build, which checks whether an attempt is made to transfer duct bundles or single ducts without names.
- A new validation "Empty Segments" has been added for data transfer to NET Build. This checks whether there are segments without pipes or cables that are to be transferred to NET Build. A validation message is displayed for all segments found.
- When using the NET Build Push, a new option has been added to the creation of the new region. This option determines whether the new region should only be visible in the selected segment.
- Before data is transferred from NET Build, the system first checks whether all the necessary settings are available in NET Build.

NET Field Survey

Dialogs

- Length attributes in dialogs are now shown with two decimal places by default.

Validation

- The validation for "Cabinets or Address Points in multiple parent Clusters" now only refers to standard clusters.

- The validation for "Cabinets or Address Points in multiple parent Clusters" now ignores elements that are not included.

Changes to the Data Model since NET 13.0

NET Design

Base Data Model

13.1

- Added additional target tables in `FID_FEATURE` to the table `TC_PL_ATTR_VALUE` .
 - `TC_PL_BOUNDARY.FID`
 - `TC_PL_PARCEL.FID`
 - `TC_PL_ROLLOUT_AREA.FID`
 - `TC_PL_SUBAREA.FID`

13.2

- *No changes to the data model - Structural update only for new forms and reports*

GIS-Nebenbestimmungen Data Model

13.1

- Removed "BMVI" from all captions.
- Added new column `BMVI_IS_TECH` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD` .
- Added new column `BMVI_PLAN_AUSB` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_PLAN_AUSB_TBD` .
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD` .
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD` .
- Added new domain table `TC_PL_BMVI_PLAN_AUSB_TBD` .
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_PL_BMVI_TECH_IS_TBD` .
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

13.2

- The captions of a few remaining identifiers have been changed from "BMVI" to "GIS-NB". There are not structural changes.

NET Engineering

Base Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The size of the column `INFO` in the Action area (`TC_ACTION_AREA`) feature class has been increased to 255 characters.
- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - `TC_M_BUILDING`
 - `TC_M_CLUSTER_STATISTIC`
 - `TC_M_SP_CABINET`
 - `TC_M_SP_MANHOLE`
 - `TC_M_SP_MARKER`
 - `TC_M_SP_POLE`
 - `TC_M_SP_SEGMENT`
 - `TC_M_SWITCHING_POINT`
- The backing table for the color table (`TC_COLOR`) was updated.
 - The column AutoCAD index (`ACAD_INDEX`) is not optional anymore and got the default value 0
 - The column blue value (`B_VALUE`) is not optional anymore and got the default value 0
 - The column dashed (`DASHED`) is not optional anymore and got the default value 0
 - The column green value (`G_VALUE`) is not optional anymore and got the default value 0
 - The column position(`ORDER_ID`) is not optional anymore and got the default value 0
 - The column red value (`R_VALUE`) is not optional anymore and got the default value 0

Duct Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - `TC_M_CS_CABLE`

- TC_M_CS_DUCT
 - TC_M_SP_DUCT
 - TC_M_SP_DUCT_INSERTION
 - TC_M_SP_DUCT_TAP
 - TC_M_SP_FITTING
- The field `LENGTH` got added to the view `TC_REP_SEGMENTCOSTS` , in case it was not present already.

Fiber Optic Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*
- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - TC_M_FO_CABLE
 - TC_M_FO_CLOSURE
 - TC_M_FO_TERMINATOR
 - TC_M_FO_SP_ASSIGNMENTS
- The text format of the output of the following views as fixed. There are no structure changes.
 - TC_REP_WO_FO_PATCH
 - TC_REP_WO_FO_SPLICE
- The size of the column `INFO` in cable loop (`TC_FO_CABLE_LOOP`) feature classes got increased to 255 characters

Telephony Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - TC_M_TP_CABLE
 - TC_M_TP_CLOSURE
 - TC_M_TP_TERMINATOR
 - TC_M_TP_SP_ASSIGNMENTS
- The text format of the output of the following views as fixed. There are no structure changes.
 - TC_REP_WO_TP_PATCH

- `TC_REP_WO_TP_SPLICE`

GIS-Nebenbestimmungen Data Model

13.1

- Added new column `BMVI_IS_TECH` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new column `BMVI_PLAN_AUSB` in `TC_TG_BUILDING` with relation to `TC_BMVI_PLAN_AUSB_TBD.ID`.
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new domain table `TC_BMVI_PLAN_AUSB_TBD`.
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_BMVI_TECH_IS_TBD`.
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

13.2

- The captions of a few remaining identifiers have been changed from “BMVI” to “GIS-NB”. There are not structural changes.

Redlining Data Model

13.1

- Added new column `FID_STRUCTURE` in `TC_RL_CLOSURE` with relation to `TC_RL_STRUCTURE.FID`.
- Additional target table for the relation from `TC_RL_MEASUREMENT_POINT.FID_FEATURE` to `TC_TG_BUILDING.FID`.
- Added new object class `TC_RL_MEASUREMENT_L_MODEL`.
- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_LINE` with relation to `TC_RL_MEASUREMENT_L_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_LINE`.
- Adjusted the view `TC_M_RL_MEASUREMENT_LINE` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_L_TYPE_TBD`.
- Added new object class `TC_RL_MEASUREMENT_P_MODEL`.

- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_POINT` with relation to `TC_RL_MEASUREMENT_P_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_POINT`.
- Adjusted the view `TC_M_RL_MEASUREMENT_POINT` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_P_TYPE_TBD`.

13.2

- The column `FID_PARENT` was removed from the Redlining Fitting (`TC_RL_FITTING`)
- The German caption of the column `CONSTRUCTION_TYPE` in Redlining Trasse (`TC_RL_SEGMENT`) got changed.

NET Field Survey

GIS-Nebenbestimmungen Data Model

13.2

- The captions of a few remaining identifiers have been changed from “BMVI” to “GIS-NB”. There are not structural changes.

DocPack

13.2

- A new view for the plot sequences has been added (`TC_V_PLOT_SEQUENCE`)

Changes to the dialogs since NET 13.0

NET Design

Base Data Model

13.1

- New dialog for Boundary (`TC_PL_BOUNDARY`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Parcel (`TC_PL_PARCEL`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Rollout Area (`TC_PL_ROLLOUT_AREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Subarea (`TC_PL_SUBAREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New references from Cable Type (`TC_PL_CABLE_TYPE.FID`)
 - to Building (`TC_PL_BUILDING.FID_FORCED_CABLE_TYPE`)
 - to Demand Point (`TC_PL_DEMAND_POINT.FID_FORCED_CABLE_TYPE`)

13.2

- The number of decimal places for the display has been set to 2.
 - Boundary (`TC_PL_BOUNDARY`) - Length in m (`LENGTH`)
 - Boundary (`TC_PL_BOUNDARY`) - Width (`WIDTH`)
 - Building → Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Building → Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Demand Point → Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Demand Point → Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Result Kabelloop (`TC_PL_OUT_CABLE_LOOP`) - Length (`LENGTH`)

GIS-Specifications Data Model

13.1

- Dialog for Demand Point (`TC_PL_DEMAND_POINT`):
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from `BMVI_TECH_1_YEAR` to `BMVI_TECH_1_YEAR_INT` .

- Changed control for "Technology within three years" from text field to dropdown. Database field changed from `BMVI_TECH_3_YEAR` to `BMVI_TECH_3_YEAR_INT`.
- Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from `BMVI_TECH_IS` to `BMVI_IS_TECH`.
- Added new dropdown "Expansion Plan" (`BMVI_PLAN_AUSB`)

13.2

- The caption "BMVI" has been replaced by "GIS-NB" in the following dialogs:
 - Cable (`TC_PL_CABLE`)
 - Duct (`TC_PL_DUCT`)
 - Expansion area (`TC_PL_EXPANSION_AREA`)
 - Layer Point (`TC_PL_LAYER_POINT`)
 - Market survey (`TC_PL_MARKET_SURVEY`)
 - Possible trench (`TC_PL_POSSIBLE_TRENCH`)
 - Structure (`TC_PL_STRUCTURE`)
- Controls related to GIS-NB have been moved to the GIS-NB tab.
 - Expansion area (`TC_PL_EXPANSION_AREA`)
 - Foreign area (`TC_PL_FOREIGN_AREA`)
 - Political area (`TC_PL_POLITICAL_AREA`)
 - White spot (`TC_PL_WHITE_SPOT`)
- The number of decimal places for the display has been set to 2.
 - Expansion area (`TC_PL_EXPANSION_AREA`) - Area (`AREA`)
 - Foreign area (`TC_PL_FOREIGN_AREA`) - Area (`AREA`)
 - Market survey (`TC_PL_MARKET_SURVEY`) - Area (`AREA`)
 - Political area (`TC_PL_POLITICAL_AREA`) - Area (`AREA`)
 - White spot (`TC_PL_WHITE_SPOT`) - Area (`AREA`)

NET Engineering

Base Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Action Area (`TC_ACTION_AREA`) - Area (`AREA`)
 - Action Area Label (`TC_ACTION_AREA_TBL`) - Orientation (`ORIENTATION`)
 - Cluster Grid (`TC_CLUSTER_GRID`) - Area (`AREA`)

- Cabinet Label (TC_SP_CABINET_TBL) - Orientation (ORIENTATION)
- Manhole Label (TC_SP_MANHOLE_TBL) - Orientation (ORIENTATION)
- Survey Plan Point (TC_SP_POINT) - Orientation (ORIENTATION)
- Pole Label (TC_SP_POLE_TBL) - Orientation (ORIENTATION)
- Segment Label (TC_SP_SEGMENT_TBL) - Orientation (ORIENTATION)
- Switching Point Label (TC_SP_SWITCHING_POINT_TBL) - Orientation (ORIENTATION)
- Building Label (TC_TG_BUILDING_TBL) - Orientation (ORIENTATION)
- Topography point (TC_TG_POINT) - Orientation (ORIENTATION)
- Topography cluster (TC_TG_POLYGON) - Area (AREA)
- Street Label (TC_TG_STREET_TBL) - Orientation (ORIENTATION)
- All Info fields (INFO) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - Action area (TC_ACTION_AREA)
 - Element library (TC_ELEMENT_LIBRARY)
 - Line (TC_LINE)
 - Point (TC_POINT)
 - Drilling rig (TC_SP_DRILLING_RIG)
 - Marker (TC_SP_MARKER)
 - Marker model (TC_SP_MARKER_MODEL)
 - Patch panel (TC_SP_PATCH_PANEL)
 - Patch panel model (TC_SP_PATCH_PANEL_MODEL)
 - Rack panel (TC_SP_RACK_PANEL)
 - Rack panel model (TC_SP_RACK_PANEL_MODEL)
 - Status (TC_STATUS)
 - Switching point model (TC_SWITCHING_POINT_MODEL)
 - Topography point (TC_TG_POINT)
 - Topography cluster (TC_TG_POLYGON)

Duct Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Duct insertion label (TC_SP_DUCT_INSERTION_TBL) - Orientation (ORIENTATION)
 - Duct tap line (TC_SP_DUCT_TAP_LINE) - Length (LENGTH)
 - Duct tap line label (TC_SP_DUCT_TAP_LINE_TBL) - Orientation (ORIENTATION)

- Duct tap label (`TC_SP_DUCT_TAP_TBL`) - Orientation (`ORIENTATION`)
- Duct label (`TC_SP_DUCT_TBL`) - Orientation (`ORIENTATION`)
- Duct (`TC_SP_FITTING_TBL`) - Orientation (`ORIENTATION`)
- All Info fields (`INFO`) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - Duct tap model (`TC_SP_DUCT_TAP_MODEL`)

Fiber Optic Data Model

13.1

- Dialog for Fiber Optic Splice (`TC_FO_SPLICE`):
 - New named filters:
 - Show splices
 - Show stored fibers
 - Show uncut fibers in BA
 - Show uncut fibers
 - New SQL Label "Splice Type" (`$SQLLABELSPLICETYPE`)
 - Corrected positioning of Document Management (`$DOCUMENTMANAGER`)

13.2

- The number of decimal places for the display has been set to 2.
 - FO cable loop label (`TC_FO_CABLE_LOOP_TBL`) - Orientation (`ORIENTATION`)
 - FO cable model (`TC_FO_CABLE_MODEL`) - Diameter (`DIAMETER`)
 - FO connector label (`TC_FO_CONNECTOR_TBL`) - Orientation (`ORIENTATION`)
 - FO fiber label (`TC_FO_FIBER_TBL`) - Orientation (`ORIENTATION`)
 - FO patch data (`TC_FO_PATCH_DATA`) - Attenuation (`ATTENUATION`)
 - FO patch fiber label (`TC_FO_PATCH_FIBER_TBL`) - Orientation (`ORIENTATION`)
 - FO patch label (`TC_FO_PATCH_TBL`) - Orientation (`ORIENTATION`)
 - FO splice graphics label (`TC_FO_SPLICE_GRAPHICS_TBL`) - Orientation (`ORIENTATION`)
 - FO splice label (`TC_FO_SPLICE_TBL`) - Orientation (`ORIENTATION`)
 - FO splitter path label (`TC_FO_SPLITTER_PATH_TBL`) - Orientation (`ORIENTATION`)
 - FO splitter label (`TC_FO_SPLITTER_TBL`) - Orientation (`ORIENTATION`)
 - FO terminator label (`TC_FO_TERMINATOR_TBL`) - Orientation (`ORIENTATION`)
- All Info fields (`INFO`) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - FO cable loop (`TC_FO_CABLE_LOOP`)

- FO closure model (`TC_FO_CLOSURE_MODEL`)
- New API controls have been added to the FO closure (`TC_FO_CLOSURE`) and the FO terminator (`TC_FO_TERMINATOR`)
 - `$ENDINGLINECOMPLEX`
 - `$STARTINGLINECOMPLEX`
- Dialog FO splice (`TC_FO_SPLICE`) - The display for the connected splitters got corrected. The queries of the controls `$SQLLABELSPLITTER1` and `$SQLLABELSPLITTER2` got fixed.

Telephony Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Telephony cable loop (`TC_TP_CABLE_LOOP`) - Orientation (`ORIENTATION`)
 - Telephony cable model (`TC_TP_CABLE_MODEL`) - Diameter (`DIAMETER`)
 - Telephony cable label (`TC_TP_CABLE_TBL`) - Orientation (`ORIENTATION`)
 - Telephony closure label (`TC_TP_CLOSURE_TBL`) - Orientation (`ORIENTATION`)
 - Telephony patch data (`TC_TP_PATCH_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony patch label (`TC_TP_PATCH_TBL`) - Orientation (`ORIENTATION`)
 - Telephony pin data (`TC_TP_PIN_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony splice data (`TC_TP_SPLICE_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony splice graphics label (`TC_TP_SPLICE_GRAPHICS_TBL`) - Orientation (`ORIENTATION`)
 - Telephony terminator label (`TC_TP_TERMINATOR_TBL`) - Orientation (`ORIENTATION`)
 - Telephony wire data (`TC_TP_WIRE_DATA`) - Attenuation (`ATTENUATION`)
- New API controls have been added to the Telephony closure (`TC_TP_CLOSURE`) and the Telephony terminator (`TC_TP_TERMINATOR`)
 - `$ENDINGLINECOMPLEX`
 - `$STARTINGLINECOMPLEX`

Redlining Data Model

13.1

- Dialog for Redlining Closure (`TC_PL_CLOSURE`):
 - New reference field for Redlining Structure (`FID_STRUCTURE`)
 - Corrected positioning of Redlining Source Object (`SOURCE_OBJECT`)

- Dialog for Measurement Line (`TC_RL_MEASUREMENT_LINE`):
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Line Model (`TC_RL_MEASUREMENT_L_MODEL`)
- Dialog for Measurement Point (`TC_RL_MEASUREMENT_POINT`):
 - Extended target tables for parent object (`FID_PARENT`) to include Building (`TC_TG_BUILDING`)
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Point Model (`TC_RL_MEASUREMENT_P_MODEL`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Segment (`TC_RL_SEGMENT`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Structure (`TC_RL_STRUCTURE`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Terminator (`TC_RL_TERMINATOR`)

13.2

- The links to the online help got updated in the following dialogs
 - Redlining attribute (`TC_RL_ATTRIBUTE`)
 - Redlining cable (`TC_RL_CABLE`)
 - Redlining closure (`TC_RL_CLOSURE`)
 - Redlining connection (`TC_RL_CONNECTION`)
 - Redlining duct (`TC_RL_DUCT`)
 - Redlining fitting (`TC_RL_FITTING`)
 - Redlining measurement (`TC_RL_MEASUREMENT`)
 - Redlining measurement line (`TC_RL_MEASUREMENT_LINE`)
 - Redlining measurement point (`TC_RL_MEASUREMENT_POINT`)
 - Redlining segment (`TC_RL_SEGMENT`)
 - Redlining service item (`TC_RL_SERVICE_ITEM`)
 - Redlining structure (`TC_RL_STRUCTURE`)
 - Redlining terminator (`TC_RL_TERMINATOR`)
- A new reference to the Redlining service item (`$REF_TC_RL_SERVICE_ITEM`) has been added to the following dialogs:

- Redlining closure (TC_RL_CLOSURE)
- Redlining fitting (TC_RL_FITTING)
- Redlining segment (TC_RL_SEGMENT)
- Redlining structure (TC_RL_STRUCTURE)
- Redlining terminator (TC_RL_TERMINATOR)
- The reference to the Redlining fitting (\$REF_TC_RL_FITTING) has been removed from the dialog Redlining duct (TC_RL_DUCT)
- The reference to the Redlining fitting (\$REF_TC_RL_FITTING) has been removed from the dialog Redlining segment (TC_RL_SEGMENT)
- The reference to the parent object (FID_PARENT) has been removed from the dialog for the Redlining fitting (TC_RL_FITTING)

GIS-Specifications Data Model

13.1

- Dialog for Building (TC_TG_BUILDING) :
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from BMVI_TECH_1_YEAR to BMVI_TECH_1_YEAR_INT .
 - Changed control for "Technology within three years" from text field to dropdown. Database field changed from BMVI_TECH_3_YEAR to BMVI_TECH_3_YEAR_INT .
 - Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from BMVI_TECH_IS to BMVI_IS_TECH .
 - Added new dropdown "Expansion Plan" (BMVI_PLAN_AUSB)

13.2

- The number of decimal places for the display has been set to 2.
 - Expansion area (TC_BMVI_EXPANSION_AREA) - Area (AREA)
 - Foreign area (TC_BMVI_FOREIGN_AREA) - Area (AREA)
 - Market survey (TC_BMVI_MARKET_SURVEY) - Area (AREA)
 - Political area (TC_BMVI_POLITICAL_AREA) - Area (AREA)
 - Supply area (TC_BMVI_SUPPLY_AREA) - Area (AREA)
 - White spot (TC_BMVI_WHITE_SPOT) - Area (AREA)
 - Building (TC_TG_BUILDING) - Loss (BMVI_LOSS)

Changes of the reports since NET 13.0

NET Engineering

Base Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET network overview service (`NET Network Overview Service`)
 - NET network overview service (just points) (`NET Network Overview of Service(just Points)`)
 - NET point table (`NET Point Table`)
 - NET reports (`NET Reports`)
 - NET segment cost (`NET Segment Cost`)
 - NET work order (`NET Work Order`)
- Replaced automatic line break with with manual line break in the report NET work order (`NET Work Order`).

Duct Data Model

13.1

- The vertical text alignment has been fixed in the columns for the start and end node in the “duct tap connections” report.
- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET duct end overview (`Duct End Overview`)
- NET duct tap label (`NET Duct Tap Label`) - color 2 of the duct on the right side fixed

Fiber Optic Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.

- NET cable cost (NET Cable Cost)
- NET FO cable section brief overview (NET FO Cable Section Brief Overview)
- NET FO cable section service customer (NET FO Cable Section Service Customer)
- NET FO cable section without trunk (NET FO Cable Section Without Trunk)
- NET FO cable section (NET FO Cable Section)
- NET FO cable trunk duct route (NET FO Cable Trunk Duct Route)
- NET FO closure trays (NET FO Closure Trays)
- NET FO connector used at switching point (NET FO Connector Used at Switching Point)
- NET FO connector used at terminator (NET FO Connector Used at Terminator)
- NET FO connector used with service at switching point (NET FO Connector Used with Service at Switching Point)
- NET FO connector used with service at terminator (NET FO Connector Used with Service at Terminator)
- NET FO connector at switching point (NET FO Connector at Switching Point)
- NET FO connector at terminator (NET FO Connector at Terminator)
- NET FO patch overview from connectors (NET FO Patch Overview from Connectors)
- NET FO patches in switching point (NET FO Patches in Switching Point)
- NET FO patches in terminator (NET FO Patches in Terminator)
- NET FO terminator overview (NET FO Terminator Overview)

Telephony Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

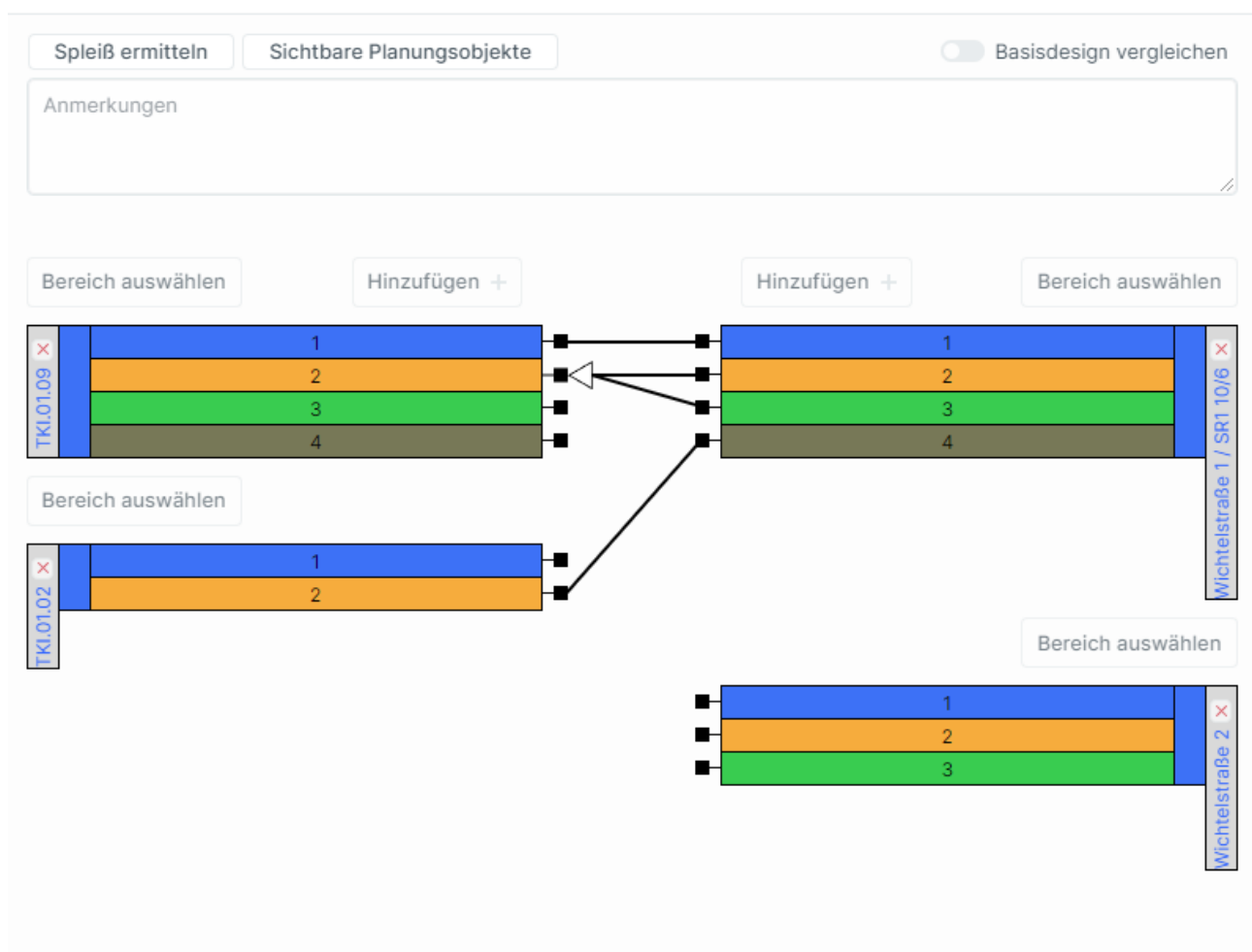
- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET Telephony cable section brief overview (NET TP Cable Section Brief Overview)
 - NET Telephony cable section service customer (NET TP Cable Section Service Customer)
 - NET Telephony cable section without trunk (NET TP Cable Section without Trunk)
 - NET Telephony cable section (NET TP Cable Section)
 - NET Telephony cable trunk duct route (NET TP Cable Trunk Duct Route)

- NET Telephony network overview template (NET TP Network Overview Template)
- NET Telephony patches in switching point (NET TP Patches in Switching point)
- NET Telephony patches in terminator (NET TP Patches in Terminator)
- NET Telephony pins in switching point (NET TP Pins in Switching point)
- NET Telephony pins in terminator (NET TP Pins in Terminator)
- NET Telephony splice overview closure (NET TP Splice Overview Closure)
- NET Telephony splice overview terminator (NET TP Splice Overview Terminator)

Release Notes NET 13.2.1

Summary

The new version NET 13.2.1 supports the new splice overview field in NET Build. Once the field is added to the NET Build projects, it will be populated with the splicing information for the graphical display.



1 Graphical splice overview in NET Build

Aside from this update the new version contains bug fixes and minor enhancements to the software.

Supported Software

- Autodesk AutoCAD Map 3D
 - Autodesk AutoCAD Map 3D 2022.0.1 - Autodesk AutoCAD 2022.1.3 or later
 - Autodesk AutoCAD Map 3D 2023.0.2 - Autodesk AutoCAD 2023.1.1 or later
 - Autodesk AutoCAD Map 3D 2024.0.1 - Autodesk AutoCAD 2024.1 or later

- TKI PostgreSQL Provider 4.1.0
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1 - Comsof Fiber 23.2
- TKI Licensing 13.0
(Only required for a manual installation on the network license server)

Release NET 13.2 in Detail

General

- The integration of Microsoft Entra ID for logging into the application modules has been switched to the Web Account Manager of Windows. This change enhances integration and simplifies the login process.

Documentation Pack

- In Docpack configuration tokens for attribute replacement were offered multiple times. This problem has been fixed.
- The "recently used files" in the DocPack configurator and output window were separated. The two lists have now been combined.

NET Design

Import

- Fixed an issue where shape files remained locked if a user canceled the import process. When attempting to re-import, an error message would appear stating that the file is locked. This issue has been resolved, so shape files are now properly released if the import is canceled, allowing for successful re-import.

Comsof Fiber Integration

- The Comsof preprocessing step "Aerial Lead-In" is now executing without raising an error report.
- If the version information is missing during the Comsof import, the import will not cause an error. The import might be restricted but will continue with a fallback version.
- Fixed an error that caused the progress bar to stay open, when an error occurred during calculation with Comsof Fiber.

Validation

- The project validation window is now automatically closed when the project is closed.

NET Engineering

General

- The view 'TC_M_BUILDING' has been created multiple times which led to issues during structure updates when the GIS-NB extension was used. This has been corrected.
- Fixed the error in the configuration of the label collision resolution that caused the layers to be duplicated when moving.

- The option "Allow multiple fiber endings overviews" in the NET options for FO has been removed as it is no longer used.

Redlining

- Name field of Measuring points and Measuring lines is transferred correctly from NET Build to NET Engineering after performing NET Build Pull
- An error in the "Documentation data transfer" from Redlining to NET Engineering has been fixed, where the selected status values of fixed objects were not correctly taken into account.
- An error message has been adjusted for the Redlining data transfer to NET Engineering During the "Link structures" action, if the structure has no geometry
- In the documentation Data transfer from Redlining to NET Engineering, a lead in duct was not connected to the micro duct from the duct bundle in the "Link lead in segments" action if more than one micro duct ended at the branch point.

NET Build Integration

- The output for the validation of the GPS measurement accuracy in NET Build has been improved so that only the defined number of decimal places is displayed.
- Fixed an error when exporting to NET Build that could occur if no routes were found in the spatial tolerance ranges for a fitting.
- Fixed an issue in the NET Build Push where selecting "no grouping" resulted in uploading not only the trenches within the cluster but all trenches.
- While synchronizing the field reports from NET Build, existing attributes on the building are now directly populated.
- The new custom field "SPlice_PLAN_NEW" is now supported and supports showing graphical splice information in NET Build.

One-click-maintenance

- The 1-click maintenance "NET Engineering: Check duct insertions" can now also deal with faulty duct insertions at both ends of the duct, so that an error no longer occurs when this 1-click maintenance is performed.

NET Cloud

Geoserver configuration

- It is not possible anymore to start publishing layers to the geoserver without selecting a workspace first. Doing so did cause the application to crash before.
- Publishing layers to the geoserver can now be cancelled during the processing.

Changes to the Data Model since NET 13.0

NET Design

Base Data Model

13.1

- Added additional target tables in `FID_FEATURE` to the table `TC_PL_ATTR_VALUE` .
 - `TC_PL_BOUNDARY.FID`
 - `TC_PL_PARCEL.FID`
 - `TC_PL_ROLLOUT_AREA.FID`
 - `TC_PL_SUBAREA.FID`

13.2

- *No changes to the data model - Structural update only for new forms and reports*

GIS-Nebenbestimmungen Data Model

13.1

- Removed "BMVI" from all captions.
- Added new column `BMVI_IS_TECH` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD` .
- Added new column `BMVI_PLAN_AUSB` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_PLAN_AUSB_TBD` .
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD` .
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD` .
- Added new domain table `TC_PL_BMVI_PLAN_AUSB_TBD` .
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_PL_BMVI_TECH_IS_TBD` .
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

13.2

- The captions of a few remaining identifiers have been changed from "BMVI" to "GIS-NB". There are not structural changes.

NET Engineering

Base Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The size of the column `INFO` in the Action area (`TC_ACTION_AREA`) feature class has been increased to 255 characters.
- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - `TC_M_BUILDING`
 - `TC_M_CLUSTER_STATISTIC`
 - `TC_M_SP_CABINET`
 - `TC_M_SP_MANHOLE`
 - `TC_M_SP_MARKER`
 - `TC_M_SP_POLE`
 - `TC_M_SP_SEGMENT`
 - `TC_M_SWITCHING_POINT`
- The backing table for the color table (`TC_COLOR`) was updated.
 - The column AutoCAD index (`ACAD_INDEX`) is not optional anymore and got the default value 0
 - The column blue value (`B_VALUE`) is not optional anymore and got the default value 0
 - The column dashed (`DASHED`) is not optional anymore and got the default value 0
 - The column green value (`G_VALUE`) is not optional anymore and got the default value 0
 - The column position(`ORDER_ID`) is not optional anymore and got the default value 0
 - The column red value (`R_VALUE`) is not optional anymore and got the default value 0

Duct Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - `TC_M_CS_CABLE`

- TC_M_CS_DUCT
- TC_M_SP_DUCT
- TC_M_SP_DUCT_INSERTION
- TC_M_SP_DUCT_TAP
- TC_M_SP_FITTING
- The field `LENGTH` got added to the view `TC_REP_SEGMENTCOSTS` , in case it was not present already.

Fiber Optic Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*
- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - TC_M_FO_CABLE
 - TC_M_FO_CLOSURE
 - TC_M_FO_TERMINATOR
 - TC_M_FO_SP_ASSIGNMENTS
- The text format of the output of the following views as fixed. There are no structure changes.
 - TC_REP_WO_FO_PATCH
 - TC_REP_WO_FO_SPLICE
- The size of the column `INFO` in cable loop (`TC_FO_CABLE_LOOP`) feature classes got increased to 255 characters

Telephony Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - TC_M_TP_CABLE
 - TC_M_TP_CLOSURE
 - TC_M_TP_TERMINATOR
 - TC_M_TP_SP_ASSIGNMENTS
- The text format of the output of the following views as fixed. There are no structure changes.
 - TC_REP_WO_TP_PATCH

- `TC_REP_WO_TP_SPLICE`

GIS-Nebenbestimmungen Data Model

13.1

- Added new column `BMVI_IS_TECH` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new column `BMVI_PLAN_AUSB` in `TC_TG_BUILDING` with relation to `TC_BMVI_PLAN_AUSB_TBD.ID`.
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new domain table `TC_BMVI_PLAN_AUSB_TBD`.
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_BMVI_TECH_IS_TBD`.
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

13.2

- The captions of a few remaining identifiers have been changed from “BMVI” to “GIS-NB”. There are not structural changes.

Redlining Data Model

13.1

- Added new column `FID_STRUCTURE` in `TC_RL_CLOSURE` with relation to `TC_RL_STRUCTURE.FID`.
- Additional target table for the relation from `TC_RL_MEASUREMENT_POINT.FID_FEATURE` to `TC_TG_BUILDING.FID`.
- Added new object class `TC_RL_MEASUREMENT_L_MODEL`.
- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_LINE` with relation to `TC_RL_MEASUREMENT_L_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_LINE`.
- Adjusted the view `TC_M_RL_MEASUREMENT_LINE` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_L_TYPE_TBD`.
- Added new object class `TC_RL_MEASUREMENT_P_MODEL`.

- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_POINT` with relation to `TC_RL_MEASUREMENT_P_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_POINT`.
- Adjusted the view `TC_M_RL_MEASUREMENT_POINT` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_P_TYPE_TBD`.

13.2

- The column `FID_PARENT` was removed from the Redlining Fitting (`TC_RL_FITTING`)
- The German caption of the column `CONSTRUCTION_TYPE` in Redlining Trasse (`TC_RL_SEGMENT`) got changed.

NET Field Survey

GIS-Nebenbestimmungen Data Model

13.2

- The captions of a few remaining identifiers have been changed from “BMVI” to “GIS-NB”. There are not structural changes.

DocPack

13.2

- A new view for the plot sequences has been added (`TC_V_PLOT_SEQUENCE`)

Changes to the dialogs since NET 13.0

NET Design

Base Data Model

13.1

- New dialog for Boundary (`TC_PL_BOUNDARY`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Parcel (`TC_PL_PARCEL`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Rollout Area (`TC_PL_ROLLOUT_AREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Subarea (`TC_PL_SUBAREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New references from Cable Type (`TC_PL_CABLE_TYPE.FID`)
 - to Building (`TC_PL_BUILDING.FID_FORCED_CABLE_TYPE`)
 - to Demand Point (`TC_PL_DEMAND_POINT.FID_FORCED_CABLE_TYPE`)

13.2

- The number of decimal places for the display has been set to 2.
 - Boundary (`TC_PL_BOUNDARY`) - Length in m (`LENGTH`)
 - Boundary (`TC_PL_BOUNDARY`) - Width (`WIDTH`)
 - Building → Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Building → Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Demand Point → Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Demand Point → Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Result Kabelloop (`TC_PL_OUT_CABLE_LOOP`) - Length (`LENGTH`)

GIS-Specifications Data Model

13.1

- Dialog for Demand Point (`TC_PL_DEMAND_POINT`):
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from `BMVI_TECH_1_YEAR` to `BMVI_TECH_1_YEAR_INT` .

- Changed control for "Technology within three years" from text field to dropdown. Database field changed from `BMVI_TECH_3_YEAR` to `BMVI_TECH_3_YEAR_INT`.
- Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from `BMVI_TECH_IS` to `BMVI_IS_TECH`.
- Added new dropdown "Expansion Plan" (`BMVI_PLAN_AUSB`)

13.2

- The caption "BMVI" has been replaced by "GIS-NB" in the following dialogs:
 - Cable (`TC_PL_CABLE`)
 - Duct (`TC_PL_DUCT`)
 - Expansion area (`TC_PL_EXPANSION_AREA`)
 - Layer Point (`TC_PL_LAYER_POINT`)
 - Market survey (`TC_PL_MARKET_SURVEY`)
 - Possible trench (`TC_PL_POSSIBLE_TRENCH`)
 - Structure (`TC_PL_STRUCTURE`)
- Controls related to GIS-NB have been moved to the GIS-NB tab.
 - Expansion area (`TC_PL_EXPANSION_AREA`)
 - Foreign area (`TC_PL_FOREIGN_AREA`)
 - Political area (`TC_PL_POLITICAL_AREA`)
 - White spot (`TC_PL_WHITE_SPOT`)
- The number of decimal places for the display has been set to 2.
 - Expansion area (`TC_PL_EXPANSION_AREA`) - Area (`AREA`)
 - Foreign area (`TC_PL_FOREIGN_AREA`) - Area (`AREA`)
 - Market survey (`TC_PL_MARKET_SURVEY`) - Area (`AREA`)
 - Political area (`TC_PL_POLITICAL_AREA`) - Area (`AREA`)
 - White spot (`TC_PL_WHITE_SPOT`) - Area (`AREA`)

NET Engineering

Base Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Action Area (`TC_ACTION_AREA`) - Area (`AREA`)
 - Action Area Label (`TC_ACTION_AREA_TBL`) - Orientation (`ORIENTATION`)
 - Cluster Grid (`TC_CLUSTER_GRID`) - Area (`AREA`)

- Cabinet Label (TC_SP_CABINET_TBL) - Orientation (ORIENTATION)
- Manhole Label (TC_SP_MANHOLE_TBL) - Orientation (ORIENTATION)
- Survey Plan Point (TC_SP_POINT) - Orientation (ORIENTATION)
- Pole Label (TC_SP_POLE_TBL) - Orientation (ORIENTATION)
- Segment Label (TC_SP_SEGMENT_TBL) - Orientation (ORIENTATION)
- Switching Point Label (TC_SP_SWITCHING_POINT_TBL) - Orientation (ORIENTATION)
- Building Label (TC_TG_BUILDING_TBL) - Orientation (ORIENTATION)
- Topography point (TC_TG_POINT) - Orientation (ORIENTATION)
- Topography cluster (TC_TG_POLYGON) - Area (AREA)
- Street Label (TC_TG_STREET_TBL) - Orientation (ORIENTATION)
- All Info fields (INFO) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - Action area (TC_ACTION_AREA)
 - Element library (TC_ELEMENT_LIBRARY)
 - Line (TC_LINE)
 - Point (TC_POINT)
 - Drilling rig (TC_SP_DRILLING_RIG)
 - Marker (TC_SP_MARKER)
 - Marker model (TC_SP_MARKER_MODEL)
 - Patch panel (TC_SP_PATCH_PANEL)
 - Patch panel model (TC_SP_PATCH_PANEL_MODEL)
 - Rack panel (TC_SP_RACK_PANEL)
 - Rack panel model (TC_SP_RACK_PANEL_MODEL)
 - Status (TC_STATUS)
 - Switching point model (TC_SWITCHING_POINT_MODEL)
 - Topography point (TC_TG_POINT)
 - Topography cluster (TC_TG_POLYGON)

Duct Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Duct insertion label (TC_SP_DUCT_INSERTION_TBL) - Orientation (ORIENTATION)
 - Duct tap line (TC_SP_DUCT_TAP_LINE) - Length (LENGTH)
 - Duct tap line label (TC_SP_DUCT_TAP_LINE_TBL) - Orientation (ORIENTATION)

- Duct tap label (`TC_SP_DUCT_TAP_TBL`) - Orientation (`ORIENTATION`)
- Duct label (`TC_SP_DUCT_TBL`) - Orientation (`ORIENTATION`)
- Duct (`TC_SP_FITTING_TBL`) - Orientation (`ORIENTATION`)
- All Info fields (`INFO`) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - Duct tap model (`TC_SP_DUCT_TAP_MODEL`)

Fiber Optic Data Model

13.1

- Dialog for Fiber Optic Splice (`TC_FO_SPLICE`):
 - New named filters:
 - Show splices
 - Show stored fibers
 - Show uncut fibers in BA
 - Show uncut fibers
 - New SQL Label "Splice Type" (`$SQLLABELSPLICETYPE`)
 - Corrected positioning of Document Management (`$DOCUMENTMANAGER`)

13.2

- The number of decimal places for the display has been set to 2.
 - FO cable loop label (`TC_FO_CABLE_LOOP_TBL`) - Orientation (`ORIENTATION`)
 - FO cable model (`TC_FO_CABLE_MODEL`) - Diameter (`DIAMETER`)
 - FO connector label (`TC_FO_CONNECTOR_TBL`) - Orientation (`ORIENTATION`)
 - FO fiber label (`TC_FO_FIBER_TBL`) - Orientation (`ORIENTATION`)
 - FO patch data (`TC_FO_PATCH_DATA`) - Attenuation (`ATTENUATION`)
 - FO patch fiber label (`TC_FO_PATCH_FIBER_TBL`) - Orientation (`ORIENTATION`)
 - FO patch label (`TC_FO_PATCH_TBL`) - Orientation (`ORIENTATION`)
 - FO splice graphics label (`TC_FO_SPLICE_GRAPHICS_TBL`) - Orientation (`ORIENTATION`)
 - FO splice label (`TC_FO_SPLICE_TBL`) - Orientation (`ORIENTATION`)
 - FO splitter path label (`TC_FO_SPLITTER_PATH_TBL`) - Orientation (`ORIENTATION`)
 - FO splitter label (`TC_FO_SPLITTER_TBL`) - Orientation (`ORIENTATION`)
 - FO terminator label (`TC_FO_TERMINATOR_TBL`) - Orientation (`ORIENTATION`)
- All Info fields (`INFO`) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - FO cable loop (`TC_FO_CABLE_LOOP`)

- FO closure model (`TC_FO_CLOSURE_MODEL`)
- New API controls have been added to the FO closure (`TC_FO_CLOSURE`) and the FO terminator (`TC_FO_TERMINATOR`)
 - `$ENDINGLINECOMPLEX`
 - `$STARTINGLINECOMPLEX`
- Dialog FO splice (`TC_FO_SPLICE`) - The display for the connected splitters got corrected. The queries of the controls `$SQLLABELSPLITTER1` and `$SQLLABELSPLITTER2` got fixed.

Telephony Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Telephony cable loop (`TC_TP_CABLE_LOOP`) - Orientation (`ORIENTATION`)
 - Telephony cable model (`TC_TP_CABLE_MODEL`) - Diameter (`DIAMETER`)
 - Telephony cable label (`TC_TP_CABLE_TBL`) - Orientation (`ORIENTATION`)
 - Telephony closure label (`TC_TP_CLOSURE_TBL`) - Orientation (`ORIENTATION`)
 - Telephony patch data (`TC_TP_PATCH_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony patch label (`TC_TP_PATCH_TBL`) - Orientation (`ORIENTATION`)
 - Telephony pin data (`TC_TP_PIN_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony splice data (`TC_TP_SPLICE_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony splice graphics label (`TC_TP_SPLICE_GRAPHICS_TBL`) - Orientation (`ORIENTATION`)
 - Telephony terminator label (`TC_TP_TERMINATOR_TBL`) - Orientation (`ORIENTATION`)
 - Telephony wire data (`TC_TP_WIRE_DATA`) - Attenuation (`ATTENUATION`)
- New API controls have been added to the Telephony closure (`TC_TP_CLOSURE`) and the Telephony terminator (`TC_TP_TERMINATOR`)
 - `$ENDINGLINECOMPLEX`
 - `$STARTINGLINECOMPLEX`

Redlining Data Model

13.1

- Dialog for Redlining Closure (`TC_PL_CLOSURE`):
 - New reference field for Redlining Structure (`FID_STRUCTURE`)
 - Corrected positioning of Redlining Source Object (`SOURCE_OBJECT`)

- Dialog for Measurement Line (`TC_RL_MEASUREMENT_LINE`):
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Line Model (`TC_RL_MEASUREMENT_L_MODEL`)
- Dialog for Measurement Point (`TC_RL_MEASUREMENT_POINT`):
 - Extended target tables for parent object (`FID_PARENT`) to include Building (`TC_TG_BUILDING`)
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Point Model (`TC_RL_MEASUREMENT_P_MODEL`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Segment (`TC_RL_SEGMENT`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Structure (`TC_RL_STRUCTURE`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Terminator (`TC_RL_TERMINATOR`)

13.2

- The links to the online help got updated in the following dialogs
 - Redlining attribute (`TC_RL_ATTRIBUTE`)
 - Redlining cable (`TC_RL_CABLE`)
 - Redlining closure (`TC_RL_CLOSURE`)
 - Redlining connection (`TC_RL_CONNECTION`)
 - Redlining duct (`TC_RL_DUCT`)
 - Redlining fitting (`TC_RL_FITTING`)
 - Redlining measurement (`TC_RL_MEASUREMENT`)
 - Redlining measurement line (`TC_RL_MEASUREMENT_LINE`)
 - Redlining measurement point (`TC_RL_MEASUREMENT_POINT`)
 - Redlining segment (`TC_RL_SEGMENT`)
 - Redlining service item (`TC_RL_SERVICE_ITEM`)
 - Redlining structure (`TC_RL_STRUCTURE`)
 - Redlining terminator (`TC_RL_TERMINATOR`)
- A new reference to the Redlining service item (`$REF_TC_RL_SERVICE_ITEM`) has been added to the following dialogs:

- Redlining closure (`TC_RL_CLOSURE`)
- Redlining fitting (`TC_RL_FITTING`)
- Redlining segment (`TC_RL_SEGMENT`)
- Redlining structure (`TC_RL_STRUCTURE`)
- Redlining terminator (`TC_RL_TERMINATOR`)
- The reference to the Redlining fitting (`$REF_TC_RL_FITTING`) has been removed from the dialog Redlining duct (`TC_RL_DUCT`)
- The reference to the Redlining fitting (`$REF_TC_RL_FITTING`) has been removed from the dialog Redlining segment (`TC_RL_SEGMENT`)
- The reference to the parent object (`FID_PARENT`) has been removed from the dialog for the Redlining fitting (`TC_RL_FITTING`)

GIS-Specifications Data Model

13.1

- Dialog for Building (`TC_TG_BUILDING`):
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from `BMVI_TECH_1_YEAR` to `BMVI_TECH_1_YEAR_INT` .
 - Changed control for "Technology within three years" from text field to dropdown. Database field changed from `BMVI_TECH_3_YEAR` to `BMVI_TECH_3_YEAR_INT` .
 - Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from `BMVI_TECH_IS` to `BMVI_IS_TECH` .
 - Added new dropdown "Expansion Plan" (`BMVI_PLAN_AUSB`)

13.2

- The number of decimal places for the display has been set to 2.
 - Expansion area (`TC_BMVI_EXPANSION_AREA`) - Area (`AREA`)
 - Foreign area (`TC_BMVI_FOREIGN_AREA`) - Area (`AREA`)
 - Market survey (`TC_BMVI_MARKET_SURVEY`) - Area (`AREA`)
 - Political area (`TC_BMVI_POLITICAL_AREA`) - Area (`AREA`)
 - Supply area (`TC_BMVI_SUPPLY_AREA`) - Area (`AREA`)
 - White spot (`TC_BMVI_WHITE_SPOT`) - Area (`AREA`)
 - Building (`TC_TG_BUILDING`) - Loss (`BMVI_LOSS`)

Changes of the reports since NET 13.0

NET Engineering

Base Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET network overview service (`NET Network Overview Service`)
 - NET network overview service (just points) (`NET Network Overview of Service(just Points)`)
 - NET point table (`NET Point Table`)
 - NET reports (`NET Reports`)
 - NET segment cost (`NET Segment Cost`)
 - NET work order (`NET Work Order`)
- Replaced automatic line break with with manual line break in the report NET work order (`NET Work Order`).

Duct Data Model

13.1

- The vertical text alignment has been fixed in the columns for the start and end node in the “duct tap connections” report.
- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET duct end overview (`Duct End Overview`)
- NET duct tap label (`NET Duct Tap Label`) - color 2 of the duct on the right side fixed

Fiber Optic Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.

- NET cable cost (NET Cable Cost)
- NET FO cable section brief overview (NET FO Cable Section Brief Overview)
- NET FO cable section service customer (NET FO Cable Section Service Customer)
- NET FO cable section without trunk (NET FO Cable Section Without Trunk)
- NET FO cable section (NET FO Cable Section)
- NET FO cable trunk duct route (NET FO Cable Trunk Duct Route)
- NET FO closure trays (NET FO Closure Trays)
- NET FO connector used at switching point (NET FO Connector Used at Switching Point)
- NET FO connector used at terminator (NET FO Connector Used at Terminator)
- NET FO connector used with service at switching point (NET FO Connector Used with Service at Switching Point)
- NET FO connector used with service at terminator (NET FO Connector Used with Service at Terminator)
- NET FO connector at switching point (NET FO Connector at Switching Point)
- NET FO connector at terminator (NET FO Connector at Terminator)
- NET FO patch overview from connectors (NET FO Patch Overview from Connectors)
- NET FO patches in switching point (NET FO Patches in Switching Point)
- NET FO patches in terminator (NET FO Patches in Terminator)
- NET FO terminator overview (NET FO Terminator Overview)

Telephony Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET Telephony cable section brief overview (NET TP Cable Section Brief Overview)
 - NET Telephony cable section service customer (NET TP Cable Section Service Customer)
 - NET Telephony cable section without trunk (NET TP Cable Section without Trunk)
 - NET Telephony cable section (NET TP Cable Section)
 - NET Telephony cable trunk duct route (NET TP Cable Trunk Duct Route)

- NET Telephony network overview template (NET TP Network Overview Template)
- NET Telephony patches in switching point (NET TP Patches in Switching point)
- NET Telephony patches in terminator (NET TP Patches in Terminator)
- NET Telephony pins in switching point (NET TP Pins in Switching point)
- NET Telephony pins in terminator (NET TP Pins in Terminator)
- NET Telephony splice overview closure (NET TP Splice Overview Closure)
- NET Telephony splice overview terminator (NET TP Splice Overview Terminator)

Release Notes NET 13.2.2 (English)

Summary

The new version NET 13.2.2 includes a new feature for rearranging ducts within a route. A duct can be moved between trenches and protective pipes. The new feature ensures a complete, plausible path for the duct and only allows valid moves. This feature replaces the unexpected behavior of the “Assign ducts to additional trenches/ducts” function when the assignment occurs within the same route.

In addition, a bug was fixed that affected the verification of changes to the duct path. These checks did not correctly process broken assignments between trenches and ducts. This bug had multiple effects, leading to the creation of faulty duct paths that could not be easily corrected. With this fix, the “Assign ducts to additional trenches/ducts” function and the “Change trench and duct assignments” function now behave as expected.

Additionally, this release includes several minor bug fixes and small improvements to existing functions.

Supported Software

- Autodesk AutoCAD Map 3D
 - Autodesk AutoCAD Map 3D 2022.0.1 - Autodesk AutoCAD 2022.1.3 or later
 - Autodesk AutoCAD Map 3D 2023.0.2 - Autodesk AutoCAD 2023.1.1 or later
 - Autodesk AutoCAD Map 3D 2024.0.1 - Autodesk AutoCAD 2024.1 or later
- TKI PostgreSQL Provider 4.1.0
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1 - Comsof Fiber 23.2
- TKI Licensing 13.0
(Only required for a manual installation on the network license server)

Release NET 13.2.2 in Detail

General

- The integration with Microsoft Entra ID, got a couple improvements and bugfixes.
 - Expired Local Cache: A new login is now requested without displaying an error.
 - User-initiated Login Cancellation: A corresponding message is now displayed instead of an error.
 - Login Button Functionality: The login button is no longer permanently disabled after an error or cancellation and continues to function.
 - Microsoft Login Dialog: The dialog is displayed less frequently.
 - Email Address Case Sensitivity: Email addresses are now case-insensitive and do not need to exactly match the case used in Entra ID (formerly Azure AD).

Documentation Pack

- Already selected replacement tokens are not suggested again in the replacement configuration of the attribute replacements.
- A new feature to switch between DocPack Configuration and DocPack Output dialogs has been added to create more fluent workflows.
- Token replacements in file paths and file names have been improved to provide more description and trigger validation errors.

NET Design

Comsof Fiber Integration

- In the advanced Comsof Fiber Configuration, the 'Split trenches on boundaries' property 'splitTrenchesOnBoundaries.splitTrenches' is now editable. The default value is false.

GIS-Nebenbestimmungen

- Fixed a license issue where an error occurred when the NET Design and NET BMVI BW/ GIS-NB data models were selected together in an existing file containing no NET modules.

NET Engineering

General

- The way to assign a snapp point manually was modified to be the same than for the auto assignment.
- An error in the duct tap label text has been fixed that prevented the text from being created correctly without saving the settings.
- Applying a prototype from the element library to a fiber optics device could in certain cases mix up the incoming and outgoing cables. The issue has been resolved.
- If a terminator or a closure is digitized directly on a building, the device can now be assigned directly to the building.
- Fixed a bug that caused patches and splices in the form to be deleted even though a service was on them.

Workflows

- The assignments to delete are not longer ignored during geometry validation.
- The input of floating point numbers in the workflows "Create cross section template", "Create FO cable loop" and "Create telephony cable loop" has been optimized.

Connection editor

- Starting the 'Create patch' action for a FO connector or a TP pin without an assigned terminator no longer triggers a critical error; instead, a message appears.

Dialogs

- In the duct context menu, there is a new function to move the chosen duct within its assigned segment.
- With the assignment functions of ducts/cables to segments/ducts, it is now possible again to assign an feature to several other features before the function is terminated.

Reports

- New options have been added to the “splice plan from tracing”, allowing the size of the texts to be scaled.

TNIM

- The TNIM import now only combines duct types into one duct type if, in addition to the name of the duct type, the duct bundle configurations also match.
- Fixed a problem in the TNIM import where microduct configurations were assigned to the duct types with identical name multiple times.
- During the TNIM import, ducts with inner ducts without a fitting duct bundle configuration of the duct type now trigger a warning message in the log.

NET Build Integration

- In the new splice overview, which is created when exporting to NET Build, cables that do not have a connection are now also displayed.
- When exporting to NET Build, the planning length of objects is now also transferred.
- When exporting to NET Build, an error with ambiguous cluster names has been fixed.
- During the data transfer from NET Build, the warning message for the protection ducts has been fixed. This now shows missing fields correctly.

Redlining

- During the redlining validation “Ducts with not connected geometry”, a bug was fixed that caused invalid geometries not to be detected.
- In the redlining data transfer, the warning for the protective pipes in the “Link lead in trenches” action has been improved.
- The output in the redlining data transfer has been improved so that the names are now displayed.
- In the redlining data transfer, an error has been fixed that caused the actions not to be displayed completely.

NET Field Survey

General

- The import from Infas geodata is now also available for NET Field Survey.

Changes to the Data Model since NET 13.0

NET Design

Base Data Model

13.1

- Added additional target tables in `FID_FEATURE` to the table `TC_PL_ATTR_VALUE` .
 - `TC_PL_BOUNDARY.FID`
 - `TC_PL_PARCEL.FID`
 - `TC_PL_ROLLOUT_AREA.FID`
 - `TC_PL_SUBAREA.FID`

13.2

- *No changes to the data model - Structural update only for new forms and reports*

GIS-Nebenbestimmungen Data Model

13.1

- Removed "BMVI" from all captions.
- Added new column `BMVI_IS_TECH` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD` .
- Added new column `BMVI_PLAN_AUSB` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_PLAN_AUSB_TBD` .
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD` .
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD` .
- Added new domain table `TC_PL_BMVI_PLAN_AUSB_TBD` .
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_PL_BMVI_TECH_IS_TBD` .
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

13.2

- The captions of a few remaining identifiers have been changed from "BMVI" to "GIS-NB". There are not structural changes.

NET Engineering

Base Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The size of the column `INFO` in the Action area (`TC_ACTION_AREA`) feature class has been increased to 255 characters.
- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - `TC_M_BUILDING`
 - `TC_M_CLUSTER_STATISTIC`
 - `TC_M_SP_CABINET`
 - `TC_M_SP_MANHOLE`
 - `TC_M_SP_MARKER`
 - `TC_M_SP_POLE`
 - `TC_M_SP_SEGMENT`
 - `TC_M_SWITCHING_POINT`
- The backing table for the color table (`TC_COLOR`) was updated.
 - The column AutoCAD index (`ACAD_INDEX`) is not optional anymore and got the default value 0
 - The column blue value (`B_VALUE`) is not optional anymore and got the default value 0
 - The column dashed (`DASHED`) is not optional anymore and got the default value 0
 - The column green value (`G_VALUE`) is not optional anymore and got the default value 0
 - The column position(`ORDER_ID`) is not optional anymore and got the default value 0
 - The column red value (`R_VALUE`) is not optional anymore and got the default value 0

Duct Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - `TC_M_CS_CABLE`

- TC_M_CS_DUCT
 - TC_M_SP_DUCT
 - TC_M_SP_DUCT_INSERTION
 - TC_M_SP_DUCT_TAP
 - TC_M_SP_FITTING
- The field `LENGTH` got added to the view `TC_REP_SEGMENTCOSTS`, in case it was not present already.

Fiber Optic Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*
- The columns `DATE_CREATED`, `DATE_MODIFIED`, `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - TC_M_FO_CABLE
 - TC_M_FO_CLOSURE
 - TC_M_FO_TERMINATOR
 - TC_M_FO_SP_ASSIGNMENTS
- The text format of the output of the following views as fixed. There are no structure changes.
 - TC_REP_WO_FO_PATCH
 - TC_REP_WO_FO_SPLICE
- The size of the column `INFO` in cable loop (`TC_FO_CABLE_LOOP`) feature classes got increased to 255 characters

Telephony Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The columns `DATE_CREATED`, `DATE_MODIFIED`, `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - TC_M_TP_CABLE
 - TC_M_TP_CLOSURE
 - TC_M_TP_TERMINATOR
 - TC_M_TP_SP_ASSIGNMENTS
- The text format of the output of the following views as fixed. There are no structure changes.
 - TC_REP_WO_TP_PATCH

- `TC_REP_WO_TP_SPLICE`

GIS-Nebenbestimmungen Data Model

13.1

- Added new column `BMVI_IS_TECH` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new column `BMVI_PLAN_AUSB` in `TC_TG_BUILDING` with relation to `TC_BMVI_PLAN_AUSB_TBD.ID`.
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new domain table `TC_BMVI_PLAN_AUSB_TBD`.
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_BMVI_TECH_IS_TBD`.
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

13.2

- The captions of a few remaining identifiers have been changed from “BMVI” to “GIS-NB”. There are not structural changes.

Redlining Data Model

13.1

- Added new column `FID_STRUCTURE` in `TC_RL_CLOSURE` with relation to `TC_RL_STRUCTURE.FID`.
- Additional target table for the relation from `TC_RL_MEASUREMENT_POINT.FID_FEATURE` to `TC_TG_BUILDING.FID`.
- Added new object class `TC_RL_MEASUREMENT_L_MODEL`.
- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_LINE` with relation to `TC_RL_MEASUREMENT_L_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_LINE`.
- Adjusted the view `TC_M_RL_MEASUREMENT_LINE` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_L_TYPE_TBD`.
- Added new object class `TC_RL_MEASUREMENT_P_MODEL`.

- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_POINT` with relation to `TC_RL_MEASUREMENT_P_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_POINT`.
- Adjusted the view `TC_M_RL_MEASUREMENT_POINT` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_P_TYPE_TBD`.

13.2

- The column `FID_PARENT` was removed from the Redlining Fitting (`TC_RL_FITTING`)
- The German caption of the column `CONSTRUCTION_TYPE` in Redlining Trasse (`TC_RL_SEGMENT`) got changed.

NET Field Survey

GIS-Nebenbestimmungen Data Model

13.2

- The captions of a few remaining identifiers have been changed from “BMVI” to “GIS-NB”. There are not structural changes.

DocPack

13.2

- A new view for the plot sequences has been added (`TC_V_PLOT_SEQUENCE`)

Changes to the dialogs since NET 13.0

NET Design

Base Data Model

13.1

- New dialog for Boundary (`TC_PL_BOUNDARY`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Parcel (`TC_PL_PARCEL`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Rollout Area (`TC_PL_ROLLOUT_AREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Subarea (`TC_PL_SUBAREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New references from Cable Type (`TC_PL_CABLE_TYPE.FID`)
 - to Building (`TC_PL_BUILDING.FID_FORCED_CABLE_TYPE`)
 - to Demand Point (`TC_PL_DEMAND_POINT.FID_FORCED_CABLE_TYPE`)

13.2

- The number of decimal places for the display has been set to 2.
 - Boundary (`TC_PL_BOUNDARY`) - Length in m (`LENGTH`)
 - Boundary (`TC_PL_BOUNDARY`) - Width (`WIDTH`)
 - Building → Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Building → Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Demand Point → Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Demand Point → Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Result Kabelloop (`TC_PL_OUT_CABLE_LOOP`) - Length (`LENGTH`)

GIS-Specifications Data Model

13.1

- Dialog for Demand Point (`TC_PL_DEMAND_POINT`):
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from `BMVI_TECH_1_YEAR` to `BMVI_TECH_1_YEAR_INT` .

- Changed control for "Technology within three years" from text field to dropdown. Database field changed from `BMVI_TECH_3_YEAR` to `BMVI_TECH_3_YEAR_INT`.
- Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from `BMVI_TECH_IS` to `BMVI_IS_TECH`.
- Added new dropdown "Expansion Plan" (`BMVI_PLAN_AUSB`)

13.2

- The caption "BMVI" has been replaced by "GIS-NB" in the following dialogs:
 - Cable (`TC_PL_CABLE`)
 - Duct (`TC_PL_DUCT`)
 - Expansion area (`TC_PL_EXPANSION_AREA`)
 - Layer Point (`TC_PL_LAYER_POINT`)
 - Market survey (`TC_PL_MARKET_SURVEY`)
 - Possible trench (`TC_PL_POSSIBLE_TRENCH`)
 - Structure (`TC_PL_STRUCTURE`)
- Controls related to GIS-NB have been moved to the GIS-NB tab.
 - Expansion area (`TC_PL_EXPANSION_AREA`)
 - Foreign area (`TC_PL_FOREIGN_AREA`)
 - Political area (`TC_PL_POLITICAL_AREA`)
 - White spot (`TC_PL_WHITE_SPOT`)
- The number of decimal places for the display has been set to 2.
 - Expansion area (`TC_PL_EXPANSION_AREA`) - Area (`AREA`)
 - Foreign area (`TC_PL_FOREIGN_AREA`) - Area (`AREA`)
 - Market survey (`TC_PL_MARKET_SURVEY`) - Area (`AREA`)
 - Political area (`TC_PL_POLITICAL_AREA`) - Area (`AREA`)
 - White spot (`TC_PL_WHITE_SPOT`) - Area (`AREA`)

NET Engineering

Base Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Action Area (`TC_ACTION_AREA`) - Area (`AREA`)
 - Action Area Label (`TC_ACTION_AREA_TBL`) - Orientation (`ORIENTATION`)
 - Cluster Grid (`TC_CLUSTER_GRID`) - Area (`AREA`)

- Cabinet Label (TC_SP_CABINET_TBL) - Orientation (ORIENTATION)
- Manhole Label (TC_SP_MANHOLE_TBL) - Orientation (ORIENTATION)
- Survey Plan Point (TC_SP_POINT) - Orientation (ORIENTATION)
- Pole Label (TC_SP_POLE_TBL) - Orientation (ORIENTATION)
- Segment Label (TC_SP_SEGMENT_TBL) - Orientation (ORIENTATION)
- Switching Point Label (TC_SP_SWITCHING_POINT_TBL) - Orientation (ORIENTATION)
- Building Label (TC_TG_BUILDING_TBL) - Orientation (ORIENTATION)
- Topography point (TC_TG_POINT) - Orientation (ORIENTATION)
- Topography cluster (TC_TG_POLYGON) - Area (AREA)
- Street Label (TC_TG_STREET_TBL) - Orientation (ORIENTATION)
- All Info fields (INFO) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - Action area (TC_ACTION_AREA)
 - Element library (TC_ELEMENT_LIBRARY)
 - Line (TC_LINE)
 - Point (TC_POINT)
 - Drilling rig (TC_SP_DRILLING_RIG)
 - Marker (TC_SP_MARKER)
 - Marker model (TC_SP_MARKER_MODEL)
 - Patch panel (TC_SP_PATCH_PANEL)
 - Patch panel model (TC_SP_PATCH_PANEL_MODEL)
 - Rack panel (TC_SP_RACK_PANEL)
 - Rack panel model (TC_SP_RACK_PANEL_MODEL)
 - Status (TC_STATUS)
 - Switching point model (TC_SWITCHING_POINT_MODEL)
 - Topography point (TC_TG_POINT)
 - Topography cluster (TC_TG_POLYGON)

Duct Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Duct insertion label (TC_SP_DUCT_INSERTION_TBL) - Orientation (ORIENTATION)
 - Duct tap line (TC_SP_DUCT_TAP_LINE) - Length (LENGTH)
 - Duct tap line label (TC_SP_DUCT_TAP_LINE_TBL) - Orientation (ORIENTATION)

- Duct tap label (`TC_SP_DUCT_TAP_TBL`) - Orientation (`ORIENTATION`)
- Duct label (`TC_SP_DUCT_TBL`) - Orientation (`ORIENTATION`)
- Duct (`TC_SP_FITTING_TBL`) - Orientation (`ORIENTATION`)
- All Info fields (`INFO`) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - Duct tap model (`TC_SP_DUCT_TAP_MODEL`)

Fiber Optic Data Model

13.1

- Dialog for Fiber Optic Splice (`TC_FO_SPLICE`):
 - New named filters:
 - Show splices
 - Show stored fibers
 - Show uncut fibers in BA
 - Show uncut fibers
 - New SQL Label "Splice Type" (`$SQLLABELSPLICETYPE`)
 - Corrected positioning of Document Management (`$DOCUMENTMANAGER`)

13.2

- The number of decimal places for the display has been set to 2.
 - FO cable loop label (`TC_FO_CABLE_LOOP_TBL`) - Orientation (`ORIENTATION`)
 - FO cable model (`TC_FO_CABLE_MODEL`) - Diameter (`DIAMETER`)
 - FO connector label (`TC_FO_CONNECTOR_TBL`) - Orientation (`ORIENTATION`)
 - FO fiber label (`TC_FO_FIBER_TBL`) - Orientation (`ORIENTATION`)
 - FO patch data (`TC_FO_PATCH_DATA`) - Attenuation (`ATTENUATION`)
 - FO patch fiber label (`TC_FO_PATCH_FIBER_TBL`) - Orientation (`ORIENTATION`)
 - FO patch label (`TC_FO_PATCH_TBL`) - Orientation (`ORIENTATION`)
 - FO splice graphics label (`TC_FO_SPLICE_GRAPHICS_TBL`) - Orientation (`ORIENTATION`)
 - FO splice label (`TC_FO_SPLICE_TBL`) - Orientation (`ORIENTATION`)
 - FO splitter path label (`TC_FO_SPLITTER_PATH_TBL`) - Orientation (`ORIENTATION`)
 - FO splitter label (`TC_FO_SPLITTER_TBL`) - Orientation (`ORIENTATION`)
 - FO terminator label (`TC_FO_TERMINATOR_TBL`) - Orientation (`ORIENTATION`)
- All Info fields (`INFO`) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - FO cable loop (`TC_FO_CABLE_LOOP`)

- FO closure model (`TC_FO_CLOSURE_MODEL`)
- New API controls have been added to the FO closure (`TC_FO_CLOSURE`) and the FO terminator (`TC_FO_TERMINATOR`)
 - `$ENDINGLINECOMPLEX`
 - `$STARTINGLINECOMPLEX`
- Dialog FO splice (`TC_FO_SPLICE`) - The display for the connected splitters got corrected. The queries of the controls `$SQLLABELSPLITTER1` and `$SQLLABELSPLITTER2` got fixed.

Telephony Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Telephony cable loop (`TC_TP_CABLE_LOOP`) - Orientation (`ORIENTATION`)
 - Telephony cable model (`TC_TP_CABLE_MODEL`) - Diameter (`DIAMETER`)
 - Telephony cable label (`TC_TP_CABLE_TBL`) - Orientation (`ORIENTATION`)
 - Telephony closure label (`TC_TP_CLOSURE_TBL`) - Orientation (`ORIENTATION`)
 - Telephony patch data (`TC_TP_PATCH_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony patch label (`TC_TP_PATCH_TBL`) - Orientation (`ORIENTATION`)
 - Telephony pin data (`TC_TP_PIN_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony splice data (`TC_TP_SPLICE_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony splice graphics label (`TC_TP_SPLICE_GRAPHICS_TBL`) - Orientation (`ORIENTATION`)
 - Telephony terminator label (`TC_TP_TERMINATOR_TBL`) - Orientation (`ORIENTATION`)
 - Telephony wire data (`TC_TP_WIRE_DATA`) - Attenuation (`ATTENUATION`)
- New API controls have been added to the Telephony closure (`TC_TP_CLOSURE`) and the Telephony terminator (`TC_TP_TERMINATOR`)
 - `$ENDINGLINECOMPLEX`
 - `$STARTINGLINECOMPLEX`

Redlining Data Model

13.1

- Dialog for Redlining Closure (`TC_PL_CLOSURE`):
 - New reference field for Redlining Structure (`FID_STRUCTURE`)
 - Corrected positioning of Redlining Source Object (`SOURCE_OBJECT`)

- Dialog for Measurement Line (`TC_RL_MEASUREMENT_LINE`):
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Line Model (`TC_RL_MEASUREMENT_L_MODEL`)
- Dialog for Measurement Point (`TC_RL_MEASUREMENT_POINT`):
 - Extended target tables for parent object (`FID_PARENT`) to include Building (`TC_TG_BUILDING`)
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Point Model (`TC_RL_MEASUREMENT_P_MODEL`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Segment (`TC_RL_SEGMENT`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Structure (`TC_RL_STRUCTURE`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Terminator (`TC_RL_TERMINATOR`)

13.2

- The links to the online help got updated in the following dialogs
 - Redlining attribute (`TC_RL_ATTRIBUTE`)
 - Redlining cable (`TC_RL_CABLE`)
 - Redlining closure (`TC_RL_CLOSURE`)
 - Redlining connection (`TC_RL_CONNECTION`)
 - Redlining duct (`TC_RL_DUCT`)
 - Redlining fitting (`TC_RL_FITTING`)
 - Redlining measurement (`TC_RL_MEASUREMENT`)
 - Redlining measurement line (`TC_RL_MEASUREMENT_LINE`)
 - Redlining measurement point (`TC_RL_MEASUREMENT_POINT`)
 - Redlining segment (`TC_RL_SEGMENT`)
 - Redlining service item (`TC_RL_SERVICE_ITEM`)
 - Redlining structure (`TC_RL_STRUCTURE`)
 - Redlining terminator (`TC_RL_TERMINATOR`)
- A new reference to the Redlining service item (`$REF_TC_RL_SERVICE_ITEM`) has been added to the following dialogs:

- Redlining closure (TC_RL_CLOSURE)
- Redlining fitting (TC_RL_FITTING)
- Redlining segment (TC_RL_SEGMENT)
- Redlining structure (TC_RL_STRUCTURE)
- Redlining terminator (TC_RL_TERMINATOR)
- The reference to the Redlining fitting (\$REF_TC_RL_FITTING) has been removed from the dialog Redlining duct (TC_RL_DUCT)
- The reference to the Redlining fitting (\$REF_TC_RL_FITTING) has been removed from the dialog Redlining segment (TC_RL_SEGMENT)
- The reference to the parent object (FID_PARENT) has been removed from the dialog for the Redlining fitting (TC_RL_FITTING)

GIS-Specifications Data Model

13.1

- Dialog for Building (TC_TG_BUILDING):
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from BMVI_TECH_1_YEAR to BMVI_TECH_1_YEAR_INT .
 - Changed control for "Technology within three years" from text field to dropdown. Database field changed from BMVI_TECH_3_YEAR to BMVI_TECH_3_YEAR_INT .
 - Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from BMVI_TECH_IS to BMVI_IS_TECH .
 - Added new dropdown "Expansion Plan" (BMVI_PLAN_AUSB)

13.2

- The number of decimal places for the display has been set to 2.
 - Expansion area (TC_BMVI_EXPANSION_AREA) - Area (AREA)
 - Foreign area (TC_BMVI_FOREIGN_AREA) - Area (AREA)
 - Market survey (TC_BMVI_MARKET_SURVEY) - Area (AREA)
 - Political area (TC_BMVI_POLITICAL_AREA) - Area (AREA)
 - Supply area (TC_BMVI_SUPPLY_AREA) - Area (AREA)
 - White spot (TC_BMVI_WHITE_SPOT) - Area (AREA)
 - Building (TC_TG_BUILDING) - Loss (BMVI_LOSS)

Changes of the reports since NET 13.0

NET Engineering

Base Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET network overview service (`NET Network Overview Service`)
 - NET network overview service (just points) (`NET Network Overview of Service(just Points)`)
 - NET point table (`NET Point Table`)
 - NET reports (`NET Reports`)
 - NET segment cost (`NET Segment Cost`)
 - NET work order (`NET Work Order`)
- Replaced automatic line break with with manual line break in the report NET work order (`NET Work Order`).

Duct Data Model

13.1

- The vertical text alignment has been fixed in the columns for the start and end node in the “duct tap connections” report.
- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET duct end overview (`Duct End Overview`)
- NET duct tap label (`NET Duct Tap Label`) - color 2 of the duct on the right side fixed

Fiber Optic Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.

- NET cable cost (NET Cable Cost)
- NET FO cable section brief overview (NET FO Cable Section Brief Overview)
- NET FO cable section service customer (NET FO Cable Section Service Customer)
- NET FO cable section without trunk (NET FO Cable Section Without Trunk)
- NET FO cable section (NET FO Cable Section)
- NET FO cable trunk duct route (NET FO Cable Trunk Duct Route)
- NET FO closure trays (NET FO Closure Trays)
- NET FO connector used at switching point (NET FO Connector Used at Switching Point)
- NET FO connector used at terminator (NET FO Connector Used at Terminator)
- NET FO connector used with service at switching point (NET FO Connector Used with Service at Switching Point)
- NET FO connector used with service at terminator (NET FO Connector Used with Service at Terminator)
- NET FO connector at switching point (NET FO Connector at Switching Point)
- NET FO connector at terminator (NET FO Connector at Terminator)
- NET FO patch overview from connectors (NET FO Patch Overview from Connectors)
- NET FO patches in switching point (NET FO Patches in Switching Point)
- NET FO patches in terminator (NET FO Patches in Terminator)
- NET FO terminator overview (NET FO Terminator Overview)

Telephony Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET Telephony cable section brief overview (NET TP Cable Section Brief Overview)
 - NET Telephony cable section service customer (NET TP Cable Section Service Customer)
 - NET Telephony cable section without trunk (NET TP Cable Section without Trunk)
 - NET Telephony cable section (NET TP Cable Section)
 - NET Telephony cable trunk duct route (NET TP Cable Trunk Duct Route)

- NET Telephony network overview template (NET TP Network Overview Template)
- NET Telephony patches in switching point (NET TP Patches in Switching point)
- NET Telephony patches in terminator (NET TP Patches in Terminator)
- NET Telephony pins in switching point (NET TP Pins in Switching point)
- NET Telephony pins in terminator (NET TP Pins in Terminator)
- NET Telephony splice overview closure (NET TP Splice Overview Closure)
- NET Telephony splice overview terminator (NET TP Splice Overview Terminator)

Release Notes NET 13.2.3 (English)

Summary

NET 13.2.3 is an unplanned release that fixes a critical bug in the previous version NET 13.2.2.

The error fixed in this version, affected all functions that were creating copies of objects. Specifically, it concerns the workflows for "Splitting cables, ducts and trenches", "Assign ducts as a copy ...", the "Create house connection" workflow as well as the "Planning assistant" and the "Edit duct connections" workflow.

Release NET 13.2.2 has been withdrawn and the installers are not available. All changes and functional adaptations are included in the new release and can be found [here](#).

Supported Software

- Autodesk AutoCAD Map 3D
 - Autodesk AutoCAD Map 3D 2022.0.1 - Autodesk AutoCAD 2022.1.3 or later
 - Autodesk AutoCAD Map 3D 2023.0.2 - Autodesk AutoCAD 2023.1.1 or later
 - Autodesk AutoCAD Map 3D 2024.0.1 - Autodesk AutoCAD 2024.1 or later
- TKI PostgreSQL Provider 4.1.0
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1 - Comsof Fiber 23.2
- TKI Licensing 13.0
(Only required for a manual installation on the network license server)

Release NET 13.2.3 in Detail

NET Engineering

Dialogs and Workflows

- The error affecting the creation of copies of trenches, ducts and cables has been fixed.

Changes to the Data Model since NET 13.0

NET Design

Base Data Model

13.1

- Added additional target tables in `FID_FEATURE` to the table `TC_PL_ATTR_VALUE` .
 - `TC_PL_BOUNDARY.FID`
 - `TC_PL_PARCEL.FID`
 - `TC_PL_ROLLOUT_AREA.FID`
 - `TC_PL_SUBAREA.FID`

13.2

- *No changes to the data model - Structural update only for new forms and reports*

GIS-Nebenbestimmungen Data Model

13.1

- Removed "BMVI" from all captions.
- Added new column `BMVI_IS_TECH` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD` .
- Added new column `BMVI_PLAN_AUSB` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_PLAN_AUSB_TBD` .
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD` .
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD` .
- Added new domain table `TC_PL_BMVI_PLAN_AUSB_TBD` .
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_PL_BMVI_TECH_IS_TBD` .
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

13.2

- The captions of a few remaining identifiers have been changed from "BMVI" to "GIS-NB". There are not structural changes.

NET Engineering

Base Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The size of the column `INFO` in the Action area (`TC_ACTION_AREA`) feature class has been increased to 255 characters.
- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - `TC_M_BUILDING`
 - `TC_M_CLUSTER_STATISTIC`
 - `TC_M_SP_CABINET`
 - `TC_M_SP_MANHOLE`
 - `TC_M_SP_MARKER`
 - `TC_M_SP_POLE`
 - `TC_M_SP_SEGMENT`
 - `TC_M_SWITCHING_POINT`
- The backing table for the color table (`TC_COLOR`) was updated.
 - The column AutoCAD index (`ACAD_INDEX`) is not optional anymore and got the default value 0
 - The column blue value (`B_VALUE`) is not optional anymore and got the default value 0
 - The column dashed (`DASHED`) is not optional anymore and got the default value 0
 - The column green value (`G_VALUE`) is not optional anymore and got the default value 0
 - The column position(`ORDER_ID`) is not optional anymore and got the default value 0
 - The column red value (`R_VALUE`) is not optional anymore and got the default value 0

Duct Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - `TC_M_CS_CABLE`

- TC_M_CS_DUCT
 - TC_M_SP_DUCT
 - TC_M_SP_DUCT_INSERTION
 - TC_M_SP_DUCT_TAP
 - TC_M_SP_FITTING
- The field `LENGTH` got added to the view `TC_REP_SEGMENTCOSTS` , in case it was not present already.

Fiber Optic Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*
- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - TC_M_FO_CABLE
 - TC_M_FO_CLOSURE
 - TC_M_FO_TERMINATOR
 - TC_M_FO_SP_ASSIGNMENTS
- The text format of the output of the following views as fixed. There are no structure changes.
 - TC_REP_WO_FO_PATCH
 - TC_REP_WO_FO_SPLICE
- The size of the column `INFO` in cable loop (`TC_FO_CABLE_LOOP`) feature classes got increased to 255 characters

Telephony Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - TC_M_TP_CABLE
 - TC_M_TP_CLOSURE
 - TC_M_TP_TERMINATOR
 - TC_M_TP_SP_ASSIGNMENTS
- The text format of the output of the following views as fixed. There are no structure changes.
 - TC_REP_WO_TP_PATCH

- `TC_REP_WO_TP_SPLICE`

GIS-Nebenbestimmungen Data Model

13.1

- Added new column `BMVI_IS_TECH` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new column `BMVI_PLAN_AUSB` in `TC_TG_BUILDING` with relation to `TC_BMVI_PLAN_AUSB_TBD.ID`.
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID`.
- Added new domain table `TC_BMVI_PLAN_AUSB_TBD`.
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_BMVI_TECH_IS_TBD`.
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

13.2

- The captions of a few remaining identifiers have been changed from “BMVI” to “GIS-NB”. There are not structural changes.

Redlining Data Model

13.1

- Added new column `FID_STRUCTURE` in `TC_RL_CLOSURE` with relation to `TC_RL_STRUCTURE.FID`.
- Additional target table for the relation from `TC_RL_MEASUREMENT_POINT.FID_FEATURE` to `TC_TG_BUILDING.FID`.
- Added new object class `TC_RL_MEASUREMENT_L_MODEL`.
- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_LINE` with relation to `TC_RL_MEASUREMENT_L_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_LINE`.
- Adjusted the view `TC_M_RL_MEASUREMENT_LINE` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_L_TYPE_TBD`.
- Added new object class `TC_RL_MEASUREMENT_P_MODEL`.

- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_POINT` with relation to `TC_RL_MEASUREMENT_P_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_POINT`.
- Adjusted the view `TC_M_RL_MEASUREMENT_POINT` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_P_TYPE_TBD`.

13.2

- The column `FID_PARENT` was removed from the Redlining Fitting (`TC_RL_FITTING`)
- The German caption of the column `CONSTRUCTION_TYPE` in Redlining Trasse (`TC_RL_SEGMENT`) got changed.

NET Field Survey

GIS-Nebenbestimmungen Data Model

13.2

- The captions of a few remaining identifiers have been changed from “BMVI” to “GIS-NB”. There are not structural changes.

DocPack

13.2

- A new view for the plot sequences has been added (`TC_V_PLOT_SEQUENCE`)

Changes to the dialogs since NET 13.0

NET Design

Base Data Model

13.1

- New dialog for Boundary (`TC_PL_BOUNDARY`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Parcel (`TC_PL_PARCEL`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Rollout Area (`TC_PL_ROLLOUT_AREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Subarea (`TC_PL_SUBAREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New references from Cable Type (`TC_PL_CABLE_TYPE.FID`)
 - to Building (`TC_PL_BUILDING.FID_FORCED_CABLE_TYPE`)
 - to Demand Point (`TC_PL_DEMAND_POINT.FID_FORCED_CABLE_TYPE`)

13.2

- The number of decimal places for the display has been set to 2.
 - Boundary (`TC_PL_BOUNDARY`) - Length in m (`LENGTH`)
 - Boundary (`TC_PL_BOUNDARY`) - Width (`WIDTH`)
 - Building → Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Building → Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Demand Point → Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Demand Point → Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Result Kabelloop (`TC_PL_OUT_CABLE_LOOP`) - Length (`LENGTH`)

GIS-Specifications Data Model

13.1

- Dialog for Demand Point (`TC_PL_DEMAND_POINT`):
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from `BMVI_TECH_1_YEAR` to `BMVI_TECH_1_YEAR_INT` .

- Changed control for "Technology within three years" from text field to dropdown. Database field changed from `BMVI_TECH_3_YEAR` to `BMVI_TECH_3_YEAR_INT`.
- Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from `BMVI_TECH_IS` to `BMVI_IS_TECH`.
- Added new dropdown "Expansion Plan" (`BMVI_PLAN_AUSB`)

13.2

- The caption "BMVI" has been replaced by "GIS-NB" in the following dialogs:
 - Cable (`TC_PL_CABLE`)
 - Duct (`TC_PL_DUCT`)
 - Expansion area (`TC_PL_EXPANSION_AREA`)
 - Layer Point (`TC_PL_LAYER_POINT`)
 - Market survey (`TC_PL_MARKET_SURVEY`)
 - Possible trench (`TC_PL_POSSIBLE_TRENCH`)
 - Structure (`TC_PL_STRUCTURE`)
- Controls related to GIS-NB have been moved to the GIS-NB tab.
 - Expansion area (`TC_PL_EXPANSION_AREA`)
 - Foreign area (`TC_PL_FOREIGN_AREA`)
 - Political area (`TC_PL_POLITICAL_AREA`)
 - White spot (`TC_PL_WHITE_SPOT`)
- The number of decimal places for the display has been set to 2.
 - Expansion area (`TC_PL_EXPANSION_AREA`) - Area (`AREA`)
 - Foreign area (`TC_PL_FOREIGN_AREA`) - Area (`AREA`)
 - Market survey (`TC_PL_MARKET_SURVEY`) - Area (`AREA`)
 - Political area (`TC_PL_POLITICAL_AREA`) - Area (`AREA`)
 - White spot (`TC_PL_WHITE_SPOT`) - Area (`AREA`)

NET Engineering

Base Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Action Area (`TC_ACTION_AREA`) - Area (`AREA`)
 - Action Area Label (`TC_ACTION_AREA_TBL`) - Orientation (`ORIENTATION`)
 - Cluster Grid (`TC_CLUSTER_GRID`) - Area (`AREA`)

- Cabinet Label (TC_SP_CABINET_TBL) - Orientation (ORIENTATION)
- Manhole Label (TC_SP_MANHOLE_TBL) - Orientation (ORIENTATION)
- Survey Plan Point (TC_SP_POINT) - Orientation (ORIENTATION)
- Pole Label (TC_SP_POLE_TBL) - Orientation (ORIENTATION)
- Segment Label (TC_SP_SEGMENT_TBL) - Orientation (ORIENTATION)
- Switching Point Label (TC_SP_SWITCHING_POINT_TBL) - Orientation (ORIENTATION)
- Building Label (TC_TG_BUILDING_TBL) - Orientation (ORIENTATION)
- Topography point (TC_TG_POINT) - Orientation (ORIENTATION)
- Topography cluster (TC_TG_POLYGON) - Area (AREA)
- Street Label (TC_TG_STREET_TBL) - Orientation (ORIENTATION)
- All Info fields (INFO) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - Action area (TC_ACTION_AREA)
 - Element library (TC_ELEMENT_LIBRARY)
 - Line (TC_LINE)
 - Point (TC_POINT)
 - Drilling rig (TC_SP_DRILLING_RIG)
 - Marker (TC_SP_MARKER)
 - Marker model (TC_SP_MARKER_MODEL)
 - Patch panel (TC_SP_PATCH_PANEL)
 - Patch panel model (TC_SP_PATCH_PANEL_MODEL)
 - Rack panel (TC_SP_RACK_PANEL)
 - Rack panel model (TC_SP_RACK_PANEL_MODEL)
 - Status (TC_STATUS)
 - Switching point model (TC_SWITCHING_POINT_MODEL)
 - Topography point (TC_TG_POINT)
 - Topography cluster (TC_TG_POLYGON)

Duct Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Duct insertion label (TC_SP_DUCT_INSERTION_TBL) - Orientation (ORIENTATION)
 - Duct tap line (TC_SP_DUCT_TAP_LINE) - Length (LENGTH)
 - Duct tap line label (TC_SP_DUCT_TAP_LINE_TBL) - Orientation (ORIENTATION)

- Duct tap label (`TC_SP_DUCT_TAP_TBL`) - Orientation (`ORIENTATION`)
- Duct label (`TC_SP_DUCT_TBL`) - Orientation (`ORIENTATION`)
- Duct (`TC_SP_FITTING_TBL`) - Orientation (`ORIENTATION`)
- All Info fields (`INFO`) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - Duct tap model (`TC_SP_DUCT_TAP_MODEL`)

Fiber Optic Data Model

13.1

- Dialog for Fiber Optic Splice (`TC_FO_SPLICE`):
 - New named filters:
 - Show splices
 - Show stored fibers
 - Show uncut fibers in BA
 - Show uncut fibers
 - New SQL Label "Splice Type" (`$SQLLABELSPLICETYPE`)
 - Corrected positioning of Document Management (`$DOCUMENTMANAGER`)

13.2

- The number of decimal places for the display has been set to 2.
 - FO cable loop label (`TC_FO_CABLE_LOOP_TBL`) - Orientation (`ORIENTATION`)
 - FO cable model (`TC_FO_CABLE_MODEL`) - Diameter (`DIAMETER`)
 - FO connector label (`TC_FO_CONNECTOR_TBL`) - Orientation (`ORIENTATION`)
 - FO fiber label (`TC_FO_FIBER_TBL`) - Orientation (`ORIENTATION`)
 - FO patch data (`TC_FO_PATCH_DATA`) - Attenuation (`ATTENUATION`)
 - FO patch fiber label (`TC_FO_PATCH_FIBER_TBL`) - Orientation (`ORIENTATION`)
 - FO patch label (`TC_FO_PATCH_TBL`) - Orientation (`ORIENTATION`)
 - FO splice graphics label (`TC_FO_SPLICE_GRAPHICS_TBL`) - Orientation (`ORIENTATION`)
 - FO splice label (`TC_FO_SPLICE_TBL`) - Orientation (`ORIENTATION`)
 - FO splitter path label (`TC_FO_SPLITTER_PATH_TBL`) - Orientation (`ORIENTATION`)
 - FO splitter label (`TC_FO_SPLITTER_TBL`) - Orientation (`ORIENTATION`)
 - FO terminator label (`TC_FO_TERMINATOR_TBL`) - Orientation (`ORIENTATION`)
- All Info fields (`INFO`) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - FO cable loop (`TC_FO_CABLE_LOOP`)

- FO closure model (`TC_FO_CLOSURE_MODEL`)
- New API controls have been added to the FO closure (`TC_FO_CLOSURE`) and the FO terminator (`TC_FO_TERMINATOR`)
 - `$ENDINGLINECOMPLEX`
 - `$STARTINGLINECOMPLEX`
- Dialog FO splice (`TC_FO_SPLICE`) - The display for the connected splitters got corrected. The queries of the controls `$SQLLABELSPLITTER1` and `$SQLLABELSPLITTER2` got fixed.

Telephony Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Telephony cable loop (`TC_TP_CABLE_LOOP`) - Orientation (`ORIENTATION`)
 - Telephony cable model (`TC_TP_CABLE_MODEL`) - Diameter (`DIAMETER`)
 - Telephony cable label (`TC_TP_CABLE_TBL`) - Orientation (`ORIENTATION`)
 - Telephony closure label (`TC_TP_CLOSURE_TBL`) - Orientation (`ORIENTATION`)
 - Telephony patch data (`TC_TP_PATCH_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony patch label (`TC_TP_PATCH_TBL`) - Orientation (`ORIENTATION`)
 - Telephony pin data (`TC_TP_PIN_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony splice data (`TC_TP_SPLICE_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony splice graphics label (`TC_TP_SPLICE_GRAPHICS_TBL`) - Orientation (`ORIENTATION`)
 - Telephony terminator label (`TC_TP_TERMINATOR_TBL`) - Orientation (`ORIENTATION`)
 - Telephony wire data (`TC_TP_WIRE_DATA`) - Attenuation (`ATTENUATION`)
- New API controls have been added to the Telephony closure (`TC_TP_CLOSURE`) and the Telephony terminator (`TC_TP_TERMINATOR`)
 - `$ENDINGLINECOMPLEX`
 - `$STARTINGLINECOMPLEX`

Redlining Data Model

13.1

- Dialog for Redlining Closure (`TC_PL_CLOSURE`):
 - New reference field for Redlining Structure (`FID_STRUCTURE`)
 - Corrected positioning of Redlining Source Object (`SOURCE_OBJECT`)

- Dialog for Measurement Line (`TC_RL_MEASUREMENT_LINE`):
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Line Model (`TC_RL_MEASUREMENT_L_MODEL`)
- Dialog for Measurement Point (`TC_RL_MEASUREMENT_POINT`):
 - Extended target tables for parent object (`FID_PARENT`) to include Building (`TC_TG_BUILDING`)
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Point Model (`TC_RL_MEASUREMENT_P_MODEL`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Segment (`TC_RL_SEGMENT`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Structure (`TC_RL_STRUCTURE`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Terminator (`TC_RL_TERMINATOR`)

13.2

- The links to the online help got updated in the following dialogs
 - Redlining attribute (`TC_RL_ATTRIBUTE`)
 - Redlining cable (`TC_RL_CABLE`)
 - Redlining closure (`TC_RL_CLOSURE`)
 - Redlining connection (`TC_RL_CONNECTION`)
 - Redlining duct (`TC_RL_DUCT`)
 - Redlining fitting (`TC_RL_FITTING`)
 - Redlining measurement (`TC_RL_MEASUREMENT`)
 - Redlining measurement line (`TC_RL_MEASUREMENT_LINE`)
 - Redlining measurement point (`TC_RL_MEASUREMENT_POINT`)
 - Redlining segment (`TC_RL_SEGMENT`)
 - Redlining service item (`TC_RL_SERVICE_ITEM`)
 - Redlining structure (`TC_RL_STRUCTURE`)
 - Redlining terminator (`TC_RL_TERMINATOR`)
- A new reference to the Redlining service item (`$REF_TC_RL_SERVICE_ITEM`) has been added to the following dialogs:

- Redlining closure (TC_RL_CLOSURE)
- Redlining fitting (TC_RL_FITTING)
- Redlining segment (TC_RL_SEGMENT)
- Redlining structure (TC_RL_STRUCTURE)
- Redlining terminator (TC_RL_TERMINATOR)
- The reference to the Redlining fitting (\$REF_TC_RL_FITTING) has been removed from the dialog Redlining duct (TC_RL_DUCT)
- The reference to the Redlining fitting (\$REF_TC_RL_FITTING) has been removed from the dialog Redlining segment (TC_RL_SEGMENT)
- The reference to the parent object (FID_PARENT) has been removed from the dialog for the Redlining fitting (TC_RL_FITTING)

GIS-Specifications Data Model

13.1

- Dialog for Building (TC_TG_BUILDING):
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from BMVI_TECH_1_YEAR to BMVI_TECH_1_YEAR_INT .
 - Changed control for "Technology within three years" from text field to dropdown. Database field changed from BMVI_TECH_3_YEAR to BMVI_TECH_3_YEAR_INT .
 - Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from BMVI_TECH_IS to BMVI_IS_TECH .
 - Added new dropdown "Expansion Plan" (BMVI_PLAN_AUSB)

13.2

- The number of decimal places for the display has been set to 2.
 - Expansion area (TC_BMVI_EXPANSION_AREA) - Area (AREA)
 - Foreign area (TC_BMVI_FOREIGN_AREA) - Area (AREA)
 - Market survey (TC_BMVI_MARKET_SURVEY) - Area (AREA)
 - Political area (TC_BMVI_POLITICAL_AREA) - Area (AREA)
 - Supply area (TC_BMVI_SUPPLY_AREA) - Area (AREA)
 - White spot (TC_BMVI_WHITE_SPOT) - Area (AREA)
 - Building (TC_TG_BUILDING) - Loss (BMVI_LOSS)

Changes of the reports since NET 13.0

NET Engineering

Base Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET network overview service (`NET Network Overview Service`)
 - NET network overview service (just points) (`NET Network Overview of Service(just Points)`)
 - NET point table (`NET Point Table`)
 - NET reports (`NET Reports`)
 - NET segment cost (`NET Segment Cost`)
 - NET work order (`NET Work Order`)
- Replaced automatic line break with with manual line break in the report NET work order (`NET Work Order`).

Duct Data Model

13.1

- The vertical text alignment has been fixed in the columns for the start and end node in the “duct tap connections” report.
- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET duct end overview (`Duct End Overview`)
- NET duct tap label (`NET Duct Tap Label`) - color 2 of the duct on the right side fixed

Fiber Optic Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.

- NET cable cost (NET Cable Cost)
- NET FO cable section brief overview (NET FO Cable Section Brief Overview)
- NET FO cable section service customer (NET FO Cable Section Service Customer)
- NET FO cable section without trunk (NET FO Cable Section Without Trunk)
- NET FO cable section (NET FO Cable Section)
- NET FO cable trunk duct route (NET FO Cable Trunk Duct Route)
- NET FO closure trays (NET FO Closure Trays)
- NET FO connector used at switching point (NET FO Connector Used at Switching Point)
- NET FO connector used at terminator (NET FO Connector Used at Terminator)
- NET FO connector used with service at switching point (NET FO Connector Used with Service at Switching Point)
- NET FO connector used with service at terminator (NET FO Connector Used with Service at Terminator)
- NET FO connector at switching point (NET FO Connector at Switching Point)
- NET FO connector at terminator (NET FO Connector at Terminator)
- NET FO patch overview from connectors (NET FO Patch Overview from Connectors)
- NET FO patches in switching point (NET FO Patches in Switching Point)
- NET FO patches in terminator (NET FO Patches in Terminator)
- NET FO terminator overview (NET FO Terminator Overview)

Telephony Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET Telephony cable section brief overview (NET TP Cable Section Brief Overview)
 - NET Telephony cable section service customer (NET TP Cable Section Service Customer)
 - NET Telephony cable section without trunk (NET TP Cable Section without Trunk)
 - NET Telephony cable section (NET TP Cable Section)
 - NET Telephony cable trunk duct route (NET TP Cable Trunk Duct Route)

- NET Telephony network overview template (NET TP Network Overview Template)
- NET Telephony patches in switching point (NET TP Patches in Switching point)
- NET Telephony patches in terminator (NET TP Patches in Terminator)
- NET Telephony pins in switching point (NET TP Pins in Switching point)
- NET Telephony pins in terminator (NET TP Pins in Terminator)
- NET Telephony splice overview closure (NET TP Splice Overview Closure)
- NET Telephony splice overview terminator (NET TP Splice Overview Terminator)

Release Notes NET 13.3 (English)

Summary

With the new version NET 13.3, the Infas 360 data import is now available in NET Engineering. Through this importer, address data from <https://www.infas360.de/> can be retrieved. This data import is subject to charges. Please contact sales for a quote. The access to the new feature can currently be found in the context menu of the document in the Fachschalen-Explorer.

Also new is our integration with <https://www.cyclomedia.com/de/street-smart>. This functionality is available in NET Design and allows viewing Street Smart's panorama views within the map. An additional license from Cyclomedia is required to access this feature.

Note for customers with customizations: The Cyclomedia integration was *not* included in the installers for NET with customizations. If you wish to use the integration, you can contact our support to have the Cyclomedia integration activated in your installer.

In our data model for Redlining, the necessary preparatory work has also been done to enable collaboration with the upcoming NET Scan App. NET 13.3 is a prerequisite for using the new app.

Additionally, many other functions have been improved and corrected in this version, which can be found in the details. A significant bug fix relates to a database function for PostgreSQL. The correction of this function results in a much faster renaming of cables and pipes when many labels are activated in the project.

Supported Software

- Autodesk AutoCAD Map 3D
 - Autodesk AutoCAD Map 3D 2022.0.1 - Autodesk AutoCAD 2022.1.3 or later
 - Autodesk AutoCAD Map 3D 2023.0.2 - Autodesk AutoCAD 2023.1.1 or later
 - Autodesk AutoCAD Map 3D 2024.0.1 - Autodesk AutoCAD 2024.1 or later
- TKI PostgreSQL Provider 4.1.0
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1 - Comsof Fiber 23.2
- TKI Licensing 13.0
(Only required for a manual installation on the network license server)

⚠ Autodesk AutoCAD Map 3D 2023.0.4 is currently not supported.

Release NET 13.3 in Detail

General

- The form for including external references using the 'XRefLoader' extension has been updated and now offers default values for most input fields. Additionally there is no need for manual changes to enable the file selection anymore and the field names are not localized correctly (English / German).

Documentation Pack

- DocPack outputs from different subtemplates within a template can no longer overwrite each other.
- The DocPack configuration now uses the standard format 'yyyy-MM-dd' for date tokens (DATE) without format specification.

NET Design

General

- There is now a new menu “Cyclomedia” via which a connection to the Cyclomedia service can be established.
This makes it possible to display and use the panoramic images and functions provided by Cyclomedia in a separate interface.

Import

- There is now a new importer “Import from GeoPackage” which can be used to import GeoPackage files.

Comsof Fiber Integration

- Creation of possible trenches based on parcels containing multi-polygon geometries is now possible.
- Properties that are not allowed to be changed by the user in Comsof Advanced settings are now hidden as of version 23.2.

NET Engineering

General

- A bug in a database function for PostGIS has been fixed. This bug caused updates to certain labels to be executed significantly slower than expected. The issue was particularly noticeable when renaming ducts and cables, as this triggered the label updates. In rare cases, this bug could also lead to a crash.
- Assigning a closure or terminator to a building now also works if the building is digitized directly on the device.
- Error in workflow “Create duct template” fixed. This possible to recreate the duct templates and assign them to ducts. They are also properly displayed in the cross section again.
- The deletion of a protective duct does not delete the duct bundle automatically if the duct bundle is assigned to other segments.
- The duct tap label does not show duct bundles twice.
- FID_STRUCTURE_POINT & FID_BUILDING has been added to map views in Data model.
- It is now possible to assign a cross section template to a segment without geometry without an error being displayed.
- Comsof: Import Material Definition can now import “common ducts” from a rules file.

- The import from Infas geodata is now also available for NET Engineering. This function is launched using the context menu of the industry model explorer. The import requires license credits that have to be purchased separately.
- View for switching point assignments no longer produce an error in the 1-click-maintenance and correctly display their geometry.

Workflows

- Objects with indirect geometry can now also be marked in the “Verify FO cable geometries”, “Verify TP cable geometry” and “Verify duct geometries” workflows.

Connection editor

- The Type from the settings window was disappearing while choosing another configuration. This problem has been fixed.

Dialogs

- If a FO cable section or TP cable section is, for example, in a segment and also in a subordinate duct, there is now no longer an error when opening the cable section form.
- The validations for the functions “Assign child ducts/cables to one more segment”, “Assign child ducts/cables as copy to one more segment” and “Assign child ducts/cables to one more segment/duct” have been standardized so that all assignment functions now follow the same validation rules. Various minor problems within the three functions have also been fixed.
- There are now three new named projections in the Buildings form, which show all duct insertions, FO terminators and TP terminators of the filtered buildings.
- For Cable, shown in the form of terminator and closure, multi selection is now possible. The context menu functions are available for all cables in the selection, except “Change alias” and “Set fault” which are deactivated for multi selection
- The forms for segment, duct and TP/FO cable sections have been adapted: The fields in the 'Assignments' area are now read-only.

Reports

- Fixed a bug that prevented reports from being generated under Oracle.
- The FO Spliceoverview shows the fiber name instead of the number again.
- The internal assignment of the position numbers of the micro ducts has been corrected, thus they are now ordered correctly in the 'Duct Connection' report.
- An incorrect translation in the report 'FO Connectors (used) at Terminator' has been corrected.

GIS-Nebenbestimmungen

- SQL filter in forms “White spots” and “Expansion area BFP” adjusted.

TNIM

- The TNIM Import now creates connection lines between switching points and terminator/closures.
- If a value in the TNIM file exceeds the permissible size of the attribute in NET Engineering during import, the import is aborted with a corresponding message. Using a new TNIM import option for SQLite projects, these aborts can be prevented and reduced to a warning in the log.
- Large import processes such as the TNIM import or the creation of the low level design from NET Design now ignore the project options of the target project, which determine the status or client for

all newly created objects. The imported objects now always have the status and client according to the import source.

Import from NET Build

- During import from NET Build and export to NET Build, it is now possible to filter the log messages.
- When importing from NET Build, the name of the trench is now transferred.
- The NET REST interface, which splits up the design elements, now generates a job with which the respective steps and statuses can be tracked.
- When importing from NET Build, a bug has been fixed that prevented the service items from being assigned correctly if a trench had not yet been fully measured in NET Build.
- Names have been harmonized in the dialogs for “Data transfer to NET Build”, “Synchronize NET Build field reports” and “Documentation data transfer”. They have also been renamed “Export to NET Build”, “Import from NET Build” and “Redlining data transfer”
- If a user tries to log in for the import from NET Build and is missing authorizations, these are displayed in an error.

Export to NET Build

- When exporting to NET Build, the attribute for the type of building unit is also transferred.
- Only accounts with admin rights are allowed to create regions.
- When exporting to NET Build, two new fields are now added for cables that allow a direct reference to start and end nodes.
- If a user tries to log in for the export to NET Build and is missing permissions, these are displayed in an error.
- The data transfer from NET Engineering to NET Build now also supports the transfer of files that are linked to objects via document management.

Redlining

- In the Redlining measurement form, the “Created on” field has been replaced by a separate field, as there was a collision with the general creation date (DATE_CREATED).
- Redlining feature classes have been extended by attributes DATE_CREATED, USER_CREATED, DATE_MODIFIED and USER_MODIFIED.
- The “Typ” field in the Redlining Muffe form is marked as an optional field.
- The output of the redlining validation has been improved so that the captions are now displayed.
- Redlining measurement form has been updated with new fields for displaying and filtering new objects
- There is a new action for the transfer of site plan objects in the data transfer documentation, which makes it possible to transfer the redlining survey points/lines to the site plan objects.
- There is a new validation, which checks if there are any redlining ducts with missing fittings.
- The “documentation data transfer” from Redlining to NET Engineering now supports a new action for splitting segments according to service items.

Documentation Pack

- The report “duct tap label” was updated. Now all ducts with either an open end or a connection on the given duct tap will be displayed. Furthermore the correct end points of the duct bundles will be displayed now and the table columns are consistently ordered using multiple sorting criteria.

Selecting multiple duct taps at once does not lead to issues during report generation anymore as well.

NET Field Survey

Dialogs

- The form “Duct Type Constraint” has a new separated entry and reference for “Street center lines”. The entry for “Possible trenches” will no longer contain reference to “Street center lines”.

NET Cloud

Geoserver configuration

- A view has been created for NET Cloud which provides information about all attributes of all feature classes. It is served through the geoserver using the publishing process.

NET REST Server

Redlining

- A new parameter “NoAccuracyHandling” has been added for handling missing measurement accuracy for markups in production reports.
- Status code for Redlining Validation matches the HTTP status code in the problem details.

Changes to the Data Model since NET 13.0

NET Design

Base Data Model

13.1

- Added additional target tables in `FID_FEATURE` to the table `TC_PL_ATTR_VALUE`.
 - `TC_PL_BOUNDARY.FID`
 - `TC_PL_PARCEL.FID`
 - `TC_PL_ROLLOUT_AREA.FID`
 - `TC_PL_SUBAREA.FID`

13.2

- *No changes to the data model - Structural update only for new forms and reports*

GIS-Nebenbestimmungen Data Model

13.1

- Removed "BMVI" from all captions.
- Added new column `BMVI_IS_TECH` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD`.
- Added new column `BMVI_PLAN_AUSB` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_PLAN_AUSB_TBD`.
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD`.
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD`.
- Added new domain table `TC_PL_BMVI_PLAN_AUSB_TBD`.
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_PL_BMVI_TECH_IS_TBD`.
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

13.2

- The captions of a few remaining identifiers have been changed from "BMVI" to "GIS-NB". There are not structural changes.

NET Engineering

Base Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The size of the column `INFO` in the Action area (`TC_ACTION_AREA`) feature class has been increased to 255 characters.
- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - `TC_M_BUILDING`
 - `TC_M_CLUSTER_STATISTIC`
 - `TC_M_SP_CABINET`
 - `TC_M_SP_MANHOLE`
 - `TC_M_SP_MARKER`
 - `TC_M_SP_POLE`
 - `TC_M_SP_SEGMENT`
 - `TC_M_SWITCHING_POINT`
- The backing table for the color table (`TC_COLOR`) was updated.
 - The column AutoCAD index (`ACAD_INDEX`) is not optional anymore and got the default value 0
 - The column blue value (`B_VALUE`) is not optional anymore and got the default value 0
 - The column dashed (`DASHED`) is not optional anymore and got the default value 0
 - The column green value (`G_VALUE`) is not optional anymore and got the default value 0
 - The column position(`ORDER_ID`) is not optional anymore and got the default value 0
 - The column red value (`R_VALUE`) is not optional anymore and got the default value 0

13.3

- Changed view `TC_REP_LINE_FROM_TO` .
This is an internal changed. Interface and output of the view are unchanged.
- Changed database function `TC_F_CONN_WALKER` .
Interface and result of the function remain the same. Only the processing performance got improved.

Duct Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - `TC_M_CS_CABLE`
 - `TC_M_CS_DUCT`
 - `TC_M_SP_DUCT`
 - `TC_M_SP_DUCT_INSERTION`
 - `TC_M_SP_DUCT_TAP`
 - `TC_M_SP_FITTING`
- The field `LENGTH` got added to the view `TC_REP_SEGMENTCOSTS` , in case it was not present already.

13.3

- *No changes to the data model - Structural update only for new forms and reports*

Fiber Optic Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*
- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - `TC_M_FO_CABLE`
 - `TC_M_FO_CLOSURE`
 - `TC_M_FO_TERMINATOR`
 - `TC_M_FO_SP_ASSIGNMENTS`
- The text format of the output of the following views as fixed. There are no structure changes.
 - `TC_REP_WO_FO_PATCH`
 - `TC_REP_WO_FO_SPLICE`
- The size of the column `INFO` in cable loop (`TC_FO_CABLE_LOOP`) feature classes got increased to 255 characters

13.2

- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:

- `TC_M_FO_CABLE`
- `TC_M_FO_CLOSURE`
- `TC_M_FO_TERMINATOR`
- `TC_M_FO_SP_ASSIGNMENTS`
- The text format of the output of the following views as fixed. There are no structure changes.
 - `TC_REP_WO_FO_PATCH`
 - `TC_REP_WO_FO_SPLICE`
- The size of the column `INFO` in the cable loop (`TC_FO_CABLE_LOOP`) got increased to 255 characters.

13.3

- Altered view `TC_M_FO_CLOSURE` : The columns `FID_BUILDING` and `FID_STRUCTURE_POINT` were added.
- Altered view `TC_M_FO_SP_ASSIGNMENTS` .
 - `FID` column does not reference the `TC_POINT` of the closure or the terminator, but the `TC_FO_CONNECTION_LINE`
 - `DEV_FID` references the `TC_POINT` of the closure or the terminator.
 - `GEOM` is not generated dynamically anymore, but fetched from `TC_FO_CONNECTION_LINE` .
- Altered view `TC_M_FO_TERMINATOR` : The columns `FID_BUILDING` and `FID_STRUCTURE_POINT` were added.

Telephony Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - `TC_M_TP_CABLE`
 - `TC_M_TP_CLOSURE`
 - `TC_M_TP_TERMINATOR`
 - `TC_M_TP_SP_ASSIGNMENTS`
- The text format of the output of the following views as fixed. There are no structure changes.
 - `TC_REP_WO_TP_PATCH`

- `TC_REP_WO_TP_SPLICE`

13.3

- Altered view `TC_M_TP_CLOSURE` : The columns `FID_BUILDING` and `FID_STRUCTURE_POINT` were added.
- Altered view `TC_M_TP_SP_ASSIGNMENTS` .
 - `FID` column does not reference the `TC_POINT` of the closure or the terminator, but the `TC_TP_CONNECTION_LINE`
 - `DEV_FID` references the `TC_POINT` of the closure or the terminator.
 - `GEOM` is not generated dynamically anymore, but fetched from `TC_TP_CONNECTION_LINE` .
- Altered view `TC_M_TP_TERMINATOR` : The columns `FID_BUILDING` and `FID_STRUCTURE_POINT` were added.

GIS-Nebenbestimmungen Data Model

13.1

- Added new column `BMVI_IS_TECH` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID` .
- Added new column `BMVI_PLAN_AUSB` in `TC_TG_BUILDING` with relation to `TC_BMVI_PLAN_AUSB_TBD.ID` .
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID` .
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID` .
- Added new domain table `TC_BMVI_PLAN_AUSB_TBD` .
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_BMVI_TECH_IS_TBD` .
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

13.2

- The captions of a few remaining identifiers have been changed from “BMVI” to “GIS-NB”. There are not structural changes.

13.3

- *No changes to the data model - Structural update only for new forms and reports*

Redlining Data Model

13.1

- Added new column `FID_STRUCTURE` in `TC_RL_CLOSURE` with relation to `TC_RL_STRUCTURE.FID`.
- Additional target table for the relation from `TC_RL_MEASUREMENT_POINT.FID_FEATURE` to `TC_TG_BUILDING.FID`.
- Added new object class `TC_RL_MEASUREMENT_L_MODEL`.
- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_LINE` with relation to `TC_RL_MEASUREMENT_L_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_LINE`.
- Adjusted the view `TC_M_RL_MEASUREMENT_LINE` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_L_TYPE_TBD`.
- Added new object class `TC_RL_MEASUREMENT_P_MODEL`.
- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_POINT` with relation to `TC_RL_MEASUREMENT_P_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_POINT`.
- Adjusted the view `TC_M_RL_MEASUREMENT_POINT` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_P_TYPE_TBD`.

13.2

- The column `FID_PARENT` was removed from the Redlining Fitting (`TC_RL_FITTING`)
- The German caption of the column `CONSTRUCTION_TYPE` in Redlining Trasse (`TC_RL_SEGMENT`) got changed.

13.3

- New columns `DATE_CREATED`, `DATE_MODIFIED`, `USER_CREATED` and `USER_MODIFIED` got added to the following tables:
 - `TC_RL_SERVICE_ITEM`
 - `TC_RL_ATTRIBUTE`
 - `TC_RL_CABLE`
 - `TC_RL_CLOSURE`
 - `TC_RL_CONNECTION`
 - `TC_RL_DUCT`
 - `TC_RL_FITTING`
 - `TC_RL_MEASUREMENT`

- TC_RL_MEASUREMENT_LINE
- TC_RL_MEASUREMENT_POINT
- TC_RL_SEGMENT
- TC_RL_STRUCTURE
- TC_RL_TERMINATOR
- New columns DATE_CREATED , DATE_MODIFIED , USER_CREATED and USER_MODIFIED got added to the following views:
 - TC_M_RL_MEASUREMENT_LINE
 - TC_M_RL_MEASUREMENT_POINT
 - TC_M_RL_SEGMENT
 - TC_M_RL_STRUCTURE
 - TC_M_RL_TERMINATOR
- New column NAME got added to TC_PL_SEGMENT .
- New feature class TC_RL_SCAN was created.
- Reference column FID_SCAN with a reference to TC_RL_SCAN was added to the following columns:
 - TC_RL_CABLE
 - TC_RL_CLOSURE
 - TC_RL_DUCT
 - TC_RL_FITTING
 - TC_RL_MEASUREMENT_LINE
 - TC_RL_MEASUREMENT_POINT
 - TC_RL_SEGMENT
 - TC_RL_STRUCTURE
 - TC_RL_TERMINATOR
- New column DATE_SYNC got added to TC_RL_MEASUREMENT .
- Reference column ID_TYPE_SURVEY with a reference to TC_SP_LINE_TYPE_TBD got added to TC_RL_MEASUREMENT_LINE .
- Reference column ID_TYPE_SURVEY with a reference to TC_SP_POINT_TYPE_TBD got added to TC_RL_MEASUREMENT_POINT .

NET Field Survey

Base Data Model

13.3

- *No changes to the data model - Structural update only for new forms and reports*

GIS-Nebenbestimmungen Data Model

13.2

- The captions of a few remaining identifiers have been changed from “BMVI” to “GIS-NB”. There are not structural changes.

DocPack

13.2

- A new view for the plot sequences has been added (`TC_V_PLOT_SEQUENCE`)

Changes to the dialogs since NET 13.0

NET Design

Base Data Model

13.1

- New dialog for Boundary (`TC_PL_BOUNDARY`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Parcel (`TC_PL_PARCEL`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Rollout Area (`TC_PL_ROLLOUT_AREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Subarea (`TC_PL_SUBAREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New references from Cable Type (`TC_PL_CABLE_TYPE.FID`)
 - to Building (`TC_PL_BUILDING.FID_FORCED_CABLE_TYPE`)
 - to Demand Point (`TC_PL_DEMAND_POINT.FID_FORCED_CABLE_TYPE`)

13.2

- The number of decimal places for the display has been set to 2.
 - Boundary (`TC_PL_BOUNDARY`) - Length in m (`LENGTH`)
 - Boundary (`TC_PL_BOUNDARY`) - Width (`WIDTH`)
 - Building → Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Building → Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Demand Point → Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Demand Point → Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Result Kabelloop (`TC_PL_OUT_CABLE_LOOP`) - Length (`LENGTH`)

GIS-Specifications Data Model

13.1

- Dialog for Demand Point (`TC_PL_DEMAND_POINT`):
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from `BMVI_TECH_1_YEAR` to `BMVI_TECH_1_YEAR_INT` .

- Changed control for "Technology within three years" from text field to dropdown. Database field changed from `BMVI_TECH_3_YEAR` to `BMVI_TECH_3_YEAR_INT`.
- Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from `BMVI_TECH_IS` to `BMVI_IS_TECH`.
- Added new dropdown "Expansion Plan" (`BMVI_PLAN_AUSB`)

13.2

- The caption "BMVI" has been replaced by "GIS-NB" in the following dialogs:
 - Cable (`TC_PL_CABLE`)
 - Duct (`TC_PL_DUCT`)
 - Expansion area (`TC_PL_EXPANSION_AREA`)
 - Layer Point (`TC_PL_LAYER_POINT`)
 - Market survey (`TC_PL_MARKET_SURVEY`)
 - Possible trench (`TC_PL_POSSIBLE_TRENCH`)
 - Structure (`TC_PL_STRUCTURE`)
- Controls related to GIS-NB have been moved to the GIS-NB tab.
 - Expansion area (`TC_PL_EXPANSION_AREA`)
 - Foreign area (`TC_PL_FOREIGN_AREA`)
 - Political area (`TC_PL_POLITICAL_AREA`)
 - White spot (`TC_PL_WHITE_SPOT`)
- The number of decimal places for the display has been set to 2.
 - Expansion area (`TC_PL_EXPANSION_AREA`) - Area (`AREA`)
 - Foreign area (`TC_PL_FOREIGN_AREA`) - Area (`AREA`)
 - Market survey (`TC_PL_MARKET_SURVEY`) - Area (`AREA`)
 - Political area (`TC_PL_POLITICAL_AREA`) - Area (`AREA`)
 - White spot (`TC_PL_WHITE_SPOT`) - Area (`AREA`)

NET Engineering

Base Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Action Area (`TC_ACTION_AREA`) - Area (`AREA`)
 - Action Area Label (`TC_ACTION_AREA_TBL`) - Orientation (`ORIENTATION`)
 - Cluster Grid (`TC_CLUSTER_GRID`) - Area (`AREA`)

- Cabinet Label (`TC_SP_CABINET_TBL`) - Orientation (`ORIENTATION`)
- Manhole Label (`TC_SP_MANHOLE_TBL`) - Orientation (`ORIENTATION`)
- Survey Plan Point (`TC_SP_POINT`) - Orientation (`ORIENTATION`)
- Pole Label (`TC_SP_POLE_TBL`) - Orientation (`ORIENTATION`)
- Segment Label (`TC_SP_SEGMENT_TBL`) - Orientation (`ORIENTATION`)
- Switching Point Label (`TC_SP_SWITCHING_POINT_TBL`) - Orientation (`ORIENTATION`)
- Building Label (`TC_TG_BUILDING_TBL`) - Orientation (`ORIENTATION`)
- Topography point (`TC_TG_POINT`) - Orientation (`ORIENTATION`)
- Topography cluster (`TC_TG_POLYGON`) - Area (`AREA`)
- Street Label (`TC_TG_STREET_TBL`) - Orientation (`ORIENTATION`)
- All Info fields (`INFO`) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - Action area (`TC_ACTION_AREA`)
 - Element library (`TC_ELEMENT_LIBRARY`)
 - Line (`TC_LINE`)
 - Point (`TC_POINT`)
 - Drilling rig (`TC_SP_DRILLING_RIG`)
 - Marker (`TC_SP_MARKER`)
 - Marker model (`TC_SP_MARKER_MODEL`)
 - Patch panel (`TC_SP_PATCH_PANEL`)
 - Patch panel model (`TC_SP_PATCH_PANEL_MODEL`)
 - Rack panel (`TC_SP_RACK_PANEL`)
 - Rack panel model (`TC_SP_RACK_PANEL_MODEL`)
 - Status (`TC_STATUS`)
 - Switching point model (`TC_SWITCHING_POINT_MODEL`)
 - Topography point (`TC_TG_POINT`)
 - Topography cluster (`TC_TG_POLYGON`)

13.3

- Dialog definitions for the following views got removed and replaced with a redirect to the base table.
 - `TC_V_COLOR`
 - `TC_V_CONN`
 - `TC_V_CONN_DETAILS`
 - `TC_V_CONN_DETAILS_PERF`

- `TC_CONN_DETAILS_TO`

Duct Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Duct insertion label (`TC_SP_DUCT_INSERTION_TBL`) - Orientation (`ORIENTATION`)
 - Duct tap line (`TC_SP_DUCT_TAP_LINE`) - Length (`LENGTH`)
 - Duct tap line label (`TC_SP_DUCT_TAP_LINE_TBL`) - Orientation (`ORIENTATION`)
 - Duct tap label (`TC_SP_DUCT_TAP_TBL`) - Orientation (`ORIENTATION`)
 - Duct label (`TC_SP_DUCT_TBL`) - Orientation (`ORIENTATION`)
 - Duct (`TC_SP_FITTING_TBL`) - Orientation (`ORIENTATION`)
- All Info fields (`INFO`) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - Duct tap model (`TC_SP_DUCT_TAP_MODEL`)

13.3

- New projection added to `TC_TG_BUILDING` pointing the the duct terminators inside the building.
- Dialog definitions for the following views got removed and replaced with a redirect to the base table.
 - `TC_V_BREAKDOWN_LINES`

Fiber Optic Data Model

13.1

- Dialog for Fiber Optic Splice (`TC_FO_SPLICE`):
 - New named filters:
 - Show splices
 - Show stored fibers
 - Show uncut fibers in BA
 - Show uncut fibers
 - New SQL Label "Splice Type" (`$SQLLABELSPLICETYPE`)
 - Corrected positioning of Document Management (`$DOCUMENTMANAGER`)

13.2

- The number of decimal places for the display has been set to 2.
 - FO cable loop label (`TC_FO_CABLE_LOOP_TBL`) - Orientation (`ORIENTATION`)
 - FO cable model (`TC_FO_CABLE_MODEL`) - Diameter (`DIAMETER`)
 - FO connector label (`TC_FO_CONNECTOR_TBL`) - Orientation (`ORIENTATION`)

- FO fiber label (`TC_FO_FIBER_TBL`) - Orientation (`ORIENTATION`)
- FO patch data (`TC_FO_PATCH_DATA`) - Attenuation (`ATTENUATION`)
- FO patch fiber label (`TC_FO_PATCH_FIBER_TBL`) - Orientation (`ORIENTATION`)
- FO patch label (`TC_FO_PATCH_TBL`) - Orientation (`ORIENTATION`)
- FO splice graphics label (`TC_FO_SPLICE_GRAPHICS_TBL`) - Orientation (`ORIENTATION`)
- FO splice label (`TC_FO_SPLICE_TBL`) - Orientation (`ORIENTATION`)
- FO splitter path label (`TC_FO_SPLITTER_PATH_TBL`) - Orientation (`ORIENTATION`)
- FO splitter label (`TC_FO_SPLITTER_TBL`) - Orientation (`ORIENTATION`)
- FO terminator label (`TC_FO_TERMINATOR_TBL`) - Orientation (`ORIENTATION`)
- All Info fields (`INFO`) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - FO cable loop (`TC_FO_CABLE_LOOP`)
 - FO closure model (`TC_FO_CLOSURE_MODEL`)
- New API controls have been added to the FO closure (`TC_FO_CLOSURE`) and the FO terminator (`TC_FO_TERMINATOR`)
 - `$ENDINGLINECOMPLEX`
 - `$STARTINGLINECOMPLEX`
- Dialog FO splice (`TC_FO_SPLICE`) - The display for the connected splitters got corrected. The queries of the controls `$SQLLABELSPLITTER1` and `$SQLLABELSPLITTER2` got fixed.

13.3

- New projection added to `TC_TG_BUILDING` pointing the the fiber optic terminators inside the building.
- Dialog definitions for the following views got removed and replaced with a redirect to the base table.
 - `TC_V_FO_CONN_FIBERTOTRAY`
 - `TC_V_FO_CONN_FIBER_CONN`
 - `TC_V_FO_CONN_PATCHFIBER`
 - `TC_V_FO_CONN_SPLICE`
 - `TC_V_FO_CONN_SPLITTER`
 - `TC_V_FO_TRAY`
 - `TC_V_FO_UNCUT_FIBERS`
 - `TC_V_FO_WIRING`
 - `TC_V_SPLICE_OVERVIEW`

Telephony Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Telephony cable loop (`TC_TP_CABLE_LOOP`) - Orientation (`ORIENTATION`)
 - Telephony cable model (`TC_TP_CABLE_MODEL`) - Diameter (`DIAMETER`)
 - Telephony cable label (`TC_TP_CABLE_TBL`) - Orientation (`ORIENTATION`)
 - Telephony closure label (`TC_TP_CLOSURE_TBL`) - Orientation (`ORIENTATION`)
 - Telephony patch data (`TC_TP_PATCH_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony patch label (`TC_TP_PATCH_TBL`) - Orientation (`ORIENTATION`)
 - Telephony pin data (`TC_TP_PIN_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony splice data (`TC_TP_SPLICE_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony splice graphics label (`TC_TP_SPLICE_GRAPHICS_TBL`) - Orientation (`ORIENTATION`)
 - Telephony terminator label (`TC_TP_TERMINATOR_TBL`) - Orientation (`ORIENTATION`)
 - Telephony wire data (`TC_TP_WIRE_DATA`) - Attenuation (`ATTENUATION`)
- New API controls have been added to the Telephony closure (`TC_TP_CLOSURE`) and the Telephony terminator (`TC_TP_TERMINATOR`)
 - `$ENDINGLINECOMPLEX`
 - `$STARTINGLINECOMPLEX`

13.3

- New projection added to `TC_TG_BUILDING` pointing the the telephony terminators inside the building.
- Dialog definitions for the following views got removed and replaced with a redirect to the base table.
 - `TC_V_TP_CONN_DETAILS`
 - `TC_V_TP_CONN_SPLICE`
 - `TC_V_TP_CONN_WIRE_PIN`
 - `TC_V_TP_PINS`
 - `TC_V_TP_WIRING`

Redlining Data Model

13.1

- Dialog for Redlining Closure (`TC_PL_CLOSURE`):
 - New reference field for Redlining Structure (`FID_STRUCTURE`)

- Corrected positioning of Redlining Source Object (`SOURCE_OBJECT`)
- Dialog for Measurement Line (`TC_RL_MEASUREMENT_LINE`):
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Line Model (`TC_RL_MEASUREMENT_L_MODEL`)
- Dialog for Measurement Point (`TC_RL_MEASUREMENT_POINT`):
 - Extended target tables for parent object (`FID_PARENT`) to include Building (`TC_TG_BUILDING`)
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Point Model (`TC_RL_MEASUREMENT_P_MODEL`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Segment (`TC_RL_SEGMENT`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Structure (`TC_RL_STRUCTURE`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Terminator (`TC_RL_TERMINATOR`)

13.2

- The links to the online help got updated in the following dialogs
 - Redlining attribute (`TC_RL_ATTRIBUTE`)
 - Redlining cable (`TC_RL_CABLE`)
 - Redlining closure (`TC_RL_CLOSURE`)
 - Redlining connection (`TC_RL_CONNECTION`)
 - Redlining duct (`TC_RL_DUCT`)
 - Redlining fitting (`TC_RL_FITTING`)
 - Redlining measurement (`TC_RL_MEASUREMENT`)
 - Redlining measurement line (`TC_RL_MEASUREMENT_LINE`)
 - Redlining measurement point (`TC_RL_MEASUREMENT_POINT`)
 - Redlining segment (`TC_RL_SEGMENT`)
 - Redlining service item (`TC_RL_SERVICE_ITEM`)
 - Redlining structure (`TC_RL_STRUCTURE`)
 - Redlining terminator (`TC_RL_TERMINATOR`)

- A new reference to the Redlining service item (`$REF_TC_RL_SERVICE_ITEM`) has been added to the following dialogs:
 - Redlining closure (`TC_RL_CLOSURE`)
 - Redlining fitting (`TC_RL_FITTING`)
 - Redlining segment (`TC_RL_SEGMENT`)
 - Redlining structure (`TC_RL_STRUCTURE`)
 - Redlining terminator (`TC_RL_TERMINATOR`)
- The reference to the Redlining fitting (`$REF_TC_RL_FITTING`) has been removed from the dialog Redlining duct (`TC_RL_DUCT`)
- The reference to the Redlining fitting (`$REF_TC_RL_FITTING`) has been removed from the dialog Redlining segment (`TC_RL_SEGMENT`)
- The reference to the parent object (`FID_PARENT`) has been removed from the dialog for the Redlining fitting (`TC_RL_FITTING`)

13.3

- A new control (`FID_SCAN`) with a reference to the Redlining Scan table got added to the following dialogs:
 - `TC_RL_CABLE`
 - `TC_RL_CLOSURE`
 - `TC_RL_DUCT`
 - `TC_RL_FITTING`
 - `TC_RL_MEASUREMENT_LINE`
 - `TC_RL_MEASUREMENT_POINT`
 - `TC_RL_SEGMENT`
 - `TC_RL_STRUCTURE`
 - `TC_RL_TERMINATOR`
- A set of new controls got added to the Redlining Measurement (`TC_RL_MEASUREMENT`) containing the number of individual features that got added during the last pull from NET Build.
- New selection for the survey plan type stored in `TC_RL_MEASUREMENT_L_MODEL`
- New selection for the survey plan type stored in `TC_RL_MEASUREMENT_P_MODEL`
- New text box for the `NAME` added to `TC_RL_SEGMENT`
- Completely new dialog for `TC_RL_SCAN`

GIS-Specifications Data Model

13.1

- Dialog for Building (`TC_TG_BUILDING`):
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from `BMVI_TECH_1_YEAR` to `BMVI_TECH_1_YEAR_INT` .
 - Changed control for "Technology within three years" from text field to dropdown. Database field changed from `BMVI_TECH_3_YEAR` to `BMVI_TECH_3_YEAR_INT` .
 - Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from `BMVI_TECH_IS` to `BMVI_IS_TECH` .
 - Added new dropdown "Expansion Plan" (`BMVI_PLAN_AUSB`)

13.2

- The number of decimal places for the display has been set to 2.
 - Expansion area (`TC_BMVI_EXPANSION_AREA`) - Area (`AREA`)
 - Foreign area (`TC_BMVI_FOREIGN_AREA`) - Area (`AREA`)
 - Market survey (`TC_BMVI_MARKET_SURVEY`) - Area (`AREA`)
 - Political area (`TC_BMVI_POLITICAL_AREA`) - Area (`AREA`)
 - Supply area (`TC_BMVI_SUPPLY_AREA`) - Area (`AREA`)
 - White spot (`TC_BMVI_WHITE_SPOT`) - Area (`AREA`)
 - Building (`TC_TG_BUILDING`) - Loss (`BMVI_LOSS`)

13.3

- Update of the spatial queries for the living and business units, as well as schools, public institutions and hospitals in `TC_BMVI_WHITE_SPOTS` and `TC_BMVI_EXPANSION_AREA` . Building that are only partially inside of the cluster, will now be counted as well.

Changes of the reports since NET 13.0

NET Engineering

Base Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET network overview service (`NET Network Overview Service`)
 - NET network overview service (just points) (`NET Network Overview of Service(just Points)`)
 - NET point table (`NET Point Table`)
 - NET reports (`NET Reports`)
 - NET segment cost (`NET Segment Cost`)
 - NET work order (`NET Work Order`)
- Replaced automatic line break with with manual line break in the report NET work order (`NET Work Order`).

13.3

- The base filter for the reports got changed for Oracle databases, to allow the reports being created once again without an error. The following reports got changed.
 - NET network overview service (`NET Network Overview Service`)
 - NET network overview service (just points) (`NET Network Overview of Service(just Points)`)
 - NET point table (`NET Point Table`)
 - NET reports (`NET Reports`)
 - NET segment cost (`NET Segment Cost`)
 - NET work order (`NET Work Order`)

Duct Data Model

13.1

- The vertical text alignment has been fixed in the columns for the start and end node in the “duct tap connections” report.
- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET duct end overview (**Duct End Overview**)
- NET duct tap label (**NET Duct Tap Label**) - color 2 of the duct on the right side fixed

13.3

- The base filter for the reports got changed for Oracle databases, to allow the reports being created once again without an error. The following reports got changed.
 - NET duct end overview (**Duct End Overview**)

Fiber Optic Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET cable cost (**NET Cable Cost**)
 - NET FO cable section brief overview (**NET FO Cable Section Brief Overview**)
 - NET FO cable section service customer (**NET FO Cable Section Service Customer**)
 - NET FO cable section without trunk (**NET FO Cable Section Without Trunk**)
 - NET FO cable section (**NET FO Cable Section**)
 - NET FO cable trunk duct route (**NET FO Cable Trunk Duct Route**)
 - NET FO closure trays (**NET FO Closure Trays**)
 - NET FO connector used at switching point (**NET FO Connector Used at Switching Point**)
 - NET FO connector used at terminator (**NET FO Connector Used at Terminator**)
 - NET FO connector used with service at switching point (**NET FO Connector Used with Service at Switching Point**)
 - NET FO connector used with service at terminator (**NET FO Connector Used with Service at Terminator**)
 - NET FO connector at switching point (**NET FO Connector at Switching Point**)
 - NET FO connector at terminator (**NET FO Connector at Terminator**)
 - NET FO patch overview from connectors (**NET FO Patch Overview from Connectors**)
 - NET FO patches in switching point (**NET FO Patches in Switching Point**)

- NET FO patches in terminator ([NET FO Patches in Terminator](#))
- NET FO terminator overview ([NET FO Terminator Overview](#))

13.3

- The base filter for the reports got changed for Oracle databases, to allow the reports being created once again without an error. The following reports got changed.
 - NET cable cost ([NET Cable Cost](#))
 - NET FO cable section brief overview ([NET FO Cable Section Brief Overview](#))
 - NET FO cable section service customer ([NET FO Cable Section Service Customer](#))
 - NET FO cable section without trunk ([NET FO Cable Section Without Trunk](#))
 - NET FO cable section ([NET FO Cable Section](#))
 - NET FO cable trunk duct route ([NET FO Cable Trunk Duct Route](#))
 - NET FO closure trays ([NET FO Closure Trays](#))
 - NET FO connector used at switching point ([NET FO Connector Used at Switching Point](#))
 - NET FO connector used at terminator ([NET FO Connector Used at Terminator](#))
 - NET FO connector used with service at switching point ([NET FO Connector Used with Service at Switching Point](#))
 - NET FO connector used with service at terminator ([NET FO Connector Used with Service at Terminator](#))
 - NET FO connector at switching point ([NET FO Connector at Switching Point](#))
 - NET FO connector at terminator ([NET FO Connector at Terminator](#))
 - NET FO patch overview from connectors ([NET FO Patch Overview from Connectors](#))
 - NET FO patches in switching point ([NET FO Patches in Switching Point](#))
 - NET FO patches in terminator ([NET FO Patches in Terminator](#))
 - NET FO terminator overview ([NET FO Terminator Overview](#))

Telephony Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET Telephony cable section brief overview ([NET TP Cable Section Brief Overview](#))

- NET Telephony cable section service customer (NET TP Cable Section Service Customer)
- NET Telephony cable section without trunk (NET TP Cable Section without Trunk)
- NET Telephony cable section (NET TP Cable Section)
- NET Telephony cable trunk duct route (NET TP Cable Trunk Duct Route)
- NET Telephony network overview template (NET TP Network Overview Template)
- NET Telephony patches in switching point (NET TP Patches in Switching point)
- NET Telephony patches in terminator (NET TP Patches in Terminator)
- NET Telephony pins in switching point (NET TP Pins in Switching point)
- NET Telephony pins in terminator (NET TP Pins in Terminator)
- NET Telephony splice overview closure (NET TP Splice Overview Closure)
- NET Telephony splice overview terminator (NET TP Splice Overview Terminator)

13.3

- The base filter for the reports got changed for Oracle databases, to allow the reports being created once again without an error. The following reports got changed.
 - NET Telephony cable section brief overview (NET TP Cable Section Brief Overview)
 - NET Telephony cable section service customer (NET TP Cable Section Service Customer)
 - NET Telephony cable section without trunk (NET TP Cable Section without Trunk)
 - NET Telephony cable section (NET TP Cable Section)
 - NET Telephony cable trunk duct route (NET TP Cable Trunk Duct Route)
 - NET Telephony network overview template (NET TP Network Overview Template)
 - NET Telephony patches in switching point (NET TP Patches in Switching point)
 - NET Telephony patches in terminator (NET TP Patches in Terminator)
 - NET Telephony pins in switching point (NET TP Pins in Switching point)
 - NET Telephony pins in terminator (NET TP Pins in Terminator)
 - NET Telephony splice overview closure (NET TP Splice Overview Closure)
 - NET Telephony splice overview terminator (NET TP Splice Overview Terminator)

Release Notes NET 13.3.1 (English)

Summary

A highlight of NET 13.3.1 is the new import function for DeepUp data into the redlining data model. This import automatically creates all the required objects down to ducts layer to enable a smooth transfer to the NET Engineering data model. In addition, several bug fixes and improvements have been implemented to further optimize the performance and stability of the application.

Supported Software

- Autodesk AutoCAD Map 3D
 - Autodesk AutoCAD Map 3D 2022.0.1 - Autodesk AutoCAD 2022.1.3 or later
 - Autodesk AutoCAD Map 3D 2023.0.2 - Autodesk AutoCAD 2023.1.1 or later
 - Autodesk AutoCAD Map 3D 2024.0.1 - Autodesk AutoCAD 2024.1 or later
- TKI PostgreSQL Provider 4.1.0
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1 - Comsof Fiber 23.2
- TKI Licensing 13.0
(Only required for a manual installation on the network license server)

 Autodesk AutoCAD Map 3D 2023.0.4 is currently not supported.

Release NET 13.3.1 in Detail

NET Design

General

- Cyclorama display works correctly outside areas with coordinate system EPSG= 25832

atesio Integration

- After the optimization phase, when the project is being re-read, users now have the option to cancel the calculation. If the calculation is canceled, no data will be written to the database.

Comsof Fiber Integration

- The prefix for all validations for Comsof Fiber is changed from “Comsof Fiber Designer” to “Comsof Fiber”.

GIS-Nebenbestimmungen

- Fixed an issue where the UUID and some other attributes in NET Design were not being transferred to NET Engineering. The transfer list has been updated to include the UUID and any other missing attributes.

NET Engineering

General

- Fixed a bug that under certain circumstances caused an error report to be displayed when opening the duct-end overview and when highlighting ducts.
- The display of the error overview in the “Set duct insertion” workflow and the Duct path overview has been optimized.
- Fixed an error when displaying the recipient in the “Notes” form under SQLite.
- An error was fixed, that caused Map3D to crash when working with an active work order and a drawing that has no industry model.
- When creating multiple lines, if the “Reposition fittings” option is activated, the fittings of the child ducts are now also automatically moved if the multiple lines are only to be created for the higher-layer duct types.
- When creating multiple lines, a meaningful error message is now displayed if a non-contiguous line geometry exists for a duct or cable.
- The drawing of the detailed splice plan was optimized for PoPs.

Connection editor

- Closing a project will be aborted if changes made in the connection editor are to be retained.
- Fixed a bug where an error message in the connection editor called up the error report instead of displaying the message in the info area of the connection editor.
- The display of the column configuration in the options of the connection editor has been improved.
- Fixed a bug that could cause new splices and patches to be assigned to the wrong work order in the splice editor.
- The connection editor now changes the direction of technical ports if fibers or splitter paths should be created in the same direction.

Workflows

- In the “Duct connection editor” workflow, if the option “If possible, create fitting at child duct (select model)” is activated, the position number is now also checked if the child ducts have several identical names in order to create fittings for matching ducts instead of simply canceling. In addition, an error is displayed if no fittings could be created for child ducts due to different or several identical names and position numbers.
- When attempting to start the “Split cable” workflow from the context menu of a coax cable, a warning is now displayed instead of an error report, as this workflow does not exist for coax cables.
- In the “Create and assign ducts (w/o geometry)” workflow, a tooltip and an error message have been adapted for better understanding.

Reports

- The sorting of cables in the detailed splice plan has been improved.

Bill of Materials

- The prices for splices in the bill of materials is now also displayed when creating it from the form “State”.
- The manufacturer information for trays is displayed in the bill of materials.

Redlining

- When transferring redlining to NET Engineering, the “NAME” attribute of the redlining trench is now transferred to the NET Engineering trench.
- There is now a new import of DeepUp data into the redlining data model. This creates all the objects required for a transfer to the NET Engineering data model up to duct level.
The import is based on an online interface to a WFS server and can be used with access data provided by DeepUp.
- The output of log messages has been extended for the Redlining NET REST server.

NET Build Integration

- The validation of measuring points has been optimized so that any recursive behaviour of the test process is prevented. test process is prevented.

Changes to the Data Model since NET 13.0

NET Design

Base Data Model

13.1

- Added additional target tables in `FID_FEATURE` to the table `TC_PL_ATTR_VALUE` .
 - `TC_PL_BOUNDARY.FID`
 - `TC_PL_PARCEL.FID`
 - `TC_PL_ROLLOUT_AREA.FID`
 - `TC_PL_SUBAREA.FID`

13.2

- *No changes to the data model - Structural update only for new forms and reports*

GIS-Nebenbestimmungen Data Model

13.1

- Removed "BMVI" from all captions.
- Added new column `BMVI_IS_TECH` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD` .
- Added new column `BMVI_PLAN_AUSB` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_PLAN_AUSB_TBD` .
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD` .
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_PL_DEMAND_POINT` with relation to `TC_PL_BMVI_TECH_IS_TBD` .
- Added new domain table `TC_PL_BMVI_PLAN_AUSB_TBD` .
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_PL_BMVI_TECH_IS_TBD` .
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

13.2

- The captions of a few remaining identifiers have been changed from "BMVI" to "GIS-NB". There are not structural changes.

NET Engineering

Base Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The size of the column **INFO** in the Action area (**TC_ACTION_AREA**) feature class has been increased to 255 characters.
- The columns **DATE_CREATED** , **DATE_MODIFIED** , **USER_CREATED** and **USER_MODIFIED** were added to the following views:
 - **TC_M_BUILDING**
 - **TC_M_CLUSTER_STATISTIC**
 - **TC_M_SP_CABINET**
 - **TC_M_SP_MANHOLE**
 - **TC_M_SP_MARKER**
 - **TC_M_SP_POLE**
 - **TC_M_SP_SEGMENT**
 - **TC_M_SWITCHING_POINT**
- The backing table for the color table (**TC_COLOR**) was updated.
 - The column AutoCAD index (**ACAD_INDEX**) is not optional anymore and got the default value 0
 - The column blue value (**B_VALUE**) is not optional anymore and got the default value 0
 - The column dashed (**DASHED**) is not optional anymore and got the default value 0
 - The column green value (**G_VALUE**) is not optional anymore and got the default value 0
 - The column position(**ORDER_ID**) is not optional anymore and got the default value 0
 - The column red value (**R_VALUE**) is not optional anymore and got the default value 0

13.3

- Changed view **TC_REP_LINE_FROM_TO** .
This is an internal changed. Interface and output of the view are unchanged.
- Changed database function **TC_F_CONN_WALKER** .
Interface and result of the function remain the same. Only the processing performance got improved.

Duct Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - `TC_M_CS_CABLE`
 - `TC_M_CS_DUCT`
 - `TC_M_SP_DUCT`
 - `TC_M_SP_DUCT_INSERTION`
 - `TC_M_SP_DUCT_TAP`
 - `TC_M_SP_FITTING`
- The field `LENGTH` got added to the view `TC_REP_SEGMENTCOSTS` , in case it was not present already.

13.3

- *No changes to the data model - Structural update only for new forms and reports*

Fiber Optic Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*
- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - `TC_M_FO_CABLE`
 - `TC_M_FO_CLOSURE`
 - `TC_M_FO_TERMINATOR`
 - `TC_M_FO_SP_ASSIGNMENTS`
- The text format of the output of the following views as fixed. There are no structure changes.
 - `TC_REP_WO_FO_PATCH`
 - `TC_REP_WO_FO_SPLICE`
- The size of the column `INFO` in cable loop (`TC_FO_CABLE_LOOP`) feature classes got increased to 255 characters

13.2

- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:

- `TC_M_FO_CABLE`
- `TC_M_FO_CLOSURE`
- `TC_M_FO_TERMINATOR`
- `TC_M_FO_SP_ASSIGNMENTS`
- The text format of the output of the following views as fixed. There are no structure changes.
 - `TC_REP_WO_FO_PATCH`
 - `TC_REP_WO_FO_SPLICE`
- The size of the column `INFO` in the cable loop (`TC_FO_CABLE_LOOP`) got increased to 255 characters.

13.3

- Altered view `TC_M_FO_CLOSURE` : The columns `FID_BUILDING` and `FID_STRUCTURE_POINT` were added.
- Altered view `TC_M_FO_SP_ASSIGNMENTS` .
 - `FID` column does not reference the `TC_POINT` of the closure or the terminator, but the `TC_FO_CONNECTION_LINE`
 - `DEV_FID` references the `TC_POINT` of the closure or the terminator.
 - `GEOM` is not generated dynamically anymore, but fetched from `TC_FO_CONNECTION_LINE` .
- Altered view `TC_M_FO_TERMINATOR` : The columns `FID_BUILDING` and `FID_STRUCTURE_POINT` were added.

Telephony Data Model

13.1

- *No changes to the data model - Structural update only for new forms and reports*

13.2

- The columns `DATE_CREATED` , `DATE_MODIFIED` , `USER_CREATED` and `USER_MODIFIED` were added to the following views:
 - `TC_M_TP_CABLE`
 - `TC_M_TP_CLOSURE`
 - `TC_M_TP_TERMINATOR`
 - `TC_M_TP_SP_ASSIGNMENTS`
- The text format of the output of the following views as fixed. There are no structure changes.
 - `TC_REP_WO_TP_PATCH`

- `TC_REP_WO_TP_SPLICE`

13.3

- Altered view `TC_M_TP_CLOSURE` : The columns `FID_BUILDING` and `FID_STRUCTURE_POINT` were added.
- Altered view `TC_M_TP_SP_ASSIGNMENTS` .
 - `FID` column does not reference the `TC_POINT` of the closure or the terminator, but the `TC_TP_CONNECTION_LINE`
 - `DEV_FID` references the `TC_POINT` of the closure or the terminator.
 - `GEOM` is not generated dynamically anymore, but fetched from `TC_TP_CONNECTION_LINE` .
- Altered view `TC_M_TP_TERMINATOR` : The columns `FID_BUILDING` and `FID_STRUCTURE_POINT` were added.

GIS-Nebenbestimmungen Data Model

13.1

- Added new column `BMVI_IS_TECH` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID` .
- Added new column `BMVI_PLAN_AUSB` in `TC_TG_BUILDING` with relation to `TC_BMVI_PLAN_AUSB_TBD.ID` .
- Added new column `BMVI_TECH_1_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID` .
- Added new column `BMVI_TECH_3_YEAR_INT` in `TC_TG_BUILDING` with relation to `TC_BMVI_TECH_IS_TBD.ID` .
- Added new domain table `TC_BMVI_PLAN_AUSB_TBD` .
 - 3 - Pre-marketing is carried out
- Added new domain table `TC_BMVI_TECH_IS_TBD` .
 - 1 - FTTB/H
 - 2 - HFC
 - 8 - Other Technology

13.2

- The captions of a few remaining identifiers have been changed from “BMVI” to “GIS-NB”. There are not structural changes.

13.3

- *No changes to the data model - Structural update only for new forms and reports*

Redlining Data Model

13.1

- Added new column `FID_STRUCTURE` in `TC_RL_CLOSURE` with relation to `TC_RL_STRUCTURE.FID`.
- Additional target table for the relation from `TC_RL_MEASUREMENT_POINT.FID_FEATURE` to `TC_TG_BUILDING.FID`.
- Added new object class `TC_RL_MEASUREMENT_L_MODEL`.
- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_LINE` with relation to `TC_RL_MEASUREMENT_L_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_LINE`.
- Adjusted the view `TC_M_RL_MEASUREMENT_LINE` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_L_TYPE_TBD`.
- Added new object class `TC_RL_MEASUREMENT_P_MODEL`.
- Added new column `FID_MODEL` in `TC_RL_MEASUREMENT_POINT` with relation to `TC_RL_MEASUREMENT_P_MODEL.FID`.
- Removed column `ID_TYPE` from `TC_RL_MEASUREMENT_POINT`.
- Adjusted the view `TC_M_RL_MEASUREMENT_POINT` to use `FID_MODEL` instead of `ID_TYPE`.
- Removed domain table `TC_RL_MEASUREMENT_P_TYPE_TBD`.

13.2

- The column `FID_PARENT` was removed from the Redlining Fitting (`TC_RL_FITTING`)
- The German caption of the column `CONSTRUCTION_TYPE` in Redlining Trasse (`TC_RL_SEGMENT`) got changed.

13.3

- New columns `DATE_CREATED`, `DATE_MODIFIED`, `USER_CREATED` and `USER_MODIFIED` got added to the following tables:
 - `TC_RL_SERVICE_ITEM`
 - `TC_RL_ATTRIBUTE`
 - `TC_RL_CABLE`
 - `TC_RL_CLOSURE`
 - `TC_RL_CONNECTION`
 - `TC_RL_DUCT`
 - `TC_RL_FITTING`
 - `TC_RL_MEASUREMENT`

- TC_RL_MEASUREMENT_LINE
- TC_RL_MEASUREMENT_POINT
- TC_RL_SEGMENT
- TC_RL_STRUCTURE
- TC_RL_TERMINATOR
- New columns DATE_CREATED , DATE_MODIFIED , USER_CREATED and USER_MODIFIED got added to the following views:
 - TC_M_RL_MEASUREMENT_LINE
 - TC_M_RL_MEASUREMENT_POINT
 - TC_M_RL_SEGMENT
 - TC_M_RL_STRUCTURE
 - TC_M_RL_TERMINATOR
- New column NAME got added to TC_PL_SEGMENT .
- New feature class TC_RL_SCAN was created.
- Reference column FID_SCAN with a reference to TC_RL_SCAN was added to the following columns:
 - TC_RL_CABLE
 - TC_RL_CLOSURE
 - TC_RL_DUCT
 - TC_RL_FITTING
 - TC_RL_MEASUREMENT_LINE
 - TC_RL_MEASUREMENT_POINT
 - TC_RL_SEGMENT
 - TC_RL_STRUCTURE
 - TC_RL_TERMINATOR
- New column DATE_SYNC got added to TC_RL_MEASUREMENT .
- Reference column ID_TYPE_SURVEY with a reference to TC_SP_LINE_TYPE_TBD got added to TC_RL_MEASUREMENT_LINE .
- Reference column ID_TYPE_SURVEY with a reference to TC_SP_POINT_TYPE_TBD got added to TC_RL_MEASUREMENT_POINT .

NET Field Survey

Base Data Model

13.3

- *No changes to the data model - Structural update only for new forms and reports*

GIS-Nebenbestimmungen Data Model

13.2

- The captions of a few remaining identifiers have been changed from “BMVI” to “GIS-NB”. There are not structural changes.

DocPack

13.2

- A new view for the plot sequences has been added (`TC_V_PLOT_SEQUENCE`)

Changes to the dialogs since NET 13.0

NET Design

Base Data Model

13.1

- New dialog for Boundary (`TC_PL_BOUNDARY`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Parcel (`TC_PL_PARCEL`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Rollout Area (`TC_PL_ROLLOUT_AREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New dialog for Subarea (`TC_PL_SUBAREA`): Attribute Value (`TC_PL_ATTR_VALUE`)
- New references from Cable Type (`TC_PL_CABLE_TYPE.FID`)
 - to Building (`TC_PL_BUILDING.FID_FORCED_CABLE_TYPE`)
 - to Demand Point (`TC_PL_DEMAND_POINT.FID_FORCED_CABLE_TYPE`)

13.2

- The number of decimal places for the display has been set to 2.
 - Boundary (`TC_PL_BOUNDARY`) - Length in m (`LENGTH`)
 - Boundary (`TC_PL_BOUNDARY`) - Width (`WIDTH`)
 - Building → Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Building → Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Demand Point → Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Demand Point → Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Number of residents (`TC_PL_RESIDENT`) - Adoption rate (`ADOPTION_RATE`)
 - Number of residents (`TC_PL_RESIDENT`) - Expected revenue (`EXPECTED_REVENUE`)
 - Result Kabelloop (`TC_PL_OUT_CABLE_LOOP`) - Length (`LENGTH`)

GIS-Specifications Data Model

13.1

- Dialog for Demand Point (`TC_PL_DEMAND_POINT`):
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from `BMVI_TECH_1_YEAR` to `BMVI_TECH_1_YEAR_INT` .

- Changed control for "Technology within three years" from text field to dropdown. Database field changed from `BMVI_TECH_3_YEAR` to `BMVI_TECH_3_YEAR_INT`.
- Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from `BMVI_TECH_IS` to `BMVI_IS_TECH`.
- Added new dropdown "Expansion Plan" (`BMVI_PLAN_AUSB`)

13.2

- The caption "BMVI" has been replaced by "GIS-NB" in the following dialogs:
 - Cable (`TC_PL_CABLE`)
 - Duct (`TC_PL_DUCT`)
 - Expansion area (`TC_PL_EXPANSION_AREA`)
 - Layer Point (`TC_PL_LAYER_POINT`)
 - Market survey (`TC_PL_MARKET_SURVEY`)
 - Possible trench (`TC_PL_POSSIBLE_TRENCH`)
 - Structure (`TC_PL_STRUCTURE`)
- Controls related to GIS-NB have been moved to the GIS-NB tab.
 - Expansion area (`TC_PL_EXPANSION_AREA`)
 - Foreign area (`TC_PL_FOREIGN_AREA`)
 - Political area (`TC_PL_POLITICAL_AREA`)
 - White spot (`TC_PL_WHITE_SPOT`)
- The number of decimal places for the display has been set to 2.
 - Expansion area (`TC_PL_EXPANSION_AREA`) - Area (`AREA`)
 - Foreign area (`TC_PL_FOREIGN_AREA`) - Area (`AREA`)
 - Market survey (`TC_PL_MARKET_SURVEY`) - Area (`AREA`)
 - Political area (`TC_PL_POLITICAL_AREA`) - Area (`AREA`)
 - White spot (`TC_PL_WHITE_SPOT`) - Area (`AREA`)

NET Engineering

Base Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Action Area (`TC_ACTION_AREA`) - Area (`AREA`)
 - Action Area Label (`TC_ACTION_AREA_TBL`) - Orientation (`ORIENTATION`)
 - Cluster Grid (`TC_CLUSTER_GRID`) - Area (`AREA`)

- Cabinet Label (`TC_SP_CABINET_TBL`) - Orientation (`ORIENTATION`)
- Manhole Label (`TC_SP_MANHOLE_TBL`) - Orientation (`ORIENTATION`)
- Survey Plan Point (`TC_SP_POINT`) - Orientation (`ORIENTATION`)
- Pole Label (`TC_SP_POLE_TBL`) - Orientation (`ORIENTATION`)
- Segment Label (`TC_SP_SEGMENT_TBL`) - Orientation (`ORIENTATION`)
- Switching Point Label (`TC_SP_SWITCHING_POINT_TBL`) - Orientation (`ORIENTATION`)
- Building Label (`TC_TG_BUILDING_TBL`) - Orientation (`ORIENTATION`)
- Topography point (`TC_TG_POINT`) - Orientation (`ORIENTATION`)
- Topography cluster (`TC_TG_POLYGON`) - Area (`AREA`)
- Street Label (`TC_TG_STREET_TBL`) - Orientation (`ORIENTATION`)
- All Info fields (`INFO`) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - Action area (`TC_ACTION_AREA`)
 - Element library (`TC_ELEMENT_LIBRARY`)
 - Line (`TC_LINE`)
 - Point (`TC_POINT`)
 - Drilling rig (`TC_SP_DRILLING_RIG`)
 - Marker (`TC_SP_MARKER`)
 - Marker model (`TC_SP_MARKER_MODEL`)
 - Patch panel (`TC_SP_PATCH_PANEL`)
 - Patch panel model (`TC_SP_PATCH_PANEL_MODEL`)
 - Rack panel (`TC_SP_RACK_PANEL`)
 - Rack panel model (`TC_SP_RACK_PANEL_MODEL`)
 - Status (`TC_STATUS`)
 - Switching point model (`TC_SWITCHING_POINT_MODEL`)
 - Topography point (`TC_TG_POINT`)
 - Topography cluster (`TC_TG_POLYGON`)

13.3

- Dialog definitions for the following views got removed and replaced with a redirect to the base table.
 - `TC_V_COLOR`
 - `TC_V_CONN`
 - `TC_V_CONN_DETAILS`
 - `TC_V_CONN_DETAILS_PERF`

- `TC_CONN_DETAILS_TO`

Duct Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Duct insertion label (`TC_SP_DUCT_INSERTION_TBL`) - Orientation (`ORIENTATION`)
 - Duct tap line (`TC_SP_DUCT_TAP_LINE`) - Length (`LENGTH`)
 - Duct tap line label (`TC_SP_DUCT_TAP_LINE_TBL`) - Orientation (`ORIENTATION`)
 - Duct tap label (`TC_SP_DUCT_TAP_TBL`) - Orientation (`ORIENTATION`)
 - Duct label (`TC_SP_DUCT_TBL`) - Orientation (`ORIENTATION`)
 - Duct (`TC_SP_FITTING_TBL`) - Orientation (`ORIENTATION`)
- All Info fields (`INFO`) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - Duct tap model (`TC_SP_DUCT_TAP_MODEL`)

13.3

- New projection added to `TC_TG_BUILDING` pointing the the duct terminators inside the building.
- Dialog definitions for the following views got removed and replaced with a redirect to the base table.
 - `TC_V_BREAKDOWN_LINES`

Fiber Optic Data Model

13.1

- Dialog for Fiber Optic Splice (`TC_FO_SPLICE`):
 - New named filters:
 - Show splices
 - Show stored fibers
 - Show uncut fibers in BA
 - Show uncut fibers
 - New SQL Label "Splice Type" (`$SQLLABELSPLICETYPE`)
 - Corrected positioning of Document Management (`$DOCUMENTMANAGER`)

13.2

- The number of decimal places for the display has been set to 2.
 - FO cable loop label (`TC_FO_CABLE_LOOP_TBL`) - Orientation (`ORIENTATION`)
 - FO cable model (`TC_FO_CABLE_MODEL`) - Diameter (`DIAMETER`)
 - FO connector label (`TC_FO_CONNECTOR_TBL`) - Orientation (`ORIENTATION`)

- FO fiber label (`TC_FO_FIBER_TBL`) - Orientation (`ORIENTATION`)
- FO patch data (`TC_FO_PATCH_DATA`) - Attenuation (`ATTENUATION`)
- FO patch fiber label (`TC_FO_PATCH_FIBER_TBL`) - Orientation (`ORIENTATION`)
- FO patch label (`TC_FO_PATCH_TBL`) - Orientation (`ORIENTATION`)
- FO splice graphics label (`TC_FO_SPLICE_GRAPHICS_TBL`) - Orientation (`ORIENTATION`)
- FO splice label (`TC_FO_SPLICE_TBL`) - Orientation (`ORIENTATION`)
- FO splitter path label (`TC_FO_SPLITTER_PATH_TBL`) - Orientation (`ORIENTATION`)
- FO splitter label (`TC_FO_SPLITTER_TBL`) - Orientation (`ORIENTATION`)
- FO terminator label (`TC_FO_TERMINATOR_TBL`) - Orientation (`ORIENTATION`)
- All Info fields (`INFO`) have been set to have the height of 51, to support multiple lines and automatically apply line breaks. Changes were done in the following dialogs:
 - FO cable loop (`TC_FO_CABLE_LOOP`)
 - FO closure model (`TC_FO_CLOSURE_MODEL`)
- New API controls have been added to the FO closure (`TC_FO_CLOSURE`) and the FO terminator (`TC_FO_TERMINATOR`)
 - `$ENDINGLINECOMPLEX`
 - `$STARTINGLINECOMPLEX`
- Dialog FO splice (`TC_FO_SPLICE`) - The display for the connected splitters got corrected. The queries of the controls `$SQLLABELSPLITTER1` and `$SQLLABELSPLITTER2` got fixed.

13.3

- New projection added to `TC_TG_BUILDING` pointing the the fiber optic terminators inside the building.
- Dialog definitions for the following views got removed and replaced with a redirect to the base table.
 - `TC_V_FO_CONN_FIBERTOTRAY`
 - `TC_V_FO_CONN_FIBER_CONN`
 - `TC_V_FO_CONN_PATCHFIBER`
 - `TC_V_FO_CONN_SPLICE`
 - `TC_V_FO_CONN_SPLITTER`
 - `TC_V_FO_TRAY`
 - `TC_V_FO_UNCUT_FIBERS`
 - `TC_V_FO_WIRING`
 - `TC_V_SPLICE_OVERVIEW`

Telephony Data Model

13.2

- The number of decimal places for the display has been set to 2.
 - Telephony cable loop (`TC_TP_CABLE_LOOP`) - Orientation (`ORIENTATION`)
 - Telephony cable model (`TC_TP_CABLE_MODEL`) - Diameter (`DIAMETER`)
 - Telephony cable label (`TC_TP_CABLE_TBL`) - Orientation (`ORIENTATION`)
 - Telephony closure label (`TC_TP_CLOSURE_TBL`) - Orientation (`ORIENTATION`)
 - Telephony patch data (`TC_TP_PATCH_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony patch label (`TC_TP_PATCH_TBL`) - Orientation (`ORIENTATION`)
 - Telephony pin data (`TC_TP_PIN_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony splice data (`TC_TP_SPLICE_DATA`) - Attenuation (`ATTENUATION`)
 - Telephony splice graphics label (`TC_TP_SPLICE_GRAPHICS_TBL`) - Orientation (`ORIENTATION`)
 - Telephony terminator label (`TC_TP_TERMINATOR_TBL`) - Orientation (`ORIENTATION`)
 - Telephony wire data (`TC_TP_WIRE_DATA`) - Attenuation (`ATTENUATION`)
- New API controls have been added to the Telephony closure (`TC_TP_CLOSURE`) and the Telephony terminator (`TC_TP_TERMINATOR`)
 - `$ENDINGLINECOMPLEX`
 - `$STARTINGLINECOMPLEX`

13.3

- New projection added to `TC_TG_BUILDING` pointing the the telephony terminators inside the building.
- Dialog definitions for the following views got removed and replaced with a redirect to the base table.
 - `TC_V_TP_CONN_DETAILS`
 - `TC_V_TP_CONN_SPLICE`
 - `TC_V_TP_CONN_WIRE_PIN`
 - `TC_V_TP_PINS`
 - `TC_V_TP_WIRING`

Redlining Data Model

13.1

- Dialog for Redlining Closure (`TC_PL_CLOSURE`):
 - New reference field for Redlining Structure (`FID_STRUCTURE`)

- Corrected positioning of Redlining Source Object (`SOURCE_OBJECT`)
- Dialog for Measurement Line (`TC_RL_MEASUREMENT_LINE`):
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Line Model (`TC_RL_MEASUREMENT_L_MODEL`)
- Dialog for Measurement Point (`TC_RL_MEASUREMENT_POINT`):
 - Extended target tables for parent object (`FID_PARENT`) to include Building (`TC_TG_BUILDING`)
 - Replaced reference to type `ID_TYPE` with `FID_MODEL`
 - Corrected positioning of all controls
- New dialog for Measurement Point Model (`TC_RL_MEASUREMENT_P_MODEL`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Segment (`TC_RL_SEGMENT`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Structure (`TC_RL_STRUCTURE`)
- Corrected positioning of Source Object (`SOURCE_OBJECT`) in Redlining Terminator (`TC_RL_TERMINATOR`)

13.2

- The links to the online help got updated in the following dialogs
 - Redlining attribute (`TC_RL_ATTRIBUTE`)
 - Redlining cable (`TC_RL_CABLE`)
 - Redlining closure (`TC_RL_CLOSURE`)
 - Redlining connection (`TC_RL_CONNECTION`)
 - Redlining duct (`TC_RL_DUCT`)
 - Redlining fitting (`TC_RL_FITTING`)
 - Redlining measurement (`TC_RL_MEASUREMENT`)
 - Redlining measurement line (`TC_RL_MEASUREMENT_LINE`)
 - Redlining measurement point (`TC_RL_MEASUREMENT_POINT`)
 - Redlining segment (`TC_RL_SEGMENT`)
 - Redlining service item (`TC_RL_SERVICE_ITEM`)
 - Redlining structure (`TC_RL_STRUCTURE`)
 - Redlining terminator (`TC_RL_TERMINATOR`)

- A new reference to the Redlining service item (`$REF_TC_RL_SERVICE_ITEM`) has been added to the following dialogs:
 - Redlining closure (`TC_RL_CLOSURE`)
 - Redlining fitting (`TC_RL_FITTING`)
 - Redlining segment (`TC_RL_SEGMENT`)
 - Redlining structure (`TC_RL_STRUCTURE`)
 - Redlining terminator (`TC_RL_TERMINATOR`)
- The reference to the Redlining fitting (`$REF_TC_RL_FITTING`) has been removed from the dialog Redlining duct (`TC_RL_DUCT`)
- The reference to the Redlining fitting (`$REF_TC_RL_FITTING`) has been removed from the dialog Redlining segment (`TC_RL_SEGMENT`)
- The reference to the parent object (`FID_PARENT`) has been removed from the dialog for the Redlining fitting (`TC_RL_FITTING`)

13.3

- A new control (`FID_SCAN`) with a reference to the Redlining Scan table got added to the following dialogs:
 - `TC_RL_CABLE`
 - `TC_RL_CLOSURE`
 - `TC_RL_DUCT`
 - `TC_RL_FITTING`
 - `TC_RL_MEASUREMENT_LINE`
 - `TC_RL_MEASUREMENT_POINT`
 - `TC_RL_SEGMENT`
 - `TC_RL_STRUCTURE`
 - `TC_RL_TERMINATOR`
- A set of new controls got added to the Redlining Measurement (`TC_RL_MEASUREMENT`) containing the number of individual features that got added during the last pull from NET Build.
- New selection for the survey plan type stored in `TC_RL_MEASUREMENT_L_MODEL`
- New selection for the survey plan type stored in `TC_RL_MEASUREMENT_P_MODEL`
- New text box for the `NAME` added to `TC_RL_SEGMENT`
- Completely new dialog for `TC_RL_SCAN`

GIS-Specifications Data Model

13.1

- Dialog for Building (`TC_TG_BUILDING`):
 - Changed control for "Technology within one year" from text field to dropdown. Database field changed from `BMVI_TECH_1_YEAR` to `BMVI_TECH_1_YEAR_INT` .
 - Changed control for "Technology within three years" from text field to dropdown. Database field changed from `BMVI_TECH_3_YEAR` to `BMVI_TECH_3_YEAR_INT` .
 - Changed control for "Technology Is Supply" from text field to dropdown. Database field changed from `BMVI_TECH_IS` to `BMVI_IS_TECH` .
 - Added new dropdown "Expansion Plan" (`BMVI_PLAN_AUSB`)

13.2

- The number of decimal places for the display has been set to 2.
 - Expansion area (`TC_BMVI_EXPANSION_AREA`) - Area (`AREA`)
 - Foreign area (`TC_BMVI_FOREIGN_AREA`) - Area (`AREA`)
 - Market survey (`TC_BMVI_MARKET_SURVEY`) - Area (`AREA`)
 - Political area (`TC_BMVI_POLITICAL_AREA`) - Area (`AREA`)
 - Supply area (`TC_BMVI_SUPPLY_AREA`) - Area (`AREA`)
 - White spot (`TC_BMVI_WHITE_SPOT`) - Area (`AREA`)
 - Building (`TC_TG_BUILDING`) - Loss (`BMVI_LOSS`)

13.3

- Update of the spatial queries for the living and business units, as well as schools, public institutions and hospitals in `TC_BMVI_WHITE_SPOTS` and `TC_BMVI_EXPANSION_AREA` . Building that are only partially inside of the cluster, will now be counted as well.

Changes of the reports since NET 13.0

NET Engineering

Base Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET network overview service (`NET Network Overview Service`)
 - NET network overview service (just points) (`NET Network Overview of Service(just Points)`)
 - NET point table (`NET Point Table`)
 - NET reports (`NET Reports`)
 - NET segment cost (`NET Segment Cost`)
 - NET work order (`NET Work Order`)
- Replaced automatic line break with with manual line break in the report NET work order (`NET Work Order`).

13.3

- The base filter for the reports got changed for Oracle databases, to allow the reports being created once again without an error. The following reports got changed.
 - NET network overview service (`NET Network Overview Service`)
 - NET network overview service (just points) (`NET Network Overview of Service(just Points)`)
 - NET point table (`NET Point Table`)
 - NET reports (`NET Reports`)
 - NET segment cost (`NET Segment Cost`)
 - NET work order (`NET Work Order`)

Duct Data Model

13.1

- The vertical text alignment has been fixed in the columns for the start and end node in the “duct tap connections” report.
- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET duct end overview (**Duct End Overview**)
- NET duct tap label (**NET Duct Tap Label**) - color 2 of the duct on the right side fixed

13.3

- The base filter for the reports got changed for Oracle databases, to allow the reports being created once again without an error. The following reports got changed.
 - NET duct end overview (**Duct End Overview**)

Fiber Optic Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET cable cost (**NET Cable Cost**)
 - NET FO cable section brief overview (**NET FO Cable Section Brief Overview**)
 - NET FO cable section service customer (**NET FO Cable Section Service Customer**)
 - NET FO cable section without trunk (**NET FO Cable Section Without Trunk**)
 - NET FO cable section (**NET FO Cable Section**)
 - NET FO cable trunk duct route (**NET FO Cable Trunk Duct Route**)
 - NET FO closure trays (**NET FO Closure Trays**)
 - NET FO connector used at switching point (**NET FO Connector Used at Switching Point**)
 - NET FO connector used at terminator (**NET FO Connector Used at Terminator**)
 - NET FO connector used with service at switching point (**NET FO Connector Used with Service at Switching Point**)
 - NET FO connector used with service at terminator (**NET FO Connector Used with Service at Terminator**)
 - NET FO connector at switching point (**NET FO Connector at Switching Point**)
 - NET FO connector at terminator (**NET FO Connector at Terminator**)
 - NET FO patch overview from connectors (**NET FO Patch Overview from Connectors**)
 - NET FO patches in switching point (**NET FO Patches in Switching Point**)

- NET FO patches in terminator ([NET FO Patches in Terminator](#))
- NET FO terminator overview ([NET FO Terminator Overview](#))

13.3

- The base filter for the reports got changed for Oracle databases, to allow the reports being created once again without an error. The following reports got changed.
 - NET cable cost ([NET Cable Cost](#))
 - NET FO cable section brief overview ([NET FO Cable Section Brief Overview](#))
 - NET FO cable section service customer ([NET FO Cable Section Service Customer](#))
 - NET FO cable section without trunk ([NET FO Cable Section Without Trunk](#))
 - NET FO cable section ([NET FO Cable Section](#))
 - NET FO cable trunk duct route ([NET FO Cable Trunk Duct Route](#))
 - NET FO closure trays ([NET FO Closure Trays](#))
 - NET FO connector used at switching point ([NET FO Connector Used at Switching Point](#))
 - NET FO connector used at terminator ([NET FO Connector Used at Terminator](#))
 - NET FO connector used with service at switching point ([NET FO Connector Used with Service at Switching Point](#))
 - NET FO connector used with service at terminator ([NET FO Connector Used with Service at Terminator](#))
 - NET FO connector at switching point ([NET FO Connector at Switching Point](#))
 - NET FO connector at terminator ([NET FO Connector at Terminator](#))
 - NET FO patch overview from connectors ([NET FO Patch Overview from Connectors](#))
 - NET FO patches in switching point ([NET FO Patches in Switching Point](#))
 - NET FO patches in terminator ([NET FO Patches in Terminator](#))
 - NET FO terminator overview ([NET FO Terminator Overview](#))

Telephony Data Model

13.1

- Support function to identify the location of images was updated in all reports.

13.2

- The base filter of the reports were changed, to prevent an error showing up in case there are no rows selected in the corresponding dialog.
 - NET Telephony cable section brief overview ([NET TP Cable Section Brief Overview](#))

- NET Telephony cable section service customer (NET TP Cable Section Service Customer)
- NET Telephony cable section without trunk (NET TP Cable Section without Trunk)
- NET Telephony cable section (NET TP Cable Section)
- NET Telephony cable trunk duct route (NET TP Cable Trunk Duct Route)
- NET Telephony network overview template (NET TP Network Overview Template)
- NET Telephony patches in switching point (NET TP Patches in Switching point)
- NET Telephony patches in terminator (NET TP Patches in Terminator)
- NET Telephony pins in switching point (NET TP Pins in Switching point)
- NET Telephony pins in terminator (NET TP Pins in Terminator)
- NET Telephony splice overview closure (NET TP Splice Overview Closure)
- NET Telephony splice overview terminator (NET TP Splice Overview Terminator)

13.3

- The base filter for the reports got changed for Oracle databases, to allow the reports being created once again without an error. The following reports got changed.
 - NET Telephony cable section brief overview (NET TP Cable Section Brief Overview)
 - NET Telephony cable section service customer (NET TP Cable Section Service Customer)
 - NET Telephony cable section without trunk (NET TP Cable Section without Trunk)
 - NET Telephony cable section (NET TP Cable Section)
 - NET Telephony cable trunk duct route (NET TP Cable Trunk Duct Route)
 - NET Telephony network overview template (NET TP Network Overview Template)
 - NET Telephony patches in switching point (NET TP Patches in Switching point)
 - NET Telephony patches in terminator (NET TP Patches in Terminator)
 - NET Telephony pins in switching point (NET TP Pins in Switching point)
 - NET Telephony pins in terminator (NET TP Pins in Terminator)
 - NET Telephony splice overview closure (NET TP Splice Overview Closure)
 - NET Telephony splice overview terminator (NET TP Splice Overview Terminator)