Autodesk® Topobase™

Autodesk® Topobase™
Feature Rule Reference

Autodesk

Contents

Autodesk Topobase Feature Rules

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Introduction

What This Reference Covers

This reference document describes Autodesk® Topobase™ feature rules. Feature rules enforce business rules by performing specific tasks on your data whenever you change an associated feature class in the database.

The reference provides a brief overview of the concept of feature rules and includes sections that describe the basic server-side and client-side rules, the rules that you can use with feature classes in the Coordinate Geometry (COGO), Template, and Plot extensions, and rules that you can associate with the specialized feature classes of the Topobase vertical application modules.

Feature rule descriptions

The topics in this reference that describe individual feature rules and feature rule groups provide the following information:

■ Rule description

■ Class and assembly locations (in the case of client-side feature rules)

■ Rule type: client-side or server-side

■ Rule applicability: before or after delete, insert, update

■ Rule dependencies (if any)

- Rule parameters (if any)

- Feature class or classes to which this rule can be applied

Feature rule classifications

This reference assigns one of the following three classifications to feature rules. The classifications distinguish feature rules that are enabled or disabled as required by the application, rules that you should enable always to maintain the integrity of your data, and rules that you can enable or disable at your discretion.

- **System feature rule**
  System rules are enabled or disabled by the application as necessary. For example, when you create or delete a topology, the application enables or disables the associated system rules. Do not manually enable or disable system rules.

- **Recommended feature rule**
  Disabling recommended feature rules can affect the operation of the application and the integrity of your data. Always enable recommended feature rules.

- **Optional feature rules**
  You can enable or disable optional feature rules at your discretion.

Feature rules reference

The last section in the document comprises three subsections that list alphabetically all of the Topobase feature rules. If you know the name of a feature rule, but do not know if it is a basic server-side or client-side rule, or whether it is associated with an extension or vertical application module, find the rule in the Topobase Feature Rules Reference (page 163). Every rule listed in the reference links to its detailed information topic in this document.

Working with feature rules in Topobase Administrator

The **Autodesk Topobase Administrator Guide** includes detailed information about the Topobase system tables, and procedures for viewing, exploring, enabling, and disabling feature rules.

See Feature Rules.

See System Tables TB_RULE*****.

Adding feature rules programmatically

If you are building your own vertical application module or customizing an existing module, you can add feature rule plug-ins to manage the feature rules of your application.

Refer to the **Adding Feature Rules** section in the **Autodesk Topobase Developer's Guide** for details about how to create a feature rules plug-in, how to write the rules themselves, set rule priorities, and how to install the new plug-in.

Topobase Feature Rules Overview

In Topobase, feature rules are associated with particular feature classes. They are like Oracle stored procedures and triggers and enforce business rules by performing specified tasks whenever you change a feature class in the database. Feature rules help to maintain the integrity of data in the database. For example, when you update the database by moving a feature, an associated feature rule can ensure that the location of the label that describes the feature is also updated.

Topobase characterizes feature rules by whether they are stored in the database as server-side rules, or are written in a .NET language and stored in a dynamic linked library (DLL) as client-side rules. A further classification of client-side feature rules is by component and module.

Every Topobase document has available a basic set of feature rules, some of which are system rules that you should not disable or modify. Most of the feature rules associated with vertical application modules or extensions you add to a Topobase document are also system rules or are recommended to be enabled. Some feature rules are optional, however, and you can enable, disable, and associate these rules with the feature classes in your Topobase documents as needed. The feature rule classifications in this reference identify the rules that you can modify.

Data models use feature rule IDs to manage feature rules, rule group members, and parameters. Feature rule IDs are not unique, but they lie within certain ranges. Refer to the section called Feature Rule ID (page 5) for more information.

Basic feature rules

Every Topobase document provides the following basic feature rules:

■ Server-side feature rules.

When you create a Topobase document in the Data Model Administrator, the document contains several server-side feature rules. The TB_RULE_DEF table contains the server-side feature rules.

■ Client-side feature rules.
Client-side feature rules control Coordinate Geometry (COGO) dimensioning, area topologies, logical topologies, templates, and the utility model.

Module-specific feature rules

Module-specific feature rules control capabilities that are specific to the feature classes in a vertical application module. For example, you can associate a feature rule with the Duct feature class in the Electric CE module to create a conductor when Topobase creates a Duct feature. This feature rule is not applicable to feature classes in other modules.

The following vertical application modules have module-specific feature rules:

■ Topobase Electric CE (page 80)

■ Topobase Electric NA (page 101)

■ Topobase Gas (page 121)

■ Topobase Wastewater (page 129)

■ Topobase Water (page 149)

■ Topobase Survey (page 156)

■ Topobase Land Management (page 159)

Extension feature rules

Topobase enables extension-specific feature rules when you add an extension to your document.

■ Plot extension, see also Plot feature rules (page 68).

Feature rule group

See the Topobase Administrator Guide, section Exploring Feature Rule Groups.

Feature rule parameter

See the Topobase Administrator Guide, section Feature Rule Parameters.

Feature Rule ID

Topobase assigns IDs according to the groups described in the following table. Default and custom server-side feature rule IDs are in the range 1 – 7999. When they are created, Topobase assigns an arbitrary ID to client-side feature rules in the range 8000 – 9999. If you create you own feature rules, their IDs must be 10000 or greater.

ID	Description
1-999	Default server-side feature rules.
1000-7999	Custom server-side feature rules that are provided by Autodesk Topobase for specific modules or customers. For example: 1200 – 1219 for Wastewater.
8000-9999	Client-side feature rules.
10000+	Server-side feature rules developed by customers and business partners.

Feature Rule Priorities

Feature rule priorities are set according to whether a feature rule operates before or after its associated feature class is updated, deleted, or inserted in the database. In addition, feature rule priorities are assigned based on their capabilities.

The following table shows feature rule priorities grouped according to their function:

Priority	Description
1-99	Rules triggered before an action.
10-19	For cancel operations. Conditions may not depend on other rules. *Example:* Cancel all updates of point geometries.
30-39	Change attributes of features being inserted/updated. Example: Set orientation of points.
50-59	Cancel operations; conditions may depend on other rules.

	Example: Cancel all updates of points with invalid orientation.
70-79	Others. Example: Find all lines connected to the point and pass them on to another rule.
90-99	Make changes to the database. No example; please consider using after-operation rules instead.
101-199	**Rules triggered after an action.**
110-119	Specials. Reserved block. For example for implementation of topology on-line mode.
130-139	Delete features in database.Example: Delete lines connected to point.
150-159	Update features in database. Example: Move lines connected to point.
170-179	insert features in database. Example: Split line.
190-199	Others. Example: Regenerate graphic.

The priority groupings in the table show that the more general rules should be executed before the more specialized rules; more complex rules should be executed later.

Basic Feature Rules

Server Side Feature Rules

Server Side Feature Rules

Server-side feature rules are procedures or triggers stored in the database that can run many queries, or simple before-delete rules (BD), quickly. If you are comfortable working with PL/SQL, you can create your own server-side feature rules.

When you use the Topobase Administrator to create documents, the Data Model Administrator enables server-side feature rules by default. The TB_RULE_DEF table contains the server-side feature rules.

You can identify server-side feature rules in the system tables by the NULL values associated with theTB_RULE_DEF.ASSEMBLY attribute. The value of a server-side TB_RULE_DEF.TRIGGER_TEXT attribute is the PL/SQL code that specifies the rule.

Server-side rules must adhere to Oracle trigger limitations. In particular, within a trigger/procedure you cannot query a table in which the row trigger exists. Because of this, many server-side rules are implemented as a group of rules. A group of feature rules, or rule group, consists of a before-action rule on the row that inserts the ROWID of modified features into a temporary table, and an after-action rule that does the actual work.

Delete Child Features

Delete Child Features maintains consistency between related features if the parent feature is deleted. The feature rule uses the option that is set in TB_RELATIONS.DELETE_CHILD.

IMPORTANT Do not disable this feature rule. If you want to modify feature class relationships, change the Relation Type in the TB_RELATIONS table. See the Topobase Administrator Guide, section Parent Table Settings.

The following example shows a parent-child relationships between two feature classes.

■ Building feature class (parent) and label feature class (child).

If you delete a building that has a label feature stored in the related label feature class, the related label feature will be deleted in accordance with the value of the TB_RELATIONS.DELETE_CHILD attribute. For example, DELETE_CHILD = D means Delete Feature When Parent Is Deleted.

Name	**Delete Child Features**
Classification	**System feature rule. Do not disable.**
Type	Server-side. After Delete (AD). Is System. Is Row.
Description	Cascade deletes child features according to TB_RELATIONS.

	The feature rule is assigned by default to the parent feature classes.
Parameters	P1: feature class name P2: parent column name, default is FID.

Truncate Area

The Truncate Area feature rule is used mainly in Land Management applications. Truncate Area cuts short the area value that is stored in the AREA attribute, and stores the new area value in the AREA_NOMINAL attribute. The feature rule executes when the feature geometry is modified.

Name	**Truncate Area**
Classification	**Optional feature rule. Can be enabled/disabled as necessary.**
Type	Server-side. Before Insert (BI) Before Update (BU) Is System. Is Row.
Description	Calculates the truncated polygon area (from attribute AREA) and stores it in attribute AREA_NOMINAL. Can be applied to polygon feature classes.
Execute Column	GEOM
Parameters	P1: feature class name P2: number of decimals to truncate.

Truncate Exact_Area

The Truncate Exact Area feature rule is used mainly in Land Management applications. Truncate Exact Area truncates the area that is stored in the attribute EXACT_AREA, and stores the value in the attribute AREA_NOMINAL.

For example, the feature rule can be applied to the parcel feature class. The feature rule is executed, when the feature geometry is modified.

Name	**Truncate Exact Area**
Classification	**Optional feature rule. Can be enabled/disabled as necessary.**
Type	Server-side Is System. Is Row. Before Insert (BI) Before Update (BU)
Description	Calculates the truncated polygon area (from attribute EXACT_AREA) and stores it in attribute AREA_NOMINAL.
Execute Column	GEOM
Parameters	P1: feature class name P2: number of decimals to truncate.

Round Geometry

The Round Geometry feature rule rounds the geometries of the line, point, and polygon feature classes with which it is associated. The feature rule is executed when the feature geometry is modified.

The purpose of the Round Geometry feature rule is to ensure that the ends of lines, for example, match exactly when a user snaps them together in Topobase Client. The feature rule compensates for the slight rounding errors that occur in geometric calculations and that could prevent the lines from snapping together.

If you have the Round Geometry feature rule enabled and the geometries you are working with do not match properly, it is possible that you are working with data (possibly imported data) that has not been rounded. In the Data Model Administrator, in Autodesk Topobase Administrator, you can choose to round geometries on a single feature class or on all the feature classes in a

data model. See the Topobase Administrator Guide, section Document Shortcut Menu.

Name	**Round Geometry**
Classification	**Recommended feature rule. We strongly recommend that you enable this feature rule.**
Type	Server-side Before Insert (BI) Before Update (BU)
Description	Rounds the geometry to specified decimals.
Execute Column	GEOM
Parameters	P1: number of decimals to round. Default is 3.

Check Perimeter

The Check Perimeter feature rule is applied when you assign the perimeter feature class in a job enabled document. Check Perimeter checks whether a feature lies within a given perimeter.

IMPORTANT Do not disable this feature rule. If you do not want to perform the perimeter check, use the Job Document Settings to remove the perimeter feature class. Se the Topobase Administrator Guide, section Job Enabling (Document Settings).

Name	**Check Perimeter**
Classification	**System feature rule. Do not disable.**
Type	Server-side Is System. Is Row. BI, BU, BD.

Description	Checks whether a feature is inside the selected perimeter, and if not, raises an exception.
Execute Column	GEOM
Parameters	P1: feature class name.

Extract From Collection

The Extract From Collection feature rule extracts a single geometry from a feature that contains different geometries, for example, a line and a point.

This feature rule is useful when migrating data. For example, if you migrate features that contain more than one geometry into a Topobase point feature class, you can use the Extract From Collection feature rule to remove from the migrated feature only point and multipoint geometries.

Name	**Extract From Collection**
Classification	**Optional feature rule. Can be enabled for special cases such as migration clean up.**
Type	Server-side
Description	Extracts specified geometry types from an Oracle collection feature (for Oracle 10g and higher).
Execute Column	GEOM
Parameters	P1: feature class name P2: extract type ■ 1: Point ■ 2: Line ■ 3:Polygon P3: extract type ■ 5: MultiPoint

- 6: MultiLine
- 7:MultiPolygon

Note that this feature rule is not specific to feature classes of type collection, but can be applied to all types of feature classes.

Validate Intersection Polygon (Spatial) rule group

The Validate Intersection Polygon rule group validates intersection polygons. When you create an intersection, the rule group is assigned automatically to the intersection polygon feature class that stores the intersection results.

- Validate Intersection Polygon-Main (Spatial)
- Validate Intersection Polygon-AD (Spatial)

Validate Intersection Polygon-Main (Spatial)

Name	**Validate Intersection Polygon Main (Spatial)**
Classification	**System feature rule. Do not disable.**
Type	Server-side Before Insert (BI). Is System. Is Row.
Description	Validates the intersection polygon and moves invalid geometry to _TSER feature class.
Parameters	P1: error feature class name, default: _TSER P2: name of the intersection P3: decimals to round
Dependency	Member of a rule group. The group applies to Oracle 10g and higher, Spatial Extension.

Validate Intersection Polygon-AD (Spatial)

Name	**Validate Intersection Polygon AD (Spatial)**
Classification	**System feature rule. Do not disable.**
Type	Server-side After Delete (AD) Is System. Is Row.
Description	Validate intersection polygon and move invalid geometry to _TSER feature class.
Parameters	P1: error feature class name, default: _TSER P2: name of the intersection P3: decimals to round
Dependency	Member of a rule group. The group applies to Oracle 10g and higher, Spatial Extension.

Validate Intersection Polygon (Locator) rule group

The Validate Intersection Polygon rule group validates intersection polygons. When you create an intersection, the rule group is assigned automatically to the intersection polygon feature class that stores the intersection results.

■ Validate Intersection Polygon-Main (Locator)

■ Validate Intersection Polygon-AD (Locator)

Validate Intersection Polygon-Main (Locator)

Name	**Validate Intersection Polygon Main (Locator)**
Classification	**System feature rule. Do not disable.**
Type	Server-side Before Insert (BI). Is System. Is Row.

Description	Validates the intersection polygon and moves invalid geometry to _TSER feature class (for Oracle 10g and higher).
Parameters	P1: error feature class name, default: _TSER P2: name of the intersection P3: decimals to round
Dependency	Member of a rule group. The group applies to Oracle Locator.

Validate Intersection Polygon-AD (Locator)

Name	**Validate Intersection Polygon AD (Locator)**
Classification	**System feature rule. Do not disable.**
Type	Server-side After Delete (AD). Is System. Is Row.
Description	Validate intersection polygon and move invalid geometry to _TSER feature class (for Oracle 10g and higher).
Parameters	P1: error feature class name. Default is _TSER P2: name of the intersection P3: decimals to round
Dependency	Member of a rule group. The group applies to Oracle Locator.

Validate Intersection Line rule group

The Validate Intersection Line rule group validates intersection lines. When you create an intersection, the rule group is assigned automatically to the intersection line string feature class that stores the intersection results.

■ Validate Intersection Line-Main

■   Validate Intersection Line-AD

Validate Intersection Line Main

Name	**Validate Intersection Line Main**
Classification	**System feature rule. Do not disable.**
Type	Server-side Before Insert (BI). Is System. Is Row.
Description	Validates the intersection line and moves invalid geometry to _TSER feature class (for Oracle 10g and higher)
Parameters	P1: error feature class name; default: _TSER. P2: name of intersection.
Dependency	Member of a rule group.

Validate Intersection Line AD

Name	**Validate Intersection Line AD**
Classification	**System feature rule. Do not disable.**
Type	Server-side After Delete (AD). Is System. Is Row.
Description	Validates intersection line and moves invalid geometry to _TSER feature class (for Oracle 10g and higher)
Parameters	P1: error feature class name; default: _TSER. P2: name of intersection.
Dependency	Member of a rule group.

Compound Polygon rule group

Maintenance of compound polygon feature classes is executed by a group of feature rules. The Compound Polygon rule group generates compound polygons from child lines.

When you create a compound feature class using the Data Model Administrator, the rule group is applied automatically to the compound child feature class.

- Compound Row (BI)

- Compound Row (BU)

- Compound Row (AD)

- Compound Statement (AI)

- Compound Statement (AU)

- Compound Statement (AD)

See also:

- Data Model: Compounds

Compound Row BI (Polygon)

Name	**Compound Row (BI)**
Classification	**System feature rule. Do not disable.**
Type	Server-side Before Insert (BI). Is System. Is Row.
Description	Generates compound polygon from child lines.
Dependency	Member of a rule group.

Compound Row BU (Polygon)

Name	**Compound Row (BU)**

Classification	**System feature rule. Do not disable.**
Type	Server-side Before Update (BU). Is System. Is Row.
Description	Generates compound polygon from child lines.
Execute Column	GEOM
Dependency	Member of a rule group.

Compound Row AD (Polygon)

Name	**Compound Row (AD)**
Classification	**System feature rule. Do not disable.**
Type	Server-side After Delete (AD). Is System. Is Row.
Description	Generates compound polygon from child lines.
Dependency	Member of a rule group.

Compound Statement AI (Polygon)

Name	**Compound Statement (AI)**
Classification	**System feature rule. Do not disable.**
Type	Server-side After Insert (AI). Is System.
Description	Generates compound polygon from child lines.
Dependency	Member of a rule group.

Compound Statement AU (Polygon)

Name	**Compound Statement (AU)**
Classification	**System feature rule. Do not disable.**
Type	Server-side After Update (AU). Is System.
Description	Generates compound polygon from child lines.
Execute Column	GEOM
Dependency	Member of a rule group.

Compound Statement AD (Polygon)

Name	**Compound Statement (AD)**
Classification	**System feature rule. Do not disable.**
Type	Server-side After Delete (AD). Is System.
Description	Generates compound polygon from child lines.
Dependency	Member of a rule group.

Validate Geometry

The Validate Geometry feature rule is executed when a feature is inserted or updated.

Name	**Validate Geometry**
Classification	**Recommended feature rule.**
Type	Server-side

	Before Insert (BI); Before Update (BU). Is System. Is Row.
Description	Validates geometry before insert and raises an exception, if invalid. By default, the feature rule is disabled.
Execute Column	GEOM
Parameters	P1: feature class name.

Compound Line rule group

Maintenance of compound line string feature classes is executed by a group of feature rules. The Compound Line String rule group generates compound line strings from child lines.

When you create a compound feature class using the Data Model Administrator, the rule group is applied automatically to the compound child feature class.

■ Compound Row (BI)

■ Compound Row (BU)

■ Compound Row (AD)

■ Compound Statement (AI)

■ Compound Statement (AU)

■ Compound Statement (AD)

See also:

■ Data Model: Compounds

Compound Row BI (Line)

Name	**Compound Row (BI)**
Classification	**System feature rule. Do not disable.**
Type	Server-side

	Before Insert (BI). Is System. Is Row.
Description	Generates compound line string from child lines.
Dependency	Member of a rule group.

Compound Row BU (Line)

Name	**Compound Row (BU)**
Classification	**System feature rule. Do not disable.**
Type	Server-side Before Update (BU). Is System. Is Row.
Description	Generates compound line string from child lines.
Execute Column	GEOM
Dependency	Member of a rule group.

Compound Row AD (Line)

Name	**Compound Row (AD)**
Classification	**System feature rule. Do not disable.**
Type	Server-side After Delete (AD). Is System. Is Row.
Description	Generates compound line string from child lines.
Dependency	Member of a rule group.

Compound Statement AI (Line)

Name	**Compound Statement (AI)**
Classification	**System feature rule. Do not disable.**
Type	Server-side After Insert (AI). Is System.
Description	Generates compound line string from child lines.
Dependency	Member of a rule group.

Compound Statement AU (Line)

Name	**Compound Statement (AU)**
Classification	**System feature rule. Do not disable.**
Type	Server-side After Update (AU). Is System.
Description	Generates compound line string from child lines.
Execute Column	GEOM
Dependency	Member of a rule group.

Compound Statement AD (Line)

Name	**Compound Statement (AD)**
Classification	**System feature rule. Do not disable.**
Type	Server-side After Update (AU). Is System.

Description	Generates compound line string from child lines.
Dependency	Member of a rule group.

Label rule group

The Label rule group maintains consistency between features and their labels. The feature rules create auto labels, update label text, and move labels, depending on the label definition settings.

When you create a label feature class, the rule group is applied automatically to the parent feature class.

■ Label (LAE)

■ Label (LAR)

■ Label (LAS)

■ Label (LBI)

See also:

■ Data Model: Labels

Label (LAE)

Name	**Label (LAE)**
Classification	**System feature rule. Do not disable.**
Type	Server-side Before Update (BU). Is System. Is Row.
Description	Creates auto labels, updates label text, and moves labels if necessary.
Dependency	Member of a rule group.

Label (LAR)

Name	**Label (LAR)**
Classification	**System feature rule. Do not disable.**
Type	Server-side Before Insert (BI); Before Update (BU). Is System. Is Row.
Description	Creates auto labels, updates label text, and moves labels if necessary.
Execute Column	GEOM
Parameters	P1: feature class name
Dependency	Member of a rule group.

Label (LAS)

Name	**Label (LAS)**
Classification	**System feature rule. Do not disable.**
Type	Server-side After Insert (AI); After Update (AU). Is System.
Description	Creates auto labels, updates label text, and moves labels if necessary.
Parameters	P1: feature class name
Dependency	Member of a rule group.

Label (LBI)

Name	**Label (LBI)**
Classification	**System feature rule. Do not disable.**

Type	Server-side Before Insert (BI); Before Update (BU). Is System.
Description	Creates auto labels, updates label text, and moves labels if necessary.
Dependency	Member of a rule group.

Client Side Feature Rules

Basic Feature Rules

Basic Client Side Feature Rules

The Topobase application provides client-side feature rules, which Topobase applies when users interact with features or when operations require a large amount of memory or calculating power.

AutomaticLineSplit

The AutomaticLineSplit feature rule splits an existing line on all positions of a vertex of the new line.

Name	**AutomaticLineSplit_BIU**
Classification	**System feature rule.**
Location	Assembly: Topobase.BaseFeatureRules.dll Classname: Topobase.BaseFeature-Rules.LineLengthRules
Type	Client-side Before Insert (BI); Before Update (BU). Is System. Is Row.
Description	Splits an existing line on all positions of a vertex of the new line.

See also:

■ AutomaticLineSplitAtVertex (page 25)

AutomaticLineSplitAtVertex

The AutomaticLineSplitAtVertex feature rule splits a line at a vertex when you use this vertex to digitize a new line. For example, when you digitize topology edges.
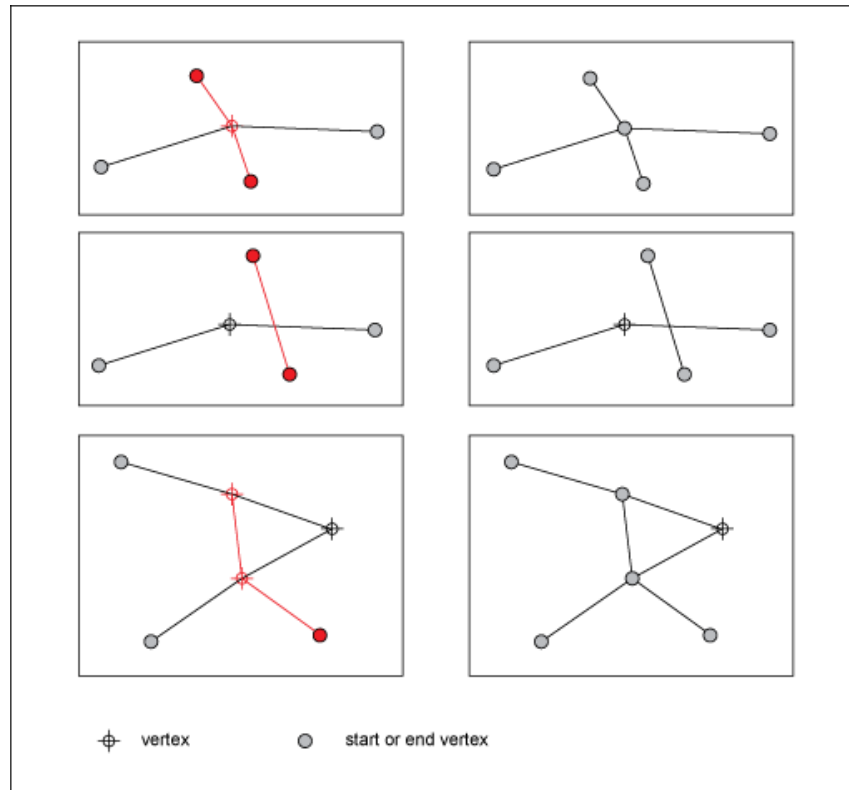
Name	**AutomaticLineSplit_BIU**
Classification	**System feature rule.**

Location	Assembly: Topobase.BaseFeatureRules.dll Classname: Topobase.BaseFeature-Rules.LineLengthRules
Type	Client-side Before Insert (BI); Before Update (BU). Is System. Is Row.
Description	Splits a line at a vertex when you use this vertex to digitize a new line.
Execute Column	GEOM

See also:

■ AutomaticLineSplit (page 24)

AutomaticPointNumber rule group

The AutomaticPointNumber rule group handles the point numbering mechanism. The rule group sets the system attribute <point feature class>.TB_POINTNUMBER.

■ AutomaticPointNumber_BI

■ AutomaticPointNumber_BU

The rule group applies to point feature classes.

IMPORTANT Do not disable the feature rules. Use Topobase Administrator to enable or disable automatic point numbering.

AutomaticPointNumber_BI

Name	**AutomaticPointNumber_BI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.BaseFeatureRules.dll Classname: Topobase.BaseFeature-Rules.PointNumbering

Type	Client-side
	Before Insert (BI).
	Is System. Is Row.

Description	Handles the point numbering mechanism.

Dependency	Member of a rule group.

AutomaticPointNumber_BU

Name	**AutomaticPointNumber_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.BaseFeatureRules.dll
	Classname: Topobase.BaseFeature-
	Rules.PointNumbering
Type	Client-side
	Before Update (BU).
	Is System. Is Row.
Description	Handles the point numbering mechanism.
Dependency	Member of a rule group.
Execute Column	TB_POINTNUMBER

See also:

■ Feature Class Type: Point

■ Point Numbering

LineLength_BIU

The LineLength_BIU feature rule calculates the length of a line string feature and stores the value in the attribute LENGTH. When you create a line feature class using Topobase Administrator, the rule is applied automatically.

The LENGTH attribute is used by various functions throughout Topobase. For example, in utility applications, tracing is based on the LENGTH.

Name	**LineLength_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.BaseFeatureRules.dll Classname: Topobase.BaseFeature-Rules.LineLengthRules
Type	Client-side Before Insert (BI); Before Update (BU). Is System. Is Row.
Description	Calculates the length of a line before an insert or update.
Execute Column	GEOM

PolygonArea_BIU

The PolygonArea_BIU feature rule calculates the area of a polygon feature and stores the value in the attribute AREA. When you create a line feature class using Topobase Administrator, the rule is applied automatically.

The AREA attribute is used by various functions throughout Topobase.

Name	**PolygonArea_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.BaseFeatureRules.dll Classname: Topobase.BaseFeature-Rules.PolygonAreaRules
Type	Client-side Before Insert (BI); Before Update (BU). Is System. Is Row.
Description	Calculates the area of a polygon before an insert or update.

Execute Column	GEOM

Regenerate Label rule group

The Regenerate Label rule group controls the regeneration of labels that display attributes of a secondary feature class. For example, a label definition of the building feature class displays information that is stored in the street feature class.

- RegenerateLabel_BU

- RegenerateLabel_AU

- RegenerateLabel_AI

- RegenerateLabel_BD

- RegenerateLabel_AD

The rule group is applied automatically when you define a Regeneration Definition for a label. For more information about Regeneration Definition, see Label Properties: Regeneration Definition.

IMPORTANT Do not disable the feature rule. Use the Label Properties dialog box to disable label regeneration definitions.

RegenerateLabel_BU

Name	**RegenerateLabel_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.BaseFeatureRules.dll Classname: Topobase.BaseFeatureRules.RegenerateLabelRules
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Regenerates labels that are not directly related to the feature after an update.

Dependency	Member of a rule group.

RegenerateLabel_AU

Name	**RegenerateLabel_AU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.BaseFeatureRules.dll Classname: Topobase.BaseFeatureRules.RegenerateLabelRules
Type	Client-side After Update (AU). Is System. Is Row.
Description	Regenerates labels that are not directly related to the feature after an update.
Dependency	Member of a rule group.

RegenerateLabel_AI

Name	**RegenerateLabel_AI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.BaseFeatureRules.dll Classname: Topobase.BaseFeatureRules.RegenerateLabelRules
Type	Client-side After Insert (AI). Is System. Is Row.
Description	Regenerates labels that are not directly related to the feature after an update.
Dependency	Member of a rule group.

RegenerateLabel_BD

Name	**RegenerateLabel_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.BaseFeatureRules.dll Classname: Topobase.BaseFeatureRules.RegenerateLabelRules
Type	Client-side Before Delete (BD) Is System. Is Row.
Description	Regenerates labels that are not directly related to the feature after an update.
Dependency	Member of a rule group.

RegenerateLabel_AD

Name	**RegenerateLabel_AD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.BaseFeatureRules.dll Classname: Topobase.BaseFeatureRules.RegenerateLabelRules
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Regenerates labels that are not directly related to the feature after an update.
Dependency	Member of a rule group.

SetSystemCreated rule group

The SetSystemCreated rule group manages the SYSTEM_CREATED attribute of line feature classes.

■ SetSystemCreated_BI

■ SetSystemCreated_BU

■ SetSystemCreated_BD

You use the attribute SYSTEM_CREATED to style features in the Display Manager, especially in the module Land Switzerland, in conjunction with the option Display Deleted Features. For example, to display features that have been created by a split or a join operation differently than newly digitized features.

Technically, when you split or join lines, the system deletes the old lines, and creates new ones with the attribute SYSTEM_CREATED=YES. The system sets SYSTEM_CREATED=NULL when you update the feature geometry.

The attribute SYSTEM_CREATED is available mainly for Land Management lines, such as real estate boundary lines (LM_OW_REAL_ESTATE_L). The attribute is used to distinguish between lines that have been deleted, and lines that have been split.

SetSystemCreated_BI

Name	SetSystemCreated_BI
Classification	**System feature rule. Depending on the module, if enabled, do not disable.**
Location	Assembly: Topobase.BaseFeatureRules.dll Classname: Topobase.BaseFeatureRules.Set-SystemCreated
Type	Client-side Before Insert (BI). Is System. Is Row.
Description	Manages whether the SYSTEM_CREATED attribute is set or cleared when a feature is inserted/deleted in a split or a join operation.

Dependency	Member of a rule group.

SetSystemCreated_BU

Name	**SetSystemCreated_BU**
Classification	**System feature rule. Depending on the module, if enabled, do not disable.**
Location	Assembly: Topobase.BaseFeatureRules.dll Classname: Topobase.BaseFeatureRules.Set-SystemCreated
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Manages whether the SYSTEM_CREATED attribute is set or cleared when a feature is inserted/deleted in a split or a join operation.
Execute Column	GEOM
Dependency	Member of a rule group.

SetSystemCreated_BD

Name	**SetSystemCreated_BD**
Classification	**System feature rule. Depending on the module, if enabled, do not disable.**
Location	Assembly: Topobase.BaseFeatureRules.dll Classname: Topobase.BaseFeatureRules.Set-SystemCreated
Type	Client-side Before Delete (BD). Is System. Is Row.

Description	Manages whether the SYSTEM_CREATED attribute is set or cleared when a feature is inserted/deleted in a split or a join operation.
Dependency	Member of a rule group.

See also:

- Land Management: Display Model Settings

DimensionCleanup rule group

The Dimension Cleanup rule group maintains consistency between dimensioning features and their parent features.

- DimensionCleanup_BD

- DimensionCleanup_AD

The rule group is applied to all dimensioning feature classes.

DimensionCleanup_BD

Name	**DimensionCleanup_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Construct.dll Classname: Topobase.Construct.Dimension-ingCleanupRules
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Registers the features that are related to dimension feature components.
Dependency	Member of a rule group.

DimensionCleanup_AD

Name	**DimensionCleanup_AD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Construct.dll Classname: Topobase.Construct.Dimension-ingCleanupRules
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Deletes features that are related to dimension feature components.
Dependency	Member of a rule group.

Area Topology Feature Rules

The maintenance of area topologies is controlled by two rule groups that contain client-side feature rules.

IMPORTANT The Area Topology feature rules are system rules, and must never be disabled or enabled manually.

UpdateAreaTopoLS rule group

The UpdateAreaTopoLS rule group updates the area topology tables after a feature that belongs to the Line Feature Class has been modified.

- UpdateAreaTopoLS_BU

- UpdateAreaTopoLS_AU

- UpdateAreaTopoLS_AI

- UpdateAreaTopoLS_BD

- UpdateAreaTopoLS_AD

The rule group is applied automatically to the topology Line Feature Class when you create an area topology. For more information about area topologies, see Topobase Administrator Guide, section Area Topology Introduction.

UpdateAreaTopoLS_BU

Name	**UpdateAreaTopoLS_BU**
Classification	**System feature rule. Do not enable/disable manually.**
Location	Assembly: Topobase.AreaTopology.FeatureRules.dll Classname: Topobase.AreaTopology.FeatureRules.AreaTopologyRules
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Gathers information about the line string to be updated. The information is then used by the UpdateAreaTopoLS_AU feature rule, which updates the area topology.
Dependency	Member of a rule group.

UpdateAreaTopoLS_AU

Name	**UpdateAreaTopoLS_AU**
Classification	**System feature rule. Do not enable/disable manually.**
Location	Assembly: Topobase.AreaTopology.FeatureRules.dll Classname: Topobase.AreaTopology.FeatureRules.AreaTopologyRules
Type	Client-side After Update (AU). Is System. Is Row.

Description	Updates the area topology after updating a line string.
Dependency	Member of a rule group.

UpdateAreaTopoLS_AI

Name	**UpdateAreaTopoLS_AI**
Classification	**System feature rule. Do not enable/disable manually.**
Location	Assembly: Topobase.AreaTopology.FeatureRules.dll Classname: Topobase.AreaTopology.FeatureRules.AreaTopologyRules
Type	Client-side After Insert (AI). Is System. Is Row.
Description	Updates the area topology after inserting a line string.
Dependency	Member of a rule group.

UpdateAreaTopoLS_BD

Name	**UpdateAreaTopoLS_BD**
Classification	**System feature rule. Do not enable/disable manually.**
Location	Assembly: Topobase.AreaTopology.FeatureRules.dll Classname: Topobase.AreaTopology.FeatureRules.AreaTopologyRules
Type	Client-side Before Delete (BD). Is System. Is Row.

Description	Gathers information about the line string to be deleted. The information is then used by the UpdateAreaTopoLS_AD feature rule, which updates the area topology.
Dependency	Member of a rule group.

UpdateAreaTopoLS_AD

Name	**UpdateAreaTopoLS_AD**
Classification	**System feature rule. Do not enable/disable manually.**
Location	Assembly: Topobase.AreaTopology.FeatureRules.dll Classname: Topobase.AreaTopology.FeatureRules.AreaTopologyRules
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Updates the area topology after deleting a line string.
Dependency	Member of a rule group.

UpdateAreaTopoCE rule group

The UpdateAreaTopoCE rule group updates the area topology tables after a feature of the Centroid Feature Class has been modified.

- UpdateAreaTopoCE_BU

- UpdateAreaTopoCE_AU

- UpdateAreaTopoCE_AI

- UpdateAreaTopoCE_BD

- UpdateAreaTopoCE_AD

The rule group is applied automatically to the topology Centroid Feature Class when you create an area topology. For more information about area topologies, see Topobase Administrator Guide, section Area Topology Introduction.

UpdateAreaTopoCE_BU

Name	**UpdateAreaTopoCE_BU**
Classification	**System feature rule. Do not enable/disable manually.**
Location	Assembly: Topobase.AreaTopology.FeatureRules.dll Classname: Topobase.AreaTopology.FeatureRules.AreaTopologyRules
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Gathers information about the centroid to be updated. The information is then used by the UpdateAreaTopoCE_AU feature rule, which updates the area topology.
Dependency	Member of a rule group.

UpdateAreaTopoCE_AU

Name	**UpdateAreaTopoCE_AU**
Classification	**System feature rule. Do not enable/disable manually.**
Location	Assembly: Topobase.AreaTopology.FeatureRules.dll Classname: Topobase.AreaTopology.FeatureRules.AreaTopologyRules
Type	Client-side After Update (AU). Is System. Is Row.

Description	Updates the area topology after updating a centroid.
Dependency	Member of a rule group.

UpdateAreaTopoCE_AI

Name	**UpdateAreaTopoCE_AI**
Classification	**System feature rule. Do not enable/disable manually.**
Location	Assembly: Topobase.AreaTopology.FeatureRules.dll Classname: Topobase.AreaTopology.FeatureRules.AreaTopologyRules
Type	Client-side After Insert (AI). Is System. Is Row.
Description	Updates the area topology after inserting a centroid.
Dependency	Member of a rule group.

UpdateAreaTopoCE_BD

Name	**UpdateAreaTopoCE_BD**
Classification	**System feature rule. Do not enable/disable manually.**
Location	Assembly: Topobase.AreaTopology.FeatureRules.dll Classname: Topobase.AreaTopology.FeatureRules.AreaTopologyRules
Type	Client-side Before Delete (BD). Is System. Is Row.

Description	Gathers information about the centroid to be deleted. The information is then used by the UpdateAreaTopoCE_AD feature rule, which updates the area topology.
Dependency	Member of a rule group.

UpdateAreaTopoCE_AD

Name	**UpdateAreaTopoCE_AD**
Classification	**System feature rule. Do not enable/disable manually.**
Location	Assembly: Topobase.AreaTopology.FeatureRules.dll Classname: Topobase.AreaTopology.FeatureRules.AreaTopologyRules
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Updates the area topology after deleting a centroid.
Dependency	Member of a rule group.

Logical Topology Feature Rules

The maintenance of logical topologies is controlled by a rule group that contains client-side feature rules.

IMPORTANT The Logical Topology feature rules are system rules, and must never be disabled or enabled manually.

UpdateLogicalTopo rule group

The UpdateLogicalTopo rule group updates the logical topology tables after a feature has been modified.

- UpdateLogicalTopo_BU

- UpdateLogicalTopo_AU

- UpdateLogicalTopo_AI

- UpdateLogicalTopo_BD

- UpdateLogicalTopo_AD

The rule group is applied automatically to the topology Feature Classes when you create a logical topology. For more information about logical topologies, see Topobase Administrator Guide, section Logical Topology Introduction.

UpdateLogicalTopo_BU

Name	**UpdateLogicalTopo_BU**
Classification	**System feature rule. Do not enable/disable manually.**
Location	Assembly: Topobase.LogicalTopology.FeatureRules.dll Classname: Topobase.LogicalTopology.FeatureRules.LogicalTopologyRules
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Gathers information about the feature to be updated. The information is then used by the UpdateLogicalTopo_AU feature rule, which updates the logical topology.
Dependency	Member of a rule group.

UpdateLogicalTopo_AU

Name	**UpdateLogicalTopo_AU**
Classification	**System feature rule. Do not enable/disable manually.**
Location	Assembly: Topobase.LogicalTopology.FeatureRules.dll Classname: Topobase.LogicalTopology.FeatureRules.LogicalTopologyRules
Type	Client-side After Update (AU). Is System. Is Row.
Description	Updates the logical topology after updating a feature.
Dependency	Member of a rule group.

UpdateLogicalTopo_AI

Name	**UpdateLogicalTopo_AI**
Classification	**System feature rule. Do not enable/disable manually.**
Location	Assembly: Topobase.LogicalTopology.FeatureRules.dll Classname: Topobase.LogicalTopology.FeatureRules.LogicalTopologyRules
Type	Client-side After Insert (AI). Is System. Is Row.
Description	Updates the logical topology after inserting a feature.
Dependency	Member of a rule group.

UpdateLogicalTopo_BD

Name	UpdateLogicalTopo_BD
Classification	**System feature rule. Do not enable/disable manually.**
Location	Assembly: Topobase.LogicalTopology.FeatureRules.dll Classname: Topobase.LogicalTopology.FeatureRules.LogicalTopologyRules
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Gathers information about the feature to be deleted. The information is then used by the UpdateLogicalTopo_AD feature rule, which updates the logical topology.
Dependency	Member of a rule group.

UpdateLogicalTopo_AD

Name	UpdateLogicalTopo_AD
Classification	**System feature rule. Do not enable/disable manually.**
Location	Assembly: Topobase.LogicalTopology.FeatureRules.dll Classname: Topobase.LogicalTopology.FeatureRules.LogicalTopologyRules
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Updates the logical topology after deleting a feature.
Dependency	Member of a rule group.

Template Feature Rules

The rule group UpdateTemplateInstances controls the maintenance of features that have been created using templates.

> **NOTE** The Template feature rules are system rules, and must never be disabled or enabled manually.

When you create a template, you have the option to group features. Then, when you move or rotate a feature of the group, Topobase treats the group as a unit and moves or rotates all other features the same way. The feature rule Update Template Instances controls this behavior for the feature classes that are part of the template.

UpdateTemplateInstances rule group

The UpdateTemplateInstances rule group updates features that have been created using a template.

■ UpdateTemplateInstances_BU

■ UpdateTemplateInstances_AU

■ UpdateTemplateInstances_BD

■ UpdateTemplateInstances_AD

For more information about templates, see Topobase Client User Guide, section Working with Templates.

UpdateTemplateInstances_BU

Name	**UpdateTemplateInstances_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Templates.dll Classname: Topobase.Templates.TemplateRules
Type	Client-side Before Update (BU). Is System. Is Row.

Description	Updates the template instances after updating a feature.
Dependency	Member of a rule group.

UpdateTemplateInstances_AU

Name	**UpdateTemplateInstances_AU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Templates.dll Classname: Topobase.Templates.TemplateRules
Type	Client-side After Update (AU). Is System. Is Row.
Description	Updates the template instances after updating a feature.
Dependency	Member of a rule group.

UpdateTemplateInstances_BD

Name	**UpdateTemplateInstances_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Templates.dll Classname: Topobase.Templates.TemplateRules
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Update the template instances after deleting a feature.
Dependency	Member of a rule group.

UpdateTemplateInstances_AD

Name	**UpdateTemplateInstances_AD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Templates.dll Classname: Topobase.Templates.Tem- plateRules
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Update the template instances after delet- ing a feature.
Dependency	Member of a rule group.

Utility Feature Rules

Utility client-side feature rules control the maintenance of utility model feature classes.

DeleteAttribute rule group

The DeleteAttributes rule group deletes attribute features when a geometry feature is deleted. The rule group applies to Utility geometry feature classes.

■ DeleteAttribute_BD

■ DeleteAttribute_AD

IMPORTANT Do not disable the DeleteAttribute feature rules manually.

DeleteAttribute_BD

Name	**DeleteAttribute_BD**
Classification	**System feature rule. Do not disable.**

Location	Assembly: Topobase.Utilities.dll
	Classname: Topobase.Utilities.FeatureRules.Geo-metryFeatureRules

Type	Client-side
	Member of a rule group.
	Before Delete (BD).
	Is System. Is Row.

Description	Delete attributes when their last geometry is deleted.

DeleteAttribute_AD

Name	**DeleteAttribute_AD**

Classification	**System feature rule. Do not disable.**

Location	Assembly: Topobase.Utilities.dll
	Classname: Topobase.Utilities.FeatureRules.Geo-metryFeatureRules

Type	Client-side
	Member of a rule group. TB_RULE_GROUP.ID = 8007.
	After Delete (AD).
	Is System. Is Row.

Description	Deletes attributes when their last geometry is deleted.

UpdateAttributeLabel rule group

The UpdateAttributeLabel rule group updates label features when a geometry feature is updated. The rule group applies to Utility geometry feature classes.

- UpdateAttributeLabel_BU

- UpdateAttributeLabel_AU

- UpdateAttributeLabel_BD

■ UpdateAttributeLabel_AD

Update Attribute Label

23 0001

23 0001

If the point geometry is modified, the label moves to the new position.
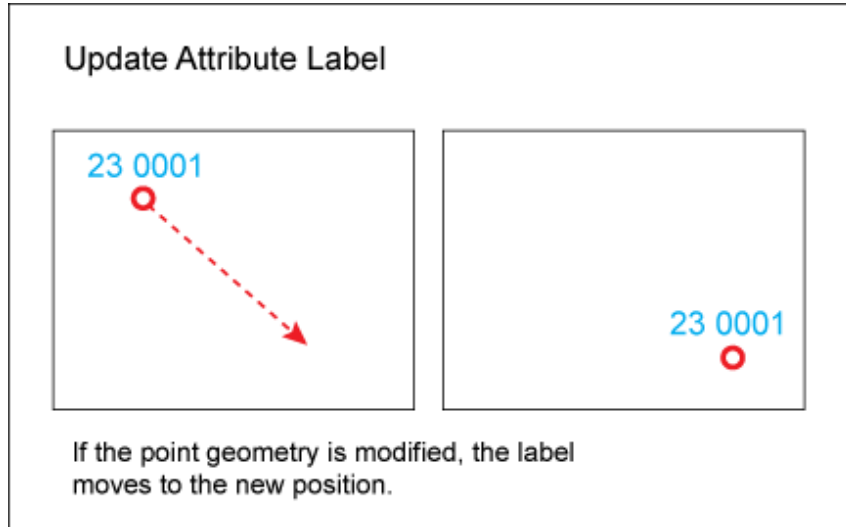
UpdateAttributeLabel_BU

Name	UpdateAttributeLabel_BU
Classification	System feature rule. Do not disable.
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.GeometryFeatureRules
Type	Client-side Member of a rule group. Before Update (BU). Is System. Is Row.
Description	Updates the label attached to an attribute when the geometry is updated.
Execute Column	GEOM

UpdateAttributeLabel_AU

Name	**UpdateAttributeLabel_AU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.Geo-metryFeatureRules
Type	Client-side Member of a rule group. TB_RULE_GROUP.ID = 8008. After Update (AU). Is System. Is Row.
Description	Updates the label attached to an attribute when the geometry is updated.

UpdateAttributeLabel_BD

Name	**UpdateAttributeLabel_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.Geo-metryFeatureRules
Type	Client-side Member of a rule group. TB_RULE_GROUP.ID = 8008. Before Delete (BD). Is System. Is Row.
Description	Updates the label attached to an attribute when the geometry is updated.

UpdateAttributeLabel_AD

Name	**UpdateAttributeLabel_AD**

Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.Geo-metryFeatureRules
Type	Client-side Member of a rule group. TB_RULE_GROUP.ID = 8008. Before Delete (BD). Is System. Is Row.
Description	Updates the label attached to an attribute when the geometry is updated.

CheckStartEndNode

CheckStartEndNode applies to Utility line feature classes. When a utility line feature is created, this feature rule determines whether a start node and an end node exist. If either node is missing, the rule aborts the creation of the line feature and displays a message.

Refer to the CreateStartEndNode (page 52) feature rule, which creates missing utility line feature start and end nodes.

Name	**CheckStartEndNode**
Classification	**Optional feature rule.**
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.Util-ityLineFeatureRules
Type	Client-side Before Insert (BI). Before Update (BU) Is System. Is Row.
Description	Checks for start and end nodes, and informs user and cancel if either does not exist.
Execute Column	GEOM

Dependency	You can either enable the CheckStartEndNode feature rule or the CreateStartEndNode. See also CreateStartEndNode (page 52) .

CreateStartEndNode

CreateStartEndNode applies to Utility line feature classes. When a utility line feature is created, the feature rule checks whether there is a start node and an end node. If either is missing, the feature rule creates a utility point.

Example: See the Topobase Water User Guide, section Feature Rule: Create Start And End Nodes.

BEST PRACTICE Use the feature rule parameter to specify the attribute feature class that is used to create the utility point.

Name	**CreateStartEndNode**
Classification	**Optional feature rule.**
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.Util-ityLineFeatureRules
Type	Client-side After Insert (AI). Is System. Is Row.
Description	Creates start and end node if they do not exist.
Parameters	P1: AttributeFClass feature class. Specifies the name of the attribute feature class used to create new point utility features.
Dependency	You can either enable the CheckStartEndNode feature rule or the CreateStartEndNode. See also CheckStartEndNode (page 51).

DeleteUnneededNodes rule group

The DeleteUnneededNodes rule group cleans up utility lines. The rule group applies to Utility line feature classes.

- DeleteUnneededNodes_BD

- DeleteUnneededNodes_AD

After a line is deleted, the rule group deletes points that do not have lines connected to them.

DeleteUnneededNodes_BD

Name	**DeleteUnneededNodes_BD**
Classification	**Optional feature rule.**
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.UtilityLineFeatureRules
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Deletes start and end nodes if they are no longer needed.

Dependency	Member of a rule group.

DeleteUnneededNodes_AD

Name	**DeleteUnneededNodes_AD**
Classification	**Optional feature rule.**
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.Util- ityLineFeatureRules
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Deletes start and end nodes if they are no longer needed.
Parameters	P1: DeleteSoftSplitters. Default is NO. Specifies whether the points which resulted from a soft split should be deleted and the lines merged, similar to the AutoExtractSoftSplit feature rule. P2: AskUser. Default is YES. Specifies whether the user is asked if the un- needed points should be deleted. If the para- meter is NO, they are deleted without user in- teraction.
Dependency	Member of a rule group.

AutoSoftSplitAtVertex rule group

The AutoSoftSplitAtVertex rule group splits a line at a vertex when it is at the same location as a utility point. Depending on user data and use cases, this rule group can optionally be enabled.

- AutoSoftSplitAtVertex_BIU

- AutoSoftSplitAtVertex_AIU

The rule group applies to Utility line feature classes.

Auto Soft Split at Vertex
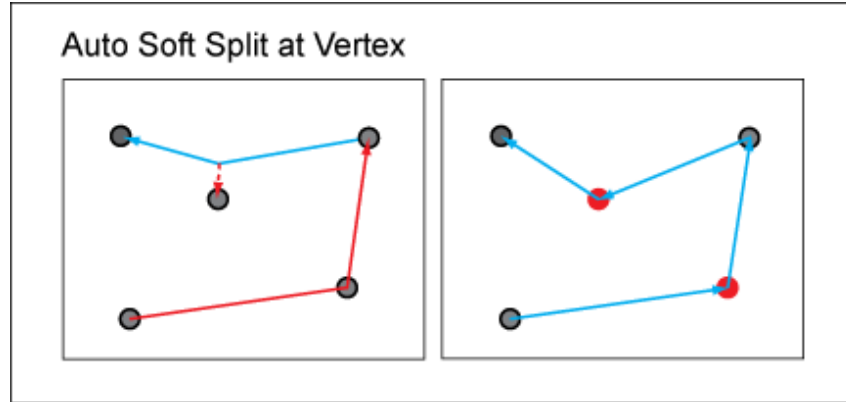
AutoSoftSplitAtVertex_BIU

Name	**AutoSoftSplitAtVertex_BIU**
Classification	**Optional feature rule.**
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.Util- ityLineFeatureRules
Type	Client-side Before Insert (BI); Before Update (BU). Is System. Is Row.
Description	Looks for utility points at the vertices and soft splits the line if utility points are found.
Execute Column	GEOM
Dependency	Member of a rule group. The rule groups only works if the AutoSoftS- plitLines rule group is enabled for the corres- ponding utility point feature class. See also AutoSoftSplitLines rule group (page 61).

AutoSoftSplitAtVertex_AIU

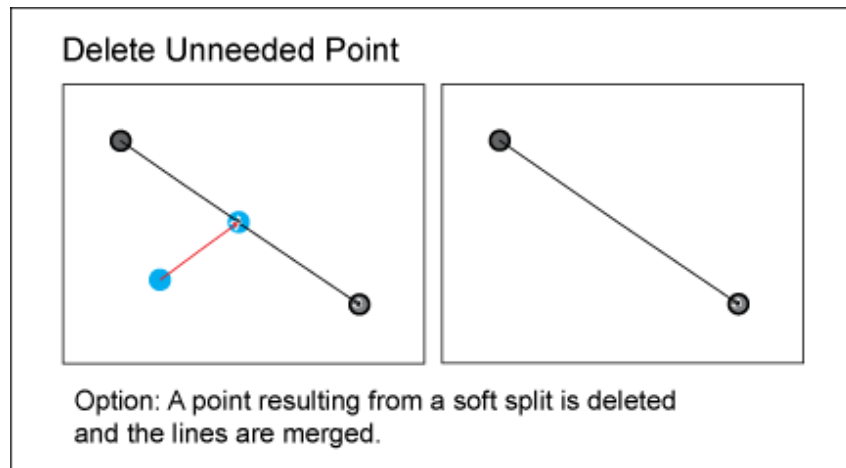| Name	**AutoSoftSplitAtVertex_AIU**
Classification	**Optional feature rule.**
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.Util-ityLineFeatureRules
Type	Client-side After Insert (AI); After Update (AU). Is System. Is Row.
Description	Looks for utility points at the vertices and soft splits the line if utility points are found.
Dependency	Member of a rule group. The rule groups only works if the AutoSoftS-plitLines rule group is enabled for the corres-ponding utility point feature class. See also AutoSoftSplitLines rule group (page 61).

MoveConnectedLines rule group

The MoveConnectedLines rule group moves lines connected to a point when the point is moved, such that the line and the point stay connected.

■ MoveConnectedLines_BU

■ MoveConnectedLines_AU

The rule group applies to Utility point feature classes.

Move Connected Lines

The lines connected to a point move with the point, if the point is moved.
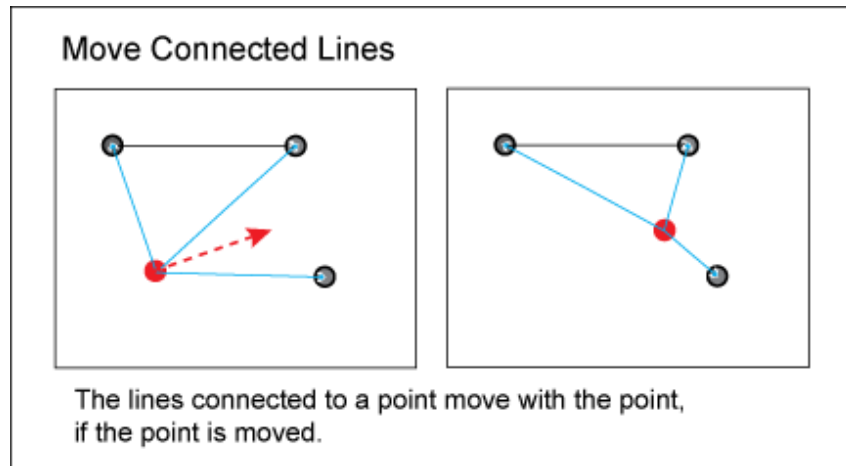
MoveConnectedLines_BU

Name	**MoveConnectedLines_BU**
Classification	**Optional feature rule.**
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.Util-ityPointFeatureRules
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Moves connected lines with the point so that they remain connected.
Execute Column	GEOM
Dependency	Member of a rule group. If you enable the MoveConnectedLines rule group, you must disable the AutoExtractSoftS-plit_BU (page 65) and AutoExtractSoftSplit_AU (page 66) feature rules.

MoveConnectedLines_AU

Name	MoveConnectedLines_AU
Classification	**Optional feature rule.**
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.Util-ityPointFeatureRules
Type	Client-side After update (AU). Is System. Is Row.
Description	Moves connected lines with the point so that they remain connected.
Dependency	Member of a rule group. If you enable the MoveConnectedLines rule group, you must disable the AutoExtractSoftS-plit_BU (page 65) and AutoExtractSoftSplit_AU (page 66) feature rules.

DeleteConnectedLines rule group

The DeleteConnectedLines rule group deletes lines connected to a point when the point is deleted.

- DeleteConnectedLines_BD

- DeleteConnectedLines_AD

Delete Connected Lines

The lines connected to a point are deleted,
if the point is deleted.
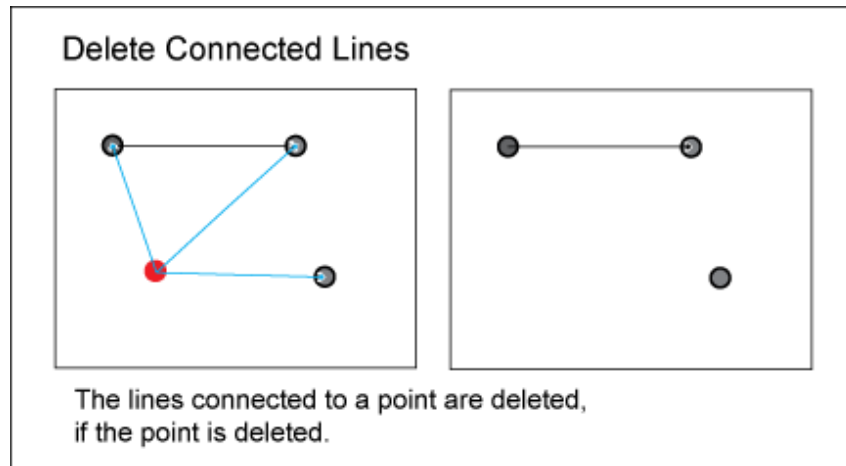
The rule group applies to Utility point feature classes.

DeleteConnectedLines_BD

Name	**DeleteConnectedLines_BD**
Classification	**Optional feature rule.**
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.Util-ityPointFeatureRules
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Deletes connected lines when a point is de-leted.
Dependency	Member of a rule group.

DeleteConnectedLines_AD

Name	**DeleteConnectedLines_AD**
Classification	**Optional feature rule.**

Location	Assembly: Topobase.Utilities.dll
	Classname: Topobase.Utilities.FeatureRules.Util-
	ityPointFeatureRules

Type	Client-side
	After Delete (AD).
	Is System. Is Row.

Description	Deletes connected lines when a point is de-
	leted.

Parameters	P1: AskUser. Default is YES.
	Specifies whether the user is asked if the un-
	needed points should be deleted. If the para-
	meter is NO, they are deleted without user in-
	teraction.

Dependency	Member of a rule group.

CancelDeleteUtilityPoint

The CancelDeleteUtilityPoint feature rule prevents features that belong to the Utility Point feature class from being deleted.

The ShowMessage parameter can have the values Yes or No. The parameter specifies whether or not the user receives a message stating that the deletion of features has been disabled.

The feature rule applies to the Utility Point feature class.

Name	**CancelDeleteUtilityPoint**

Classification	**Optional feature rule.**

Location	Assembly: Topobase.Utilities.dll
	Classname: Topobase.Utilities.FeatureRules.Util-
	ityPointFeatureRules

Type	Client-side
	Before Delete (BD).
	Is System. Is Row.

Description	Cancels deleting of utility points.
Parameters	P1: ShowMessage. Default is YES. Specifies whether the user gets a message stating that deleting features of the utility point feature class is disabled.

AutoSoftSplitLines rule group

The AutoSoftSplitLines rule group soft-splits a line when a point is moved to the line, or inserted onto the line.

You can select or clear these two cases individually using the before/after update (point is moved) and the before/after insert (point is inserted) check boxes. After a soft split, the two new lines share the same attribute feature.

■ AutoSoftSplitLines_BIU

■ AutoSoftSplitLines_AIU

The rule group applies to Utility point feature classes.
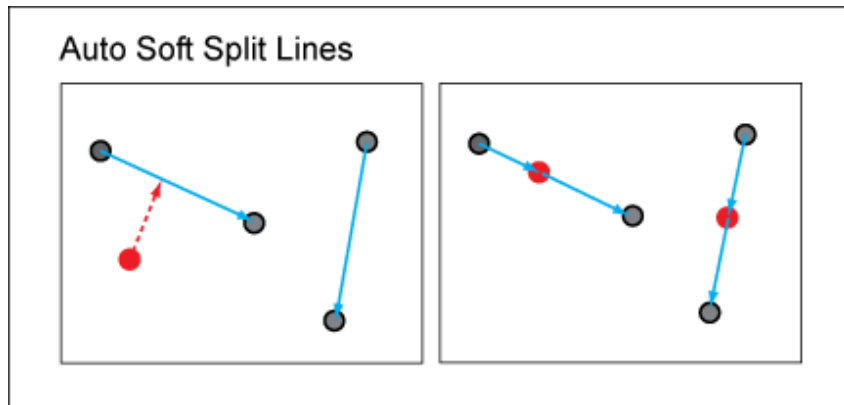
AutoSoftSplitLines_BIU

Name	**AutoSoftSplitLines_BIU**
Classification	**Optional feature rule.**
Location	Assembly: Topobase.Utilities.dll

	Classname: Topobase.Utilities.FeatureRules.Util-ityPointFeatureRules
Type	Client-side Before Insert (BI). Before Update (BU). Is System. Is Row.
Description	Automatically snaps points to closest line and soft split the line.
Parameters	P1: SnapTolerance. Default is 0.0005. Specifies how close the point must be to a line to activate the trigger. P2: MoveFeature. Default is POINT. If this parameter is POINT, the point is moved to the line, if the position is not exactly on the line but within tolerance. If the parameter is LINE, the line is moved to the point instead. P3: AttributeFCs. Default is empty. Specifies a feature class. If this parameter is empty the rule affects all points. If an attribute feature class name is given, the rule is only active for this feature class. Multiple feature classes should be separated by a comma.
Execute Column	GEOM
Dependency	Member of a rule group.

AutoSoftSplitLines_AIU

Name	**AutoSoftSplitLines_AIU**
Classification	**Optional feature rule.**
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.Util-ityPointFeatureRules
Type	Client-side After Insert (AI). After Update (AU). Is System. Is Row.

Description	Automatically snaps points to closest line and soft split the line.
Execute Column	GEOM
Dependency	Member of a rule group.

AutoExtractSoftSplit rule group

The AutoExtractSoftSplit rule group merges utility lines.

■ AutoExtractSoftSplit_BD

■ AutoExtractSoftSplit_AD

■ AutoExtractSoftSplit_BU

■ AutoExtractSoftSplit_AU

Case 1—Merges lines when the point between them is deleted. In the following case: They share the same attribute. The geometries are such that the two lines could be the result of a soft split.

Case 2—Merges lines when the point between them is moved away. In the following case: They share the same attribute feature. The geometries are such that the two lines could be the result of a soft split. This action disconnects the lines from the moved point.

Extract Soft Split

The point between the lines is deleted:
The two lines are merged, if they form a straight line.

The point between the lines is moved:
The two lines are merged, if they form a straight line.
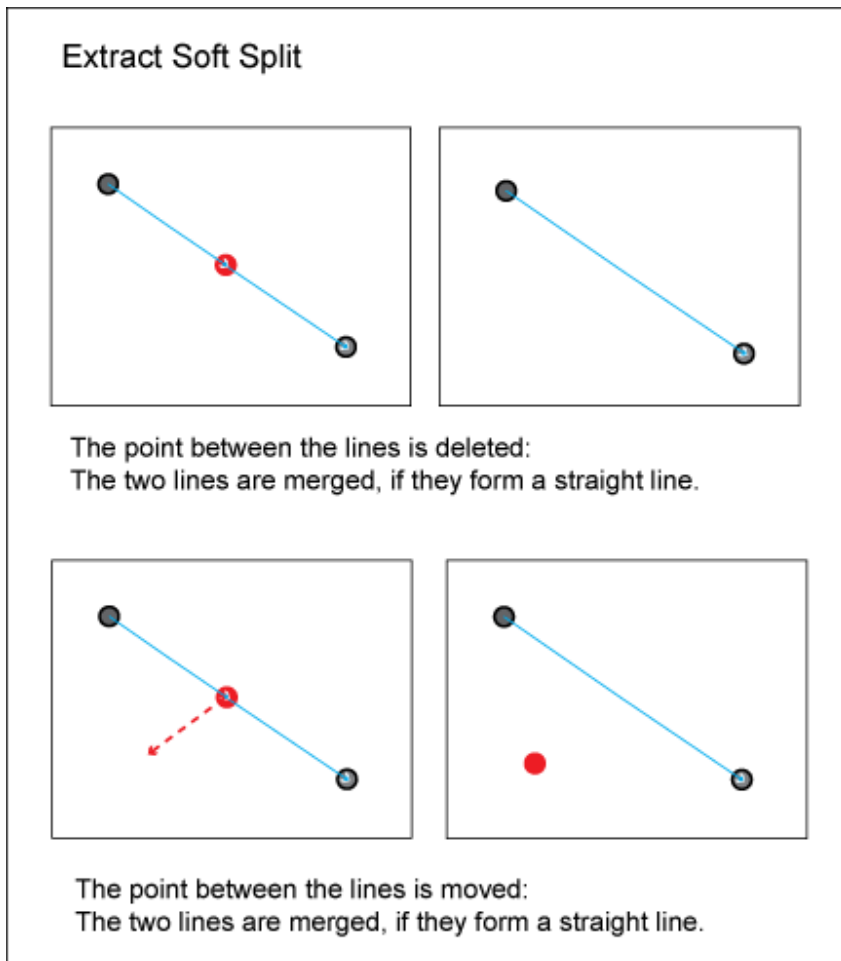
The rule group applies to Utility point feature classes.

AutoExtractSoftSplit_BD

Name	**AutoExtractSoftSplit_BD**
Classification	**Optional feature rule.**
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.UtilityPointFeatureRules

Type	Client-side
	Before Delete (BD).
	Is System. Is Row.

Description	Joins soft split lines if the point is deleted.

Dependency	Member of a rule group.

AutoExtractSoftSplit_AD

Name	**AutoExtractSoftSplit_AD**

Classification	**Optional feature rule.**

Location	Assembly: Topobase.Utilities.dll
	Classname: Topobase.Utilities.FeatureRules.Util-
	ityPointFeatureRules

Type	Client-side
	After Delete (AD).
	Is System. Is Row.

Description	Joins soft split lines if the point is deleted.

Dependency	Member of a rule group.

AutoExtractSoftSplit_BU

Name	**AutoExtractSoftSplit_BU**

Classification	**Optional feature rule.**

Location	Assembly: Topobase.Utilities.dll
	Classname: Topobase.Utilities.FeatureRules.Util-
	ityPointFeatureRules

Type	Client-side
	Before Update (BU).
	Is System. Is Row.

Description	Joins soft split lines if the point is deleted.

Dependency	Member of a rule group.
	If you have enabled the MoveConnectedLines rule group (page 56), you must disable Auto-ExtractSoftSplit_BU and AutoExtractSoftSplit_AU.

AutoExtractSoftSplit_AU

Name	**AutoExtractSoftSplit_AU**
Classification	**Optional feature rule.**
Location	Assembly: Topobase.Utilities.dll
	Classname: Topobase.Utilities.FeatureRules.Util-ityPointFeatureRules
Type	Client-side
	After Update (AU).
	Is System. Is Row.
Description	Joins soft split lines if the point is deleted.
Dependency	Member of a rule group.
	If you have enabled the MoveConnectedLines rule group (page 56), you must disable Auto-ExtractSoftSplit_BU and AutoExtractSoftSplit_AU.

SetPointOrientation rule group

The SetPointOrientation rule group specifies that when a point is inserted or moved onto a line, the orientation of the point matches the line orientation.

- SetPointOrientation_BI
- SetPointOrientation_BU

Set Point Orientation

When a point is inserted or moved on a line,
the orientation is set according the line orientation.
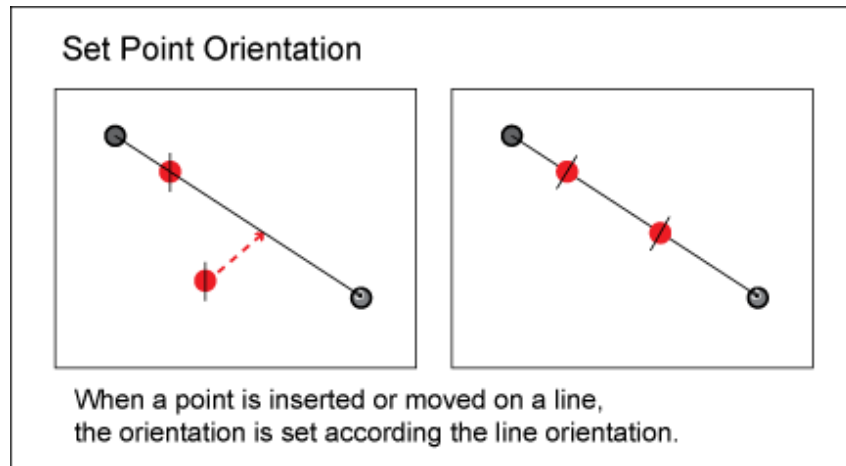
The rule group applies to Utility point feature classes.

SetPointOrientation_BI

Name	SetPointOrientation_BI
Classification	**Optional feature rule.**
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.Util-ityPointFeatureRules
Type	Client-side Before Insert (BI). Is System. Is Row.
Description	Adjusts the orientation of a point inserted on a line.
Dependency	Member of a rule group.

SetPointOrientation_BU

Name	SetPointOrientation_BU
Classification	**Optional feature rule.**

Location	Assembly: Topobase.Utilities.dll
	Classname: Topobase.Utilities.FeatureRules.Util-ityPointFeatureRules
Type	Client-side
	Before Update (BU).
	Is System. Is Row.
Description	Adjusts the orientation of a point inserted on a line.
Execute Column	GEOM
Dependency	Member of a rule group.

Extension Feature Rules

The feature rules for the COGO extension, and the Template extension are part of the basic feature rules. See Basic Feature Rules (page 6).

The Profile extension does not use any specific feature rules.

Plot feature rules

When you add the Plot extension to a document, client-side Plot feature rules are created and assigned automatically to the plot feature classes (PLT_*).

IMPORTANT Do not disable any of the Plot feature rules.

A plot can either be created using a plot template, or a blank sheet. The plot template specifies attributes that cannot be modified in the plot created from that template. Feature rules maintain conformity with the templates. A template-based plot stores the relation to the template in the PLT_PLOT.FID_PARENT_TEMPLATE attribute.

When you create or edit a plot, or a plot template, the plot features and the GIS features are drawn in the AutoCAD model space. Feature rules control any modification on a plot feature and ensure that related features are updated appropriately.

PLT_PreventInsertOnTemlateInstances_BI

PLT_PreventInsertOnTemlateInstances_BI makes sure that a template-based plot cannot be modified by inserting another plot feature. That means, the plot cannot be modified in a way that it differs from its template.

Name	**PLT_PreventInsertOnTemlateInstances_BI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Plot.Data.dll Classname: Topobase.Plot.Data.Feature-Rules.FeatureRules
Type	Client-side Before Insert (BI). Is System. Is Row.
Description	For template-based plots, prevents insertion of plot features.
Execute Column	GEOM
Parameters	P1: ParentTable_x. P2: Child Attribute_x. P3: P4: Optionally, the parameters specify up to five pairs of related feature classes that are checked by the feature rule.
Example	If the plot template does not comprise a north arrow, you are not allowed to insert a north arrow.

The feature rule applies to plot feature classes such as PLT_PLOT_IMAGE, PLT_PLOT_LEGEND, PLT_PLOT_NA, PLT_PLOT_SCALEBAR, PLT_PLOT_DECORATION, PLT_PLOT_MAP.

Optionally, the feature rule parameters specify the feature classes that are checked. Each pair of parameters specifies a parent table name, and a child attribute name. Use the parameters to improve performance.

For example, the north arrow PLT_PLOT_NA is directly related to PLT_PLOT. Then, the following parameters are specified.

■ PARENT_TABLE_1: PLT_PLOT

■ CHILD_ATTRIBUTE_1: FID_PARENT_PLOT

For example, the decoration labels are not directly related the PLT_PLOT, but they are related to the decoration, and the decoration is related to PLT_PLOT. Then, the following parameters are specified.

■ PARENT_TABLE_1: PLT_PLOT_DECORATION

■ CHILD_ATTRIBUTE_1: FID_PARENT (PLT_PLOT_DECORATION_TBL)

■ PARENT_TABLE_2: PLT_PLOT

■ CHILD_ATTRIBUTE_2: FID_PARENT_PLOT (PLT_PLOT_DECORATION)

NOTE If you create additional user defined plot feature classes, you assign the feature rule to keep the plot template and the plot consistent. Use the parameters to specify the parent feature class and the child feature classes.

PLT_PreventEditGeometryOnTemlateInstances_BU

PLT_PreventEditGeometryOnTemlateInstances_BU makes sure that plot features that have been created using a plot template cannot be modified. That means, the plot cannot be modified in a way that it differs from its template.

The feature rule is applied when you modify the geometry, or the orientation of a plot feature.

Name	**PLT_PreventEditGeometryOnTemlateInstances_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Plot.Data.dll Classname: Topobase.Plot.Data.FeatureRules.FeatureRules
Type	Client-side Before Update (BU). Is System. Is Row.

Description	For template-based plots, prevents geometry modifications on plot features.
Parameters	P1: ParentTable_x. P2: Child Attribute_x. P3: P4: Optionally, the parameters specify up to five pairs of related feature classes that are checked by the feature rule.
Example	You cannot move or rotate the north arrow.

The feature rule applies to plot feature classes such as PLT_PLOT_IMAGE, PLT_PLOT_LEGEND, PLT_PLOT_NA, PLT_PLOT_SCALEBAR, PLT_PLOT_DECORATION, PLT_PLOT_MAP.

Optionally, the feature rule parameters specify the feature classes that are checked. Each pair of parameters specifies a parent table name, and a child attribute name. Use the parameters to improve performance. See also PLT_PreventInsertOnTemlateInstances_BI (page 69).

PLT_PreventEditAttributesOnTemlateInstances_BU

PLT_PreventEditAttributesOnTemlateInstances_BU makes sure that attributes of plot features that have been created using a plot template cannot be modified.

NOTE By default this feature rule is not assigned to any plot feature class, so you are allowed to edit some descriptive attributes, such as PLT_PLOT.PLOT_NAME.

Name	**PLT_PreventEditAttributesOnTemlateInstances_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Plot.Data.dll Classname: Topobase.Plot.Data.FeatureRules.FeatureRules
Type	Client-side Before Update (BU).

	Is System. Is Row.
Description	For template-based plots, prevents any modi-fications of plot features, including geometry.
Execute Column	GEOM
Parameters	P1: ParentTable_x. P2: Child Attribute_x. P3: P4: Optionally, the parameters specify up to five pairs of related feature classes that are checked by the feature rule.

PLT_PreventDeleteOnTemlateInstances_BD

PLT_PreventDeleteOnTemlateInstances_BD makes sure that plot features that have been created using a plot template cannot be deleted. That means, the plot cannot be modified in a way that it differs from its template.

Name	**PLT_PreventDeleteOnTemlateInstances_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Plot.Data.dll Classname: Topobase.Plot.Data.Feature-Rules.FeatureRules
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	For template-based plots, prevents deletion of plot features.
Parameters	P1: ParentTable_x. P2: Child Attribute_x. P3: P4:

	Optionally, the parameters specify up to five pairs of related feature classes that are checked by the feature rule.
Example	You cannot delete the north arrow, if the plot template comprises a north arrow.

The feature rule applies to plot feature classes such as PLT_PLOT_IMAGE, PLT_PLOT_LEGEND, PLT_PLOT_NA, PLT_PLOT_SCALEBAR, PLT_PLOT_DECORATION, PLT_PLOT_MAP.

Optionally, the feature rule parameters specify the feature classes that are checked. Each pair of parameters specifies a parent table name, and a child attribute name. Use the parameters to improve performance. See also PLT_PreventInsertOnTemlateInstances_BI (page 69).

PLT_SetFixedPosition_AIU

When you define a plot feature, such as a north arrow, you can specify a fixed position relative to the paper borders. The feature rule PLT_SetFixedPosition_AIU updates the feature geometry of plot features, so the fixed position will be preserved.

Name	**PLT_SetFixedPosition_AIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Plot.Data.dll Classname: Topobase.Plot.Data.Feature-Rules.FeatureRules
Type	Client-side After Insert (AI). After Update (AU). Is System. Is Row.
Description	Updates the geometry, and preserves the fixed position of labels, image, legend, north arrow, scale bar.

The feature rule applies to PLT_PLOT_IMAGE, PLT_PLOT_LEGEND, PLT_PLOT_NA, PLT_PLOT_SCALEBAR, PLT_PLOT_MAP, PLT_PLOT_DECORATION. These feature classes have the following attributes

that specify the fixed position. The fixed position can only be preserved, if all attributes are filled.

- HORIZONTAL_OFFSET

- VERTICAL_OFFSET

- ID_VERTICAL_POSITION: Relation to PLT_PLOT_VPOSITION_TBD

- ID_HORIZONTAL_POSITION: Relation to PLT_PLOT_HPOSITION_TBD

NOTE The feature rule can be applied to any additional plot feature class that is directly or indirectly related to PLT_PLOT, and that has the required attributes.

PLT_ValidateMapPlaceHolder_BIU

PLT_ValidateMapPlaceHolder_BIU validates the geometry of a map placeholder PLT_PLOT_MAP. If the map placeholder is not a rectangle, the feature rule sets the map placeholder to a rectangle, but does not modify the scale of the map.

The feature rule applies to PLT_PLOT_MAP.

Name	**PLT_ValidateMapPlaceHolder_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Plot.Data.dll Classname: Topobase.Plot.Data.Feature-Rules.FeatureRules
Type	Client-side Before Insert (BI). Before Update (BU). Is System. Is Row.
Description	Validates the map placeholder, and verifies conformity with its template, if any.
Dependency	The feature rule only works if the feature rule MoveModelInsertionPoint_AIU is enabled; see also PLT_MoveModelInsertionPoint_AIU (page 75).

PLT_MoveModelInsertionPoint_AIU

PLT_MoveModelInsertionPoint_AIU realigns the plot capture point and the world insertion point of the primary map placeholder. For example, you move the placeholder rectangle using Topobase Edit Mode. Then, the current plot capture should stay the same, and he relative position of all other plot features should change instead.

The feature rule applies to PLT_PLOT_MAP.

Name	**PLT_MoveModelInsertionPoint_AIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Plot.Data.dll Classname: Topobase.Plot.Data.Feature-Rules.FeatureRules
Type	Client-side After Insert (AI). After Update (AU). Is System. Is Row.
Description	Realigns the plot insertion point and the model insertion point of the primary map placeholder, if they do not match.
Dependency	The feature rule only works if the feature rule PLT_ValidateMapPlaceholder_BIU is enabled; see also PLT_ValidateMapPlaceHolder_BIU (page 74).

PLT_PreventDeleteMainMapPlaceholder_BD

PLT_PreventDeleteMainMapPlaceholder_BD prevents the deletion of the primary map placeholder, if secondary map placeholders exist.

The feature rule applies to PLT_PLOT_MAP.

Name	**PLT_PreventDeleteMainMapPlaceholder_BD**
Classification	**System feature rule. Do not disable.**

Location	Assembly: Topobase.Plot.Data.dll
	Classname: Topobase.Plot.Data.Feature-Rules.FeatureRules
Type	Client-side
	Before Delete (BD).
	Is System. Is Row.
Description	Prevents the deletion of the primary map placeholder, if at least one secondary map placeholder exist.

PLT_UpdatePlotCover rule group

The feature rules in the PLT_UpdatePlotCover rule group work together first to set the information needed before a plot cover feature is deleted and then to update its cover feature after the primary map has been deleted. In this case, the hole in the plot cover will be removed.

The feature rule applies to PLT_PLOT_MAP.

PLT_UpdatePlotCover_BD

Name	**PLT_UpdatePlotCover_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Plot.Data.dll
	Classname: Topobase.Plot.Data.Feature-Rules.FeatureRules
Type	Client-side
	Before Delete (BD).
	Is System. Is Row.
Description	Sets the information needed for the PLT_Up-datePlotCover_AD feature rule to update the plot cover after a map placeholder has been deleted.
Dependency	Member of a rule group.

PLT_UpdatePlotCover_AD

Name	**PLT_UpdatePlotCover_AD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Plot.Data.dll Classname: Topobase.Plot.Data.Feature-Rules.FeatureRules
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Updates the plot cover after a map placeholder has been deleted.
Dependency	Member of a rule group.

PLT_PreventDeleteOfRootGroup_BD

PLT_PreventDeleteOfRootGroup_BD prevents the deletion of the root plot group that has been created during the initial structure update.

The feature rule applies to PLT_PLOT_GROUP.

Name	**PLT_PreventDeleteOfRootGroup_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Plot.Data.dll Classname: Topobase.Plot.Data.Feature-Rules.FeatureRules
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Prevents deletion of the root plot folder that has been created during the initial structure update.

PLT_PreventUpdateOfRootGroup_BU

PLT_PreventUpdateOfRootGroup_BU prevents updating the root plot group that has been created during the initial structure update.

The feature rule applies to PLT_PLOT_GROUP.

Name	**PLT_PreventUpdateOfRootGroup_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Plot.Data.dll Classname: Topobase.Plot.Data.Feature-Rules.FeatureRules
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Prevents updating the root plot folder that has been created during the initial structure update.

PLT_ValidatePlotGroup_BIU

PLT_ValidatePlotGroup_BIU performs validity checks, when a PLT_PLOT_GROUP record is inserted or updated.

The feature rule applies to PLT_PLOT_GROUP.

Name	**PLT_ValidatePlotGroup_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Plot.Data.dll Classname: Topobase.Plot.Data.Feature-Rules.FeatureRules
Type	Client-side Before Insert (BI). Before Update (BU). Is System. Is Row.

Description	Checks the PLT_PLOT_GROUP record to be inserted or for validity.

PLT_CreateMainPlotCover_AIU

PLT_CreateMainPlotCover_AIU creates a plot cover feature on plot creation and updates the cover, if the plot has been modified.

The feature rule applies to PLT_PLOT.

Name	**PLT_CreateMainPlotCover_AIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Plot.Data.dll Classname: Topobase.Plot.Data.Feature-Rules.FeatureRules
Type	Client-side After Insert (AI). After Update (AU). Is System. Is Row.
Description	Creates the main plot cover after the plot has been created.

PLT_ValidatePlot_BIU

PLT_ValidatePlot_BIU performs validity checks, when a PLT_PLOT record is inserted or updated. The check comprises both the attributes, and conformity of a plot with its template.

The feature rule applies to PLT_PLOT.

Name	**PLT_ValidatePlot_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Plot.Data.dll Classname: Topobase.Plot.Data.Feature-Rules.FeatureRules

Type	Client-side
	Before Insert (BI). Before Update (BU).
	Is System. Is Row.

Description	Checks the PLT_PLOT record to be inserted or updated for validity.

PLT_DetachPlotInstance_BD

When you delete a feature of a plot template, the PLT_DetachPlotInstance_BD feature rule detaches all plot instances from the template, and sets FID_PARENT_TEMPLATE to NULL.

The feature rule applies to PLT_PLOT.

Name	**PLT_DetachPlotInstance_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Plot.Data.dll
	Classname: Topobase.Plot.Data.Feature-Rules.FeatureRules
Type	Client-side
	Before Delete (BD).
	Is System. Is Row.
Description	Detaches any plots from a template before it is being deleted.

Topobase Feature Rules by Module

This section lists the feature rules by module.

Topobase Electric CE

Basic Feature Rules

See Basic Feature Rules (page 6)

Electric CE Feature Rules

The Electric CE module uses server-side feature rules to maintain the system tables.

The client-side feature rules for the Electric CE module manage the creation, deletion, and movement of device and structure features associated with the Electric CE data model.

For information about working with the Electric CE vertical application module, refer to the Topobase Electric User Guide.

EL_CreateSegmentCrossSection rule group

The feature rules in the EL_CreateSegmentCrossSection rule group create cross sections in accordance with your chosen segment model.

■ EL_CreateSegmentCrossSection_BU

■ EL_CreateSegmentCrossSection_AU

EL_CreateSegmentCrossSection_BU

Name	**EL_CreateSegmentCrossSection_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Creates a cross section according to the segment model you have selected.
Dependency	Rule group member
Execute Column	FID_TEMPLATE
Parameters	P1: Template is mandatory. Default: YES

EL_CreateSegmentCrossSection_AU

You can associate this feature rule with the **EL_SEGMENT** feature class.

Name	**EL_CreateSegmentCrossSection_AU**

Location	Assembly: `Topobase.Modules.Elec-`
	`tricCE.dll`
	Classname: `Topobase.Modules.Elec-`
	`tricCE.FeatureRules`

Type	Client-side After Update (AU). Is System. Is Row.
Description	Creates a cross section according to the segment model you have selected.
Dependency	Rule group member

EL_DeleteStructureLine_BD

The EL_DeleteStructureLine_BD feature rule deletes a structural line and any related features of type attribute, for example a segment conductor or a duct conductor.

Name	**EL_DeleteStructureLine_BD**
Classification	**System feature rule. Do not disable.**

Location	Assembly: `Topobase.Modules.Elec-`
	`tricCE.dll`
	Classname: `Topobase.Modules.Elec-`
	`tricCE.FeatureRules`

Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Delete structure line and related attribute feature.

EL_DeleteSegment_BD

The EL_DeleteSegment_BD feature rule saves all feature IDs related to a segment and deletes them when the segment is deleted.

Name	**EL_DeleteSegment_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Deletes the segment and all related features.

EL_MoveDuctInCrossSection_BU

The EL_MoveDuctInCrossSection_BU feature rule determines whether it is valid to move a cross section duct from one snap point to another. If the move is valid, the feature rule updates the relation between the cross section duct and the new snap point.

Name	**EL_MoveDuctInCrossSection_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Update (BU). Is System. Is Row.

Description	Updates the association between the cross section duct and snap point when the cross section duct is moved inside a cross section.
Execute Column	GEOM

EL_CreateDuctCrossSection rule group

The feature rules in the EL_CreateDuctCrossSection rule group create duct cross sections in accordance with your chosen duct model.

■ EL_CreateDuctCrossSection_BU

■ EL_CreateDuctCrossSection_BI

EL_CreateDuctCrossSection_BU

Name	**EL_CreateDuctCrossSection_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Creates the layout to display the conductors in a duct according to the selected duct model.
Dependency	Rule group member
Execute Column	FID_TEMPLATE

EL_CreateDuctCrossSection_BI

Name	**EL_CreateDuctCrossSection_BI**

Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Insert (BI). Is System. Is Row.
Description	Creates the layout to display the conductors in a duct according to the selected duct model.
Dependency	Rule group member

EL_CreateDevice_AI

The EL_CreateDevice_AI feature rule creates a device and, if the device has an external structure, the rule updates the structure.

Name	**EL_CreateDevice_AI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side After Insert (AI). Is System. Is Row.
Description	Creates a device and automatically updates its external structure if it exists.

EL_CreateConductor_AI

The EL_CreateConductor_AI feature rule creates a conductor and, if it has an external structure, the rule updates the structure.

Name	**EL_CreateConductor_AI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side After Insert (AI). Is System. Is Row.
Description	Creates a conductor and automatically updates its external structure if it exists.

EL_ForbidDuplicateDevice_BIU

The EL_ForbidDuplicateDevice_BIU feature rule prevents the creation of devices that have the same geometry as other devices.

You can associate this feature rule with the **EL_POINT** feature class.

Name	**EL_ForbidDuplicateDevice_BIU**
Classification	**Recommended feature rule. We strongly recommend that you enable this feature rule.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Insert Update (BIU). Is System. Is Row.

Description	Forbid devices that have the same geometry.
Execute Column	GEOM

EL_MoveConductorInCrossSection_BU

The EL_MoveConductorInCrossSection_BU feature rule determines whether moving a conductor from one duct to another is valid. If the move is permitted, the rule removes the unassigned snap point in the old duct and creates an unassigned snap point in the new duct. The rule then updates associations between related features.

Name	**EL_MoveConductorInCrossSection_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Updates the association between the cross section conductor and snap point when the cross section conductor is moved inside a cross section.
Execute Column	GEOM

EL_ScaleCrossSection_BU

The EL_ScaleSection_BU feature rule resizes a cross section when the value of the CS_ORIGIN.SCALE attribute changes. If the value of CS_ORIGIN.SCALE is less than 1, the cross section is scaled smaller than its original size. If the

value of CS_ORIGIN.SCALE is greater than 1, the cross section is scaled larger than its original size.

Name	**EL_ScaleCrossSection_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Scale the cross section according to the value of CS_ORIGIN.SCALE.
Execute Column	nSCALE

EL_MoveCsLegendDecoration_BU

The EL_MoveCsLegendDecoration_BU feature rule determines whether a legend decoration has to be created or if one already exists. The rule then creates or updates the legend decoration according to the position of the CS_ORIGIN.

This feature rules moves the legend line associated with a cross section when the cross section is moved.

Name	**EL_MoveCsLegendDecoration_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Update (BU).

	Is System. Is Row.
Description	Move legend decoration line according to the cross section origin.
Execute Column	GEOM

EL_MoveAccordingSnappoint_BU

The EL_MoveAccordingSnappoint_BU feature rule moves features that have FID_SNAPPOINT attributes to a new snap point and updates the geometry and orientation of the features accordingly.

Name	**EL_MoveAccordingSanppoint_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Move cross section elements according to their related snap points.
Execute Column	GEOM

EL_MoveAccordingSegment rule group

The feature rules in the EL_MoveAccordingSegment rule group move the conductors, ducts, and cross sections of a segment to their new locations when the geometry of the segment has been updated.

This rule group contains the following feature rules:

■ EL_MoveAccordingSegment_BU

■ EL_MoveAccordingSegment_AU

EL_MoveAccordingSegment_BU

Name	**EL_MoveAccordingSegment_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Move the conductors, ducts, and cross sections of a segment to their new locations when the geometry of a segment is updated..
Execute Column	GEOM

EL_MoveAccordingSegment_AU

Name	**EL_MoveAccordingSegment_AU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side After Update (BU). Is System. Is Row.
Description	Move the conductors, ducts, and cross sections of a segment to their new locations when the geometry of a segment is updated..

EL_DeleteCSConductor rule group

The feature rules in the EL_DeleteCSConductor rule group delete the conductors and their associated table entries when a cross section conductor is deleted.

■ EL_DeleteCSConductor_BD

■ EL_DeleteCSConductor_AD

EL_DeleteCSConductor_BD

Name	**EL_DeleteCSConductor_BD**
Classification	**System feature rule. Do not disable.**

Location	Assembly: `Topobase.Modules.Elec-`
	`tricCE.dll`
	Classname: `Topobase.Modules.Elec-`
	`tricCE.FeatureRules`

Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Deletes the represented conductor and all de-pendent features when a conductor in a cross section is deleted.
Dependency	Rule group member

EL_DeleteCSConductor_AD

NOTE This feature rule must be triggered before the Template Feature Rule UpdateTemplateInstances_BD.

Name	**EL_DeleteCSConductor_AD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-` `tricCE.dll`

	Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Deletes the represented conductor and all dependent features when a conductor in a cross section is deleted.
Dependency	Rule group member

EL_DeleteElLine_BD

The EL_DeleteElLine_BD feature rule deletes conductors and cross section conductors, segment conductors, and duct conductors if EL_LINE is a utility feature of a conductor.

Name	**EL_DeleteElLine_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Deletes conductors and cross section conductors if EL_Line is a utility feature of conductors.

EL_DeleteConductor rule group

The feature rules in the EL_DeleteConductor rule group delete cross section conductors and all associated relationship table entries when conductors are deleted.

■ EL_DeleteConductor_BD

■ EL_DeleteConductor_AD

EL_DeleteConductor_BD

NOTE

This feature rule must be triggered before TemplateFeatureRule UpdatesTemplateInstances_BD.

Name	**EL_DeleteConductor_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Deletes the conductor and all related cross section conductors.
Dependency	Rule group member

EL_DeleteConductor_AD

Name	**EL_DeleteConductor_AD**
Classification	**System feature rule. Do not disable.**

Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Deletes the conductor and all related cross section conductors.
Dependency	Rule group member

EL_DeleteCSDuct rule group

The following feature rules belong to the EL_DeleteCSDuct rule group.

- EL_DeleteConductor_BD

- EL_DeleteCSDuct_AD

EL_DeleteCSDuct_BD

The EL_DeleteCSDuct_BD feature rule determines whether there are sufficient unassigned snap points in a cross section for the ducts and inner conductors represented by the CSDuct feature to which the rule applies. If there are insufficient unassigned snap points, the deletion of the the CSDuct is not permitted.

Name	**EL_DeleteCSDuct_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Delete (BD). Is System. Is Row.

Description	Deletes the represented duct and all related cross section ducts.
Dependency	Rule group member

EL_DeleteCSDuct_AD

The EL_DeleteCSDuct_AD feature rule deletes the CSDuct, and the corresponding duct, to which the rule applies.

Name	**EL_DeleteCSDuct_AD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Deletes the represented duct and all related cross section ducts.
Dependency	Rule group member

EL_DeleteDuct rule group

The feature rules in the EL_DeleteCSDuct rule group move each of the conductors contained in a duct to the next consequtive unassigned snap points of a cross section and delete the duct.

■ EL_DeleteDuct_BD

■ EL_DeleteDuct_AD

EL_DeleteDuct_BD

Name	**EL_DeleteDuct_BD**

Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Moves all containing conductors to the next free unassigned snap point of the cross section and deletes the duct.
Dependency	Rule group member

EL_DeleteDuct_AD

Name	**EL_DeleteDuct_AD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Moves all containing conductors to the next free unassigned snap point of the cross section and delets the duct.
Dependency	Rule group member

EL_DeleteDuctArea rule group

The feature rules in the EL_DeleteDuctArea rule group delete related ducts.

- EL_DeleteDuctArea_BD
- EL_DeleteDuctArea_AD

EL_DeleteDuctArea_BD

Name	**EL_DeleteDuctArea_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Deletes the related duct.
Dependency	Rule group member

EL_DeleteDuctArea_AD

Name	**EL_DeleteDuctArea_AD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Deletes the related duct.

Dependency	Rule group member

EL_DeleteStructurePoint_BD

The EL_DeleteStructurePoint_BD feature rule deletes the station internal view for the related structure point.

Name	**EL_StructurePoint_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.ElectricCE.dll` Classname: `Topobase.Modules.ElectricCE.FeatureRules`
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Deletes station internal for structure point.

EL_CreateSegmentBorders_BI

The EL_CreateSegmentBorders_BI feature rule creates two separate border features that represent the width of the segment.

Name	**EL_CreateSegmentBorders_BI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.ElectricCE.dll` Classname: `Topobase.Modules.ElectricCE.FeatureRules`
Type	Client-side Before Insert (BI). Is System. Is Row.

Description	Creates two segment border features that represent the width of the segment.

EL_UpdateSegmentBorders_StrLine_BU

The EL_UpdateSegmentBorders_StrLine_BU feature rule creates two separate border features that represent the width of the segment.

Name	**EL_UpdateSegmentBorders_StrLine__BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Creates two segment border features that represent the width of the segment.

EL_UpdateSegmentBorders_Segment_BU

The EL_UpdateSegmentBorders_Segment_BU feature rule creates two separate border features that represent the width of the segment.

Name	**EL_UpdateSegmentBorders_Segment_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Update (BU).

Is System. Is Row.

Description	Creates two segment border features that represent the width of the segment.

EL_DeleteSegmentBorders rule group

The feature rules in the EL_DeleteSegmentBorders_BD rule group delete EL_SEGMENT_BORDER features when an EL_SEGMENT feature is deleted.

EL_DeleteSegmentBorders_BD

Name	**EL_DeleteSegmentBorders_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.FeatureRules
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Deletes the segment border features that represent the width of the segment.

EL_DeleteSegmentBorders_AD

Name	**EL_DeleteeSegmentBorders_AD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.ElectricCE.dll` Classname: `Topobase.Modules.ElectricCE.FeatureRules`
Type	Client-side After Delete (AD). Is System. Is Row.

Description	Deletes the segment border features that represent the width of the segment.

EL_AutoSplitSegment_AI

The EL_AutoSplitSegment_AI feature rule automatically splits a segment after the insertion of a new structural point.

Name	**EL_AutoSplitSegment_AI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.ElectricCE.dll` Classname: `Topobase.Modules.ElectricCE.FeatureRules`
Type	Client-side After Insert (AI). Is System. Is Row.
Description	Automatically hard-splits a segment if a structural point feature is created on the segment.

Topobase Electric NA

Basic Feature Rules

See Basic Feature Rules (page 6)

Electric NA Feature Rules

The Electric NA module uses server-side feature rules to maintain the system tables.

The client-side feature rules for the Electric NA module manage the creation, deletion, and movement of devices and structures associated with the Electric NA data model.

For information about working with the Electric NA vertical application module, refer to the Topobase Electric User Guide.

EL_DeleteSegment rule group

The feature rules in the EL_DeleteSegment rule group delete all features related to a segment.

- EL_DeleteSegment_BD

- EL_DeleteSegment_AD

EL_DeleteSegment_BD

Name	**EL_DeleteSegment_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricNA.dll` Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Deletes the segment and all related features.
Dependency	Rule group member

EL_DeleteSegment_AD

Name	**EL_DeleteSegment_AD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricNA.dll` Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side After Delete (AD). Member of a rule group. TB_RULE_GROUP.ID = 8006.

	Is System. Is Row.
Description	Deletes the segment and all related features.
Dependency	Rule group member

EL_CreateSegmentCrossSection rule group

The feature rules in the EL_CreateSegmentCrossSection rule group create segment cross sections in accordance with your chosen segment model.

■   EL_CreateSegmentCrossSection_BU

■   EL_CreateSegmentCrossSection_AU

EL_CreateSegmentCrossSection_BU

Name	**EL_CreateSegmentCrossSection_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricNA.dll` Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Creates a cross section according to the selected segment model.
Dependency	Rule group member
Execute Column	FID_TEMPLATE
Parameters	P1: Template is mandatory. Default: YES

EL_CreateSegmentCrossSection_AU

Name	**EL_CreateSegmentCrossSection_AU**
Classification	**System feature rule. Do not disable.**

Location	Assembly: `Topobase.Modules.Elec-`
	`tricNA.dll`
	Classname: `Topobase.Modules.Elec-`
	`tricNA.FeatureRules`

Type	Client-side After Update (AU). Is System. Is Row.
Description	Creates a cross section according to the selected segment model.
Dependency	Rule group member
Execute Column	FID_TEMPLATE

EL_DeleteSegmentCrossSection_BD

The EL_DeleteSegmentCrossSection_BDfeature rule determines whether deleting a cross section is permitted.

Name	**EL_DeleteSegmentCrossSection_BD**
Classification	**System feature rule. Do not disable.**

Location	Assembly: `Topobase.Modules.Elec-`
	`tricNA.dll`
	Classname: `Topobase.Modules.Elec-`
	`tricNA.FeatureRules`

Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Determines if deleting this cross section is allowed.

Dependency	Rule group member

EL_CreatePoleTowerCrossSection rule group

The feature rules in the EL_CreatePoleTowerCrossSection rule group create pole/tower cross sections in accordance with your chosen data model.

- EL_CreatePoleTower_BU
- EL_CreatePoleTowerSection_AU

EL_CreatePoleTowerCrossSection_BU

Name	**EL_CreatePoleTowerCrossSection_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricNA.dll` Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Creates a cross section according to the selected pole/tower model.
Dependency	Rule group member
Execute Column	FID_TEMPLATE

EL_CreatePoleTowerCrossSection_AU

Name	**EL_CreatePoleTowerCrossSection_AU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricNA.dll`

	Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side After Update (AU). Is System. Is Row.
Description	Creates a cross section according to the selected pole/tower model.
Dependency	Rule group member

EL_CreateDuctCrossSection rule group

The feature rules in the EL_CreateDuctCrossSection rule group create duct cross sections in accordance with your chosen duct model.

■ EL_CreateDuctCrossSection_BU

■ EL_CreateDuctCrossSection_BI

EL_CreateDuctCrossSection_BU

Name	**EL_CreateDuctCrossSection_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricNA.dll` Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Creates the layout to display conductors in a duct according to the selected duct model.
Dependency	Rule group member
Execute Column	FID_TEMPLATE

EL_CreateDuctCrossSection_BI

Name	**EL_CreateDuctCrossSection_BI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricNA.dll` Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Creates the layout to display conductors in a duct according to the selected duct model.
Dependency	Rule group member

EL_ForbidDuplicateDevice_BIU

The EL_ForbidDuplicateDevice_BIU feature rule prevents the creation of devices that have the same geometry as other devices.

You can associate this feature rule with all point feature classes in the Electric Topology, and with EL_BUS_BAR, which is a collection, and can also be a point.

Name	**EL_ForbidDuplicateDevice_BIU**
Classification	**Recommended feature rule. We strongly recommend that you enable this feature rule.**
Location	Assembly: `Topobase.Modules.Elec-tricCE.dll` Classname: `Topobase.Modules.Elec-tricCE.FeatureRules`
Type	Client-side Before Insert Update (BIU).

	Is System. Is Row.
Description	Forbid devices that have the same geometry.
Execute Column	GEOM

EL_MoveAccordingSnappoint_BU

The EL_MoveAccordingSnappoint_BU feature rule moves features that have FID_SNAPPOINT attributes to a new snap point and updates the geometry and orientation of the features accordingly.

Name	**EL_MoveAccordingSnappoint_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricNA.dll` Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Move cross section elements according to their related snap point.
Execute Column	GEOM

EL_RermoveSnappointUnderneath_BD

The EL_RemoveSnappointUnderneath_BD feature rule removes the snap point when a cross section conductor is deleted.

Name	**EL_RemoveSnappointUnderneath_BD**
Classification	**System feature rule. Do not disable.**

Location	Assembly: `Topobase.Modules.Elec-tricNA.dll`
	Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`

Type	Client-side
	Before Delete (BD).
	Is System. Is Row.

Description	Remove snap point when a cross section con-ductor is removed.

EL_DeleteSnappoint_BD

The EL_DeleteSnappoint_BD feature rule prevents snap points from being deleted. Snap points are managed by the application.

Name	**EL_DeleteSnappoint_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricNA.dll`
	Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side
	Before Delete (BD).
	Is System. Is Row.
Description	Prevent user from deleting snap points. Snap points are managed by the application.

EL_DeleteCSConductor rule group

The feature rules in the EL_Delete CSConductor rule group delete conductors and all associated table entries when a cross section conductor is deleted.

- EL_DeleteCSConductor_BD
- EL_DeleteCSConductor_AD

EL_DeleteCSConductor_BD

Name	**EL_DeleteCSConductor_BD**
Classification	**System feature rule. Do not disable.**
Location	**Assembly:** `Topobase.Modules.Elec-tricNA.dll` **Classname:** `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Deletes the represented conductor and all dependent features when a conductor in a cross section is deleted.
Dependency	Rule group member

EL_DeleteCSConductor_AD

NOTE This feature rule must be triggered before the Template Feature Rule UpdateTemplateInstances_BD.

Name	**EL_DeleteCSConductor_AD**
Classification	**System feature rule. Do not disable.**
Location	**Assembly:** `Topobase.Modules.Elec-tricNA.dll` **Classname:** `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Deletes the represented conductor and all dependent features when a conductor in a cross section is deleted.

Dependency	Rule group member

EL_DeleteConductor rule group

The feature rules in the EL_Delete Conductor rule group feature delete conductors and all associated table entries when cross sections are deleted.

- EL_DeleteConductor_BD
- EL_DeleteConductor_AD

EL_DeleteConductor_BD

NOTE This feature rule must be triggered before the Template Feature Rule UpdateTemplateInstances_BD.

Name	**EL_DeleteConductor_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricNA.dll` Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Deletes the conductor and all related cross section conductors.
Dependency	Rule group member

EL_DeleteConductor_AD

Name	**EL_DeleteConductor_AD**
Classification	**System feature rule. Do not disable.**

Location	Assembly: `Topobase.Modules.Elec-tricNA.dll`
	Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`

Type	Client-side
	After Delete (AD).
	Member of a rule group. TB_RULE_GROUP.ID = 8011.
	Is System. Is Row.

Description	Deletes the conductor and all related cross section conductors.

Dependency	Rule group member

EL_DeleteCSDuct rule group

The EL_DeleteCSDuct rule group contains the following feature rules:

■ EL_DeleteCSDuct_BD

■ EL_DeleteCSDuct_AD

EL_DeleteCSDuct_BD

The EL_DeleteCSDuct_BD feature rule determines whether there are sufficient unassigned snap points in a cross section for the ducts and inner conductors represented by the CSDuct to which the rule applies. If there are insufficient unassigned snap points, the deletion of the the CSDuct is not permitted.

Name	**EL_DeleteCSDuct_BD**

Classification	**System feature rule. Do not disable.**

Location	Assembly: `Topobase.Modules.Elec-tricNA.dll`
	Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`

Type	Client-side
	Before Delete (BD).

	Member of a rule group. TB_RULE_GROUP.ID = 8012. Is System. Is Row.
Description	Deletes the represented duct and all dependent cross section ducts.
Dependency	Rule group member

EL_DeleteCSDuct_AD

The EL_DeleteCSDuct_AD feature rule deletes the CSDuct, and the corresponding duct, to which the rule applies.

NOTE This feature rule must be triggered before the Template Feature Rule UpdateTemplateInstances_BD.

Name	**EL_CDeleteCSDuct_AD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.ElectricNA.dll` Classname: `Topobase.Modules.ElectricNA.FeatureRules`
Type	Client-side After Delete (AD). Member of a rule group. TB_RULE_GROUP.ID = 8012. Is System. Is Row.
Description	Deletes the represented duct and all dependent cross section ducts.
Dependency	Rule group member

EL_DeleteDuct rule group

The following feature rules belong to the EL_DeleteDuct rule group:

- EL_DeleteCSDuct_BD

- EL_DeleteDuct_BD

EL_DeleteDuct_BD

The EL_DeleteDuct_BD feature rule determines whether there are sufficient unassigned snap points in a cross section for the ducts and inner conductors represented by the Duct to which the rule applies. If there are insufficient unassigned snap points, the deletion of the the Duct is not permitted.

NOTE This feature rule must be triggered before the Template Feature Rule UpdateTemplateInstances_BD.

Name	**EL_DeleteDuct_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricNA.dll` Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Moves all conductors to the next free unassigned snap point of the cross section and deletes the duct.
Dependency	Rule group member

EL_DeleteDuct_AD

The EL_DeleteDuct_AD feature rule deletes the Duct and moves its inner conductors to the unassigned snap points of the cross section.

Name	**EL_DeleteDuct_AD**

Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricNA.dll` Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Moves all conductors to the next free unas-signed snap point of the cross section and de-letes the duct.
Dependency	Rule group member

EL_MoveDuctInCrossSection_BU

The EL_MoveDuctInCrossSection_BU feature rule determines whether it is valid to move a cross section duct from one snap point to another. If the move is permitted, the rule updates the relationship between the snap point and the cross section duct.

Name	**EL_MoveDuctInCrossSection_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricNA.dll` Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side BeforeUpdate (BU). Is System. Is Row.
Description	Updates association between cross section duct and snap point when the cross section duct is moved inside the cross section.

Execute Column	GEOM

EL_MoveConductorInCrossSection_BU

The EL_MoveConductorInCrossSection_BU feature rule determines whether it is valid to move a cross section conductor from one duct to another. If the move is permitted, the existing duct is removed, an unassigned snap point is created, and the associations between the features are updated.

Name	**EL_MoveConductorInCrossSection_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricNA.dll` Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side BeforeUpdate (BU). Is System. Is Row.
Description	Updates association between cross section conductor and snap point when the cross section conductor is moved inside the cross section.
Execute Column	GEOM

EL_ScaleCrossSection_BU

The EL_ScaleSection_BU feature rule resizes a cross section when the value of the CS_ORIGIN.SCALE attribute changes. If the value of CS_ORIGIN.SCALE is less than 1, the cross section is scaled smaller than its original size. If the value of CS_ORIGIN.SCALE is greater than 1, the cross section is scaled larger than its original size.

Name	**EL_ScaleCrossSection_BU**
Classification	**System feature rule. Do not disable.**

Location	Assembly: `Topobase.Modules.Elec-`
	`tricNA.dll`
	Classname: `Topobase.Modules.Elec-`
	`tricNA.FeatureRules`

Type	Client-side BeforeUpdate (BU). Is System. Is Row.
Description	Scale cross section according to the value of CS_ORIGIN.SCALE.
Execute Column	SCALE

EL_MoveCsLegendDecoration_BU

The EL_MoveCsLegendDecoration_BU feature rule determines whether a legend decoration exists or whether it has to be created. The rule then updates or creates the legend decoration as necessary in accordance with the position of CS_ORIGIN.

Name	**EL_MoveCsLegendDecoration_BU**
Classification	**System feature rule. Do not disable.**

Location	Assembly: `Topobase.Modules.Elec-`
	`tricNA.dll`
	Classname: `Topobase.Modules.Elec-`
	`tricNA.FeatureRules`

Type	Client-side BeforeUpdate (BU). Is System. Is Row.
Description	Move legend decoration line according to the cross section origin.
Execute Column	GEOM

EL_ComputeNextMaintDate_BIU

The EL_ComputeNextMaintDate_BIU feature rule calculates the next
maintenance date as a function of the maintenance date and the maintenance
period. If the next maintenance date has already been set, the rule does
nothing.

Name	**EL_ComputeNextMaintDate_BIU**
Classification	**System feature rule. Do not disable.**

Location	Assembly: `Topobase.Modules.Elec-`
	`tricNA.dll`
	Classname: `Topobase.Modules.Elec-`
	`tricNA.FeatureRules`

Type	Client-side BeforeInsert Update (BIU). Is System. Is Row.
Description	Computes the next maintenance date based on the current maintenance date and a main- tenance period.

EL_ForbidDuplicateDevice_BIU

The EL_ForbidDuplicateDevice_BIU feature rule prevents the creation of devices
that have the same geometry as the feature class with which this rule is
associated.

You can associate this feature rule with the **EL_POINT** feature class.

Name	**EL_ForbidDuplicateDevice_BIU**
Classification	**Recommended feature rule. We strongly** **recommend that you enable this feature** **rule.**

Location	Assembly: `Topobase.Modules.Elec-`
	`tricNA.dll`
	Classname: `Topobase.Modules.Elec-`
	`tricNA.FeatureRules`

Type	Client-side Before Insert Update (BIU). Is System. Is Row.
Description	Forbid devices with the same geometry.
Execute Column	GEOM

EL_MoveAccordingSegment rule group

The feature rules in the EL_MoveAccordingSegmen rule group move cross sections, legends, and related conductors to their new locations before or after the geometry of a segment is updated.

This rule group contains the following rules:

- EL_MoveAccordingSegment_BU

- EL_MoveAccordingSegment_AU

EL_MoveAccordingSegment_BU

Name	**EL_MoveAccordingSegment_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricNA.dll` Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side Before Update (BU) Is System. Is Row.
Description	Moves the conductors and cross sections of a segment to their new locations when the geometry of a segment is updated.
Execute Column	GEOM

EL_MoveAccordingSegment_AU

Name	**EL_MoveAccordingSegment_AU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricNA.dll` Classname: `Topobase.Modules.Elec-tricNA.FeatureRules`
Type	Client-side After Update (AU) Is System. Is Row.
Description	Moves the conductors and cross sections of a segment to their new locations when the geometry of a section is updated.
Execute Column	GEOM

ValidateElectricTopology rule group

The ValidateElectricTopology_BI feature rule contains feature rules that determine whether the links between connected features are valid. If the links are broken, the rules fire the CircuitFailure, PhaseFailure, and VoltageFailure events.

■ ValidateElectricTopology_BI

■ ValidateElectricTopology_BU

ValidateElectricTopology_BI

Name	**ValidateElectricTopology_BI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: `Topobase.Modules.Elec-tricNA.dll` Classname: `Topobase.Modules.Elec-tricNA.Topology.FeatureRules`

Type	Client-side
	Before Insert (BI).
	Is System. Is Row.

Description	Validates manual operation of the electrical logical topology (voltage, phase, and state).

Dependency	Rule group member

ValidateElectricTopology_BU

Name	**ValidateElectricTopology_BU**

Classification	**System feature rule. Do not disable.**

Location	Assembly: `Topobase.Modules.Elec-tricNA.dll`
	Classname: `Topobase.Modules.Elec-tricNA.Topology.FeatureRules`

Type	Client-side
	Before Update (BU).
	Is System. Is Row.

Description	Validates manual operation of the electrical logical topology (voltage, phase, and state).

Dependency	Rule group member

Topobase Gas

Basic Feature Rules

See Basic Feature Rules (page 6)

Gas Feature Rules

Gas client-side feature rules facilitate and control data entry. For example, you optionally enable a feature rule that automatically assigns the pressure zone during digitalization of the gas network.

See also the Topobase Gas User Guide.

GA_ComputeNextMaintDate_BIU

GA_ComputeNextMaintDate_BIU calculates the next maintenance date based on the current maintenance date and maintenance period.

Name	**GA_ComputeNextMaintDate_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.Gas.dll Classname: Topobase.Modules.Gas.Feature-Rules
Type	Client-side Before Insert (BI). Before Update (BU). Is System. Is Row.
Description	Calculates the next maintenance date based on the current maintenance date and maintenance period.

NOTE We recommend that you enable the feature rule, if you want to calculate the maintenance date automatically.

GA_RejectDuplicatePoints_BIU

The feature rule GA_RejectDuplicatePoints_BIU ensures that no gas network points (GA_POINT) or cable control points (GA_C_POINT) can be created in the same location.

NOTE We recommend that you enable the feature rule, if you want to validate that no duplicate points are digitized. For example, to prevent topology errors.

The feature rule applies to gas utility points (GA_POINT), and to control cable points (GA_C_POINT)

Name	**GA_RejectDuplicatePoints_BIU**
Classification	**Recommended feature rule. We strongly recommend that you enable this feature rule.**

Location	Assembly: Topobase.Modules.Gas.dll
	Classname: Topobase.Modules.Gas.Feature-Rules
Type	Client-side
	Before Insert (BI). Before Update (BU).
	Is System. Is Row.
Description	Rejects insert or update when another utility point is located within the radius.
Execute Column	GEOM
Parameters	P1: Radius. Default is 0.0005.
	Specifies a radius for searching similar points.
	P2: Other Utility FCs.
	Specifies other utility point feature classes.
	Enter multiple feature classes separated by a comma. An empty list affects none.
	P3: Show Error. Default is YES.
	Specifies whether to display a message.
Example	Set the parameter P2 to "GA_VALVE, GA_FITTING" to specify that only valves and fittings must not lie within the specified radius.

GA_SetPressureZone_BI

The feature rule GA_SetPressureZone_BI sets the pressure zone <feature class>.FID_PRESSUREZONE for a feature if it is located within a zone. If the feature is located in overlapping zones, you are prompted to select a zone. If you select Yes, you can select a zone. If you select No, the pressure zone value is cleared.

NOTE We recommend that you enable the feature rule, if you want to automatically assign the pressure zone during digitalization.

Name	**GA_SetPressureZone_BI**
Classification	**System feature rule. Do not disable.**

Location	Assembly: Topobase.Modules.Gas.dll
	Classname: Topobase.Modules.Gas.Feature-Rules
Type	Client-side
	Before Insert (BI).
	Is System. Is Row.
Description	Sets the pressure zone of a feature if it is within such a zone. When more than one zone is found, the feature is assigned to none.
Parameters	P1: Show Zone Selector. Default is YES. Specifies whether a zone selector is shown, if more than one zone is found.
Dependency	The GA_SetPressureZone_BI feature rule applies to the attribute feature classes. There is a related rule group for the utility point and utility line feature classes. See GA_SetPressureZone_BIU (page 124).
	NOTE You must enable or disable the GA_SetPressureZone feature rule for both the attribute feature class and the utility feature class.

GA_SetPressureZone_BIU rule group

The GA_SetPressureZone rule group sets the pressure zone of a feature if it is within such a zone.

- GA_SetPressureZone_BIU

- GA_SetPressureZone_AIU

GA_SetPressureZone_BIU

Name	**GA_SetPressureZone_BIU**
Classification	**System feature rule. Do not disable.**

Location	Assembly: Topobase.Modules.Gas.dll Classname: Topobase.Modules.Gas.Feature-Rules
Type	Client-side Before Insert (BI). Before Update (BU). Is System. Is Row.
Description	Sets the pressure zone of a feature if it is within such a zone. In update mode, it removes the assignment when no zone is found. When more than one zone is found, the feature is assigned to none.
Execute Column	GEOM
Parameters	P1: Show Zone Selector. Default is YES. Specifies whether a zone selector is shown, if more than one zone is found.
Dependency	Member of a rule group. The GA_SetPressureZone_BIU feature rule applies to the utility point and utility line feature classes. There is a related feature rule for the attribute feature classes. See GA_SetPressureZone_BI (page 123). **NOTE** You must enable or disable the GA_SetPressureZone feature rule for both the attribute feature class and the utility feature class.

GA_SetPressureZone_AIU

Name	**GA_SetPressureZone_AIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.Gas.dll Classname: Topobase.Modules.Gas.Feature-Rules
Type	Client-side

	After Insert (AI). After Update (AU). Is System. Is Row.
Description	Sets the pressure zone of a feature if it is within such a zone. In update mode, it removes the assignment when no zone is found. When more than one zone is found, the feature is assigned to none.
Parameters	P1: Show Zone Selector. Default is YES. Specifies whether a zone selector is shown, if more than one zone is found.
Dependency	Member of a rule group. The GA_SetPressureZone_AIU feature rule applies to the utility point and utility line feature classes. There is a related feature rule for the attribute feature classes. See GA_SetPressureZone_BI (page 123). **NOTE** You must enable or disable the GA_SetPressureZone feature rule for both the attribute feature class and the utility feature class.

GA_SetSupplyZone_BI

The feature rule GA_SetSupplyZone_BI sets the supply zone <feature class>.FID_SUPPLYZONE for a feature if it is located within a zone. If the feature is located in overlapping zones, you are prompted to select a zone. If you select Yes, you can select a zone. If you select No, the supply zone value is cleared.

Name	**GA_SetSupplyZone_BI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.Gas.dll Classname: Topobase.Modules.Gas.Feature-Rules
Type	Client-side

	Before Insert (BI). Is System. Is Row.
Description	Sets the supply zone of a feature if it is within such a zone. When more than one zone is found, the feature is assigned to none.
Parameters	P1: Show Zone Selector. Default is YES. Specifies whether a zone selector is shown, if more than one zone is found.
Dependency	The GA_SetSupplyZone_BI feature rule applies to the attribute line feature classes. There is a related rule group for the utility line feature classes. See GA_SetSupplyZone rule group (page 127). **NOTE** You must enable or disable the GA_SetSupplyZone feature rule for both the attribute feature class and the utility feature class.

GA_SetSupplyZone rule group

The GA_SetSupplyZone rule group sets the supply zone of a feature if it is within such a zone.

- GA_SetSupplyZone_BIU

- GA_SetSupplyZone_AIU

GA_SetSupplyZone_BIU

Name	**GA_SetSupplyZone_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.Gas.dll Classname: Topobase.Modules.Gas.Feature-Rules
Type	Client-side

Before Insert (BI). Before Update (BU).
Is System. Is Row.

Description	Sets the supply zone of a feature if it is within such a zone. In update mode, it removes the assignment when no zone is found. When more than one zone is found, the feature is assigned to none.
Execute Column	GEOM
Parameters	P1: Show Zone Selector. Default is YES. Specifies whether a zone selector is shown, if more than one zone is found.
Dependency	Member of a rule group. The GA_SetSupplyZone_BIU feature rule applies to the utility line feature classes. There is a related feature rule for the attribute line feature classes. See GA_SetSupplyZone_BI (page 126). **NOTE** You must enable or disable the GA_SetSupplyZone feature rule for both the attribute feature class and the utility feature class.

GA_SetSupplyZone_AIU

Name	**GA_SetSupplyZone_AIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.Gas.dll Classname: Topobase.Modules.Gas.Feature-Rules
Type	Client-side After Insert (AI). After Update (AU). Is System. Is Row.
Description	Sets the supply zone of a feature if it is within such a zone. In update mode, it removes the

	assignment when no zone is found. When more than one zone is found, the feature is assigned to none.
Parameters	P1: Show Zone Selector. Default is YES. Specifies whether a zone selector is shown, if more than one zone is found.
Dependency	Member of a rule group. The GA_SetSupplyZone_AIU feature rule applies to the utility line feature classes. There is a related feature rule for the attribute line feature classes. See GA_SetSupplyZone_BI (page 126).
	NOTE You must enable or disable the GA_SetSupplyZone feature rule for both the attribute feature class and the utility feature class.

Topobase Wastewater

Basic Feature Rules

See Basic Feature Rules (page 6)

Wastewater Feature Rules

The Wastewater client-side feature rules manage the component features of the wastewater data model and calculate interdependent values, such as fall heights, areas, and pipe lengths.

For information about using the Wastewater vertical application, refer to the the Topobase Wastewater User Guide.

WW_ComputeNextMaintDate_BIU

The feature rule WW_ComputeNextMaintDate_BIU calculates the next maintenance date (MAINTENANCE_NEXT_DATE) based on the current

maintenance date (MAINTENANCE_DATE) and the maintenance period
(MAINTENANCE_PERIOD).

Name	**WW_ComputeNextMaintDate_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.Fea- tureRules
Type	Client-side Before Insert (BI). Before Update (BU).
Description	Calculates the next maintenance date based on the current maintenance date and the maintenance period.

WW_CompNbrOfSectionsManhole_AI

For new manholes, the feature rule WW_CompNbrOfSectionsManhole_AI
calculates the number of incoming and outgoing sections and stores the results
in the attributes NR_INPUT_SECTION and NR_OUTPUT_SECTION.

Name	**WW_CompNbrOfSectionsManhole_AI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.Fea- tureRules
Type	Client-side After Insert (AI).
Description	For new manholes, calculates the number of incoming and outgoing sections

WW_CompNbrOfSectionsManhole_AU

The feature rule WW_CompNbrOfSectionsManhole_AU calculates the number of input and output sections for a new manhole.

Name	**WW_CompNbrOfSectionsManhole_AU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side After Update (AU).
Description	Calculates the number of input- and output-sections for a new manhole.

WW_ComputeNbrOfSections rule group

The WW_ComputeNbrOfSections rule group determines the start points and the end points of the created section and calculates the number of incoming and outgoing sections.

■ WW_ComputeNbrOfSections_BIU

■ WW_ComputeNbrOfSections_AIU

■ WW_ComputeNbrOfSections_BD

■ WW_ComputeNbrOfSections_AD

WW_ComputeNbrOfSections_BIU

Name	**WW_ComputeNbrOfSections_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules

Type	Client-side
	Before Insert (BI). Before Update (BU).

Description	Determines the start point, and the end point of the created section and calculates their number of incoming and outgoing sections.

Execute Column	GEOM

Dependency	Member of a rule group.

WW_ComputeNbrOfSections_AIU

Name	**WW_ComputeNbrOfSections_AIU**

Classification	**System feature rule. Do not disable.**

Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules

Type	Client-side
	After Insert (AI). After Update (AU).

Description	Determines the start point, and the end point of the created section and calculates their number of incoming and outgoing sections.

Dependency	Member of a rule group.

WW_ComputeNbrOfSections_BD

Name	**WW_ComputeNbrOfSections_BD**

Classification	**System feature rule. Do not disable.**

Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules

Type	Client-side
	Before Delete (BD).

Description	Determines the start point, and the end point of the created section and calculates their number of incoming and outgoing sections.
Dependency	Member of a rule group.

WW_ComputeNbrOfSections_AD

Name	**WW_ComputeNbrOfSections_AD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side After Delete (AD).
Description	Determines the start point, and the end point of the created section and calculates their number of incoming and outgoing sections.
Dependency	Member of a rule group.

WW_ConnectCover_BIU

The feature rule WW_ConnectCover_BIU performs a spatial query before the insert or update of a cover. If the cover lies in a polygon point detail, the rule associates the cover with the point of the point detail.

Name	**WW_ConnectCover_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side Before Insert (BI). Before Update (BU).

Description	Connects covers with the point if they are contained in the point's polygon detail.
Execute Column	GEOM

WW_ConnectCoverPolygon_AIU

The feature rule WW_ConnectCoverPolygon_AIU performs a spatial query after the insert or update of a PolygonPointDetail. If the polygon contains a cover that is not yet associated with the PolygonPointDetail that has just been inserted or updated, the rule associates the cover with the PolygonPointDetail.

Name	**WW_ConnectCoverPolygon_AIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side After Insert (AI). After Update (AU).
Description	Connects covers with the point if they are contained in the point's polygon detail.

WW_ComputeSubDrainArea_BIU

The feature rule WW_ComputeSubDrainArea_BIU performs various calculations, such as covered and uncovered areas, for the sub drain area.

Name	**WW_ComputeSubDrainArea_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side

Before Insert (BI). Before Update (BU).

Description	Calculates some values of the sub drain area.

WW_ConnSectionWashingArea_BI

The feature rule WW_ConnSectionWashingArea_BI performs a spatial query before the insertion of a section. If the section lies within the washing area, the rule associates the section with the washing area.

Name	**WW_ConnSectionWashingArea_BI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side Before Insert (BI).
Description	Connects a section with a washing area with it is contained in the washing area.

WW_ConnSectionWashingArea_BU

The feature rule WW_ConnSectionWashingArea_BU performs a spatial query to determine whether a section lies within a washing area. If it does, the rule associates the section with the washing area.

Name	**WW_ConnSectionWashingArea_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side Before Update (BU).

Description	Connects a section with a washing area with it is contained in the washing area.
Execute Column	GEOM

WW_ConnWashingAreaSection_BIU

The feature rule WW_ConnWashingAreaSection_BIU performs a spatial query to determine whether a section lies within a washing area. If it does, the rule associates the section with the washing area.

Name	**WW_ConnWashingAreaSection_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side Before Insert (BI). Before Update (BU).
Description	Connects a section with a washing area with it is contained in the washing area.
Execute Column	GEOM

WW_ConnSubAreaWDrainArea_BIU

The feature rule WW_ConnSubAreaWDrainArea_BIU connects a sub drain area with the containing drain area.

Name	**WW_ConnSubAreaWDrainArea_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules

Type	Client-side
	Before Insert (BI). Before Update (BU).

Description	Connects a sub drain area with the containing drain area.

Execute Column	GEOM

WW_ConnDrainAreaWSubArea_BIU

The feature rule WW_ConnDrainAreaWSubArea_BIU connects a sub drain area with the containing drain area.

Name	**WW_ConnDrainAreaWSubArea_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll
	Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side
	Before Insert (BI). Before Update (BU).
Description	Connects a sub drain area with the containing drain area.
Execute Column	GEOM

WW_ComputeSectionElevation_BIU

The feature rule WW_ComputeSectionElevation_BIU performs calculations for a section and its associated manholes and their covers.

Name	**WW_ComputeSectionElevation_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll

	Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side Before Insert (BI). Before Update (BU).
Description	Calculates some values of the section, its manholes, and their covers.

WW_ConnSubDrainAreaSection_BU

The feature rule WW_ConnSubDrainAreaSection_BU connects a section with a sub drain area if it is contained in the sub drain area.

Name	**WW_ConnSubDrainAreaSection_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side Before Update (BU).
Description	Connects a section with a sub drain area if it is contained in the sub drain area.
Execute Column	GEOM

WW_ConnSectionSubDrainArea_BI

The feature rule WW_ConnSectionSubDrainArea_BI connects a section with a sub drain area if it is contained in the sub drain area.

Name	**WW_ConnSectionSubDrainArea_BI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll

	Classname: Topobase.Modules.WasteWater.Fea- tureRules
Type	Client-side Before Insert (BI).
Description	Connects a section with a sub drain area if it is contained in the sub drain area.

WW_ConnSubDrainAreaSection_BU

The feature rule WW_ConnSubDrainAreaSection_BU connects a section with a sub drain area if it is contained in the sub drain area.

Name	**WW_ConnSubDrainAreaSection_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.Fea- tureRules
Type	Client-side Before Update (BU).
Description	Connects a section with a sub drain area if it is contained in the sub drain area.
Execute Column	GEOM

WW_ConnSubDrainAreaManhole_BIU

The feature rule WW_ConnSubDrainAreaManhole_BIU connects the end manhole of a section with a sub drain area if it is contained in this area.

Name	**WW_ConnSubDrainAreaManhole_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll

	Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side Before Insert (BI). Before Update (BU).
Description	Connects the end manhole of a section with a sub drain area if it is contained in this area.
Execute Column	GEOM

WW_ConnManholeSubDrainArea_BIU

The feature rule WW_ConnManholeSubDrainArea_BIU Connects the end manhole of a section with a sub drain area if it is contained in this area.

Name	**WW_ConnManholeSubDrainArea_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side Before Insert (BI). Before Update (BU).
Description	Connects the end manhole of a section with a sub drain area if it is contained in this area.

WW_DeleteSectionObservation rule group

The feature rules in the WW_DeleteSectionObservation rule group delete section rehabilitation when the corresponding section observation is deleted.

- WW_DeleteSectionObservation_BD
- WW_DeleteSectionObservation_AD

WW_DeleteSectionObservation_BD

Name	**WW_DeleteSectionObservation_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side Before Delete (BD).
Description	When a section observation is deleted, this feature rule will delete the related section rehabilitation feature.
Dependency	Member of a rule group.

WW_DeleteSectionObservation_AD

Name	**WW_DeleteSectionObservation_AD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side Before Delete (BD).
Description	When a section observation is deleted, this feature rule will delete the related section rehabilitation feature.
Dependency	Member of a rule group.

WW_DeleteManholeObservation rule group

The feature rules in the WW_DeleteManholeObservation rule group delete the manhole rehabilitation when the corresponding manhole observation is deleted.

- WW_DeleteManholeObservation_BD

- WW_DeleteManholeObservation_AD

WW_DeleteManholeObservation_BD

Name	**WW_DeleteManholeObservation_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side Before Delete (BD).
Description	This feature rule deletes the manhole rehabilitation when the corresponding manhole observation is deleted.
Dependency	Member of a rule group.

WW_DeleteManholeObservation_AD

Name	**WW_DeleteManholeObservation_AD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side After Delete (AD).

Description	This feature rule deletes the manhole rehabilit-ation when the corresponding manhole obser-vation is deleted.
Dependency	Member of a rule group.

WW_DeleteSiteObservation rule group

The feature rules in the WW_DeleteSiteObservation rule group delete the site rehabilitation when the corresponding site observation is deleted.

- WW_DeleteSiteObservation_BD

- WW_DeleteSiteObservation_AD

WW_DeleteSiteObservation_BD

Name	**WW_DeleteSiteObservation_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.Fea-tureRules
Type	Client-side Before Delete (BD).
Description	This feature rule deletes the site rehabilitation when the corresponding site observation is deleted.
Dependency	Member of a rule group.

WW_DeleteSiteObservation_AD

Name	**WW_DeleteSiteObservation_AD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll

	Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side After Delete (AD).
Description	This feature rule deletes the site rehabilitation when the corresponding site observation is deleted.
Dependency	Member of a rule group.

WW_CopyLengthSection_BI

The feature rule WW_CopyLengthSection_BI copies the value of the length system attribute of the WW_LINE feature to the total length attribute (TOTAL_LENGTH) of the associated WW_SECTION feature.

Name	**WW_CopyLengthSection_BI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side Before Insert (BI).
Description	Copies the value of the length attribute of the line feature to the total length attribute of the section feature.
Dependency	

WW_CopyLengthLine_AU

The feature rule WW_CopyLengthLine_AU copies the value of the length system attribute of the WW_LINE feature to the total length attribute (TOTAL_LENGTH) of the associated WW_SECTION feature.

Name	**WW_CopyLengthLine_AU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side After Update (AU).
Description	Copies the value of the length attribute of the line feature to the total length attribute of the section feature.

WW_CopyInputOutputZ_AI

The feature rule WW_CopyInputOutputZ_AI copies the value of the 'Input Z' to the 'Start Z' attribute and the value of the 'Output Z' to the 'End Z' attribute.

Name	**WW_CopyInputOutputZ_AI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side After Insert (AI).
Description	Copies the value of the 'Input Z' to the 'Start Z' attribute and the value of the 'Output Z' to the 'End Z' attribute.

WW_CopyInputOutputZ_BU

The feature rule WW_CopyInputOutputZ_BU copies the value of the 'Input Z' to the 'Start Z' attribute and the value of the 'Output Z' to the 'End Z' attribute.

Name	**WW_CopyInputOutputZ_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side Before Update (BU).
Description	Copies the value of the 'Input Z' to the 'Start Z' attribute and the value of the 'Output Z' to the 'End Z' attribute.

WW_SetFallHeightDefault_AI

The feature rule WW_SetFallHeightDefault_AI assigns the default value to the 'Fall Height' attribute.

Name	**WW_SetFallHeightDefault_AI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side After Insert (AI).
Description	Assigns the default value to the 'Fall Height' attribute.

WW_SetInputStepDefault_AI

The feature rule WW_SetInputStepDefault_AI assigns the default value to the
'Input Step' attribute.

Name	**WW_SetInputStepDefault_AI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.Fea- tureRules
Type	Client-side After Insert (AI).
Description	Assigns the default value to the 'Input Step' attribute.

WW_CalcPipeLengthLine_AU

The feature rule WW_CalcPipeLengthLine_AU calculates the value of the pipe
length attribute of the section feature.

Name	**WW_CalcPipeLengthLine_AU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.Fea- tureRules
Type	Client-side After Update (AU).

| Description | Calculates the value of the pipe length attribute of the section feature. |

WW_CalcPipeLengthPoint_AI

The feature rule WW_CalcPipeLengthPoint_AI calculates the value of the pipe length attribute of the section feature.

Name	**WW_CalcPipeLengthPoint_AI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side After Insert (AI).
Description	Calculates the value of the pipe length attribute of the section feature.

WW_CalcPipeLengthSection_BI

The feature rule WW_CalcPipeLengthSection_BI calculates the value of the pipe length attribute of the section feature.

Name	**WW_CalcPipeLengthSection_BI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
Type	Client-side Before Insert (BI).
Description	Calculates the value of the pipe length attribute of the section feature.

Topobase Water

Basic Feature Rules

See Basic Feature Rules (page 6)

Water Feature Rules

Water client-side feature rules facilitate and control data entry. For example, you optionally enable a feature rule that automatically assigns the pressure zone during digitalization of the gas network.

See also the TopobaseWater User Guide.

RejectDuplicatePoints_BIU

The feature rule RejectDuplicatePoints_BIU ensures that no water network points (WA_POINT) or cable control points (WA_C_POINT) can be created in the same location.

NOTE We recommend that you enable the feature rule, if you want to validate that no duplicate points are digitized. For example, to prevent topology errors.

The feature rule applies to water utility points (WA_POINT), and to control cable points (WA_C_POINT).

Name	**RejectDuplicatePoints_BIU**
Classification	**Recommended feature rule. We strongly recommend that you enable this feature rule.**
Location	Assembly: Topobase.Modules.Water.dll Classname: Topobase.Modules.Water.Feature-Rules
Type	Client-side Before Insert (BI). Before Update (BU). Is System. Is Row.
Description	Rejects insert or update when another utility point is located within the radius.

Execute Column	GEOM
Parameters	P1: Radius. Default is 0.0005. Specifies a radius for searching similar points. P2: Other Utility FCs. Specifies other utility point feature classes. Enter multiple feature classes separated by a comma. An empty list affects none. P3: Show Error. Default is YES. Specifies whether to display a message.

SetPressureZone_BI

The feature rule SetPressureZone_BI sets the pressure zone <feature class>.FID_PRESSUREZONE for a feature if it is located within a zone. If the feature is located in overlapping zones, you are prompted to select a zone. If you select Yes, you can select a zone. If you select No, the pressure zone value is cleared.

NOTE We recommend that you enable the feature rule, if you want to automatically assign the pressure zone during digitalization. See also the Topobase Water User Guide, section Pressure Zones.

Name	**SetPressureZone_BI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.Water.dll Classname: Topobase.Modules.Water.Feature-Rules
Type	Client-side Before Insert (BI). Is System. Is Row.
Description	Sets the pressure zone of a feature if it is within such a zone. When more than one zone is found, the feature is assigned to none.
Parameters	P1: Show Zone Selector. Default is YES.

	Specifies whether a zone selector is shown, if more than one zone is found.
Dependency	The SetPressureZone_BI feature rule applies to the attribute feature classes. There is a related rule group for the utility point and utility line feature classes. See SetPressureZone_BIU (page 151).
	NOTE You must enable or disable the SetPressureZone feature rule for both the attribute feature class and the utility feature class.

SetPressureZone rule group

The SetPressureZone rule group sets the pressure zone of a feature if it is within such a zone.

■ SetPressureZone_BIU

■ SetPressureZone_AIU

SetPressureZone_BIU

Name	**SetPressureZone_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.Water.dll Classname: Topobase.Modules.Water.Feature-Rules
Type	Client-side Before Insert (BI). Before Update (BU). Is System. Is Row.
Description	Sets the pressure zone of a feature if it is within such a zone. In update mode, it removes the assignment when no zone is found. When more than one zone is found, the feature is assigned to none.

Execute Column	GEOM
Parameters	P1: Show Zone Selector. Default is YES. Specifies whether a zone selector is shown, if more than one zone is found.
Dependency	Member of a rule group. The SetPressureZone_BIU feature rule applies to the the utility point and utility line feature classes. There is a related feature rule for the attribute feature classes. See SetPressureZone_BI (page 150).
	NOTE You must enable or disable the SetPressureZone feature rule for both the attribute feature class and the utility feature class.

SetPressureZone_AIU

Name	**SetPressureZone_AIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.Water.dll Classname: Topobase.Modules.Water.Feature-Rules
Type	Client-side After Insert (AI). After Update (AU). Is System. Is Row.
Description	Sets the pressure zone of a feature if it is within such a zone. In update mode, it removes the assignment when no zone is found. When more than one zone is found, the feature is assigned to none.
Parameters	P1: Show Zone Selector. Default is YES. Specifies whether a zone selector is shown, if more than one zone is found.
Dependency	Member of a rule group.

The SetPressureZone_AIU feature rule applies to the the utility point and utility line feature classes. There is a related feature rule for the attribute feature classes. See GA_SetPressureZone_BI (page 123).

NOTE You must enable or disable the SetPressureZone feature rule for both the attribute feature class and the utility feature class.

SetSupplyZone_BI

The feature rule SetSupplyZone_BI sets the supply zone <feature class>.FID_SUPPLYZONE for a feature that is located within a zone. If the feature is located in overlapping zones, you are prompted to select a zone. If you select Yes, you can select a zone. If you select No, the supply zone value is cleared.

NOTE We recommend that you enable the feature rule, if you want to automatically assign the supply zone when you digitize a pipe. See also the Topobase Water User Guide, section Supply Zones.

Name	**SetSupplyZone_BI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.Water.dll Classname: Topobase.Modules.Water.FeatureRules
Type	Client-side Before Insert (BI). Is System. Is Row.
Description	Sets the supply zone of a feature if it is within such a zone. When more than one zone is found, the feature is assigned to none.
Parameters	P1: Show Zone Selector. Default is YES. Specifies whether a zone selector is shown, if more than one zone is found.

Dependency	The SetSupplyZone_BI feature rule applies to the attribute feature classes. There is a related rule group for the utility point and utility line feature classes. See SetSupplyZone_BIU (page 154).
	NOTE You must enable or disable the SetSupplyZone feature rule for both the attribute feature class and the utility feature class.

SetSupplyZone rule group

The SetSupplyZone rule group sets the supply zone of a feature if it is within such a zone.

■ SetSupplyZone_BIU

■ SetSupplyZone_AIU

SetSupplyZone_BIU

Name	**SetSupplyZone_BIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.Water.dll Classname: Topobase.Modules.Water.Feature- Rules
Type	Client-side Before Insert (BI). Before Update (BU). Is System. Is Row.
Description	Sets the supply zone of a feature if it is within such a zone. In update mode, it removes the assignment when no zone is found. When more than one zone is found, the feature is assigned to none.
Execute Column	GEOM
Parameters	P1: Show Zone Selector. Default is YES.

Specifies whether a zone selector is shown, if more than one zone is found.

Dependency	Member of a rule group. The SetSupplyZone_BIU feature rule applies to the utility line feature classes. There is a related feature rule for the attribute line feature classes. See SetSupplyZone_BI (page 153).
	NOTE You must enable or disable the SetSupplyZone feature rule for both the attribute feature class and the utility feature class.

SetSupplyZone_AIU

Name	**SetSupplyZone_AIU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.Water.dll Classname: Topobase.Modules.Water.Feature-Rules
Type	Client-side After Insert (AI). After Update (AU). Is System. Is Row.
Description	Sets the supply zone of a feature if it is within such a zone. In update mode, it removes the assignment when no zone is found. When more than one zone is found, the feature is assigned to none.
Parameters	P1: Show Zone Selector. Default is YES. Specifies whether a zone selector is shown, if more than one zone is found.
Dependency	Member of a rule group. The SetSupplyZone_AIU feature rule applies to the utility line feature classes. There is a related feature rule for the attribute line feature classes. See SetSupplyZone_BI (page 153).

NOTE You must enable or disable the SetSup-plyZone feature rule for both the attribute feature class and the utility feature class.

Topobase Survey

Basic Feature Rules

See Basic Feature Rules (page 6)

Survey Feature Rules

The Survey module uses server-side feature rules to maintain the system tables of the Survey database. For example, when you delete a measurement, the related lines in the network plan are deleted.

For information about using the Survey vertical application, refer to the Topobase Server User Guide.

IMPORTANT Do not disable or enable any of the Survey feature rules.

Survey Delete NetplanLine

When you delete a measurement, Survey Delete NetplanLine deletes the related lines of the network plan.

Name	**Survey Delete NetplanLine**
Classification	**System feature rule. Do not disable.**
Type	Server-side Before Delete (BD). Is System. Is Row.
Description	When you delete a measurement, deletes the related netplan line.

Survey Delete Measure Fieldpoint

When you delete a measurement, Survey Delete Measure Fieldpoint deletes the corresponding field point in the table TB_SUR_FIELD_POINT.

Name	**Survey Delete Measure Fieldpoint**
Classification	**System feature rule. Do not disable.**
Type	Server-side After Delete (AD). Is System. Is Row.
Description	When you delete a measurement, deletes the corresponding field point in the table TB_SUR_FIELD_POINT.

Survey Delete Session Fieldpoint

When you delete a session, Survey Delete Session Fieldpoint deletes the corresponding field points.

Name	**Survey Delete Session Fieldpoint**
Classification	**System feature rule. Do not disable.**
Type	Server-side After Delete (AD). Is System. Is Row.
Description	When you delete a session, deletes the corresponding field point.

Survey Delete Session File Rule Group

The Survey Delete Session File rule group deletes parent features in the table TB_SUR_FILE.

- Survey Delete Session File Row

- Survey Delete Session File Stm

Survey Delete Session File Row

Name	**Survey Delete Session File Row**
Classification	**System feature rule. Do not disable.**
Type	Server-side After Delete (AD). Is System. Is Row.
Description	Deletes the parent features in TB_SUR_FILE when no children exist. Part 1: Adds file FID to temp table.
Dependency	Member of a rule group.

Survey Delete Session File Stm

Name	**Survey Delete Session File Stm**
Classification	**System feature rule. Do not disable.**
Type	Server-side After Delete (AD). Is System.
Description	Deletes the parent features in TB_SUR_FILE when no children exist. Part 2: Checks with FID from temp table if children exist. When no children exist, deletes file item.
Dependency	Member of a rule group.

Survey Del Main FieldPoint Rule Group

The Survey Del Main FieldPoint rule group updates the system table TB_SUR_FIELD_POINT.

- Survey Del Main FieldPoint Row

- Survey Del Main FieldPoint Stm

Survey Del Main FieldPoint Row

Name	Survey Del Main FieldPoint Row
Classification	System feature rule. Do not disable.
Type	Server-side After Delete (AD). Is System. Is row
Description	Updates the child features in TB_SUR_FIELD_POINT when parent feature in the same table no longer exist. Part 1: Adds FID of main point to a temporary table.
Dependency	Member of a rule group.

Survey Del Main FieldPoint Stm

Name	Survey Del Main FieldPoint Stm
Classification	System feature rule. Do not disable.
Type	Server-side After Delete (AD). Is System.
Description	Updates child features in TB_SUR_FIELD_POINT when parent features in the same table no longer exist. Part 2: Checks with FID from temporary table for children to update.
Dependency	Member of a rule group.

Topobase Land Management

Basic Feature Rules

See Basic Feature Rules

Land Management Feature Rules

IMPORTANT Do not disable or enable any of the Land Management feature rules.

See also:

■ Land Management

LM Mutation Relation Rule Group

The MutaionRelation rule group manages and maintains the mutation relations, that means the relation of a feature to the job perimeter (LM_AD_MUTPERIMETER).

■ LM_MutationRelation_BI

■ LM_MutationRelation_BU

■ LM_MutationRelation_BD

See also:

■

LM_MutationRelation_BI

Name	**LM_MutationRelation_BI**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.LandCH.dll Classname: Topobase.Modules.LandCH.Fea- tureRules
Type	Client-side Before Insert (BI). Is System. Is Row.
Description	Manages and maintains the mutation relations.
Dependency	Member of a rule group.

LM_MutationRelation_BU

Name	**LM_MutationRelation_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.LandCH.dll Classname: Topobase.Modules.LandCH.Fea- tureRules
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Manages and maintains the mutation relations.
Dependency	Member of a rule group.

LM_MutationRelation_BD

Name	**LM_MutationRelation_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.LandCH.dll Classname: Topobase.Modules.LandCH.Fea- tureRules
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Manages and maintains the mutation relations.
Dependency	Member of a rule group.

LM ProjectMutationBoundaryPoint

The Project Mutation feature rule prevents projected boundary points from beeing moved to another position. The feature rule applies to the point feature

class LM_OW_BOUNDARY_POINT where ID_POINT_MARK = 14 (Projected Point).

Name	**LM_ProjectMutationBoundaryPoint_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.LandCH.dll Classname: Topobase.Modules.LandCH.FeatureRules
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Protects geometry of projected boundary points from changes.

LM Maintenance Pessimistic Lock

The MaintenancePessimisticLoc feature rule group cancels feature modifications in a maintenance job on features that have been modified in another job. You use a maintenance job to modify features without specifying a job perimeter.

- LM_MaintenancePessimisticLock_BU

- LM_MaintenancePessimisticLock_BD

See also:

- [LM Mutation Relation Rule Group](#) (page 160)

LM_MaintenancePessimisticLock_BU

Name	**LM_MaintenancePessimisticLock_BU**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.LandCH.dll Classname: Topobase.Modules.LandCH.FeatureRules

Type	Client-side
	Before Update (BU).
	Is System. Is Row.

Description	Manages maintenance jobs.

LM_MaintenancePessimisticLock_BD

Name	**LM_MaintenancePessimisticLock_BD**
Classification	**System feature rule. Do not disable.**
Location	Assembly: Topobase.Modules.LandCH.dll
	Classname: Topobase.Modules.LandCH.Fea-
	tureRules
Type	Client-side
	Before Update (BU).
	Is System. Is Row.
Description	Manages maintenance jobs.

Topobase Feature Rules Reference

This section lists Topobase feature rules ordered by name.

Topobase Feature Rules A to L

Topobase Feature Rules M to S

Topobase Feature Rules T to Z