Release Notes NET 12.5.2

Summary

The new version of NET contains bug fixes and improvements, mainly relating to the NET Build integration and the redlining extension.

> ✅ The performance issue affecting the co overview in NET 12.5.1 has been fixed.

Supported Software

- Autodesk AutoCAD Map 3D
    - Autodesk AutoCAD Map 3D 2021.0.1 - Autodesk AutoCAD 2021.1.2 or later
    - 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
- TKI PostgreSQL Provider 4.0.1
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1
- TKI Lizenzierung 12.3
  (Only required for a manual installation on the network license server)

Release NET 12.5.2 in detail

NET Engineering

1-click-maintenance

- The one-click-maintenance to identify empty dialogs contained an error, causing the one-click-maintenance to crash. This error has been fixed.
- The 1-click maintenance of forms no longer crashes under certain circumstances.
- The 1-click maintenance "NET Engineering: Missing Attributes" now no longer results in an error if a table no longer exists/is deleted. Instead, the missing tables are simply ignored in this check.

Reports

- The performance of the CO overview has been improved.
- A few errors in the co overview have been fixed. The issues caused the co overview to be created incompletely.
- The "CO overview" (or "CO overview (filter)") in the FO Terminator has been cleaned from duplicate as well as empty entries.

- The network tracing on the duct network has been improved. A bug caused the tracing to switch directions in some cases, when the duct network is connected to structures of any kind.

Dialogs

- Joint deletion of objects split by AutoCAD's "Split with attribute retention (geometry only)" function now works without errors.
- AutoCAD Map 3D no longer crashes when filtering and creating a new record in the "Building Unit" form if the "Connector" attribute is hidden.
- An error caused micro ducts to remain in the project in case the parent ducts got deleted in a single bulk operation. This error has been fixed, micro ducts without any parent objects are always deleted now.

Redlining

- The message "Could not create the fitting for the duct …" appears, when executing the action "Link house connection routes". This problem has been solved.
- The messages in the log when transferring the NET Redlining data to NET Engineering were not completely translated into German until now. This has been corrected.

NET Build integration

- In the "Synchronize field reports" dialog, the files were not visible after double-clicking on a report. This problem has been solved.
- The synchronize field reports function, which synchronizes a NET Build project into the redlining data model, produced an error if there were no ducts in the project.
  This bug has been fixed.
- The translations for the NET Build Pull user interface got completed.
- Loading measurements during synchronisation of field reports fails if similar entries already exist in the "Redlining Connection". This error no longer occurs.
- The layout for the "Create subregions for distribution clusters" checkbox was incorrect. This has been corrected.
- When synchronising the field reports, segments were previously also transmitted that had only been partially measured or built at the time of transmission. The reason for this was that there was at least one completed work item on the production report. The synchronisation has been corrected in such a way that now only those segment sections are transmitted that have been completely built and measured in. As long as the transmitted segments have not yet been completely built or measured, this results in many split segment sections, which can, however, be discarded or merged after the transmission of the completely finished path. The read-in short segment sections are geometrically combined as far as possible.
- Duplicate cables, joints, terminations and structures were created when synchronising the field reports. This problem was solved.
- In the "NET Build Synchronisation" dialogue, the names of the elements in the user interface were translated correctly.
- When synchronising field reports, duplicate segments were created instead of updating the existing ones. This error has been fixed.
- When transferring data from NET Build, the protective pipes were generated incorrectly in NET Engineering. This error has been corrected.
- In the dialogue "Synchronise field reports" there was a display error in the table for the report details. This problem has been solved.

- During data transfer to NET Build, unhandled errors occurred and synchronisation was aborted if there were incorrect settings in NET Build. This has been corrected so that appropriate messages are now displayed in the log before the data transfer is aborted.
- If a large number of reports were requested at once when synchronising the field reports, then an error due to timeout could occur. This error no longer occurs.

Options

- An error related to canceling changes in the NET options has been fixed. Changes in the NET options are now correctly applied ("OK") or discarded ("Cancel").

TNIM

- Improved the validation speed of the TNIM import.

Documentation Pack

- DocPack: Fixed an error in the validation for directories, that would not allow "\\" in the input. This now allows tokens to be used in directories.

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*

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

- *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*

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.

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

Release Notes NET 12.5.1

Summary

The new version of NET contains bug fixes and improvements, mainly relating to the NET Build integration and the redlining extension. The TNIM import also got some improvements, related to the resource requirements when importing into large databases.

> ⚠ This release is affected by an issue, causing the creation of the CO overview to work significantly slower, compared to the previous version.

Supported Software

- Autodesk AutoCAD Map 3D
    - Autodesk AutoCAD Map 3D 2021.0.1 - Autodesk AutoCAD 2021.1.2 or later
    - 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
- TKI PostgreSQL Provider 4.0.1
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1
- TKI Lizenzierung 12.3
  (Only required for a manual installation on the network license server)

Release NET 12.5.1 in detail

NET Engineering

1-click-maintenance

- During the 1-Click-Maintenance check "NET Engineering: Invalid model references", the Redlining Structures with a valid type were identified as a problem. This error has been corrected.

Workflows

- The updates of trench cross sections were crashing in case a update of the position numbers of micro ducts created any negative values. Updates such as this will now be stopped with any information to the user before any crash happens.
- Starting the "Create and assign ducts" workflow from the duct dialog, showed an warning message in case there are no duct types present in the infrastructure project. This warning is not relevant anymore and has been removed.

- The workflow "split ducts" worked very slowly, in case the automatic calculation of duct lengths is enabled. The speed of the workflow has been improved.

Reports

- The generation of the CO overview for filtered Switching Points and Terminators ("CO overview (filter)") now works without errors again.
- The detection of the network direction has been improved in the CO overview. In case the detection of the network direction fails, there will be an error message instead of a incomplete CO overview.

Dialogs

- If the NET option "Automatically recalculate duct lengths" was deactivated, then the manual calculation of the duct and cable lengths no longer worked. This error has been corrected.

Export

- When exporting data, the cable reserves of the cables whose geometry intersects the cluster are now also taken into account.

Redlining

- When entering the general snapping tolerance of the redlining module, the decimal separator is now correctly recognized and a corresponding message is output in the event of errors.
- The type of the trench is now created from the surface type and the trench type during the redlining actions "Create distribution network" and "Create building lead ins".
- If buildings with a terminator already exist in NET Build, then an error occurred in NET Engineering during the synchronisation of the field reports. This error has been fixed.
- In the dialogue "Redlining: Configuration" the translation of the field name "Customization" has been corrected.
- When opening the redlining transfer dialog from the redlining survey form, the records filtered in the survey form are preselected.

NET Build integration

- The spatial tolerance of the infrastructure project is now correctly handled, when pulling data from NET Build. This fixes and error that caused the geometries to be stored with more decimal places then expected, complicating further working with the data.
- When taking over the redlining data, an error occurred during validation if no redlining structure was available. This error has been corrected.
- When repeatedly running the synchronisation of NET Build field reports into the same Redlining measurement, an error could occur. This error has been corrected.
- After finishing the transfer of a redlining measurement to NET Engineering, it was not possible to select the same redlining measurement again in the "Synchronise NET Build field reports" dialogue for a transfer of data from NET Build. This error has been fixed.
- When retrieving data from NET Build, an error occurred affecting the same buildings in NET Engineering without geometry but in NET Build with geometry. This error has been fixed.
- If one switched back and forth between the tabs "Reports" and "Load Surveys" during the synchronisation of the field reports while loading the surveys, the tab "Load Surveys" was displayed incorrectly and the loading process was apparently aborted. This error has been corrected.
- In the dialogue "Synchronise NET Build Field Reports" the possibility to limit the selection of the region with the help of a filter has been created.

TNIM

- A formatting error in the TNIM import log was fixed.
- The TNIM import required a lot of system memory in case the target database is very large. The import has been optimized to improve performance and lower the used memory.
- The TNIM import now no longer aborts with an unexpected error if a duct of a duct type with duct bundle configuration for inner ducts has no inner ducts. Instead, there is a meaningful warning in the import log.

GIS-NB Export

- There is a new option to control the direction of the network tracing by hand. This option is only necessary in case the automatic detection of the network flow fails. Such a problem only happens in case of an adversely distributed structure of the fiber optic network.

Integrations

- During the Azure login, a meaningful error message now appears if an unexpected error occurs.
- The Azure AD login caused an error, that resulted in a single user being assigned to the same user group twice. This meant that all users sharing this user group, were unable to connect to any infrastructure project. The error as 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*

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

- *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*

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.

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

Release Notes NET 12.5

Summary

The new version of NET contains some bug fixes related to the new form updates from NET 12.4. In addition, bug fixes have been implemented in all products, correcting various problems and inconveniences.

Major changes have been made to the import and export of TNIM. Here there were some performance improvements and bug fixes.

Supported Software

- Autodesk AutoCAD Map 3D
    - Autodesk AutoCAD Map 3D 2021.0.1 - Autodesk AutoCAD 2021.1.2 or later
    - 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
- TKI PostgreSQL Provider 4.0.1
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1
- TKI Licensing 12.3
  (Only required for a manual installation on the network license server)

Release of NET 12.5 in detail

General

Structure and form updates

- When updating forms, multiple tabs with the same name are now automatically combined.
- The General tab is now always displayed in the first position in the form tabs.

NET Design

atesio Integration

- When trying to create transitions with the atesio optimizer, sometimes overlapping trenches were created. This error has been fixed. No overlapping trenches are created now.

Comsof Fiber Integration

- Changes in the following fields are taken into account in the calculation of Comsof
    - "Demand Point": "Forced Cable Type"
    - "Possible Trench": "Maximum number of Ducts", "Maximum number of Cables", "Maximum Number of Fibers"
    - "Duct": "Duct Layout"

Forms

- A spelling error in the area units has been corrected in all forms.
- Fixed a bug in the form's context menu that caused the functions to access the wrong industry model when multiple industry models were open in the same instance of AutoCAD.

NET Engineering

Workflows

- The "Create and assign ducts (without geometry)" workflow did not reset the number of ducts correctly after a warning was displayed. This caused the wrong number of ducts to be used in further usage, even when the user corrected the number. This issue has been resolved and the workflow now works as expected.
- The "Create and assign ducts (without geometry)" workflow crashed if no duct types were available in a project. This problem has been solved.
- The errors in the "Create and assign ducts (without geometry)" workflow when dealing with broken color schemes has been fixed.
- The duct connection editor deleted the cable assignment for a cable from all duct sections in the editor when the cable was disconnected from a section. This happened whether the duct sections were connected or not. This problem has been solved; the cable is deleted only from the duct section that is selected when the ducts are disconnected.

Reports

- The display of the report "NET FO Splice Overview Closure" has been improved by adding a line break in the table column "Cable/Splitter".
- The display of the report "NET FO Splice Overview Terminator" has been improved by adding a line break in the table column "Cable/Splitter".
- The display of the "Duct Connections" report has been improved by adding a line break in the "Duct name/type" table column.

GIS Nebenbestimmungen

- Added a hint message when the export was completed.
- The export now offers the possibility that the error list is automatically saved after the end of the export.

TNIM

- The TNIM import is now no longer aborts with an unexpected error if the number of inner ducts of a parent duct does not match the expected number of inner ducts from the duct type. Instead, there is a meaningful warning in the import log.
- An error in the processing of arcs was corrected during export.
- The performance of TNIM export has been improved, especially in connection with PostgreSQL and Oracle databases.
- The TNIM import crashed when used in IMBatch if the coordinate system of the TNIM file and the target project did not match.

NET Build Integration

- When synchronizing field reports, work items are no longer loaded if they are in a region that is not selected, even if the parent item is assigned to the correct region.
- Fixed a bug in NET Build Pull data type processing that caused rare crashes when loading data from NET Build.

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

NET Field Survey - BMVI Data Model

- 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
- 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 on TC_PL_BMVI_SUPPLY_PLAN_TBD
    - ID_BMVI_MEV_PLAN with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
    - ID_BMVI_MEV_PLAN1 with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
    - ID_BMVI_SCHOOL with relation on 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

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.
- The General tab is sorted in inventory projects, if necessary, to the first position in the form, if necessary.

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

Release Notes NET 12.4.2

Summary

The new version of NET contains fixes of bugs from previous versions. A critical bug from NET 12.4.1 was fixed.

Supported software

- Autodesk AutoCAD Map 3D

    - Autodesk AutoCAD Map 3D 2021.0.1 - Autodesk AutoCAD 2021.1.2 or later
    - 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
- TKI PostgreSQL Provider 4.0.1
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1
- TKI Licensing 12.3
(only required for a manual installation on the network license server)

Release NET 12.4.2 in detail

General

Autodesk Industry Model Setup

- The Industry Model Setup for AutoCAD Map 3D application now no longer crashes when performing structure updates.

1-Click maintenance

- The 1-click maintenance for forms now works for the NET products NET Field Survey, NET Design and NET Engineering.
- There is a new 1-click maintenance that removes hidden additional controls (`SqlLabel`, `SqlTextBox`, `ComplexReference`, `ComboBox`) in existing forms.

NET Design

Comsof Fiber Designer Integration

- Automatic preprocessing has been corrected. The creation of connection points from building perimeters now works again.

NET Engineering

General

- When releasing cable assignments to ducts, a confirmation is now reliably requested if the cable would be deleted by this action.

Reports

- An error while creating the report "Fiber optic cable trunk duct route" has been corrected.

Graphic output

- An error in creating the fiber optic connection plan has been corrected.
- An error in creating the grouped splice plan has been corrected.

NET Build Integration

- If the option "Create distribution cluster as region" is selected on the "Settings" page during the push to NET Build, then all planning objects contained in the distribution cluster are also assigned to this region. The error that occurred in this process has been fixed.

Forms

- In the "Redlining cables" form, the length of the line was specified incorrectly. This error has been fixed.

Redlining

- In the "Redlining Survey" form, the "Submitted on" and "Transferred on" fields are now filled correctly. The date and time of the synchronization of the field reports are displayed in the "Submitted on" field. In the "Transferred on" field, the date and time of the transfer of the redlining data to NET Engineering data are indicated.

TNIM

- Correction when importing TNIM data if the coordinate systems between the industry model and the TNIM file do not match. If the coordinate system in the industry model is missing or transformation is impossible, import cannot be performed.

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

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*

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 on TC_PL_BMVI_SUPPLY_PLAN_TBD
  - ID_BMVI_MEV_PLAN with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
  - ID_BMVI_MEV_PLAN1 with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
  - ID_BMVI_SCHOOL with relation on 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*

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 as long as 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

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

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.

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.

Release Notes NET 12.4.1

Summary

The new version of NET contains corrections of bugs from previous versions. A critical bug from NET 12.4 was fixed.

Supported software

- Autodesk AutoCAD Map 3D
    - Autodesk AutoCAD Map 3D 2021.0.1 - Autodesk AutoCAD 2021.1.2 or later
    - 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
- TKI PostgreSQL Provider 4.0.1
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1
- TKI Licensing 12.3
  (only required for a manual installation on the network license server)

Release NET 12.4.1 in detail

NET Design

General import

- The general import now no longer crashes when loading a shape file that does not contain attribute columns.

NET Engineering

Workflows

- The placeholders in the duct connection editor and in the duct tap label with reference to the colors ({COLOR:VALUE}) were no longer resolved. The bug occurred in NET 12.4 and is fixed now.
- The duct connection editor now correctly responds to changes made outside the connection editor and correctly updates the display if the requested changes could not be applied.
- The "only join ducts of the same color" filter works correctly again in the duct connection editor.
- The "Create Plot Sequences" workflow has been enhanced to automatically record the name of the layout used and the scale in the info field of newly created plots. If plots are specified with absolute width and height, the info field remains empty.

Forms

- Fixed a bug in the "TP Terminator" form that caused the "Add Pins" entry to sometimes appear twice and sometimes in the wrong place.
- A link to the NET Help Center has been added to the windows for editing the attributes of trays, splitters, connectors and pins.

Multilines

- Fixed a bug in multi-line creation that caused the application to crash when viewing ducts that run through multiple segment sections.

NET Build Integration

- In the "Synchronize NET Build Field Reports" dialog, the time entries were displayed in UTC format. This bug has been fixed so that the time entries are now displayed in the correct time zone.
- When synchronizing field reports, an error occurred when transferring a design element without geometry and assigned work item. This error has been fixed.
- When pushing to NET Build, an error occurred if a new Custom Field of type "Splice Data" had been created previously. This error 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

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

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 on TC_PL_BMVI_SUPPLY_PLAN_TBD
    - ID_BMVI_MEV_PLAN with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
    - ID_BMVI_MEV_PLAN1 with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
    - ID_BMVI_SCHOOL with relation on 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

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 as long as 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

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

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.

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.

Release Notes NET 12.4

Summary

The new version of NET includes support for Comsof Fiber Designer versions 22 and 23, the new version for TNIM data exchange, updates to the data model, the revision of the forms in NET Design and NET Engineering, an extensive revision of the redlining extension, the newly developed function for synchronizing field reports from NET Build and for transferring planning from NET Engineering to NET Build, and the new development of a assistant for exporting to GIS Nebenbestimmungen. In addition, bugs were fixed and a variety of improvements were implemented. It is important to run the structure updates in the projects before working with the new version.

Supported software

- Autodesk AutoCAD Map 3D

    - Autodesk AutoCAD Map 3D 2021.0.1 - Autodesk AutoCAD 2021.1.2 or later
    - 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
- TKI PostgreSQL Provider 4.0.1
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 22.2
- Comsof Fiber 23.1
- TKI Licensing 12.3
  (only required for a manual installation on the network license server)

Release NET 12.4 in detail

NET Design

atesio Integration

- Missing translations have been added in atesio planning settings version 2021.

Comsof Fiber Designer integration

- When calculating with Comsof Fiber Designer, fibers and splices are now also supported.
- Comsof Fiber Designer versions 22 and 23 are now supported.

NET Engineering

General

- Fixed a 1-click maintenance error that occurred after performing the structure update in existing projects.

Workflows, editors and functions

- The "Create house connection" workflow now selects the correct base segments when using an existing house connection segment, so that the house connection is created correctly.
- The data checks under "Status Consistency" work error-free again under Oracle.
- The deactivation of the automatic duct length calculation is now also taken into account in the workflows "Create house connection" and "Add duct connection" as well as in the function "Assign duct to further segments", so that the performance could be improved as a result.
- In the "Assign segments and ducts" editor, the "Segment tracing (with preview)" option has been added, which highlights the accessible segments. The "Segment Tracing" option, on the other hand, now does not require a highlight/preview, which has improved the performance when using the editor with this option.

Reports

- The report "FO Duct route (cable trunk)" now also works for the TP module.
- The title of the report "Splice overview for FO terminator" has been corrected.
- The "Duct tap label" report in the duct point has been renamed to "Duct connections".
- A spelling error has been corrected in the "LWL Spleißübersicht Abschluss" report.
- In the splice overview, fibers that have been discarded and not spliced are now always placed at the end within a tray.
- Spelling errors have been corrected in the "LWL Kabelzug Rohrpfad" report.

Forms

- The named projection "List all services of filtered splices" now works without errors.
- In the "Switching point" form, the "Fiber optics" tab now lists the associated splitters in addition to the connectors, patches and services.
- In the form "FO Closure" or "TP Closure" there are now two buttons to jump directly to the corresponding building.
- The service specifications have been completely removed. Attention: If there are service specifications with service items in existing projects, these data records will be deleted with the structure update.
- The "Adjust Cable Sections" button has been removed from the "Fiber Optic Cable Section" and "TP Cable Section" forms. Instead, this function is now located in the Edit menu.
- The fiber optic connector type "LC/APC" - if not yet available - is now automatically created.
- The name of fibers 1 and 2 is now displayed correctly again in the "FO splice" form under Connections.
- In the form "Building unit" the designation of the two existing types have been corrected.
- In the "Duct connection graphic line" form, the correct point is now stored again, so that a jump to the associated duct point is possible.

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- The English translation of "Strips" has been corrected in the "TP Closure" form as well as in the two existing pin types.
- The maximum number of characters for the Receiver in the "Notes" form has been increased, so that longer receivers can now also be stored without errors.
- The display of the forms has been optimized for different screen scaling.
- The performance when changing a switching point in the "FO terminator" form has been optimized.
- In the Duct Cable form, the attributes have now been defined as mandatory fields to prevent errors or crashes when creating or changing records.
- When opening the cluster form, AutoCAD Map 3D crashed under very specific circumstances. This error has been fixed.

Labels and graphics

- The duct connection graphic is now automatically removed when the associated duct point is deleted.
- Performance when creating and updating various labels has been improved.
- Segment labels are now also automatically updated when ducts are assigned to the segment via the "Create and assign ducts (without geometry)" workflow.

Redlining

- The function for synchronizing field reports can now only be called up in the context menu of the industry model when the Redlining data model is activated.
- Performance when synchronizing NET Build field reports has been improved.
- When synchronizing field reports from NET Build, the user is informed about the progress of the transfer by the display of a progress bar.
- A snapping priority can now be set during the redlining data transfer. Depending on the setting, it is then connected either to the longitudinal segment or to the house connection segment.
- When synchronizing field reports from NET Build to NET Engineering, the service items are now also transferred.
- During Redlining data transfer, a connector is now assigned to the building unit in the "Link fiber connections" step, if necessary.
- The "Documentation data transfer" form has been optimized.
- All redlining forms have been adjusted. The display has been adapted to the standard display of NET forms, the FID is now no longer displayed in the forms, a link to the corresponding NET Build object is displayed where possible, and the redlining segment form now displays the segment assignment. Improvements and corrections have also been made to the formatting of field contents and field labels. Furthermore, the link to the documents is now displayed in all redlining forms.
- Views have been added for the representation of Redlining objects. For each redlining object with geometry, a view was created that contains relevant attributes with relation to linked tables.
- When synchronizing field reports, the user is now alerted to any problems with the NET build data being transferred. For example, if there are work items without a corresponding design element. Double-clicking on a line will take you to the corresponding record in NET Build. When displaying log entries, a distinction is made between information, warnings and errors. In addition, the user is now informed about the start and end of the retrieval of data from NET Build. Likewise, the start and end of the Redlining processing is displayed. This information can also be saved as a text file.
- In the function for transferring redlining datasets to NET engineering datasets, all validations are now preselected by default.
- There is a new validation "Validation of blow-in table", which checks if there are redlining cables

with non-existing redlining ducts or ducts.
- The validation of non-existing fittings for a duct now works correctly again. An error is now only displayed in the validation if there is actually no fitting for a duct.
- The redlining data model was adapted so that information on switched network paths can be mapped in the future.
- The redlining data model has been supplemented with the information on the installation side of the tray. This is now displayed in the Redlining Connection form.
- The redlining data transfer has been extended by the new action "Link fiber splice". This means that splice information can now also be generated during redlining data transfer. This includes the creation of connectors in terminators, the creation of trays in closures and terminators, the creation of splitters and splitter exits in closures and terminators, and the creation of splice connections. For this purpose, the redlining data model has also been extended to include the attributes for the tray type and the connector type.
- The cable network linking bug has been fixed so that the cable path is now detected when the redlining cable runs from the PoP to the closure, for example.
- An error occurred when transferring data from NET Engineering to NET Build if this data was already transferred and there were no further changes to design elements. This error was fixed.
- During the transfer of the redlining data into NET engineering data, an error occurred in the Link distribution layer" action. This error has been fixed.
- With the action "Link fiber connections" an error could occur, if at the ducts for the supply point several values were entered. This error has been fixed.
- In the action "Link distribution layer" an error could occur, if there are e.g. house connection segments with the same name in different segments. This error has been corrected.

TNIM data exchange

There is now the new version TNIM V2.1:
- Some forms have been extended by the "TNIM" tab, which contains the new attributes "Source ID" and "Source Data Memory". The new "TNIM" tab becomes visible when the TNIM data model extension is activated. In addition, there is now the new form "TNIM-Source".
- When exporting with TNIM V2.1, the two new attributes "Source ID" and "Source data storage" are also exported. If the fields are not filled, values are automatically generated and exported.
- When importing with TNIM V2.1, all objects are compared on the basis of "source ID" and "source data memory" and possibly updated. As in V2.0, models, as well as address data (streets, cities, postal codes), continue to be compared on the basis of relevant characteristics (usually the name) if no source information has been specified.

- Note: TNIM V2.1 will not replace TNIM V2.0. TNIM V2.0 can still be used in its entirety. The two versions are compatible with each other.

Valid for all versions:
- If an area restriction is selected during export, the name is now always displayed if one exists.
- From now on there is a new button "Test run" during the import. This will start the import simulated, but no data in the industry model changed.
- At the end of each test run/import process, various validations take place.
- When using the NET installer, the file type ".tnim" is registered in Windows. Each such file has a specific icon after installation.

NET Build

- It now no longer crashes when logging into NET Build to synchronize field reports from NET Build to NET Engineering if the NET Build URL contains spaces at the beginning or end.
- With the help of the "NET Build Push" function, the finished low-level design can be sent to NET Build. The function is called in the form of the cluster to be transferred.
- The function for synchronizing field reports from NET Build and importing them into the Redlining data model was completely redeveloped and converted to a general model. This means that it can be used separately without the need for customer adaptation. If, however, a customer adaptation is required, e.g. because additional functionalities are used in NET Build, these can be extended flexibly and in a time-saving manner by means of the conversion.
- When transferring data from NET Engineering to NET Build, an item number was also created for composite ducts directly in the segment. This error has been fixed.
- If segments with invalid geometry were transferred from NET Engineering to NET Build, then an error occurred. This behavior was corrected and now a corresponding hint is displayed.
- The segment geometries transferred from NET Engineering to NET Build have been simplified. Now, not all supporting points are transferred, but only the absolutely necessary supporting points.

Export according to GIS Nebenbestimmungen (BMVI)

- The BMVI export no longer crashes if no coordinate system is set.
- The BMVI data model has been supplemented by the class "Fördervorhaben". These can also be nested within each other.
- In the "GIS-NB" tab, you can add to the objects segment, cabinet, manhole, mast, cable, terminators, closures, duct, the corresponding funding project can now be deposited.
- The export to GIS-NB has been completely revised. The export dialog is now divided into 4 sections (pages) with a new look and more options.
- A new feature is the ability to filter by funding project when exporting.
- Further attributes can now be exported additionally (FID, name, status, funding project as well as number of micro ducts at the layer empty ducts)

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

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

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 on TC_PL_BMVI_SUPPLY_PLAN_TBD
  - ID_BMVI_MEV_PLAN with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
  - ID_BMVI_MEV_PLAN1 with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
  - ID_BMVI_SCHOOL with relation on 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

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 as long as 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

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

Documentation Pack

- 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)

- 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

- 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.

- 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.

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

- 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.

NET Engineering and Operations

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

- 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.

Release Notes NET 12.3.6

Summary

The new version of NET contains corrections of bugs from previous versions.

Supported software

- Autodesk AutoCAD Map 3D

    - Autodesk AutoCAD Map 3D 2021.0.1 - Autodesk AutoCAD 2021.1.2 or later
    - 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
- TKI PostgreSQL Provider 4.0.1
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.2
- TKI Licensing 12.3
  (Only required for a manual installation on the network license server)

Release NET 12.3.6 in detail

NET Design

Comsof Fiber Designer integration

- Importing a Comsof Fiber Designer workspace no longer crashes when buildings have incorrect geometries.

Export to detailed planning

- When transferring to detailed planning, the house connection ducts now receive the correct coloring when using the "Color individual ducts - adopt color from fitted micro duct" option.

NET Engineering

Workflows

- The "Create and assign ducts (without geometry)" workflow now creates ducts correctly again, even if no duct template is assigned.
- The "Create and assign ducts (without geometry)" workflow now no longer crashes if there are no duct types in the project.

Reports

- The "Duct route (cable trunk) report" now also works without errors if the duct path has fittings that contains more than two ducts.

Forms

- The error when selecting a parent point in the "Line" form has been fixed.
- The error when selecting a building in the "Line" form has been fixed. Buildings can now be assigned by list selection again.
- When entering a measurement in the "FO Measurement" form, a crash no longer occurs if there is no data set in the filter. Instead, a meaningful error message is now displayed.
- The function "Copy structure from other point" in the terminator or closure has been improved.
- The button for highlighting the parent point in the "Duct fitting" form now works correctly.
- The buttons for highlighting terminators as well as closures in the "FO cable trunk" and "TP cable trunk" forms now work correctly again.
- In the segment form, the hint texts when removing the geometry of all subordinate cables and when deleting the segments have been optimized.
- The "Always on top" option in the context menu of all forms caused display problems and was therefore removed.

Redlining

- The error that occurred during the creation of the house connections and prevented the separation of duct bundles in the correct place was fixed.
- When linking the house connection segments, an error could occur that created three instead of two connections on one duct. This error has been corrected.
- The error that occurred during the "Link cable network" action when there was a cable with connection but without a connecting segment was eliminated.
- When transferring the ducts from the redlining data to NET Engineering, the colors of the micro ducts are now also transferred correctly.

Documentation Pack (DocPack)

- The DocPack configuration now no longer offers incorrect reports.

Export according to GIS Nebenbestimmungen (BMVI)

- The BMVI export no longer crashes if a duct is located several times in the same segment. Instead, a meaningful error message is now displayed.

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

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

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

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 on TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_MEV_PLAN with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_MEV_PLAN1 with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_SCHOOL with relation on 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

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 as long as a connector is assigned.
- Optimisation of the label definitions of TC_SP_DUCT_INSERTION and TC_SP_SEGMENT No changes to the output

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

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.

Release Notes NET 12.3.5

Summary

The new version of NET contains further improvements and corrections of bugs from previous versions.

Supported Software

- Autodesk AutoCAD Map 3D
    - Autodesk AutoCAD Map 3D 2021.0.1 - Autodesk AutoCAD 2021.1.2 or later
    - 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
- TKI PostgreSQL Provider 4.0.1
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.2
- TKI Licensing 12.3 (only required for a manual installation on the network license server)

Release NET 12.3.5 in detail

NET Design

atesio integration
- When calculating with atesio, the supplying network point in a POP is set correctly again if several POPs are assigned to a backbone cluster.
- The project validation "atesio: Independent subnets" no longer causes a crash if there are paths without geometry in the project.

Export to detailed planning
- When transferring a Comsof calculation result to detailed planning, splitter outputs in fiber optic terminators are now spliced again.
- When transferring to detailed planning, a crash now no longer occurs if it is set in the naming scheme/conversion scheme that individual ducts are to be colored and there are conventional ducts in the project at the same time.

NET Engineering

Workflows
- The "Create and assign ducts (without geometry)" workflow now reapplies the correct/selected color scheme when the color scheme is changed.
- In the "Create multi lines" workflow, the offset is applied correctly again if the "Duct snaps to duct" option is set.
- The display of an error in the duct connection editor has been optimized.
- When importing data to NET Engineering (TNIM import, redlining data transfer, transfer to detailed planning), a crash no longer occurs if the industry model contains an incorrect label definition.

Reports
- In the "FO Closure Splice plan" report, the data is again output in the correct columns when splitters are used.
- In the report "Cable trunk duct route" the term "Window Cut" was translated into German ("Teilweise Verspleißt").
- The Cable trunk duct route report now does not double count cable reserves.

Forms

- When changing the geometry of a segment, all opened forms were closed and reopened several times. This behavior has been optimized so that the relevant forms only receive an update of the corresponding values.
- Some forms remained incorrectly open after closing the project in AutoCAD Map 3D. This behavior has been corrected so that these forms are now automatically closed as well.
- It no longer crashes when opening the "Building" form if an invalid FID is stored for the street.
- In the "Fiber optic cable type" form, the "Adjust cable sections" function no longer crashes if an invalid designation/color scheme is stored. Instead, a meaningful error message is displayed.

Redlining
- During redlining data transfer, a crash occurred when errors occurred in the "Link drop trenches" step. This has been corrected and the errors are now displayed in the log instead.
- During redlining data transfer, duct insertions for house connection ducts are now set correctly.
- During redlining data transfer, fittings for composite ducts are now set correctly.

Documentation Pack (DocPack)
- The "Documentation Pack Output" window is now no longer necessarily in the foreground, but can be moved to the background if required.

NET Build
- It now no longer crashes when logging into NET Build to synchronize field reports from NET Build to NET Engineering when multiple projects are opened.
- When synchronizing field reports from NET Build to NET Engineering, segments from wrong regions are no longer transferred.

- In the "Synchronize NET Build Field Reports" form, the formatting of date fields with time has been corrected.
- Some improvements have been made to the user interface of the "Synchronize NET Field Reports" form.

Infrastructure Administrator
- There is a new 1-click maintenance called "NET Engineering: Topology Feature Class IDs", which finds and removes invalid values in topology tables so that they no longer cause errors in the program.

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

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

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

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
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- ID_BMVI_MEV_IS with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_MEV_PLAN with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_MEV_PLAN1 with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_SCHOOL with relation on 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

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

TKI Tele-Kabel-Ingenieurgesellschaft mbH   April 04,2023

- 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 as long as a connector is assigned.
- Optimisation of the label definitions of TC_SP_DUCT_INSERTION and TC_SP_SEGMENT No changes to the output

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)

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- 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

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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

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.

Release Notes NET 12.3.4

Summary

The new version of NET contains further improvements and corrections of bugs from previous versions.

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    - Autodesk AutoCAD Map 3D 2023.0.2 - Autodesk AutoCAD 2023.1.1 or later
- TKI PostgreSQL Provider 4.0.1
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.2
- TKI Licensing 12.3 (only required for a manual installation on the network license server)

Release NET 12.3.4 in detail

NET Design

atesio integration
- If the backbone layer is used in the calculation, the superordinate network point is now entered correctly in the result data for the network point of the main layer.
- If there are trench crossing railroad tracks, the costs for them are now entered in the BOM.
- During pre-processing, trenches within the building were incorrectly created with the path type "street trench". This led to incorrect clustering during calculation. Now the trenches in the building are again created with the trench type "In building".
- When loading the missing trench types in the atesio planning settings, the trench type "unknown" is now also loaded, this is now no longer leads to an error during the calculation.
- With the HP+ construction method, part of the house connection duct was assigned the wrong network layer during the calculation. This error has been corrected, so that the duct now belongs completely to the network layer.
- The attribute "Is Locked" in the form "Possible Trench" is no longer displayed when the atesio optimizer is selected, because it is not supported by atesio.
- According to the settings, only the workspace should be saved but the calculation should not be performed (STOREATESIOWORKSPACE → PriorDontOptimize), this previously led to an abort of the calculation without any apparent reason. A new abort message now clearly indicates why the calculation was aborted.

- Selecting the wrong folder during atesio import no longer causes a crash.

Comsof Fiber Designer Integration
- Road crossings now receive the appropriate trench types through preprocessing.
- Pre-processing now no longer crashes when a possible trench refers to a non-existent street centerline due to a data error.
- The calculation now no longer incorrectly turns poles in the planning data into cabinets in the result data.

Export to detailed planning
- The settings of certain conversion schemes were not saved correctly. When loading in another version of NET (new version or other Map 3D version) the settings could not be loaded. The error was fixed, but the planning settings saved with an incorrect version can still not be read.

NET Engineering

Workflows
- When creating multiple lines, a crash occurred if the geometries were incorrect. Here, a meaningful error message with the affected objects is now displayed in the log.
- In the "Create and assign ducts" workflow, the "{NR}" placeholder is now filled correctly when only one duct is created.

Reports
- In the material list the types of splitters/connectors/trays/splices are now no longer grouped together if they have the same name.

Forms

- When creating multiple lines and during TNIM export, the icons in the filter selection buttons are displayed correctly.
- When adding a measurement for a fiber optic connector or a TP pin, a crash occurred if the fiber optic connector or the TP pin was not assigned to a terminator. Now a meaningful error message with the cause of the error is displayed.
- If a cable is assigned to more than 1000 segments or ducts, a crash no longer occurs when opening the form "FO cable section" or "TP cable section".

Redlining

- There is a new validation for segments, which checks if there are segments shorter than the set tolerance.
- There is a new validation for cables, which checks if there are cables without cable type or cables on different position numbers in the duct bundle.
- There is a new validation for fittings, which checks if there are fittings without fitting type, fittings without position number of the duct in the duct bundle or fittings without duct name.
- When synchronizing NET Build field reports, the button "Load all measurements" was not usable if all values were selected at "Status of working elements". This error has been fixed.
- When linking the distribution network, there is no longer a crash if there are house connection segments that are shorter than the set tolerance.
- The performance for creating the house connection network has been improved.
- The length of the ducts is now set correctly during data transfer.
- The status of duct points is now set correctly during data transfer.
- In the "Data transfer documentation" window, the "Status of fixed objects" had to be explicitly activated after selecting the "Transfer status". This is now automatically taken over.

TNIM data exchange

- The TNIM import is now able to clean up duplicate grid points and grid points within the set spatial tolerance before import.

Infrastructure Administrator

- The 1-click maintenance "Report check" caused problems with standard reports under SQLite. It is also no longer needed and has therefore been removed.

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

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

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

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

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- 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 on TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_MEV_PLAN with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_MEV_PLAN1 with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_SCHOOL with relation on 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

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 as long as a connector is assigned.
- Optimisation of the label definitions of TC_SP_DUCT_INSERTION and TC_SP_SEGMENT No changes to the output

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

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.

Release Notes NET 12.3.3

Summary

The new version of NET includes bug fixes, some enhancements and corrections for the "redlining" extension, the addition of new validations for exporting to GIS Nebenbestimmungen, enabling the transfer of more information from NET Build to NET Engineering, and improvements to atesio integration.

Supported software

- Autodesk AutoCAD Map 3D

    - Autodesk AutoCAD Map 3D 2021.0.1 - Autodesk AutoCAD 2021.1.2 or later
    - 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
- TKI PostgreSQL Provider 4.0.1
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.2
- TKI Licensing 12.3 (only required for a manual installation on the network license server)

Release NET 12.3.3 in detail

NET Design

General Export

- The failure of export to NET Field Survey when there are several object types with the same name has been fixed.

atesio integration

- The error that occurred when creating clusters during the result import has been fixed.
- An error occurred during the creation of the drop trenches, which has now been corrected.
- In the configuration file, the fiber requirement at the network distribution point can now be specified using a formula.

Comsof Fiber Designer Integration

- Support for version 21.2.4 of Comsof Fiber Designer has been implemented.
- When reading the results from Comsof Fiber Designer, an error occurred if the fiber path from a splitter to the building was completely identical. This error has been corrected.

Export to detailed planning

- In a mixed configuration of P2P and PON fibers with splitters and spare fibers in the demand point, incorrect splice and connector assignments were created when exporting to detailed planning. This error has been fixed.

NET Engineering

Workflows, editors and functions

- The exception error that could occur in the "Create and assign ducts" workflow when invalid color scheme was selected was fixed.
- In the "Create duct end caps" workflow, an error occurred when, after creating duct end caps, these were removed and the workflow was executed again. This error has been fixed.
- In the "Join Ducts" workflow, the check whether a duct can be merged with another duct has been improved.
- When trying to join two duct bundles in the "Join ducts" workflow, micro ducts were cut off if they extended beyond the bundle. This error has been fixed.
- It was not possible to close the duct connection editor after having already closed the project. This error has been fixed.

Reports

- Information has been added to the error messages in the "cable trunk Duct route" report and formulated more comprehensibly.
- The error in displaying the colored areas in the report "Splice overview for FO Terminator" has been corrected.
- The partially incorrect display of the order number in the material list has been corrected.

Representation

- The display of work orders in the NET menu was not updated according to the change made in the "Work order" form. This error has been fixed.

Forms

- The naming schemes in the Edit "Attributes of Assigned wires" dialog will now be listed in alphabetical order.
- Added the terms "splitter" and "tray" to the initial and final feature labels in the "Edit Attributes of Assigned Splitters" dialog, making the labels easier to understand.
- The function "Take over structure from other point" can now also be used for points with more than two cables.
- The display of the "Edit" menu in the "TP Pin" form has been corrected.
- In the "Notes" form, the list of recipients has been corrected so that only user are selectable, which also have access to the project.

Duct

- When removing fittings, a software crash occurred if another fitting (not the removed one) is connected to the duct and this fitting does not have its own geometry. This error has been fixed.

Redlining

- Further checks have been added to the validations. These detect gaps in the trench network, parallel trenches, overlapping trenches, trenches without content and trench networks without a network path to the specified layer point.
- Improved the user interface by adding the unit of measurement "m" next to the "General snapping tolerance" field to the display.
- Duct trunks are now also created during the transfer of ducts.
- Duct points are now also created during the transfer.
- The error that occurred when performing a redlining action once you selected a survey without geometry has been fixed.
- If a redlining action was executed without having selected a survey beforehand, a software crash occurred. This error has been fixed.
- When re-executing the "Link cable network" action for the same measurement, an error message occurred. This error has been fixed.
- Cable transmission has been improved so that cable paths are now supported.

NET options

- The text in the cluster type settings in the "Buildings" tab has been made more understandable.

Documentation Pack (DocPack)

- Trying to save a DocPack configuration to a folder where you do not have write permissions resulted in an error. Users now receive a message informing them of the missing write permissions instead of an error report.

Export according to GIS Nebenbestimmungen (BMVI)

- The export to GIS Nebenbestimmungen has been adapted to the new atene KOM validations.

NET Build

- When synchronizing attributes from NET Build to NET Engineering, there was a discontinuation if multiple attributes with the same name were transferred. This error was fixed.
- The interface to NET Build has been extended to support polygons. It is now possible e.g. to retrieve building polygons from NET Build.

Infrastructure Administrator

- When importing and exporting the color table, the new attributes VALUE_SHORT and ACAD_INDEX have been added, the sorting of color values in the dialog and in the Excel table has been standardized, and the automatic adjustment of the table size to the window size has been implemented.

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

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

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

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 on TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_MEV_PLAN with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_MEV_PLAN1 with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_SCHOOL with relation on 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

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 as long as a connector is assigned.
- Optimisation of the label definitions of TC_SP_DUCT_INSERTION and TC_SP_SEGMENT
  No changes to the output

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" has 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

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.

Release Notes NET 12.3.2

Summary

The new version of NET includes the correction of critical bugs that were included in the last version of NET, as well as some enhancements to the Redlining extension, Project Validation, and the workflow "Duct connection editor".

Supported software

- Autodesk AutoCAD Map 3D

    ▪ Autodesk AutoCAD 2021.1.2 - Autodesk AutoCAD Map 3D 2021.0.1 or later
    ▪ Autodesk AutoCAD 2022.1.3 - Autodesk AutoCAD Map 3D 2022.0.1 or later
    ▪ Autodesk AutoCAD 2023.1.1 - Autodesk AutoCAD Map 3D 2023.0.2 or later
- TKI PostgreSQL Provider 4.0.1
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.2
- TKI Licensing 12.3
  (only required for a manual installation on the network license server)

Release NET 12.3.2 in detail

NET Design

Project Validation

- When validating overlapping building geometries, an error occurred and the application crashed. This error has been fixed.

atesio integration

- The function for the separate creation of connection lines (pre-processing) has been restored.
- The error that occurred when creating possible trenches from road centerlines with a width of -1 has been fixed.
- As of atesio version v2021, the output of reports and messages is now in German or English, depending on the set application language.
- There is now a new project validation for atesio, in which the project is checked for independent subnetworks. If smaller subnetworks or individual trenches are not connected to the main network, they are listed in the project validation.

Export to detailed planning

- In the general conversion and general naming scheme, the placeholder "TRUNK_SEQ" is now available for use with composite ducts. The placeholder is replaced by a counter during export, which is incremented for each branch or structure.

NET Engineering

- The function for removing clusters and the objects they contain has been significantly improved and now works much faster.

Workflows

- The use of the "Duct connection editor" workflow has been made more user-friendly: After applying changes, the previously set view is retained. That is, the ducts remain expanded or collapsed and the duct bundles remain on the respective page.
- The "Create multiplelines" workflow could not be used for a cable that was partially in segments and partially lies in ducts, cannot be applied without errors. This error has been fixed.
- The "FTTx Planning Wizard" workflow crashed if a duct color scheme set via the duct type was used that contained only one color value. This error no longer occurs.

Evaluations, reports and overviews

- If a fiber was removed that was previously intended for a connector-fiber connection in the connection editor, then an error occurred. This error has been fixed.
- The rounding error in the material list, which can be accessed via the Cluster form, has been corrected.
- The error that occurred when opening forms from an error overview has been fixed.
- In the "Splice plan from tracing", a program crash occurred when trying to trace cable without displaying endpoints. This error has been fixed.
- The error that could occur when calling the splice plan from the "closure" form, has been fixed.

Forms

- As long as nothing was changed in the settings in the dialog for renaming, recoloring and renumbering, an error occurred when previewing and applying the set schemes. This error does not occur now.

Redlining

- Using the "Link devices" action, closures and terminators can now also be selected from the redlining Data to be transferred to NET Engineering.
- If segments were transferred from the redlining data with a segment depth consisting of less than 25 characters, a crash occurred. This error has been fixed.
- The display of validations now shows the number of individual messages in parentheses.
- During the action "Link structures" an error occurred when already existing structures were included in the link. This error been corrected.

Structure update

- The structure update for the BMVI extension for NET Engineering is now also executed correctly under Oracle.

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

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

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

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 on TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_MEV_PLAN with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_MEV_PLAN1 with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_SCHOOL with relation on 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

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 as long as a connector is assigned.
- Optimisation of the label definitions of TC_SP_DUCT_INSERTION and TC_SP_SEGMENT No changes to the output

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" has 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

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 pin 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 conectors" 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.

Release Notes NET 12.3.1

Summary

The release of NET 12.3 has been suspended due to technical issues.

The new version of NET 12.3.1 includes support for AutoCAD Map 3D 2023, the "Redlining" extension, some major updates to the database structure, forms, and reports. In addition, bugs have been fixed and many improvements have been implemented. It is important to run the structure updates in the projects before working with the new version.

We would like to explicitly inform our customers who are using Autodesk AutoCAD Map 3D 2020 that this version is no longer supported as of NET 12.3.1 and you need to update.

> (i) The network license server is no longer included in the installation of NET from version 12.3.
> If the network license server is required, it must be installed with the separately delivered version of the licensing.

Supported software

- Autodesk AutoCAD Map 3D

    - Autodesk AutoCAD 2021.1.2 - Autodesk AutoCAD Map 3D 2021.0.1 or later
    - Autodesk AutoCAD 2022.1.3 - Autodesk AutoCAD Map 3D 2022.0.1 or later
    - Autodesk AutoCAD 2023.1.1 - Autodesk AutoCAD Map 3D 2023.0.2 or later
- TKI PostgreSQL Provider 4.0.1
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.2
- TKI Licensing 12.3
  (Only required for a manual installation on the network license server)

Release NET 12.3.1 in detail

NET Design

General Import

- The error that occurred when loading the project file while importing a shape file has been fixed.
- Floating point numbers can now also be entered for the trench width.
- If one specified a value above or below the limits of "0" and "199" for the trench width (e.g. "-0,5" or "200,2"), this was overwritten with the limit value and used for the import, but not displayed to the user. This error has been fixed.

- The performance problems that could occur during synchronization between NET Field Survey and NET Design have been fixed.
- When importing from NET Field Survey to NET Design, only clusters of type "Standard" and of type "Cable Cluster" are transferred.

atesio integration

- During the calculation, an error occurred during cluster generation, which caused the calculation to abort. This error has been fixed.
- Fixed an error when loading the planning settings of the NPV Optimizer (v2020).
- During preprocessing, the transition trenches were sometimes not created correctly. This error has been fixed.

Comsof Fiber Designer integration

- The transfer of the number limit of ducts to the existing ducts of Comsof Fiber Designer has been corrected.
- A layer to be used can now be specified for existing ducts.
- The error that the "Include" attribute of the "Possible trenches" is not imported correctly and was processed is now fixed.

Project validation

- Added validation that warns when there are buildings that overlap each other or are exactly on top of each other.
- Added new validation that warns when overlapping street centerlines are detected.
- Incorrect geometries of rollout phase areas led to an error during project validation. A corresponding message is now issued during project validations.

Export to detailed planning

- The error that the BMVI conversion scheme for detailed planning was also displayed if the industry model did not contain a BMVI extension has been fixed.
- If offline licenses were used when exporting to detailed planning, they could not be saved. This error has been fixed.
- In the settings of the general naming and conversion scheme, the colors for the individual ducts can now be specified.

Other changes

- The missing heading in several dialog windows (e.g., "Settings" in the general import) was added.

NET Field Survey

- In the "Cable" form, the cable type "unknown" can now also be selected.
- In the forms for "Cable", "Duct", "Cabinet", "Structure" and "Main distribution Cabinet" the provider "unknown" can now be selected.
- Cabinets are now correctly transferred from NET Design to NET Field Survey as either existing or not yet existing.

NET Engineering

Workflows

- The error that the "Create Ducts" duct workflow could not be started from the context menu of the tree view in the "Segement" form has been fixed.
- In the FTTx naming wizard, the placeholder for the cable number no longer worked. This error has been fixed.
- In the naming scheme editor, the preview values are now displayed directly and not only after the naming scheme has been saved.
- In the editor for naming schemes now only the types "Numbering" and "Color Scheme" can be selected. In addition, only the assignments matching this type can still be selected (numbering: NAME, color scheme: COLOR).
- The duct workflow "Create and assign ducts" has been revised and now marks at Input of non-permissible values the affected input fields.
- The "Create house connection" workflow has been revised and the performance has been improved:
  - The display in light and dark display mode works now.
  - A warning is now displayed if the building is already connected.
  - It is now pointed out when trying to put a house connection point directly on the base segment.
  - Once a segment or duct is selected, the corresponding cluster is also automatically selected.
  - The workflow now also works if the existing drop segment consists of several separate segment sections. However, these segment sections must be connected to each other via the geometry.
- When executing the "Assign segments and ducts" survey plan workflow, an error message occurred if a duct was moved from a segment into a protective duct located in it and the existing assignment was released. This error has been fixed.
- When splitting elements in "Edit duct connections" workflow, unwanted duplication of segments occurred if the point at which an element was to be split was too close to the start or end point of the segment. This error has been fixed.

Evaluations, reports, and overviews

- The unnecessary page breaks in the duct end overview have been removed.
- If the material list was created for multiple clusters, the total number of the respective node objects was incorrectly displayed on the overview page. This error has been fixed.
- The statistics that can be called in the "Cluster" form contained an error when calculating the segment, duct, and cable lengths when a segment was cut by the cluster. This error has been fixed.
- The readability of the report "Occupancy plan closure" has been improved by allowing a line break in the table column "Fiber".
- The splice overview now also lists the installation locations of the terminations.
- The new report "Blow-In report cable trunk", which shows the course of a cable trunk in the duct network, was created. All structures involved and the duct sections in between are shown in a table in a directed form (from the starting point of the cable trunk to the end point). The report can be called from the form "FO cable trunk" as well as from the form "TP cable trunk".

- When creating the cable connection diagram, the closure type "no type" can now also be selected.
- In the duct connection graphic form, the menu now contains the entries "Draw duct connection graphic (filter)", "Delete duct connection graphic (filter)" and "Update duct connection graphic (filter)", which can be used to create, remove, or update several connection graphics at once.
- The error that the wrong total length was displayed when creating the duct end overview if the duct has an open end has been fixed.
- The graphical splice plan, which can be called from the "FO Terminator" and "FO Closure" forms, displayed all fibers with a dashed line. This behavior has been corrected.
- When creating the "Splice plan from tracing (filter)" for multiple cables, multiple splice plans were also created and opened. This error has been corrected and now only one splice plan is created for all filtered cables.

Color scheme

- When using color schemes for the outer and for the inner ducts, incorrect color information for the inner ducts occurred. This error has been fixed. Affected were the function for coloring the ducts, the workflow "Create and assign ducts (without geometry)", the FTTx planning wizard and the adjustment of the ducts in the form "Duct type".

Forms

- The readability and layout of some forms have been improved.
- In the "Cluster" form, there are now three new buttons, each of which can be used to jump to the building, point or line form, whereby a filter is set on all buildings, points, or lines within all currently filtered clusters.
- The call of the function "Update cable sections" in the form "FO cable type" could lead to an error, if besides the Industry model also an overview, e.g. the splice plan in AutoCAD Map 3D was opened.
- The error that cities were available for selection multiple times in the "City filter" field in the "Building" form has been fixed.
- The error that the "Test scheme" button in the "Name Scheme" form was always displayed as active even if there was no "Designation Scheme" record has been corrected.

- In the forms "Manhole", "Cabinet" and "Pole" there are now three new buttons each, via which a Jumping to the Termination, Closure, Duct Terminators or Duct Fitting form is possible, whereby a filter is set on all terminations, closures, duct terminators or duct fittings within all currently filtered manholes, cabinets or poles, respectively.

- The functions for renaming, changing the numbering, and changing the colors of elements have been unified and can now be found in the following forms in the "Edit" menu:

  - FO Terminator and FO closure: Renumbering and Renaming trays
  - FO terminator: renumbering and renaming connectors
  - FO Terminator and FO closure: Renaming Splitters
  - FO cable section: renumbering, renaming and recoloring fibers
  - Segment: renumbering and recoloring inner tubes
  - Duct: renumbering and recoloring inner ducts
  - TP Terminator: Renumbering and Renaming Pins
  - TP cable section: renumbering, renaming and recoloring wires

- The filter from the main "Building unit" form, which pre-filters the connectors based on the building, has also been transferred to the "Building unit" detail form.
- In the "Edit" menu of the "FO Closure", "FO Terminator", "TP Closure" and "TP Terminator" forms, there is now an option to convert the terminators into closures or the closures into terminators.
- Removing the geometries of cables from the " Segment" form has been speeded up significantly.
- The "Create splitter" function, which can be called up in the "Edit" menu of the "FO Closure" and "FO Terminatior" forms, has been revised in such a way that new splitters can now be flexibly divided among several cassettes.

Label

- The label "Segment subordinate duct names plus duct types plus colors 1st layer" showed only the first inner duct. This error has been fixed.
- Short names for the colors can now also be output for labels.

NET options

- In the industry model options for the duct conversion text, a placeholder can now be specified in case the composite duct is not further connected.
- There is now a new entry in the NET options to select the cluster type, which is used to display the cluster in the "Building" form.

Redlining

Redlining is a data model extension for NET Engineering that adds various tables to the data model for storing network information (survey data) (segments/structures/ducts). This module is used in conjunction with NET Build and is used as a download store for the objects measured in with NET-Build.

- The data type for the "Laying depth" field of the redlining segments has been corrected.

- A new view for checking the segment allocation and its visual representation has been added. It is used by the controller of the alignment to detect possible weak points such as incorrect or missing designations more quickly.
- When synchronizing with NET Build, the survey polygon is now formed from the newly added and the already existing survey data when synchronization is executed multiple times for one survey.

BMVI

- Correction of the definition of the "UUID" field. In the forms for the connection points and the buildings, in which it was previously possible to store a number as "UID", it is now possible to store a text with a length of up to 36 characters. In addition, the spelling of the field has been changed throughout to the specified spelling from the GIS Nebenbestimmungen "UUID".
- In the Building Unit form, the types Schools, Hospitals, Public Facilities and Socioeconomic Focuses are now available.
- New views have been created that include the new units of need (Schools, Hospitals, Public Facilities, Socioeconomic Focus) for the GIS Nebenbestimmungen as additional columns.

NET Documentation Pack (DocPack)

Duct End Overview

- Previously, an incorrect number of PDFs was generated if there were multiple cabinets, poles, manholes, segments or ducts and in the configuration the number of these was limited by using a filter. This error has been fixed.

Placeholder in subfolders

- The field for the subfolders in the different outputs now allows to use the same placeholders as the file.

Miscellaneous

- The error that occurred when plotting in sheet formats with commas or dots in the label has been fixed.
- If a duct end overview is added to the DocPack output for a structure without inserted ducts, it is skipped when running the DocPack output and a corresponding message is displayed. However, the execution of the DocPack output is now no longer interrupted.

NET Build

- The data transfer from NET Build to the iTwo facility management software has been optimized so that data can be transferred in DA11 format.

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

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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

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

- 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

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 on TC_PL_BMVI_SUPPLY_PLAN_TBD
    - ID_BMVI_MEV_PLAN with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
    - ID_BMVI_MEV_PLAN1 with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
    - ID_BMVI_SCHOOL with relation on 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

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 as long as a connector is assigned.
- Optimisation of the label definitions of TC_SP_DUCT_INSERTION and TC_SP_SEGMENT No changes to the output

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" has 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

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 pin 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 conectors" 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.

Release Notes NET 12.3

Summary

The new version of NET includes support for AutoCAD Map 3D 2023, the "Redlining" extension, some major updates to the database structure, forms and reports. In addition, bugs have been fixed and a large number of improvements have been implemented. It is important to run the structure updates in the projects before working with the new version.

> The network license server is no longer included in the installation of NET from version 12.3.
> If the network license server is required, it must be installed with the separately delivered version of the licensing.

Supported software

- Autodesk AutoCAD Map 3D

  - Autodesk AutoCAD 2021.1.2 - Autodesk AutoCAD Map 3D 2021.0.1 or later
  - Autodesk AutoCAD 2022.1.3 - Autodesk AutoCAD Map 3D 2022.0.1 or later
  - Autodesk AutoCAD 2023.1.1 - Autodesk AutoCAD Map 3D 2023.0.2 or later
- TKI PostgreSQL Provider 4.0
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.2
- TKI Licensing 12.3
  (only required for a manual installation on the network license server)

Release NET 12.3 in detail

NET Design

General Import

- The error that occurred when loading the project file while importing a shape file has been fixed.
- Floating point numbers can now also be entered for the road width.
- If one specified a value above or below the limits of "0" and "199" for the road width (e.g. "-0.5" or "200.2"), this was overwritten with the limit value and used for the import, but not displayed to the user. This error has been fixed.

atesio integration

- During the calculation, an error occurred during cluster generation, which caused the calculation to abort. This error has been fixed.
- Fixed an error when loading the planning settings of the NPV Optimizer (v2020).

Comsof Fiber Designer integration

- The transfer of the number limit of pipes to the existing pipes of Comsof Fiber Designer has been corrected.
- A plane to be used can now be specified for existing pipes.
- The error that the "Include" attribute of the "Possible paths" is not imported correctly and was processed is now fixed.

Project validation

- Added validation that warns when there are buildings that overlap each other or are exactly on top of each other.
- Added new validation that warns when overlapping road centerlines are detected.

Export to detailed planning

- The error that the BMVI conversion scheme for detailed planning was also displayed if the tray did not contain a BMVI extension has been fixed.
- If offline licenses were used when exporting to detailed planning, they could not be saved. This error has been fixed.
- In the settings of the general naming and conversion scheme, the colors for the individual tubes can now be specified.

Other changes

- The missing heading in several dialog windows (e.g. "Settings" in the general import) was added again.

NET Field Survey

- In the "Cable" form, the cable type "unknown" can now also be selected.
- In the forms for "Cable", "Pipe", "Cabinet", "Structure" and "Main distribution board" the provider "unknown" can now be selected.

NET Engineering

Workflows

- The error that the "Create Pipes" pipe workflow could not be started from the context menu of the tree view in the "Path" form has been fixed.
- In the FTTx naming wizard, the placeholder for the cable number no longer worked. This error has been fixed.
- In the designation scheme editor, the preview values are now displayed directly and not only after the designation scheme has been saved.
- In the editor for designation schemes now only the types "Numbering" and "Color Scheme"

can be selected. In addition, only the assignments matching this type can still be selected (numbering: NAME, color scheme: COLOR).

- The pipe workflow "Create and assign pipes" has been revised and now marks at Input of non-permissible values the affected input fields.
- The "Create house connection" workflow has been revised and the performance has been improved:

    - The display in light and dark display mode works now.
    - A warning is now displayed if the building is already connected.
    - It is now pointed out when trying to put a house connection point directly on the base road.
    - Once a path or pipe is selected, the corresponding cluster is also automatically selected.
    - The workflow now also works if the existing house service road consists of several separate route sections. However, these route sections must be connected to each other via the geometry.

- When executing the "Adjust route and pipe assignments" site plan workflow, an error message occurred if a pipe was moved from a route into a protective pipe located in it and the existing assignment was released. This error has been fixed.

Evaluations, reports and overviews

- The unnecessary page breaks in the pipe end overview have been removed.
- If the material list was created for multiple clusters, the total number of the respective node objects was incorrectly displayed on the overview page. This error has been fixed.
- The statistics that can be called in the "Cluster" form contained an error when calculating the route, pipe and cable lengths when a route was cut by the cluster. This error has been fixed.
- The readability of the report "Occupancy plan sleeve" has been improved by allowing a line break in the table column "Fiber".
- The splice overview now also lists the installation locations of the terminations.
- The new report "Injection report cable pull", which shows the course of a cable pull in the pipe network, was created. All structures involved and the pipe sections in between are shown in a table in a directed form (from the starting point of the cable pull to the end point). The report can be called from the form "FO cable run" as well as from the form "FM cable run".
- When creating the cable connection diagram, the joint type "no type" can now also be be selected.
- In the pipe connection graphic form, the menu now contains the entries "Draw pipe connection graphic (filter)", "Delete pipe connection graphic (filter)" and "Update pipe connection graphic (filter)", which can be used to create, remove or update several connection graphics at once.

Forms

- The readability and layout of some forms have been improved.
- In the "Cluster" form, there are now three new buttons, each of which can be used to jump to the building, node or edge form, whereby a filter is set on all buildings, nodes or edges within all currently filtered clusters.

- In the forms "Manhole", "Cabinet" and "Mast" there are now three new buttons each, via which a
Jumping to the Termination, Sleeve, Pipe Termination or Pipe Fitting form is possible, whereby a filter is set on all terminations, sleeves, pipe terminations or pipe fittings within all currently filtered manholes, cabinets or poles, respectively.
- The functions for renaming, changing the numbering and changing the colors of elements have been unified and can now be found in the following forms in the "Edit" menu:

  - FO Termination and FO Sleeve: Renumbering and Renaming Cartridges
  - Fiber optic termination: renumbering and renaming couplers
  - FO Termination and FO Sleeve: Renaming Splitters
  - Fiber optic cable section: renumbering, renaming and recoloring fibers
  - Path: renumbering and recoloring inner tubes
  - Tube: renumbering and recoloring inner tubes
  - FM Completion: Renumbering and Renaming Pens
  - FM cable section: renumbering, renaming and recoloring cores

- The filter from the main "Building unit" form, which pre-filters the couplings based on the building, has also been transferred to the "Building unit" detail form.
- In the "Edit" menu of the "FO Sleeve", "FO Termination", "FM Sleeve" and "FM Termination" forms, there is now an option to convert the terminations into sleeves or the sleeves into terminations.
Removing the geometries of cables from the "Path" form has been significantly
- Accelerates.
The "Create splitter" function, which can be called up in the "Edit" menu of the "FO Sleeve" and "FO
- Termination" forms, has been revised in such a way that new splitters can now be flexibly divided among several cassettes.

Label
The label "Path subordinate pipe names plus pipe types plus colors 1st level" showed only the
- first inner tube on. This error has been fixed.
Short names for the colors can now also be output for labels.
-

NET options

- In the tray options for the pipe conversion text, a placeholder can now be specified in case the composite pipe is not further connected.
- There is now a new entry in the NET options to select the cluster type, which is
is used to display the cluster in the "Building" form.

Redlining
Redlining is a data model extension for NET Engineering that adds various tables to the data model for storing network information (survey data) (routes/structures/pipes). This module is used in conjunction with NET-Build and is used as a download store for the objects measured in with NET-Build.

- The data type for the "Laying depth" field of the redlining paths has been corrected.

- A new view for checking the path allocation and its visual representation has been added. It is used by the controller of the alignment to detect possible weak points such as incorrect or missing designations more quickly.
- When synchronizing with NET Build, the survey polygon is now formed from the newly added and the already existing survey data when synchronization is executed multiple times for one survey.

BMVI

- Correction of the definition of the "UUID" field. In the forms for the connection points and the buildings, in which it was previously possible to store a number as "UID", it is now possible to store a text with a length of up to 36 characters. In addition, the spelling of the field has been changed throughout to the specified spelling from the GIS ancillary provisions "UUID".
- In the Building Unit form, the types Schools, Hospitals, Public Facilities and Socioeconomic Focuses are now available.
- New views have been created that include the new units of need (Schools, Hospitals, Public Facilities, Socioeconomic Focus) for the GIS ancillary determinations as additional columns.

NET Documentation Pack (DocPack) Pipe End

Overview

- Previously, an incorrect number of PDFs was generated if there were multiple cabinets, poles, manholes, routes or pipes and in the configuration the number of these was limited by using a filter. This error has been fixed.

Placeholder in subfolders

- The field for the subfolders in the different outputs now allows to use the same placeholders as the file.

NET Build

- The data transfer from NET Build to the iTwo facility management software has been optimized so that data can be transferred in DA11 format.

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

NET Field Survey - BMVI Data Model

- Extension of the `TC_DF_ADDRESS_POINT` table by 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 used BMVI_UUID renamed in

NET Design

12.0.3

- New table TC_PL_HOME_POINT
- New column FID_HOME_POINT in the 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 line (HP+)
  - 14 - Infrastructure up to the property line (HP+) without distribution cable
- New column DIRECT_CABLES in the 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

NET Design - BMVI Data Model

12.2

- Extension of the table by the following columns: TC_PL_DEMAND_POINT

    - 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 used renamed in `BMVI_UUID`

NET Engineering and Operations

12.0.2

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

12.0.4

- Relation `FID_DEVICE` In table `TC_BMVI_SUPPLY_AREA` is now "D" (delete if the from
  parent object is deleted)

12.1

- View customization `TC_M_SP_DUCT` - Internal change, no changes to the 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` must no longer contain the value *zero*, new default value is
  1 `TC_V_CONN` - Database optimized view for topological connections in which the
- New View
  `*_FROM` Part is always the lines object
- Change of view `TC_V_CONN_DETAILS_PERF` - output identical, only internal changes
- New column `VALUE_SHORT` in `TC_COLOR`
  - Short name for all standard colors is filled with in the update
- Relation `FID_PATCH_PANEL` In table `TC_FO_CONNECTOR` is now "P" (deny deletion from
  if relation is present) - patch panel must not be deleted as long as a coupler is assigned.
- Optimization of label definitions of `TC_SP_DUCT_INSERTION` and `TC_SP_SEGMENT` - None output changes

Documentation Pack

12.0.3

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

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

- Adaptation of column changes from 12.0.3 in the `fdo_columns` Table for SQLite tray

Changes to forms/reports since NET 12.0 NET Design

12.0.4

- The width of the controls for the references in the "Connection point" form has been increased. The
- new column "Is Private" has been added to the road centerline form. Is only visible for the atesio optimizer.
- The designations for the "Pipe type restriction" have been standardized in all forms.

12.2

- Forms "Building" and "Connection point" have been adjusted to include the forced cable type with Display.
- New form for rollout phases.
- Forms for "Cable", "Pipe", "Structure", "Splitter" and "Path used" in the planning result have been adjusted to show the attribute "Provision".
- The label for the length in the forms for "Cable", "Pipe" and "Path used" in the Planning result was correctly translated into German.

12.3

- Added "Excluded network layers" controls to the "Pipe" form

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 FM Termination (`TC_TP_TERMINATOR`), FM Cable Section (`TC_TP_CABLE`), FM Sleeve (`TC_TP_CLOSURE`), FO termination (`TC_FO_TERMINATOR`), FO cable section (`TC_FO_CABLE`) and fiber optic cable sleeve (`TC_FO_CLOSURE`).
- Control for cable assignment in fiber optic cable reserve and FM cable reserve is now a drop-Down list.
- Text for attached fiber and attached wire in fiber optic coupler and FM pin has been improved. Missing separators and spaces have been added.
- Selection field for manufacturer in fiber optic measuring device (`TC_FO_MEASUREMENT_DEVICE`), device carrier 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 pipe node form with

12.3

- Revised report: Network path overview New
- report: Cable pull blow-in report
- Tab ID of controls in cluster form corrected
- Form Building: corrected arrangement of "Cluster" and "House number" in the form Form Mast:
- corrected alignment of controls to avoid collision of field calculations with the left margin.
  Form FO Termination: Field for "Total couplings" 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 the splitter line corrected
- Forms for "Cabinet", "Shaft" and "Mast": New buttons under "Details" to display the referenced
- objects for all current objects in the filter.
  Form for "Clusters": New buttons to select buildings, points and lines for all clusters in the filter.
- open
  Form "Document management": Identifier of field for name of creator corrected
-

TKI | Tele-Kabel-Ingenieurgesellschaft mbH

Release Notes NET 12.2.3

Summary

The new version of NET contains the correction of critical bugs that were present in the last version of NET.

> ⚠ NET 12.2.2, like all released versions from NET 12.2 onwards, includes support for the planned updates to the licensing system.

Supported software

- Autodesk AutoCAD Map 3D 2020 - Autodesk AutoCAD Map 3D 2022
- TKI PostgreSQL Provider as of 3.2
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.2
- TKI Licensing 12.1.1 - 12.1.2
  (Only for manual installation on the network - license server required)

> ⚠ Autodesk AutoCAD Map 3D 2022 requires a mandatory update to version 2022.0.1 for functioning of NET 12.2.2 correctly.

Release NET 12.2.3 in detail

NET Design

atesio integration
- The setting "centered" for the creation of road trenches in the settings was ignored. This setting now works as expected.
- Some files were passed to the optimizer incorrectly. This error had no effect on the result of the calculation, but the optimizer took much longer for the calculation. The error has been fixed, which will have a positive effect on the calculation time.

Import

- The import of data from NET Field Survey to NET Design, was not working after the activation of the BMVI data model extension for NET Field Survey. This error was fixed.

NET Engineering

Workflows

- The duct connection editor had a bug which caused that no cables were passed anymore when two ducts were connected with a fitting. Furthermore, the same bug had the effect that the display of the newly created fittings was wrong if the changes were not implemented. Both errors are now fixed.

Reports

- The network path overview had an error in the fiber path tracking, if there was a transition between connectors and patches was present in the FO network. This transition is now processed correctly and is displayed in the overview as expected.

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

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

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

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 on TC_PL_BMVI_SUPPLY_PLAN_TBD
    - ID_BMVI_MEV_PLAN with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
    - ID_BMVI_MEV_PLAN1 with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
    - ID_BMVI_SCHOOL with relation on 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

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*

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" has 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.

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 pin 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

Release Notes NET 12.2.2

Summary

The new version of NET contains a significantly improved support for the atesio optimizer. In addition, bugs have been fixed and some minor improvements have been implemented.

> ⚠️ NET 12.2.2, like all released versions from NET 12.2 onwards, includes support for the planned updates to the licensing system.

Supported software

- Autodesk AutoCAD Map 3D 2020 - Autodesk AutoCAD Map 3D 2022
- TKI PostgreSQL Provider as of 3.2
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.2
- TKI Licensing 12.1.1 - 12.1.2
  (only for manual installation on the network - license server required)

> ⚠️ Autodesk AutoCAD Map 3D 2022 requires a mandatory update to version 2022.0.1 to use NET 12.2.2 is functioning correctly.

Release NET 12.2.2 in detail

NET Design

General Import

- The cancel button in the import dialog now correctly cancels the import.

General export

- When loading the settings, assignments were no longer saved correctly from the second level. This error has been fixed.

atesio integration

- The connection of the backbone layer could cause a crash. This error has been fixed.
- The speed of cluster creation has been significantly improved.
- Support for multiple versions of the atesio optimizer
  - Strategic v2020

- Strategic v2021 (202109)
- Strategic v2021
- If two optimizations of two DWG files located in the same folder are executed, then an error occurred. This has been fixed.

Comsof Fiber Designer Integration

- The attribute "Provision" was entered incorrectly during the calculation. This error could lead to Crashes when converting to detailed planning and has been fixed.
- The creation of the transition lines has been corrected. This error was contained in versions of Comsof Fiber Designer from 21.1 and led mainly to slower calculations.
- From the warning dialog of preprocessing, you can now open the forms of the affected objects.

Forms

- In the tree views in the forms "Result: Resulting Used Trench" and "Result: Duct", the following is displayed now displays the existing and used capacity of the ducts.

Detailed planning

- The last selected export scheme is now always preselected.

NET Engineering

Site plan

- When creating Cabinets, manholes or closures from the geometry of a fiber optic or FM termination or closure, an error occurred. This has been fixed.
- The duct conversion text no longer has an additional blank line at the end of the label.

FO

- When creating cables to which an incorrect color scheme for the fibers is assigned via the type, an unclear error message occurred and a cable without fibers was created. This error has been corrected.

Workflows

- The Disconnect Ducts workflow will not update the map view after each duct if several ducts have to be separated.
- The duct connection editor created invalid entries in the model column for the fittings. The error has been fixed.
- The "Split cable" workflow has caused an error report when the disconnect point at the end of or at the beginning of the cable was selected. This has been corrected.

Assistants

- The index for the naming of the house connection ducts in the FTTx planning wizard was shifted by one. This error has been fixed.
- The house connection wizard created cables without type if no cable type was selected for a certain type of building. Now no cable will be created.

Reports

- The network path overview could not be generated in projects in which the telecommunications data model was not activated.
- The duct end overview is now available in the form as a normal report via the print button.

BMVI Export

- During the GIS-NB export, a crash occurred if one of the connected buildings did not have its own geometry.
- The 1-click maintenance for the building units can now properly handle the new building units of GIS-NB 5.0.
- The error messages for missing owners and contacts had referenced the wrong table, making troubleshooting difficult. This has been corrected.

Licensing

- In Industry models containing multiple solution folders, several functions could retrieve the license for NET Engineering from the wrong industry model, triggering an error. Affected was e.g. the material list. This behavior has been corrected.

Documentation Pack

- When cleaning up the industry model after plotting, errors could occur in certain DWG files. This 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

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

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

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 on TC_PL_BMVI_SUPPLY_PLAN_TBD
  - ID_BMVI_MEV_PLAN with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
  - ID_BMVI_MEV_PLAN1 with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
  - ID_BMVI_SCHOOL with relation on 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

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*

Documentation Pack

- 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)

- 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
- 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" has been unified in all forms.

- 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.

NET Engineering and Operations

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

- 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 pin 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

Release Notes NET 12.2.1

Summary

NET 12.2.1 contains a correction of the export to GIS Nebenbestimmungen 5.0. GIS-Nebenbestimmungen 5.0.1 are now supported and missing domain values from NET 12.2 are added through a new 1-click maintenance. Fixed an error in area licensing that occurred when licensed points overlapped. There are also minor performance improvements and bug fixes.

Supported software

- Autodesk AutoCAD Map 3D 2020 - Autodesk AutoCAD Map 3D 2022
- TKI PostgreSQL Provider as of 3.2
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.2
- TKI Licensing 12.1.1 - 12.1.2
  (only for a manual installation on the network - license server required)

Release NET 12.2.1 in detail

NET Design

Comsof Fiber Designer Integration
- Added support for column overflow in OUT_Closures.dbf. Now the CSV file generated by Comsof is read in and used for the import.
- Preprocessing of Layer Points on Feeder layer to Comsof Fiber Designer adapted:
  Layer points are now only imported into IN_AccessStructures layer if.
  "Already exists" = Yes. This influences the generation of the structure access routes

atesio integration
- Added check before calculation whether costs > 0 for the path types "duct transition" and "duct transition connection" have been stored

Conversion to low level design (NET Engineering)
- Duct bundle coloring now also represents color schemes in which only the 1st color is set
- Added message when invalid color schemes or numbering schemes are used in the conversion
- Improvement of error output: user hints are no longer displayed as error report
- UI (user interface) texts revised

Licensing
- Fixed a bug that prevents the creation of licenses when there are overlapping address/demand points.
- Login with wrong credentials now generates a message instead of an error report

Validations
- Fixed an error that occurred when there were clusters without geometry in the project.
- Validation for the assignment of demand points to buildings now only considers demand points that are included in the calculation.

NET Engineering

General
- Fixed an error in the dialog for creating new addresses
- Fixed an error that could occur if more than 400 splices were deleted via the form
- Fixed an error that could occur when creating segment cross sections. The error occurred when creating a cross-section for a segment with invalid geometry should be created

Workflows
- Fixed a bug in the "Create Ducts" workflow that prevented the color scheme from being applied if it was not newly selected by the user
- FTTx naming wizard enhanced: Connected duct terminations are now renamed based on the duct names as well
- The "Check duct Geometry" workflow now also recognizes ducts that have neither their own geometry nor geometry via segment assignment
- The "Check cable geometry" workflow now also detects cables that have neither their own geometry nor a geometry geometry nor a geometry via the duct/segment assignment

Duct connection editor
- Fixed an error that occurred after scrolling with middle mouse button when closing the editor

Connection editor
- Fixed a bug that occurred when displaying more than 1000 fibers / wires

Label collision fix
- added support for display models that load data from multiple Industry models
- Help button in configuration and label collision fixes revised

Reports
- Network path overview for services: added support for services with channels

Grouped splice plan
- Length information is now obtained from "user length" when set
- Unit is now read from industry model settings (meters, feet, ...)

Cable connection diagram
- Now also supports outgoing cables from fiber optic terminations and represents them analog to fiber optic connectors
- Fixed an error that could occur if the cable connection diagram was started from a fiber optic termination with patches
- Error handling improved

TNIMv2
- Support for RGB color specifications with leading hashtag
- Improved currency detection for material types: Removal of leading spaces
- The relation types 'flow&connectedTo' and 'flow&contains' have been removed. Instead, only the flow relation is considered. This can now also have a position for splitters and splitter paths
- Validations extended
- Documentation updated

NET Build Sync
- Performance improvements
- Support for large data sets added
- Quantity lines are now loaded when retrieving construction files
- UI texts revised
- Added support for Extra Work Order Requests

BMVI
NET Design
- Performance of BMVI validations improved

NET Engineering
- Added support for GIS Nebenbestimmungen 5.0.1
- Fixed a bug that caused a crash when exporting to GIS Nebenbestimmungen 5.0 if buildings without geometry / with polygon geometry should be exported
- added 1-click maintenance which detects and adds missing domain values in BMVI module
- Form definitions for BMVI tabs revised

Licensing
- fixed bug that prevents license creation when there are overlapping FO terminations

Error reports
- Added support for email addresses with more than 4 characters in the top level domain (m.mustermann@musterfirma.topleveldomain)

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

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

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

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 on TC_PL_BMVI_SUPPLY_PLAN_TBD
  - ID_BMVI_MEV_PLAN with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD

- ID_BMVI_MEV_PLAN1 with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
- ID_BMVI_SCHOOL with relation on 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

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*

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 road centerline form. Is only visible for the atesio optimizer.
- The designations for the "Duct Type Restriction" has been unified in all forms.

- 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.

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 pin 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

Release Notes NET 12.2

Summary

NET 12.2 contains adaptations to be able to create exports according to the GIS Nebenbestimmungen regulations version 5.0 with immediate effect. In combination with Comsof Fiber Designer, rollout phases and forced cable types in demand points are now fully supported.
There are also minor performance improvements and bug fixes.

Supported software

- Autodesk AutoCAD Map 3D 2020 - Autodesk AutoCAD Map 3D 2022
- TKI PostgreSQL Provider as of 3.2
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.2
- TKI Licensing 12.1.1 - 12.1.2
  (only for a manual installation on the network - license server required)

Release NET 12.2 in detail

NET Design
Comsof Fiber Designer Integration

- A specific cable type can now be enforced in each demand/address point.
- Reading in workspaces, from versions prior to Comsof Fiber Designer 20, no longer worked correctly because the version was incorrectly recognized. This error has been corrected.
- When importing workspaces with calculation result, the assignment between connecting roads in the planning and the used routes from the result was lost. This error has been fixed.

Support for rollout phases polygons

- New object class for rollout areas has been added and a workflow to digitize the objects has been created.
- Validations to check the correct configuration of the rollout polygons have been added.
- Comsof Fiber Designer integration has been adapted to support rollout polygons.
- The export to detailed planning has been adjusted so that a separate status value can be selected for each rollout phase. There is no restriction on how many rollout phases there are.

atesio integration

- The default planning settings have been corrected. As a result, all planning settings are displayed correctly again. The blow-in length HK and the HP+ percentage were not displayed correctly.
- A new validation was created to detect road centerlines without the necessary types.

Export/Import

- The new data matching with NET Field Survey did not fill some fields that were still filled in the old version. This problem has been fixed. The following errors are affected:
  - Object class Trench (TC_DF_TRENCH)
    - Number of ducts (AMOUNT_DUCTS)
    - Information about Ducts (INFO_DUCTS)
  - All object classes
    - Key in source data (SOURCE_KEY)
    - Source layer (SOURCE_LAYER)
- The new data reconciliation with NET Field Survey did not correctly transfer the output Layer Points to the cabinets in NET Field Survey. This error has been fixed.
- The new data matching with NET Field Survey caused an error when transferring non-null attributes if these attributes were filled via NET Design planning attributes but were not available for all objects of an object class.

Licensing

- Area licensing now works independently of the licensed optimizer.

NET Engineering

General
- Various operations in NET Engineering caused different connections in a PostgreSQL database to block each other. This problem was fixed. Each individual action also blocked all other actions in connections in the same Industry Model. Affected actions include the following:
  - NET Design --> NET Engineering Detailed planning
  - Workflow: Calculate duct and cable lengths
  - Workflow: Create duct Insertions
  - Add Connector/pin
  - Fiber optic closure/termination - Accept assignment
  - Element Library - Digitize
  - Create multiline display
  - Cable - add/remove wires/fibers
  - Change type of cable
  - Add splitter
  - Change type of duct
  - ...

Reports

- All reports that contain color patches (e.g., for duct colors) have been revised. The color patches are now drawn with a frame to clearly identify the color white.

BMVI

Support for GIS Nebenbestimmungen version 5.0

- Forms and data models were adapted for the new format.
- The export has been extended for the new format.
- Detailed design was extended to transfer the additional data from NET Design to NET Engineering.
- A new import for the project area UIDs was developed.
- The validations have been adapted for the new version.
- The previous versions of the GIS Nebenbestimmungen provisions continue to be available without restriction.

Licensing

- Support for the upcoming version of Comsof's area licensing has been implemented. This change prepares NET for the upcoming update of Comsof's license server so that NET can continue to be used without interruption.

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

NET Field Survey - BMVI Data Model
12.2

> **!** New data model extension that must be enabled for support from the GIS Nebenbestimmungen 5.0.

- 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

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

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 on TC_PL_BMVI_SUPPLY_PLAN_TBD
  - ID_BMVI_MEV_PLAN with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
  - ID_BMVI_MEV_PLAN1 with relation on TC_PL_BMVI_SUPPLY_PLAN_TBD
  - ID_BMVI_SCHOOL with relation on 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

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*

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 road centerline form. Is only visible for the atesio optimizer.
- The designations for the "Duct Type Restriction" has 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.

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 pin 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

Release Notes NET 12.1.2

Summary

The new release 12.1.3 contains the corrections of critical bugs from the 12.1.2 release.

Supported software

- Autodesk AutoCAD Map 3D 2020 - Autodesk AutoCAD Map 3D 2022
- TKI PostgreSQL Provider as of 3.2
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.2
- TKI Licensing 12.1.1- 12.1.2 (only for a manual installation on the network - license server required)

Release NET 12.1.2 in detail

General
- The links to the English help have been corrected

NET Design

Low-level-design
- When creating area licenses, an error occurred during communication with the license server. The licenses were created but not confirmed. This error has been fixed.
- Some customer-specific export schemes were no longer functional due to the phase changes in the general export scheme. This error has been fixed.

NET Engineering

NET Build

- Synchronization with NET Build crashed with an error report. This error was fixed.

BMVI

Export

- When creating export licenses, an error occurred during communication with the license server. The licenses were created but not confirmed. This error 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

NET Design

12.0.3

- New table TC_PL_HOME_POINT

- New column FID_HOME_POINT in the 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 line (HP+)
    - 14 - Infrastructure up to the property line (HP+) without distribution cable
- New column DIRECT_CABLES in the 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

NET Engineering and Operations

12.0.2

- New view TC_REP_SEGMENTCOSTS - Support for the report "Segment Costs"
- New view TC_REP_CABLECOSTS - support for the "Cable costs" report

12.0.4

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

12.1

- View customization TC_M_SP_DUCT- Internal change, no changes to the columns

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 Constrains" have been standardized in all forms.

NET Engineering and Operations

12.0.1

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

12.1

- The identifier "building" has been changed to "installation site". Affected are the forms TP Termination (TC_TP_TERMINATOR), TP Cable Section (TC_TP_CABLE), TP Closure (TC_TP_CLOSURE), FO termination (TC_FO_TERMINATOR), FO cable section (TC_FO_CABLE) and FO closure (TC_FO_CLOSURE).

- Control for cable assignment in FO cable reserve and TP cable reserve is now a DropDown list.

- Text for applied fiber and applied wire in FO Connector and TP pin 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.

Release Notes NET 12.1.2

Summary

The new release 12.1.2 contains the corrections of some bugs.

In NET Design there are minor improvements when working with Comsof Fiber Designer.

There is also in NET Engineering now the possibility to start the CO overview from the forms.

Supported software

- Autodesk AutoCAD Map 3D 2020 - Autodesk AutoCAD Map 3D 2022
- TKI PostgreSQL Provider as of 3.2
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.2
- TKI Licensing 12.1.1 (only for a manual installation on the network - license server required)

Release NET 12.1.2 in detail

General

- The bug reporting application has been fixed. The application can now send bug reports again.

NET Design

atesio Strategic

- The creation of the Trench network and the handling of unknown Trench types was corrected.
- A pre-processing error has been corrected when there is a backbone cluster but no or multiple associated backbone Layer points. In this case, a warning is now displayed.

atesio NPV

- The default settings have been corrected. A calculation is now possible with the corrected settings.

Comsof Fiber Designer

- Moving the demand points within the building geometries now also works for facade routes.

- An error when reading cables that are divided into multiple sections has been fixed. This error occurred when using cables that serve multiple subordinate network nodes.
- The partial calculations now work again with all currently supported versions of Comsof Fiber Designer.
- It is now possible to Import the "Demand Identifier" in the Optimizer settings of Comsof Fiber Designer.
- The preprocessing operations now no longer create empty entries for the duct type constraint. No entry with an empty name is created in the corresponding table.

Validation

- The validation "Clusters and cabinets with invalid or non-unique mapping IDs" correctly observes the value of "Is included" for all objects.
- The validations for network layer points have been corrected. Network Layer Points without geometry no longer cause a crash but are displayed as validation errors.

Export

- When exporting to NET Field Survey, a corresponding message is now displayed if no cluster was selected. Previously, an error report was displayed.
- The shapefile export now works correctly if the source object class contains empty geometries, and the coordinate system is to be transformed at the same time.
- When trying to save or load the settings for the general export, an error could occur if the last folder that was open having access restricted.

Import

- An error when importing shapefile files with NULL geometries has been corrected. These geometries are now handled correctly during import and can be ignored or imported.
  The import from NET Field Survey now also loads the cabinets from NET Field Survey.

Detailed planning

- There was an error in creating detailed planning when no Fiber Optic Tray types are defined in NET Engineering project.

NET Engineering

Workflows

- The Create Ducts workflow now no longer creates ducts where the name is filled with a space. The space is still present in the workflow but is no longer entered in the new ducts.
- The speed of the "Recalculate duct lengths and cable lengths" workflow has been improved.

Documentation Pack

- After plotting with the Documentation Pack, reference images that were not otherwise used in the drawing were removed from the DWG drawing. This error has been fixed.

Forms

- An error when adjusting the ducts via the form has been corrected. This error could be triggered if more than 400 duct objects were changed at once.
- The CO overview can now be started from the forms for terminations and for the switching point can be created. The new menu entry is located under "Reports/Overviews".
- Fixed an error in the cluster statistics that occurred under PostgreSQL when the statistics should be performed for multiple clusters and these clusters overlapped.
- Fixed a rare error when closing an Industry Model. The error was triggered randomly if forms were still open when closing.

Ribbon

- The contextual ribbon for cabinets, manholes and poles caused an error when closing an Industry Model. The error occurred when this tab of the ribbon was active and the Industry Model was closed.

Create multilines

- Creating the multiline geometries caused an error when the ducts were to be snapped to other ducts and there were ducts without geometry.

Duct connection editor

- Fixed an error in the editor that was triggered when the segments of the ducts that were to be changed were changed outside the editor after the editor was already opened.

Structure update

- An error in the structure update to NET 12.0 has been corrected. This error made a structure update impossible if a certain configuration of views was linked to the table for the postal code (TC_TG_POSTCODE).

Connection editor

- A performance problem was corrected. The connection editor always became slower when creating actions from the context menu in the forms. This effect has been significantly reduced.
- An error when removing fibers from Trays has been corrected. This error occurred when the affected fibers were modified outside the connection editor after the editor had already loaded these fibers.

NET Operations

Troubleshooting

- The behaviour of the fault search in connection with splitters has been corrected. The search works now in output → input direction across the splitters.

Licensing

Network license server

- Update version to 2022.03

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

NET Design

12.0.3

- New table TC_PL_HOME_POINT
- New column FID_HOME_POINT in the 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 line (HP+)
    - 14 - Infrastructure up to the property line (HP+) without distribution cable
- New column DIRECT_CABLES in the 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

NET Engineering and Operations

12.0.2

- New view TC_REP_SEGMENTCOSTS - Support for the report "Segment Costs"
- New view TC_REP_CABLECOSTS - support for the "Cable costs" report

12.0.4

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

12.1

- View customization TC_M_SP_DUCT- Internal change, no changes to the columns

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 Constrains" have been standardized in all forms.

NET Engineering and Operations

12.0.1

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

12.1

- The identifier "building" has been changed to "installation site". Affected are the forms TP Termination (TC_TP_TERMINATOR), TP Cable Section (TC_TP_CABLE), TP Closure (TC_TP_CLOSURE), FO termination (TC_FO_TERMINATOR), FO cable section (TC_FO_CABLE) and FO closure (TC_FO_CLOSURE).

- Control for cable assignment in FO cable reserve and TP cable reserve is now a DropDown list.

- Text for applied fiber and applied wire in FO Connector and TP pin 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.

Release Notes NET 12.1.1

08.02.2022

Summary

The new release NET 12.1.1 includes a critical bug fix for data import in NET Design and for licensing.

Supported software

- Autodesk AutoCAD Map 3D2020 - Autodesk AutoCAD Map 3D 2022
- TKI PostgreSQL Provider from 3.2
- Comsof Fiber Designer 2019.2.2- Comsof Fiber Designer 21.2
- TKI licensing (12.1.1only for manual installation on the network - license server required)

Release NET 12.1.1 in detail

NET Design

Data Import

- An error during the import of point geometries has been corrected. Shape files with point geometries can now be imported again.
- When importing from NET Field Survey, the "will be included" attribute in buildings is now respected again.

Comsof Fiber Designer

- For existing ducts, it is now possible to specify whether a composite duct is to be placed or whether the cables are to be laid directly in the existing duct.

atesio integration

- An error in setting the phase has been corrected. This error caused a crash in detailed planning.

- The phase values are now set correctly in the connection points and splitters.
- An error when creating transitions has been corrected.

Validation

- The validation "Demand Point or building without assigned residents" now correctly respectsthe "is included" attribute.
- A new validation for the connection types has been added. Connection types not supported by the optimizer are now reported.
- A new validation for the use of the new attribute "Layout for inner ducts" has been added. Unsupported settings are reported.

Transfer to NET Engineering

- A rare error in the application of the duct colorization has been corrected.
- FO Terminators in the building are now again referred to as Building Termination Point in BMVI industry models.

NET Engineering

Workflows

- Errors in the "Check duct and cable lengths" workflow no longer cause AutoCAD to crash.

Editing

- The automatic calculation of the cable length now also works if the cables are located directly in the segment.
- A rare error when working with trench cross sections has been corrected.

BMVI

- An error that could cause the export to crash if the "End user" layer was exported as well has been fixed.

Documentation Pack

- Formatting information in the file name field is allowed again.

Forms

- The entry "Open assigned/subordinate cables" in the context menu of the "Duct" form now works again.
- Copying form content now also works in forms that contain a SqlTextBox.
- When adding new splitters, the forms are now updated correctly.
- An error in the duct form that triggered an error report when closing Industry models has been corrected.

Multiline

- An error report when no valid duct types were selected was replaced with a note.

Connection editor

- The list of cables in the connection editor is now sorted correctly.

Ribbon

- The connection editor can now be opened again from the ribbon.

Licensing

TKI Licensing

- Fixed a crash of the application when licensing is not yet set up.
- The default values for the borrow and update interval have been corrected.

Licensing service

- Licenses were not properly returned to the license server if they were the last licenses managed by the service. With this change, the licenses are now returned immediately when they are no longer needed.
- The performance problem when using licensing on Windows Server systems has been corrected.
- An error in the application of the borrowing interval has been corrected.

Network license server

- Update version to 2022.01

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

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 line (HP+)
    - 14 - Infrastructure up to the property line (HP+) without distribution cable
- New column `DIRECT_CABLES` in the 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_TB`

NET Engineering and Operations

12.0.2

- New view `TC_REP_SEGMENTCOSTS` - Support for the report "Paths Costs
- New view `TC_REP_CABLECOSTS` - support for the "Cable costs" report

12.0.4

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

12.1

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

Documentation Pack

12.0.3

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

12.0.4

- Adjustment of column changes from in12.0.3 the `fdo_columns` table for SQLite industry models

Changes to forms/reports since NET Design 12.0

12.0.4

- The width of the controls for the references in the "Connection point" form has been increased.
- The new column "Is Private" has been added to the road centerline form. Is only visible for the atesio optimizer.
- The designations for the "Duct type restriction" have been standardized in all forms.

NET Engineering and Operations

12.0.1

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

12.1

- The identifier "Building" has been changed to "Installation location". Affected are the forms FM Termination (`TC_TP_TERMINATOR`), FM Cable Section (`TC_TP_CABLE`), FM Sleeve (`TC_TP_CL OSURE`), FO Termination (`TC_FO_TERMINATOR`), FO Cable Section (`TC_FO_CABLE`) and FO Sleeve (`TC_FO_CLOSURE`).
- Control for cable assignment in fiber optic cable reserve and FM cable reserve is now a drop-down list.
- Text for attached fiber and attached wire in fiber optic coupler and FM pin 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.

Release Notes NET 12.1

17.01.2022

Summary

The new release of NET 12.1 contains many bug fixes and some minor improvements.The Comsof Fiber Designer is now supported up to version 21.2.

> ⓘ **Adjustment of the licensing**
>
> The error related to the borrowing interval when using a cloud license server has been corrected. The interval is now calculated correctly again. If the borrowing interval was changed to 15 seconds,it is *essential* to reverse this change. Otherwise, the software may become unstable after the update is installed.

Supported software

- Autodesk AutoCAD Map 3D2020 - Autodesk AutoCAD Map 3D 2022
- TKI PostgreSQL Provider from 3.2
- Comsof Fiber Designer 2019.2.2- Comsof Fiber Designer 21.2
- TKI licensing (12.1only for manual installation on the network - license server required)

Release NET 12.1 in detail

NET Field Survey

Coloring

- The design of the windows and forms was aligned with the other NET products.

NET Design

Data Import

- When importing Comsof Fiber Designer workspaces, the additional attributes of the paths can now also be imported.
- The import of data from NET Field Survey has been revised. The new version is significantly faster and offers some additional configuration options.

Data export

- The general data exporters now allow to save the current settings in an additional file and to reload the settings from such a file.
- A random crash when exporting Comsof Fiber Designer workspaces has been corrected.

Atesio integration

- The creation of clusters after the calculation has been improved.
- Phase values are now supported to mark the reserve objects.

Comsof Fiber Designer integration

- Comsof Fiber Designer 21.2 can now be used.
- The connection of natural boundaries has been revised. Boundaries that are set to "do not cross" now ensure that preprocessing does not create possible trenches across these boundaries in the corresponding width. If the boundary may be crossed, possible trenches are created with the type of the boundary.
- A random crash during automatic preprocessing has been corrected.
- An error in the processing of geometries with curves has been fixed. This error resulted in an incorrect trench mesh.
- When the duct type constraint of a trench is changed, the pre-processing data is now automatically deleted.

Validation

- In some validations there was an error when opening the forms for all objects that generated a message. This has been fixed.
- A new validation for "Home points" has been added.
- Aborting validations in progress now works correctly without generating an error message.

Transfer to NET Engineering

- During detailed planning with different tolerances in the NET Design and NET Engineering project, errors could occur if the trench network is not connected through exactly.

NET Engineering

1-Click

Maintenance

- There is a new 1-click maintenance for switching points that have no geometry. The 1-click-maintenance can correct this error.

Workflows

- The error when disconnecting ducts that are occupied by more than one cable has been corrected.
- The selection option in the "Check split factor" workflow has been corrected.
- The input in the "Check split factor" workflow has been corrected. Now there are no more messages when entering something into the control.
- The "Create Duct" workflow was very prone to errors if there were incorrect entries in the user's settings. The workflow is now secured against errors in the settings and the reason for these incorrect entries has been corrected.

Editing

- When splitting segments, the graphic for the segment -section was deleted. Now the graphic remains and is assigned to the correct segment section after splitting.
- Ducts that were displayed in the map with the default display view could not be edited. This error only affected projects in SQLite databases.

Reports

- The "Splice Overview Closure" report had an error that could cause a random crash. This crash occurred regardless of the data.
- The report "Splice Overview Closure" could cause AutoCAD to crash if an error occurred.Should an error occur, a NET error report is now generated.
- The alignment of the texts in the table cells was corrected in several reports.

Forms

- Fixed a bug in the street selection in the building form. AutoCAD could crash if no street was selected.
- The designations for the installation location have been aligned in the forms "FO Cable Section", "FO Closure", "FO Termination", "TP Cable Section", "TP Closure" and "TP Termination".
- When deleting the geometries of all subordinate cables in the duct or segment form, an error occurred when calculating the new cable length. This has been fixed.
- The function "Show assigned cables" in the duct and segment form now directly opens the corresponding cable form and no longer the form of the Line.
- In the building unit form, only the connectors of the assigned building can now be selectedand not all connectors of the project.
- The selection for the manufacturer has been corrected in the "Fiber Optic Meter", "Patch Panel Type" and "Device Carrier Type" forms.
- The display of the applied fiber and wire in the fiber optic coupling or the TP pin has been corrected.
- The calculation of statistics for clusters triggered an error if there were lines without length in the cluster. These elements are now ignored.
- The menu entries for creating the splice graphic in the forms for Closure and Terminator in FO and TP networks, are now immediately updated when a splice graphic is created or deleted. The form does not need to be reloaded or reopened.

Multiline

- A number of errors related to the processing of curves in the geometries have been fixed.

Documentation Pack

- An error when loading an existing configuration has been fixed. The error occurred when an object class was used in the configuration to be loaded that does not exist in the current Industry model.
- Error messages during data conversion are now output with a clear description.

BMVI- Export

- Fixed an error when exporting cables that are not assigned to a duct.
- When exporting ducts, a crash occurred when a warning was triggered for a duct.

TNIM

- An error in the import of connection lines between switching points and closures/terminators has been corrected. This error caused the connection editor to no longer display the cables in the devices of the switching point after a 1-click maintenance.

- When importing TNIM, there were sporadic errors related to the domain tables. This random error has been fixed.

Other

- When creating the splice graphic, unclear errors occurred when there is not enough space on the map to draw the graphic. If this is the case, a clear message is now displayed.

NET Operations

reports

- The "Network path overview to service (nodes only)" report now displays node elements only.
- The terminology in the reports has been corrected. Connectors are now no longer "occupied" withservices but "wired".

Licensing

TKI Licensing

- A crash of the application when access to the license service is not possible has been fixed.
- When saving the settings, administrator access is now requested if necessary.

Licensing service

- The incorrect borrowing intervals for cloud license servers have been corrected.
- The performance problem when using licensing on Windows Server systems has been corrected.

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

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

NET Engineering and Operations

12.0.2

- New view `TC_REP_SEGMENTCOSTS` - Support for the report "Segments Costs
- New view `TC_REP_CABLECOSTS` - support for the "Cable costs" report

12.0.4

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

12.1

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

Documentation Pack

12.0.3

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

12.0.4

- Adjustment of column changes from in12.0.3 the `fdo_columns` table for SQLite trays

Changes to forms/reports since NET 12.0 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 road centerline form. Is only visible for the atesio optimizer.
- The designations for the "Duct type restriction" have been standardized in all forms.

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 FM Termination (`TC_TP_TERMINATOR`), FM Cable Section (`TC_TP_CABLE`), FM Sleeve (`TC_TP_CL OSURE`), FO Termination (`TC_FO_TERMINATOR`), FO Cable Section (`TC_FO_CABLE`) and FO Sleeve (`TC_FO_CLOSURE`).
- Control for cable assignment in fiber optic cable reserve and FM cable reserve is now a drop-down list.
- Text for attached fiber and attached wire in fiber optic coupler and FM pin 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.

Release Notes NET 12.0.5

03.12.2021

Summary

This release contains the correction of a critical error in the transfer of NET Design projects to NET Engineering.

Supported software

- Autodesk AutoCAD Map 3D 2020 - Autodesk AutoCAD Map 3D 2022
- TKI PostgreSQL Provider as of 3.1.1
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.1
- TKI Licensing 12.0 (only for manual installation on the network - license server required)

Release NET 12.0.5 in detail

NET design

Transfer to NET Engineering

- An error in the naming of FO terminations and FO Closure has been corrected. Due to this error some placeholders in the general naming and conversion scheme did not work anymore. Customer-specific naming schemes for detailed planning were also affected by this error if these placeholders were used internally. The affected placeholders in the naming are:
    - UPSTREAM_NAME
    - BACKBONE_NAME
    - FEEDER_NAME
    - PRIM_DISTRIBUTION_NAME
    - DISTRIBUTION_NAME
    - DROP_NAME

Changes to the data model since NET 12.0

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

NET Engineering and Operations
12.0.2

- New view `TC_REP_SEGMENTCOSTS` - Support for the report "Segment Costs"
- New view `TC_REP_CABLECOSTS` - Support for the "Cable Costs" report

12.0.4

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

Documentation Pack

12.0.3

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

`numeric (10)`

12.0.4

- Adaptation of the column changes from 12.0.3 in the `fdo_columns` table for SQLite Industry Model

Changes to forms/reports since NET 12.0

12.0.1

- NET Engineering/Operations
  - The identifier for the field `STOP_SERVICE` has been adapted in the form for the splitter type (`TC_F O_SPLITTER_TYPE`).

12.0.4

- NET design
  - The width of the controls for the references in the form "Connection point" has been increased.
  - Added the new column "Is Private" to the road centerline form. Is only visible for the atesio optimizer.
  - The designations for the "duct type restriction" have been standardized in all forms.

Release Notes NET 12.0.4

15.11.2021

Summary

The new version contains a large number of bug fixes and minor improvements.

Supported software

- Autodesk AutoCAD Map 3D 2020 - Autodesk AutoCAD Map 3D 2022
- TKI PostgreSQL Provider as of 3.1.1
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.1
- TKI Licensing 12.0 (only for manual installation on the network - license server required)

Release NET 12.0.4 in detail

NET Field Survey

Validation

- The window for validation was revised and brought to the same level with the version from NET Design.

NET Design

atesio Integration

- An error in reading the data from the path network generation on English systems has been corrected.
- An error in reading the calculation results in connection with split cables has been corrected.

Comsof Fiber Designer Integration

- If a structure with an unexpected type was set on a network node, a crash occurred. The error has been corrected.

Validation

- A possible crash in the validation for the path connections has been corrected. This error occurred if there are paths with length 0 in the project.
- The validation for clusters was separated for atesio and the Comsof Fiber Designer in order to react correctly to the respective characteristics of the optimizers.

BMVI

- The attribute "`Ausb_Firma`" in the layer "`Ausbaugebiet_BFP`" was not output in the GIS-NB 4.1 Phase 2. The error has been corrected.

Converting to NET Engineering

- Corrected ambiguous sorting for fully parallel fiber paths.
  - If fibers describe the exact same path over their complete route (including all connected fibers), the sorting was not unique. This resulted in different outputs between two transferred projects for the exact same source project.
- Fixed an error when creating cartridges in the general conversion scheme.
  - The error was triggered when there are sleeves in the network that are used exclusively by reserve fibers. In this case there was a crash when creating the cassettes.
- Offset values in the general naming scheme and general conversion scheme, did not work correctly for all placeholders.
  - The error mainly affected the sequence placeholders. It was possible to specify an offset value, but this was ignored without an error message.
- The detailed design produced error messages if ducts with length 0 occurred in the project and the BMVI extensions are active in the NET Design and NET Engineering project. These errors have been fixed.
- The general conversion schema and the general naming schema did not store the status values for the phases if the phases did not have consecutive numbers.
  - The error occurred when there are e.g. phases 10, 20 and 30. In this case the settings were always reset to the default values.
- The speed of inserting topological links has been improved.

NET Engineering and NET Operations

workflows

- The "Create Multiple Lines" workflow triggered an error when using the "Duct Snaps: Duct"option. This error has been fixed.
- The label collision fix caused a crash when an object has a label, but the label is not displayed in the view model. This crash no longer occurs.
- The sorting of the colors in the workflow "Create and assign duct" has been corrected. The sorting was alphabetical and is now again according to the sequence from the color scheme.
- The duct connection editor is now able to connect the inner ducts if they are named differently. In this case, the connection is made using the number of the inner duct.
- The Create House Connection workflow did not create fittings for the disconnected duct assemblies. This error has been corrected.

Editing

- When deleting paths it could happen that still assigned cables are also deleted.
  - This error occurred when a trench was deleted and the duct in it is also deleted. This happens if the trench section was the last section to which the duct association was still assigned. If then also the micro ducts are not assigned any more to another association, these are also deleted. The error occurs if there is a cable in one of the ducts, but it is still assigned to other ducts. This cable was deleted by the error.
- The path length and the number of allocated paths in the form "Fiber optic cable section" and "FM cable section" has been corrected. An error occurred if the cable was routed several times through the same trench section.

Forms

- An error in the function "Take over structure from other node" has been corrected.
  - The error occurred if the current sleeve already contains splitters and the sleeve to be copied also contains splitters. In this case, the splitters in the current sleeve were not deleted. As a result, the number of splitters was not correct at the end.
- A possible crash when changing the duct type in the "Duct" form has been corrected.
- In all forms with a tree view, an error could occur in rare cases when the table view is displayed in the form of the connected geometry objects (`TC_LINE`, `TC_POINT`). The error has been corrected in all forms.

Reports

- The sorting of fibers in the splice plan no longer worked under Autodesk AutoCAD Map 3D 2021 and 2022. Only SQLite industry models were affected by this problem. The error is now corrected.

Documentation Pack

- The configuration for the cable connection diagram did not react correctly to the change of the data source. As a result, the "Apply filter" button did not work. The error has been corrected.

Label

- The label definition "Marker Info" was wrong and has been corrected.

BMVI

- The messages regarding faulty duct geometries have been improved. The message now indicates which duct is affected.
- The calculation of the attenuation for a fiber optic termination has been corrected. The error affected the "End user" layer if there is more than one coupling in the termination.
- Empty protective tubes are now played with the value 1 in the "Reserve" field.

TNIM

- The speed of reading topological connections during TNIM import has been improved.

1-click maintenance

- 1-click maintenance to correct polygons no longer aborts when polygons are detected as a problem but cannot be corrected.

Documentation Pack

Workflows

- The "Create Plot Sequences" workflow displayed an error message when it was started. The error has been corrected.
- The "Create Plot Sequences" workflow now has a button to call the help.

Plots

- When creating plots from SQLite compartment shells, an error message occurred. This problem is fixed by the structure update.

Changes to the data model since NET 12.0

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

NET Engineering and Operations
12.0.2

- New view `TC_REP_SEGMENTCOSTS` - Support for the report "Path Costs"
- New view `TC_REP_CABLECOSTS` - Support for the "Cable Costs" report

12.0.4

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

Documentation Pack

12.0.3

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

`numeric(10)` 12.0.4

- Adaptation of the column changes from 12.0.3 in the `fdo_columns` table for SQLite compartment shells

Changes to forms/reports since NET 12.0

12.0.1

- NET Engineering/Operations
  - The identifier for the field `STOP_SERVICE` has been adapted in the form for the splitter type (`TC_F O_SPLITTER_TYPE`).

12.0.4

- NET Design
  - The width of the controls for the references in the form "Connection point" has been increased.
  - Added the new column "Is Private" to the road centerline form. Is only visible for the atesio optimizer.
  - The designations for the "duct type restriction" have been standardized in all forms.

Release Notes NET 12.0.3

30.08.2021

Summary

This update contains some bug fixes and small improvements for the NET 12 release.

Supported software

- Autodesk AutoCAD Map 3D 2020 - Autodesk AutoCAD Map 3D 2022
- TKI PostgreSQL Provider as of 3.1.1
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.1
- TKI Licensing 12.0 (only for manual installation on the network - license server required)

Release NET 12.0.3 in detail

NET Design

Data Model

- Data model extension for "Home Points"
  - These points are intended as "partial connection points" and will be supported in the coming versions of the optimizer.

Comsof Fiber Designer Integration

- Support for version 21.1.4
- PON networks with backbone layer are supported again in the 21.x versions of the Designer.
- Duplicate assignment IDs now generate a clear error message

Conversion to NET Engineering

- In case of color scheme errors, the name of the affected color scheme is now also displayed

NET Engineering

Data Processing

- When separating ducts, both duct sections retain the cable assignment
- A crash occurred when moving Segments in Oracle industry models. This has been fixed.

Workflows

- A rare error in the "Create and assign ducts" workflow in old NET industry models has been corrected

TNIM Export and Import

- The validation of the TNIM file during import is now much faster
- Incorrect warning about deviating coordinate systems has been corrected

BMVI Export to GIS-NB Baden-Württemberg

- In the BMVI BW export window there is now a checkbox for a status filter, analogous to the BMVI export to GIS-NB Bund

NET Operations

Cancel network paths

- The "Cancel netpath" now works from any point in the netpath

Changes to the data model since NET 12.0

NET Design
- 12.0.3
  - New table TC_PL_HOME_POINT
  - New column FID_HOME_POINT in TC_PL_RESIDENT

NET Engineering and NET Operations
- 12.0.2
  - New view `TC_REP_SEGMENTCOSTS` - Support for the report "Path Costs"
  - New view `TC_REP_CABLECOSTS` - Support for the report "Cable Costs"

Documentation Pack
- 12.0.3
  - Type of column FID_SEQUENCE in TC_PLOT_SEQUENCE_ELEMENT set to numeric (10) modified.
  - Type of column POSITION in TC_PLOT_SEQUENCE_ELEMENT set to numeric (10) modified

Changes to forms/reports since NET 12.0

- 12.0.1
  - The identifier for the field `STOP_SERVICE` has been adapted in the form for the splitter type (`TC_F O_SPLITTER_TYPE`).

Release Notes NET 12.0.2

03.08.2021

Summary

This update contains some bug fixes and small improvements for the NET 12 release.

Supported software

- Autodesk AutoCAD Map 3D 2020 - Autodesk AutoCAD Map 3D 2022
- TKI PostgreSQL Provider as of 3.1.1
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.1
- TKI Licensing 12.0 (only required for manual installation on the network license server)

Release NET 12.0.2 in detail

General

- Error messages sent to us now include the internal number in the confirmation message. If this number is reported in support tickets, it can speed up the processing of the issues.
- Some inaccurate error messages were revised and made more precise

NET Design

atesio Integration

- There is a new importer to import an atesio workspace completely into the current project

NET Engineering

Data Editing

- Fixed a rare crash when changing the Segment geometry

- When splicing fibers in a work order, the splice is now correctly created in the work order
- When changing duct types, it is now possible to confirm the change for all ducts at once

Forms

- The control for selecting the city in the building form has been improved

Reports and overviews

- The TP splice plan now supports descending sorting just like the FO variant
- Descending sorting in the splice plan now also orients the elements at the top of the cassettes
- The connection overview now also shows the splices between fibers and connectors or between wires and pins
- In many other reports small things were corrected. Incorrect symbols, spelling mistakes, layout problems and the like.

TNIM

- Segments without type now no longer lead to a crash
- The UI for import and export was improved

NET Operations

Reports and overviews

- The network path overview from the service now no longer shows incorrect network paths when the report is run for multiple services at the same time
- The network path overview from the service now also works if the "start element" of the service is the last element in the network path

Changes to the data model since NET 12.0

- 12.0.2
  - New view `TC_REP_SEGMENTCOSTS` - Support for the report "Segment Trench Costs"
  - New view `TC_REP_CABLECOSTS` - support for the "Cable costs" report

Changes to forms/reports since NET 12.0

- 12.0.1
  - The identifier for the `STOP_SERVICE` field has been adjusted in the splitter type form (`TC_FO_SPLITTER_TYPE`)

Release Notes NET 12.0.1

05.07.2021

Summary

The new major release NET 12 supports from now on the AutoCAD Map 3D versions 2020, 2021 and 2022. With NET 12 we implement more functions of the used optimizers, the TNIM export and import of the NET engineering data can be done by every user and the export to the detailed design now offers more possibilities to color the associations and to assign the status.

With this release we publish our new web-based help center, where we compile interesting knowledge articles around the NET software for you. In addition, numerous optimizations and adjustments have been implemented. With NET 12.0.1 we are releasing important fixes that are essential for working optimally with NET 12. All changes can be found in the following release notes.

Software supported

- Autodesk AutoCAD Map 3D 2020 - Autodesk AutoCAD Map 3D 2022
- TKI PostgreSQL Provider from 3.1.1
- Comsof Fiber Designer 2019.2.2 - Comsof Fiber Designer 21.1
- TKI Licensing 12.0 (only for manual installation on the network - license server required)

Release NET 12 in detail

General

Supported AutoCAD Map 3D versions

With NET 12 we support AutoCAD Map 3D versions 2020, 2021 and 2022, and NET 12 is compatible only with the latest PostgreSQL Provider version 3.1.0.

> ⓘ There is a known bug in the Industry Model Editor from version 2021 which makes it impossible to use NET 12. If the Industry Model Editor is necessary for work, do not update to NET 12. The bug has been reported to Autodesk. Autodesk has reported that the problem will be corrected with an update for Autodesk AutoCAD Map 3D 2022 in September or October 2021.

Structure update in PostgreSQL Industry Model

> **Note:**
>
> For a successful structure update from NET 11 to NET 12, version 3.1.1 of the PostgreSQL Provider is absolutely required. If the older version of the provider (3.1.0) is used, the database may be damaged, and data may be lost in the NET Engineering Industry Model. This damage cannot be repaired by a new structure update.
>
> Before the structure update it is necessary to create a backup of the Industry Model!

New online help

The help for NET Design, NET Engineering and NET Operations has been completely restructured in the form of an online help. All references and links to the help have been updated.

The new web-based help center is also available at https://help.tki-chemnitz.de

Bulk Confirm Box in Dialogs

In the future, in confirmation dialogs (Yes or No), you will have the option to use your selection for all (selected) elements.

TNIM version 2 with export and import function

A new version of the TNIM interface is now available. The shortcomings of the first version of TNIM have been fixed. In addition, there is now the possibility to import TNIM data into an Industry Model again. The import is only available for the new version 2 of the TNIM data format. The software can create both the original version 1 of the data format and the new version 2.

In addition, the possibility of exporting the data restricted to individual clusters has been added.

DocPack

XRefs available within the display model

- With the new release, included XREF layers can be loaded and displayed when plotting.

Rotation for plot frame can be restricted

- It is possible to limit their rotation when creating plot frames.

New features in NET Design

Feature enhancement for Comsof Fiber Designer integration

The integration with Comsof Fiber Designer has been significantly further developed.

The following functions are now additionally supported:

- Fiber requirements for structures are supported (from 2019.2.2)
- Capacity limits for Ducts and Trenches can be specified and are considered (restricted from 2019.2.2, exhaustively from 2019.4.1)
- Use of existing cables is supported (from 2019.2.2)
- Consideration of natural boundaries (rivers, railroad lines, etc.) (from 2019.4.1)

In addition, the versions Comsof Fiber Designer up to 21.1 can now be used. All versions that were supported with NET 11 can still be used. However, there is partial restriction in the new functions if old versions are used.

Furthermore, in the selection dialog for area licenses, "all licenses" can now be selected when downloading licenses if the focus is on the list and you use CTRL+A.

Feature enhancement for atesio integration

The integration for atesio Release 2020 has been implemented and now allows the use of the new functions of this release.

The following functions are now additionally supported:

- Backbone level
- Fiber requirements for CO and backbone
- Central path/trench generation
- Natural boundaries
- Context images

Export to NET Engineering detailed design

In the general conversion scheme, an option can now be used to assign the desired status to different expansion/construction phases.

The coloring of the duct associations is supported. A color scheme can be selected per network level from the target template, which serves as the source for assigning the colors.

Name and abbreviation of buildings are now set automatically.

The settings for export to NET Engineering can now be saved and reloaded. This function allows to exchange the settings of detailed design between projects.

If the data model extension for the DocPack is enabled in both the NET Design and NET Engineering trays, plot sequences from NET Design are exported as well.

Data model

A new view for routes containing the duct assignment in the first level is available. The new view TC_PL_V_OUT_TRENCH_DUCT is created during the structure update.

Corrections in NET Design

- During the import, the display of the mapping fields now reacts correctly to a missing coordinate system selection.
- During the import, the reference properties now work correctly when performing a second import into the same object class without closing the window for the general import.
- Postcodes and abbreviations are now transferred from the road centre lines to the possible routes during pre-processing.
- Improvement of the tree views within the forms.
- The structures with IS-EXISITING = TRUE receive the status " Existing" when transferred to NET Engineering.

New functions in NET Engineering

Workflow for setting Duct Insertions automatically

With NET 12 there is a new workflow that provides the open ends with end caps for all selected duct objects. This is for the final completion of the documentation.

The following selection of the ducts for which the workflow is to be performed is available:

- All ducts
- Select duct from map
- Apply filter from duct form

Workflow " Create and assign ducts ": Name field more variable

The name field for the ducts does not have to be filled now. Thus, ducts can also be created without a name. In addition, the new field now allows the use of placeholders, as follows:

Placeholder	Description
NR	Ducts to be created are numbered consecutively.
TYPE	Type of the duct to be created.
PARENT_NAME	The name of the element to which the ducts are assigned.

PARENT_TYPE	The type of element to which the ducts are assigned.

The placeholders must be enclosed in curly brackets. Example of formatting:

```
{PARENT_NAME}.{NR} - {TYPE}
```

New object class "Marker" available

The marker (spherical, mini or flat marker) as a site plan object is becoming increasingly important in many projects and is being installed more and more frequently. From now on this object class TC_SP_MARKER is available.

Create and assign for cables implemented in the element library

The two functions for creating and assigning to ducts and routes have now also been added to the element library for cables. The functions behave identically to the functions of the same name for ducts.

Cable connection diagram

A schematic overview of all branching cables up to the house connections is now provided. The report can be accessed under "Overviews/Reports" in the FO Termination and FO Closure form. The report is also available in DocPack.

Optimization of the connection editor - import and export of the configuration

The configuration of the connection editor can now be saved and loaded in the connection editor menu.

Updating the Duct connection graphic

From now on, if the geometry of the duct point and connected Trenches/Ducts has been changed, it is possible to update the duct connection graphic.

Homogenization of Duct label definition for all supported databases

Due to the homogenization of the Duct label definition, it is possible from NET 12 to switch from e.g., SQLite to PostgreSQL without causing difficulties with the duct definitions.

Optimization of splice plan sorting view

Until now, the objects in the splice plan were sorted numerically from bottom to top. Now you have the possibility to reverse this sorting and thus flexibly adjust it to your application needs. The following sortings are supported:

- Cassettes sorting by number descending/ascending
- Fibers inside the cassette descending/ascending
- Fibers/Connectors in building descending/ascending

Extension of the FTTx Naming Wizard

The FTTx designation wizard now offers a function for re-sorting the ducts within a bundle via Drag-Drop. The Duct numbers and colors are then automatically corrected. The new function is activated via an option.

Corrections in NET Engineering

- The duct bundles created by the FTTx planning wizard were previously not terminated with an end cap (pipe termination). From now on, an end cap will always be created.
- Improvement of the tree views within the forms
- The object rule for calculating pipe and cable lengths in the event of changes to the geometry of Segments and Ducts has been significantly accelerated

Changes to the data model

- TC_COLOR now contains a column ACAD_INDEX. This contains the colour index for the representation in the map for AutoCAD. The database field is created and automatically filled during the structure update.
- View TC_M_BUILDING has been extended. The view TC_M_BUILDING now contains the following content: Street, house number, addition, postcode, city, living, Business, connection status, category, info, number of inserted ducts and address abbreviations.
- In all views, the identifiers have been changed from MANDANT_NAME to CLIENT_NAME.

Optimisation of the Post Code Management

We now allow you more flexibility within the assignment of postcodes to cities/places.
As of NET 12, a postcode can be assigned to multiple cities/towns.

Changes to the data model

Network path search

The network path search now allows to search for fiber network paths to which no "Status" or "Client" is assigned. The selection fields for "Status" and "Client" have been extended by the corresponding entries.

The option "APC couplings only" now works correctly. The error caused this option to be ignored in most cases.

Workflow for "Breakdown" for Telephone networks

The workflow for recording faults/breakdowns, which was previously only available for fiber optic networks, can now also be used in Telephone networks.

Licensing

Speed improvement on Windows Server 2019 systems

The speed issues on Windows Server 2019 systems have been fixed. The difference from this change is most noticeable on Windows Server systems, but all installations, regardless of operating system, benefit from this improvement.

Active return of licenses

Previously, licenses that were no longer needed were only returned to the network or cloud server after the defined borrowing period had expired. This resulted in licenses, although no longer used, not being immediately available for other users. This problem is fixed in NET 12. Licenses are returned immediately when the NET project is closed in AutoCAD or when AutoCAD crashes. Expiration of the borrowing period should only be necessary if the licensing application loses connection to the license server or crashes itself.

License management per user session

The NET licenses required to run the software are now managed per user session rather than per application. This change allows a user to open a second AutoCAD Map3D and the corresponding NET project without retrieving a new license from the license server.

Network license server: Force alignment with central

The licensing user interface now allows to instruct the network license server to immediately perform a data synchronization with the central office. This allows new licenses to be retrieved without having to restart the server.

Changes to the data model since NET 11.0

The changes to the data model are provided as an additional document.

Changes to forms/reports since NET 11.0

The changes to forms/reports are provided as an additional document.

Changes to Forms/Reports since NET 11.0

This document describes the changes to forms that were introduced between the releases of NET 11.0 and NET 12.0.1

Form	Modification
General	
Plot sequence and plot sequence element	The forms have been revised
NET Design	
Street centerlines	Added field for EXCLUDED_LAYERS on road centerlines (TC_PL_STREET_CL)
Boundary (TC_PL_BOUNDARY) Boundary type (TC_PL_BOUNDARY_TYPE)	Two new object classes including the forms have been added to the "Planning" object classes
Cable Duct Possible Trenches Street Center Lines	New attributes for the capacity limits have been added
Structures	Detail form for fiber requirement was added
NET Engineering	
FO Splice Overview Terminator /Closure	Launch report from the form
Wire category and fiber category	Form for fiber optic data has been extended by the reference button for fiber types; title for reference button for FM wire data has been renamed to wire types

Duct type: Customize duct	Button for calling the function has been removed from the form. Instead, the function is available via the "Edit" menu. Bulk Confirm Box has been implemented.
FO Terminators/Closure Telephony (FM) Terminators Closure	Renaming of the menu items
Marker/ Marker type	New forms have been added, including reference help center
Layout plan Lines	Length data was limited to max. 2 decimal places
Type of points	Description has been renamed to "Value "
Duct Endings(insertions)	FID_BUILDING field has been removed Assignment to Manhole/Cabinet/Pole/FO Termination or Building now possible via new entries in Edit menu
Building	Now includes a master box to select the city to filter the selection of the street
Building unit	Detail list for the ComboBox "Connectors" now shows the Connector name
Postal code	Link to buildings has been established; AREA column added.
Duct Points	Button "Draw connection graphic" has been removed. This functionality is provided via the "Edit" menu. In addition, there is also the possibility to delete or update the connection graphic (delete + recreate) in the Edit menu. Incoming segments/ducts with geometry are now displayed at "incoming". Outgoing segments/ducts with geometry are now displayed at "outgoing".

Splitter type	The identifier for the STOP_SERVICE field was adapted in the form for the splitter type (TC_FO_SPLITTER_TYPE) (with NET 12.0.1)
All forms with tree views	The view in the tree views was improved
FO Splice Plan	Grouping of fibers was corrected
FO Tray	Splice reference was corrected
FO Connector FO Fiber FO Patch FO Patch Fiber FO Splice FO Splitter Path TP Patch TP Pin TP Splice TP Wire	New reports for the network route overview have been added

TC_ACTION_AREA_TBL	Tab order in the form was corrected;
TC_CLUSTER_GRID TC_CX_BKNZP_LINE	<NEXTCONTROL> was added in the forms.
TC_CX_BKNZP_LINE_TYPE	
TC_CX_BKNZP_POINT	
TC_CX_BKNZP_POINT_TYPE	
TC_CX_BKNZP_TEXT	
TC_CX_BKNZP_TEXT_TYPE	
TC_CX_FREQ_AMPLIFIER	
TC_CX_FREQ_VRP_LIMIT	
TC_CX_LINE_TYPE_TBD	
TC_CX_PLANSHEET_TBL	
TC_CX_TRANSITION_LINE TC_FO_CABLE	
TC_FO_CABLE_LOOP_TBL	
TC_FO_CONNECTION_LINE	
TC_FO_CONNECTOR_TBL	
TC_FO_FIBER_TBL	
TC_FO_FTTX_DESIGN_FEATURE	
TC_FO_PATCH_FIBER_TBL	
TC_FO_SPL_SERVICE_CHILD	
TC_FO_SPLICE TC_FO_SPLICE_TBL	
TC_FO_SPLITTER_PATH	
TC_FO_SPLITTER_PATH_TBL	
TC_FO_SPLITTER_SERVICE	
TC_FO_SPLITTER_TBL	
TC_FO_TERMINATOR_TBL	
TC_FO_TRAY	
TC_M_FO_TERMINATOR	
TC_M_SP_SEGMENT	
TC_M_SWITCHING_POINT	
TC_MATERIAL_TBD	
TC_NR_SCHEME_TYPE TC_PERSON	
TC_S_CX1_LINE TC_S_CX1_POINT	
TC_S_CX2_LINE TC_S_CX2_POINT	
TC_SP_CABINET_TBL	
TC_SP_CHILD_ORIENTATION_TBD	
TC_SP_CONN_GRAPHICS_TBL	
TC_SP_DRILLING_POINT TC_SP_DUCT	
TC_SP_DUCT_INSERTION_MDL	
TC_SP_DUCT_TAP	
TC_SP_DUCT_TAP_TBL	

TC_SP_DUCT_TBL
TC_SP_DUCT_TYPE
TC_SP_FITTING_MODEL
TC_SP_FITTING_TBL
TC_SP_POLE_TBL
TC_SP_SEGMENT
TC_SP_SEGMENT_TBL
TC_SWITCHING_POINT_TBL
TC_TG_BUILDING_TBL
TC_TG_PARCEL
TC_TG_POINT
TC_TG_STREET_TBL
TC_TP_CABLE
TC_TP_CABLE_TBL
TC_TP_CABLE_TRUNK
TC_TP_CLOSURE
TC_TP_CONNECTION_LINE
TC_TP_PATCH_TBL
TC_TP_SPLICE_GRAPHICS_TBL
TC_TP_TERMINATOR_TBL
TC_TP_WIRE
TC_V_CONN_DETAILS
TC_V_FO_CONN_SPLICE
TC_V_FO_CONNECTORS
TC_V_SPLICE_OVERVIEW

Datamodel Changes for NET 12

This document details the changes to the data model that were introduced between the releases of NET 11.0 and NET 12.0.

NET Design

Tables

Table	Column	Change Type	Change Detail
TC_PL_BOUNDARY		Added table	
TC_PL_BOUNDARY_TYPE		Added table	
TC_PL_CABLE	MAX_FIBERS	Added column	
TC_PL_DUCT	MAX_CABLES	Added column	
TC_PL_DUCT	MAX_DUCTS	Added column	
TC_PL_DUCT	MAX_FIBERS	Added column	
TC_PL_POSSIBLE_TRENCH	CAPACITY	Deleted column	Value is copied to MAX_DUCTS
TC_PL_POSSIBLE_TRENCH	MAX_CABLES	Added column	
TC_PL_POSSIBLE_TRENCH	MAX_DUCTS	Added column	
TC_PL_POSSIBLE_TRENCH	MAX_FIBERS	Added column	
TC_PL_STREET_CL	EXCLUDED_LAYERS	Added column	
TC_PL_STREET_CL	MAX_CABLES	Added column	
TC_PL_STREET_CL	MAX_DUCTS	Added column	
TC_PL_STREET_CL	MAX_FIBERS	Added column	
TC_PL_STRUCTURE_DEMAND		Added table	

Views

View	Change Type	Change Detail
TC_PL_V_OUT_TRENCH_DUCT	Added view	

TC_PL_V_OUT_USED_TRENCH	Changed view	Added EXISTING_DUCTS column

NET Engineering and Operations

Tables

Table	Column	Change Type	Change Detail
TC_*	USER_CREATED	Changed column type	Varchar2(20) Varchar2(50)
TC_*	USER_MODIFIED	Changed column type	Varchar2(20) Varchar2(50)
TC_COLOR	ACAD_INDEX	Added column	
TC_FO_FIBER	FID_LINE	Changed relation	Relation type L D
TC_FO_TRAY	NAME	Changed column type	Varchar2(25) Varchar2(100)
TC_SP_DUCT_INSERTION	FID_BUILDING	Deleted column	
TC_SP_MARKER		Added table	
TC_SP_MARKER_MODEL		Added table	
TC_SP_MARKER_TBL		Added table	
TC_TG_POSTCODE	FID_CITY	Deleted column	
TC_TG_POSTCODE	GEOM	Added column	
TC_TG_POSTCODE	AREA	Added column	
TC_TG_STREET	ABBREVIATION	Changed column type	Varchar2(3) Varchar2(4)

Views

View	Change Type	Change Detail

`TC_M_BUILDING`	Modified view	Added columns: • `SHORT_NAME` • `POSTCODE` • `CITY` • `STREET_NAME` • `HOUSE_NUMBER` • `SUFFIX` • `CATEGORY` • `NUMBER_OF_DUCT_INSERTIONS` • `INFO`
`TC_M_FO_CLOSURE`	Modified view	Column `MANDANT_NAME` renamed to `CLIENT_NAME`
`TC_M_FO_TERMINATOR`	Modified view	Column `MANDANT_NAME` renamed to `CLIENT_NAME`
`TC_M_SP_DUCT`	Modified view	Added columns `ARGB_COLOR` and `ARGB_COLOR2`
`TC_M_SP_MARKER`	Added view	
`TC_M_TP_CLOSURE`	Modified view	Column `MANDANT_NAME` renamed to `CLIENT_NAME`
`TC_M_TP_TERMINATOR`	Modified view	Column `MANDANT_NAME` renamed to `CLIENT_NAME`
`TC_REP_CABLECOSTS`	Modified view	Renamed columns: • `NETTOPREIS` to `PRICE` • `GESAMTPREIS` to `TOTALCOST` Using CAD length of cable as fallback if `USER_LENGTH` is empty
`TC_V_CONN_DETAILS_PERF`	Modified view	Internal changes