

Autodesk® Topobase™

# Autodesk® Topobase™ Feature Rule Reference

Autodesk®

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# Autodesk Topobase Feature Rules

# 1

## 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 Reference.

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 148)
- [Topobase Survey](#) (page 155)
- [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 your 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. <i>Example:</i> Cancel all updates of point geometries.
30-39	Change attributes of features being inserted/updated. <i>Example:</i> 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	<b>Rules triggered after an action.</b>
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 the TB\_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 Attribute Relation 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	<b>Truncate Area</b>
Classification	<b>Optional feature rule. Can be enabled/disabled as necessary.</b>
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	<b>Truncate Exact Area</b>
Classification	<b>Optional feature rule. Can be enabled/disabled as necessary.</b>
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	<b>Round Geometry</b>
Classification	<b>Recommended feature rule. We strongly recommend that you enable this feature rule.</b>
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. See the Topobase Administrator Guide, section Job Enabling (Document Settings).

Name	<b>Check Perimeter</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>Extract From Collection</b>
Classification	<b>Optional feature rule. Can be enabled for special cases such as migration clean up.</b>
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 <ul style="list-style-type: none"> <li>■ 1: Point</li> <li>■ 2: Line</li> <li>■ 3: Polygon</li> </ul> P3: extract type <ul style="list-style-type: none"> <li>■ 5: MultiPoint</li> </ul>

- 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	<b>Validate Intersection Polygon AD (Locator)</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>System feature rule. Do not disable.</b>
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	<b>Compound Row (AD)</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>Compound Statement (AI)</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>Compound Row (BI)</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>Compound Row (BU)</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>Compound Row (AD)</b>
Classification	<b>System feature rule. Do not disable.</b>
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.

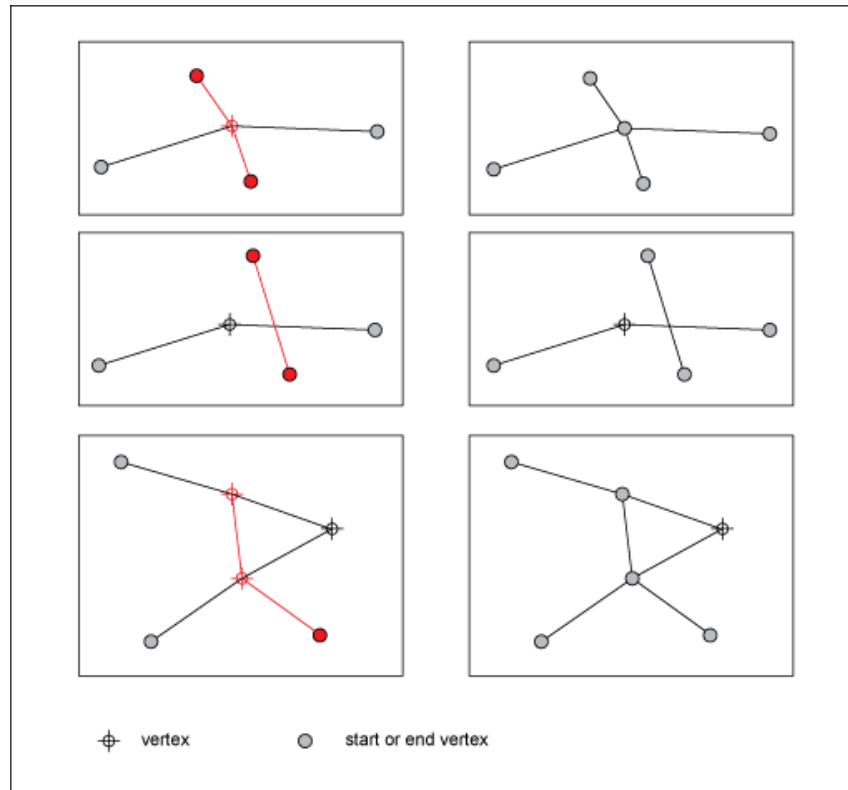
Name	<b>AutomaticLineSplit_BIU</b>
Classification	<b>System feature rule.</b>
Location	Assembly: Topobase.BaseFeatureRules.dll Classname: Topobase.BaseFeature- Rules.LineLengthRules
Type	Client-side Before Insert (BI); Before Update (BU). Is System. Is Row.
Description	Splits an existing line on all 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.BaseFeatureRules.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	<b>AutomaticPointNumber_BI</b>
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.BaseFeatureRules.dll Classname: Topobase.BaseFeatureRules.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	<b>AutomaticPointNumber_BU</b>
Classification	<b>System feature rule. Do not disable.</b>
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
- Topobase 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	<b>LineLength_BIU</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>PolygonArea_BIU</b>
Classification	<b>System feature rule. Do not disable.</b>
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.

## 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	<b>RegenerateLabel_AU</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>RegenerateLabel_AI</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>RegenerateLabel_BD</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>RegenerateLabel_AD</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>System feature rule. Depending on the module, if enabled, do not disable.</b>
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	<b>System feature rule. Depending on the module, if enabled, do not disable.</b>
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	<b>System feature rule. Depending on the module, if enabled, do not disable.</b>
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.DimensioningCleanupRules
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.DimensioningCleanupRules
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	<b>System feature rule. Do not enable/disable manually.</b>
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	<b>System feature rule. Do not enable/disable manually.</b>
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.
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---

### **UpdateAreaTopoLS\_AI**

---

Name	<b>UpdateAreaTopoLS_AI</b>
------	----------------------------

Classification	<b>System feature rule. Do not enable/disable manually.</b>
----------------	---

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.
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---

### **UpdateAreaTopoLS\_BD**

---

Name	<b>UpdateAreaTopoLS_BD</b>
------	----------------------------

Classification	<b>System feature rule. Do not enable/disable manually.</b>
----------------	---

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.
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### **UpdateAreaTopoLS\_AD**

Name	<b>UpdateAreaTopoLS_AD</b>
------	----------------------------

Classification	<b>System feature rule. Do not enable/disable manually.</b>
----------------	---

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	<b>System feature rule. Do not enable/disable manually.</b>
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	<b>System feature rule. Do not enable/disable manually.</b>
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	<b>UpdateAreaTopoCE_AI</b>
Classification	<b>System feature rule. Do not enable/disable manually.</b>
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	<b>UpdateAreaTopoCE_BD</b>
Classification	<b>System feature rule. Do not enable/disable manually.</b>
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.
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Dependency	Member of a rule group.
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---

### **UpdateAreaTopoCE\_AD**

---

Name	UpdateAreaTopoCE_AD
------	---------------------

Classification	<b>System feature rule. Do not enable/disable manually.</b>
----------------	---

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	<b>System feature rule. Do not enable/disable manually.</b>
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	<b>System feature rule. Do not enable/disable manually.</b>
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	<b>System feature rule. Do not enable/disable manually.</b>
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	<b>System feature rule. Do not enable/disable manually.</b>
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	<b>System feature rule. Do not enable/disable manually.</b>
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	<b>UpdateTemplateInstances_AU</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>UpdateTemplateInstances_BD</b>
Classification	<b>System feature rule. Do not disable.</b>
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.TemplateRules
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Update the template instances after deleting 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.GeometryFeatureRules
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**

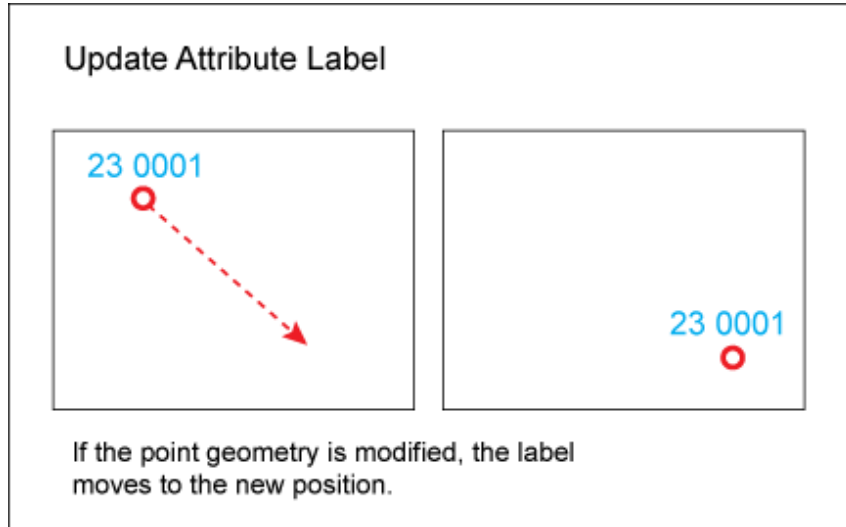
Name	DeleteAttribute_AD
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.GeometryFeatureRules
Type	Client-side Member of a rule group. TB_RULE_GROUP.ID = 8007. After Delete (AD). Is System. Is Row.
Description	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



**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.GeometryFeatureRules
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.GeometryFeatureRules
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	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.GeometryFeatureRules
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	<b>CheckStartEndNode</b>
Classification	<b>Optional feature rule.</b>
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.UtilityLineFeatureRules
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 <code>CheckStartEndNode</code> feature rule or the <code>CreateStartEndNode</code> . See also <a href="#">CreateStartEndNode</a> (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.

---

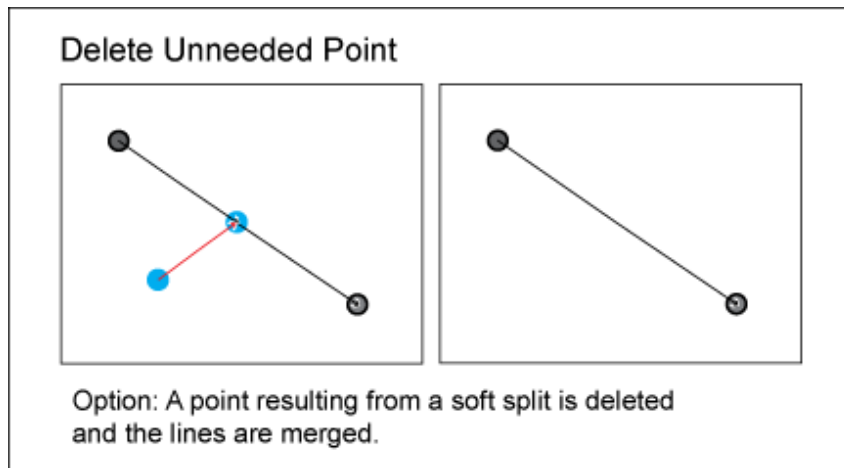
Name	<code>CreateStartEndNode</code>
Classification	<b>Optional feature rule.</b>
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.UtilityLineFeatureRules
Type	Client-side After Insert (AI). Is System. Is Row.
Description	Creates start and end node if they do not exist.
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 <code>CheckStartEndNode</code> feature rule or the <code>CreateStartEndNode</code> . See also <a href="#">CheckStartEndNode</a> (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.UtilityLineFeatureRules
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 unneeded points should be deleted. If the parameter is NO, they are deleted without user interaction.
Dependency	Member of a rule group.

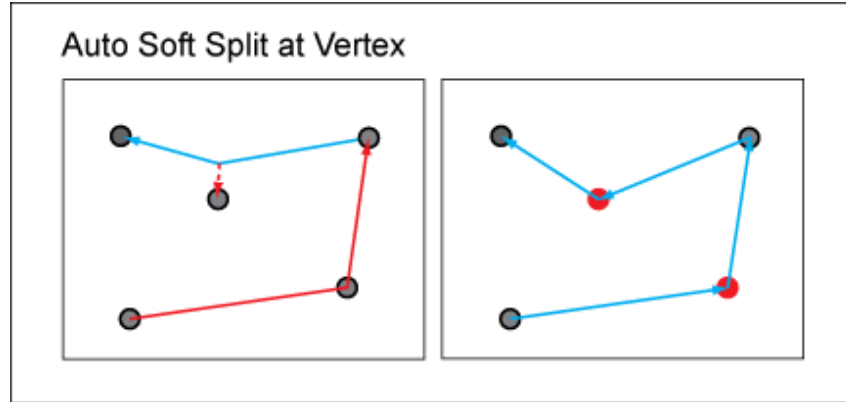
---

### **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.



### AutoSoftSplitAtVertex\_BIU

Name	AutoSoftSplitAtVertex_BIU
Classification	Optional feature rule.
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.UtilityLineFeatureRules
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 AutoSoftSplitLines rule group is enabled for the corresponding utility point feature class. See also <a href="#">AutoSoftSplitLines rule group</a> (page 61).

## AutoSoftSplitAtVertex\_AIU

---

Name	AutoSoftSplitAtVertex_AIU
Classification	Optional feature rule.
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.UtilityLineFeatureRules
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 AutoSoftSplitLines rule group is enabled for the corresponding utility point feature class. See also <a href="#">AutoSoftSplitLines rule group</a> (page 61).

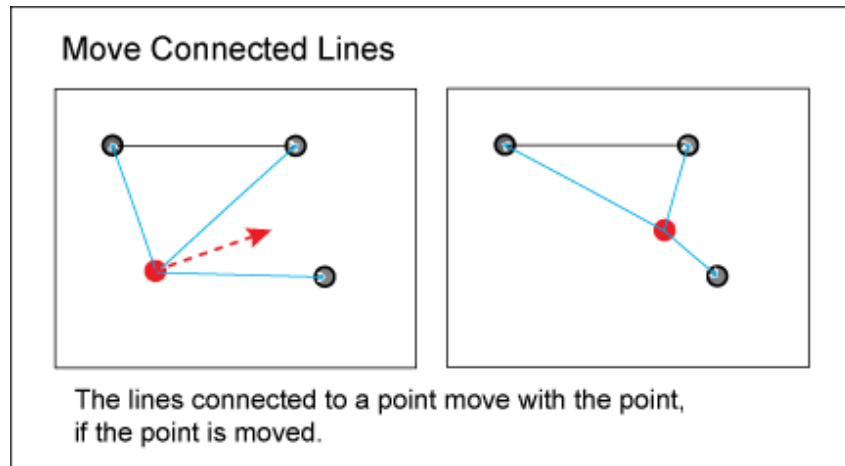
---

## 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.



### MoveConnectedLines\_BU

Name	MoveConnectedLines_BU
Classification	Optional feature rule.
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.UtilityPointFeatureRules
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 AutoExtractSoftSplit_BU and AutoExtractSoftSplit_AU feature rules.

## MoveConnectedLines\_AU

---

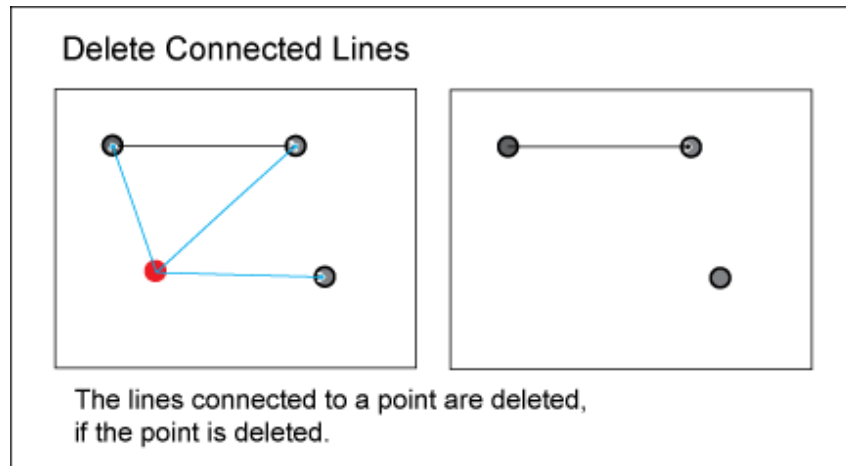
Name	MoveConnectedLines_AU
Classification	Optional feature rule.
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.UtilityPointFeatureRules
Type	Client-side After update (AU). Is System. Is Row.
Description	Moves connected lines with the point so that they remain connected.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

---

## DeleteConnectedLines rule group

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

- DeleteConnectedLines\_BD
- DeleteConnectedLines\_AD



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.UtilityPointFeatureRules
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Deletes connected lines when a point is deleted.
Dependency	Member of a rule group.

#### **DeleteConnectedLines\_AD**

Name	DeleteConnectedLines_AD
Classification	Optional feature rule.

Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.UtilityPointFeatureRules
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Deletes connected lines when a point is deleted.
Parameters	P1: AskUser. Default is YES. Specifies whether the user is asked if the unneeded points should be deleted. If the parameter is NO, they are deleted without user interaction.
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	<b>CancelDeleteUtilityPoint</b>
Classification	<b>Optional feature rule.</b>
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.UtilityPointFeatureRules
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.

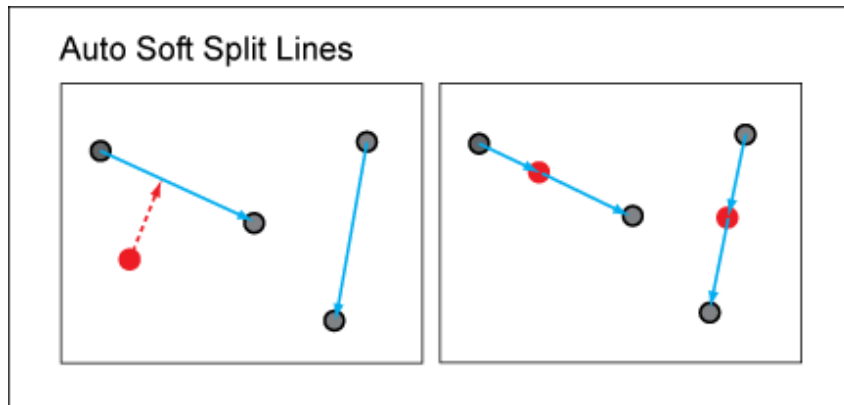
## AutoSoftSplitLines rule group

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.UtilityPointFeatureRules
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	<b>AutoSoftSplitLines_AIU</b>
Classification	<b>Optional feature rule.</b>
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.UtilityPointFeatureRules
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.

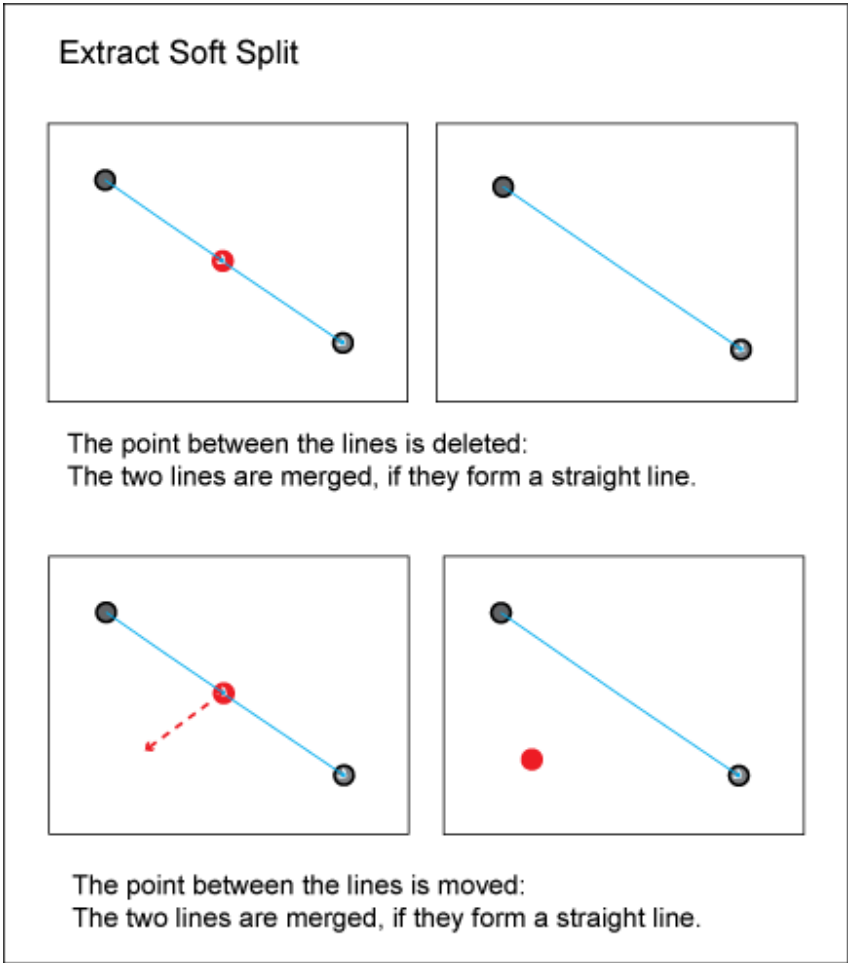
## AutoExtractSoftSplit rule group

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.



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	<b>AutoExtractSoftSplit_AD</b>
Classification	<b>Optional feature rule.</b>
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.UtilityPointFeatureRules
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	<b>AutoExtractSoftSplit_BU</b>
Classification	<b>Optional feature rule.</b>
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.UtilityPointFeatureRules
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 <a href="#">MoveConnectedLines rule group</a> (page 56), you must disable AutoExtractSoftSplit_BU and AutoExtractSoftSplit_AU.
------------	---

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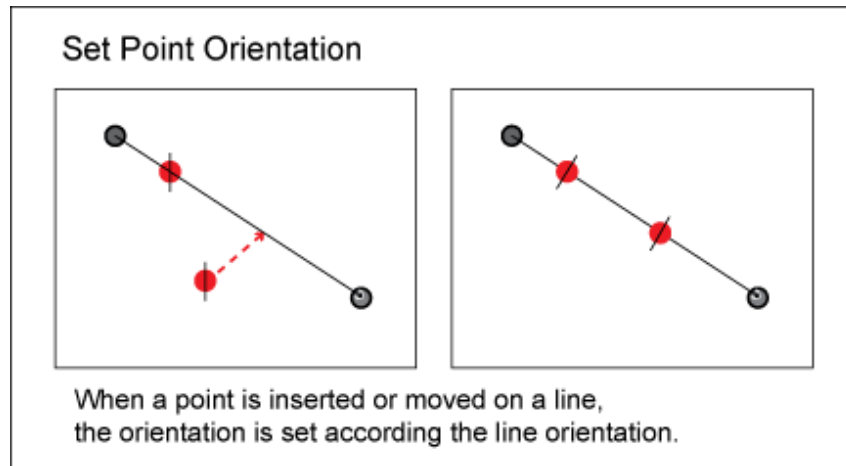
### **AutoExtractSoftSplit\_AU**

Name	<b>AutoExtractSoftSplit_AU</b>
Classification	<b>Optional feature rule.</b>
Location	Assembly: Topobase.Utilities.dll Classname: Topobase.Utilities.FeatureRules.UtilityPointFeatureRules
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 <a href="#">MoveConnectedLines rule group</a> (page 56), you must disable AutoExtractSoftSplit_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



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.UtilityPointFeatureRules
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.UtilityPointFeatureRules
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\_PreventInsertOnTemplateInstances\_BI

PLT\_PreventInsertOnTemplateInstances\_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_PreventInsertOnTemplateInstances_BI
Classification	System feature rule. Do not disable.
Location	Assembly: Topobase.Plot.Data.dll Classname: Topobase.Plot.Data.FeatureRules.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\_PreventEditGeometryOnTemplateInstances\_BU

PLT\_PreventEditGeometryOnTemplateInstances\_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_PreventEditGeometryOnTemplateInstances_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\\_PreventInsertOnTemplateInstances\\_BI](#) (page 69).

## PLT\_PreventEditAttributesOnTemplateInstances\_BU

PLT\_PreventEditAttributesOnTemplateInstances\_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_PreventEditAttributesOnTemplateInstances_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 modifications 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\_PreventDeleteOnTemplateInstances\_BD

PLT\_PreventDeleteOnTemplateInstances\_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	<b>PLT_PreventDeleteOnTemplateInstances_BD</b>
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Plot.Data.dll Classname: Topobase.Plot.Data.FeatureRules.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\\_PreventInsertOnTemplateInstances\\_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 <a href="#">PLT_MoveModelInsertionPoint_AIU</a> (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 the 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.FeatureRules.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 <a href="#">PLT_ValidateMapPlaceholder_BIU</a> (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	<b>System feature rule. Do not disable.</b>
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_UpdatePlotCover_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.FeatureRules.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.FeatureRules.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.
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## 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	<b>System feature rule. Do not disable.</b>
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	<b>System feature rule. Do not disable.</b>
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	<b>System feature rule. Do not disable.</b>
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.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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	<b>EL_CreateSegmentCrossSection_AU</b>
Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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	<b>EL_DeleteStructureLine_BD</b>
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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.
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Execute Column	GEOM
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## 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
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Classification	System feature rule. Do not disable.
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Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.FeatureRules
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Type	Client-side Before Update (BU). Is System. Is Row.
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Description	Creates the layout to display the conductors in a duct according to the selected duct model.
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Dependency	Rule group member
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Execute Column	FID_TEMPLATE
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### EL\_CreateDuctCrossSection\_BI

Name	EL_CreateDuctCrossSection_BI
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Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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	<b>EL_CreateDevice_AI</b>
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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 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	<b>Recommended feature rule. We strongly recommend that you enable this feature rule.</b>
Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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	<b>EL_MoveConductorInCrossSection_BU</b>
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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	<b>EL_ScaleCrossSection_BU</b>
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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	<b>EL_MoveCsLegendDecoration_BU</b>
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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\_MoveAccordingingSegment\_AU

**EL\_MoveAccordingingSegment\_BU**

Name	EL_MoveAccordingingSegment_BU
Classification	System feature rule. Do not disable.
Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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\_MoveAccordingingSegment\_AU**

Name	EL_MoveAccordingingSegment_AU
Classification	System feature rule. Do not disable.
Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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.ElectricCE.dll

	Classname: Topobase.Modules.ElectricCE.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\_DeleteELine\_BD

The EL\_DeleteELine\_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	<b>EL_DeleteELine_BD</b>
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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

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#### NOTE

This feature rule must be triggered before TemplateFeatureRule UpdatesTemplateInstances\_BD.

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Name	EL_DeleteConductor_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 conductor and all related cross section conductors.
Dependency	Rule group member

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### EL\_DeleteConductor\_AD

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Name	EL_DeleteConductor_AD
Classification	System feature rule. Do not disable.

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Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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	<b>EL_DeleteCSDuct_AD</b>
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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 consecutive unassigned snap points of a cross section and delete the duct.

- EL\_DeleteDuct\_BD
- EL\_DeleteDuct\_AD

### **EL\_DeleteDuct\_BD**

Name	<b>EL_DeleteDuct_BD</b>
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Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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	<b>EL_DeleteDuct_AD</b>
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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 deletes 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.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.FeatureRules
Type	Client-side After Delete (AD). Is System. Is Row.
Description	Deletes the related duct.

Dependency

Rule group member

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## EL\_DeleteStructurePoint\_BD

The EL\_DeleteStructurePoint\_BD feature rule deletes the station internal view for the related structure point.

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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.

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## EL\_CreateSegmentBorders\_BI

The EL\_CreateSegmentBorders\_BI feature rule creates two separate border features that represent the width of the segment.

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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.
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## 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.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.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.ElectricCE.dll Classname: Topobase.Modules.ElectricCE.FeatureRules
Type	Client-side Before Update (BU).

Is System. Is Row.

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

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Name	EL_DeleteSegmentBorders_BD
Classification	<b>System feature rule. Do not disable.</b>
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.

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### EL\_DeleteSegmentBorders\_AD

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Name	EL_DeleteSegmentBorders_AD
Classification	<b>System feature rule. Do not disable.</b>
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.
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## 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 soft-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.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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\_BD feature rule determines whether deleting a cross section is permitted.

Name	EL_DeleteSegmentCrossSection_BD
Classification	System feature rule. Do not disable.
Location	Assembly: Topobase.Modules.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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.ElectricNA.dll

	Classname: Topobase.Modules.ElectricNA.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	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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\_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.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.FeatureRules
Type	Client-side Before Update (BU). Is System. Is Row.
Description	Move cross section elements according to their related snap point.

## EL\_RemoveSnappointUnderneath\_BD

The EL\_RemoveSnappointUnderneath\_BD feature rule removes the snap point when a cross section conductor is deleted.

Name	<b>EL_RemoveSnappointUnderneath_BD</b>
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricalNA.dll Classname: Topobase.Modules.ElectricalNA.FeatureRules
Type	Client-side Before Delete (BD). Is System. Is Row.
Description	Remove snap point when a cross section conductor 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	<b>EL_DeleteSnappoint_BD</b>
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricalNA.dll Classname: Topobase.Modules.ElectricalNA.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.
-------------	---

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## 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.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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

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**NOTE** This feature rule must be triggered before the Template Feature Rule UpdateTemplateInstances\_BD.

---

Name	EL_DeleteCSConductor_AD
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Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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	<b>EL_DeleteConductor_BD</b>
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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	<b>System feature rule. Do not disable.</b>
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 = 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	<b>EL_DeleteCSDuct_BD</b>
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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	<b>EL_CDeleteCSDuct_AD</b>
Classification	<b>System feature rule. Do not disable.</b>
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.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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.
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Dependency	Rule group member
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---

### **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	<b>EL_DeleteDuct_AD</b>
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricalNA.dll Classname: Topobase.Modules.ElectricalNA.FeatureRules
Type	Client-side After Delete (AD). Is System. Is Row.

---

Description	Moves all conductors to the next free unassigned snap point of the cross section and deletes the duct.
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Dependency	Rule group member
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---

### **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	<b>EL_MoveDuctInCrossSection_BU</b>
Classification	<b>System feature rule. Do not disable.</b>

---

Location	Assembly: Topobase.Modules.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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	<b>EL_MoveConductorInCrossSection_BU</b>
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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 maintenance 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	<b>EL_ForbidDuplicateDevice_BIU</b>
Classification	<b>Recommended feature rule. We strongly recommend that you enable this feature rule.</b>
Location	Assembly: Topobase.Modules.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.FeatureRules
Type	Client-side Before Insert Update (BIU). Is System. Is Row.
Description	Forbid devices with the same geometry.
Execute Column	GEOM

## EL\_MoveAccordingingSegment rule group

The feature rules in the EL\_MoveAccordingingSegmen 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\_MoveAccordingingSegment\_BU
- EL\_MoveAccordingingSegment\_AU

### EL\_MoveAccordingingSegment\_BU

Name	<b>EL_MoveAccordingingSegment_BU</b>
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricNA.dll

	Classname: Topobase.Modules.ElectricNA.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	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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.ElectricNA.dll Classname: Topobase.Modules.ElectricNA.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	<b>Recommended feature rule. We strongly recommend that you enable this feature rule.</b>
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.

---

**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	<b>System feature rule. Do not disable.</b>
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

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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 <a href="#">GA_SetPressureZone_BI</a> (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 <a href="#">GA_SetSupplyZone rule group</a> (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	<b>System feature rule. Do not disable.</b>
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

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Name	GA_SetSupplyZone_AIU
Classification	<b>System feature rule. Do not disable.</b>
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 <a href="#">GA_SetSupplyZone_BI</a> (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	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.WasteWater.dll Classname: Topobase.Modules.WasteWater.FeatureRules
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.FeatureRules
Type	Client-side After Insert (BI).
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	<b>System feature rule. Do not disable.</b>
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	<b>System feature rule. Do not disable.</b>
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	<b>WW_ComputeSubDrainArea_BIU</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>WW_ConnSectionWashingArea_BI</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>System feature rule. Do not disable.</b>
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	<b>System feature rule. Do not disable.</b>

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.FeatureRules
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.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\_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	<b>System feature rule. Do not disable.</b>
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	<b>System feature rule. Do not disable.</b>
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	<b>WW_DeleteSectionObservation_BD</b>
Classification	<b>System feature rule. Do not disable.</b>
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.
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### **WW\_DeleteManholeObservation\_AD**

Name	<b>WW_DeleteManholeObservation_AD</b>
------	---------------------------------------

Classification	<b>System feature rule. Do not disable.</b>
----------------	---

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

Type	Client-side After Delete (AD).
------	-----------------------------------

Description	This feature rule deletes the manhole rehabilitation when the corresponding manhole observation is deleted.
-------------	---

Dependency	Member of a rule group.
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### **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	<b>WW_DeleteSiteObservation_BD</b>
------	------------------------------------

Classification	<b>System feature rule. Do not disable.</b>
----------------	---

Location	Assembly: Topobase.Modules.WasteWater.dll
----------	---

	Classname: Topobase.Modules.WasteWater.FeatureRules
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	<b>WW_DeleteSiteObservation_AD</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>WW_CopyLengthSection_BI</b>
Classification	<b>System feature rule. Do not disable.</b>

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	<b>System feature rule. Do not disable.</b>
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	<b>System feature rule. Do not disable.</b>
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	<b>WW_CopyInputOutputZ_BU</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>WW_SetFallHeightDefault_AI</b>
------	-----------------------------------

Classification	<b>System feature rule. Do not disable.</b>
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.

---

**NOTE** This feature rule triggers the execution of the [WW\\_ComputeSectionElevation\\_BIU](#) (page 137) feature rule.

---

## WW\_SetInputStepDefault\_AI

The feature rule WW\_SetInputStepDefault\_AI assigns the default value to the 'Input Step' attribute.

---

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

---

**NOTE** This feature rule triggers the execution of the [WW\\_ComputeSectionElevation\\_BIU](#) (page 137) feature rule.

---

## 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.FeatureRules
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	<b>RejectDuplicatePoints_BIU</b>
Classification	<b>Recommended feature rule. We strongly recommend that you enable this feature rule.</b>
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	<b>SetPressureZone_BI</b>
Classification	<b>System feature rule. Do not disable.</b>
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.  <b>NOTE</b> 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 <a href="#">SetPressureZone_BI</a> (page 149). <b>NOTE</b> 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 (BA). 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 <a href="#">GA_SetPressureZone_BI</a> (page 123).  <b>NOTE</b> 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	<b>SetSupplyZone_BI</b>
Classification	<b>System feature rule. Do not disable.</b>
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 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.  <b>NOTE</b> 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 <a href="#">SetSupplyZone_BI</a> (page 152). <b>NOTE</b> 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 <a href="#">SetSupplyZone_BI</a> (page 152). <b>NOTE</b> You must enable or disable the SetSupplyZone 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	<b>Survey Delete NetplanLine</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>Survey Delete Measure Fieldpoint</b>
Classification	<b>System feature rule. Do not disable.</b>
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	<b>Survey Delete Session Fieldpoint</b>
Classification	<b>System feature rule. Do not disable.</b>

---

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](#) (page 6)

### 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 MutationRelation 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 Maintenance Pessimistic Lock](#) (page 162)

### **LM\_MutationRelation\_BI**

---

Name	LM_MutationRelation_BI
Classification	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.LandCH.dll Classname: Topobase.Modules.LandCH.FeatureRules
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	<b>System feature rule. Do not disable.</b>
Location	Assembly: Topobase.Modules.LandCH.dll Classname: Topobase.Modules.LandCH.FeatureRules
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**

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Name	LM_MutationRelation_BD
Classification	<b>System feature rule. Do not disable.</b>

Location	Assembly: Topobase.Modules.LandCH.dll Classname: Topobase.Modules.LandCH.FeatureRules
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 being 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	<b>LM_ProjectMutationBoundaryPoint_BU</b>
Classification	<b>System feature rule. Do not disable.</b>
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 159)

### 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.FeatureRules
Type	Client-side Before Update (BD). Is System. Is Row.

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