Intergraph Smart Reference Data

Module -3: Create a specification

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Lab 3 - Create a specification

Objective

In this lab, you will learn how to create a specification in Smart Reference Data Plus.

You will learn how to:

1. Create a specification rule
2. Specify tables and attributes for a specification rule
3. Create a new specification type
4. Assign specification type to the specification
5. Assign a rating geometric to the specification
6. Assign components and branch matrix to the specification

Lab Overview

This tutorial explains how to create a specification rule, specification type and assign them to a new specification.

Scenario

As an SRD Plus user, you want to create a new specification rule "PIPRULE"   and specification type "PIPTYPE" and assign them to a new specification named "PIPING".

Prerequisites

For this session, you must know how to log on to the software with the appropriate access rights from your administrator. You also need to have a consolidated knowledge about Smart Materials and Smart Reference Data basic functionality, which means you should be familiar with general screen handling in the software.

You must also be familiar with the process of creating commodity codes and idents. You must have standard SDB data in your database.

Exercises

Specification Rules

In Smart Reference Data Plus, a specification rule allows you to assign tables and attributes on the specification header and the specification item level. A specification header provides descriptive information. Most of the information, such as general material, can be assigned by Smart Reference Data Plus table details.Only the tables assigned to the specification header (HEADER) can be used later for the detailed description of the specification at the header level.

Task 1: Create a specification rule

1. Click **SRD > XS20 Spec > XS2020 Spec Editor**.

2. Click the down arrow ⬇ at the top right of the Explorer tree view.

3. Select **Specification Rules** from the list.

4. Click **Add** ➕.

5. Type **piprule** in the **Spec Rule** box.

6. Fill out **Short Description**, **Description**, and all other details as required.

7. Click **Save** 💾.

8. Click **Close**.

9. Click **Refresh** 🔁 in the tree view, and check for the rule you just added.

Task 2: Specify tables and attributes for a specification rule

Specify tables

1. Double-click **PIPRULE**.

2. In the **Specification Rule Tables** grid, click **Edit grid** 📝.

3. Click **Add row** ➕.

4. In the **Table Name** cell, click **Selection list** ⬇.

5. Type and select **P_MATERIAL** in the **Table Name** cell.

6. In the **Level** cell, select **HEADER**.

7. Select the check box in the **Propagate** cell.

   ● **TIP** This option specifies whether the table is inherited when pipe classes are copied.

8. In the **Ctrl** cell, click **Selection list** ⬇ to select **1** as a control status.

9. In the **Order Seq** cell, type a number to specify an order for the table (optional).

10. Similarly, perform step 3 through 9 and add **P_RATING** table.

11. Click **Save grid** 💾.

12. Click **Read-only grid** to set the grid back to read-only mode.

Specify attributes

1. Double-click **PIPRULE**.

2. In the **Specification Rule Attributes** grid, click **Edit grid**.

3. Click **Add row**.

4. In the **Attribute Name** cell, click **Selection list** to select an attribute.

   NOTE The **Seq** cell is set automatically when you add an attribute in this grid, but you can change the sequence number if necessary.

5. Type and select **nps1** in the **Attribute Name** cell.

6. In the **Level** cell, select **HEADER**.

7. Select the check box in the **Propagate** cell.

   TIP This option specifies whether the attribute is inherited when pipe classes are copied.

8. In the **Physical** cell, click **Selection list**.

9. Type and select **ATTR_NUM1** in the **Physical** cell.

10. In the **Ctrl** cell, click **Selection list** to select **1** as a control status.

11. Click **Save grid**.

12. Click **Read-only grid** to set the grid back to read-only mode.

Specification Types

The specification type can be used to categorize and organize the specifications; for example, company departments, plant types, main specification material, media, and other information. Each specification type is assigned to a specification rule. At least one rule must exist before a specification type can be created.

Task 3: Create a new specification type

1. Click **SRD > XS20 Spec > XS2020 Spec Editor**.

2. Click the down arrow ⬇ at the top right of the Explorer tree view.

3. Select **Specification Types** from the list.

4. Click **Add** ➕.

5. Type **piptype** in the **Spec Type** box.

6. FIll out **Short description**, **Description**, and other details as required.

7. Click **Save** 💾.

8. Click **Close**.

9. Click **Refresh** 🔃 in the tree view, and check for the type you just added.

Task 4: Assign specification type to the specification

The Cover page allows you to specify the specification type, template, main material, thickness, and other general information about the specification.

1. Right-click **PIPTYPE** (The specification type you have created in Task 3: Create a new specification type) and click **Open Cover Page**.

2. Click New ➕.

3. In the **Spec Type** cell, click **Selection list** ⬇.

4. Select **PIPTYPE** and click **OK**.

5. Type **PIPING** in the **Spec Code** box.

6. From the **Spec Items Type** list, select **Classic Only**.

7. Fill out other details like **Short Desc**, **Description**, etc.

8. Scroll down to **Filtering Defaults**. In the **NPS1** box, select 1 from the LOV.

   💡**TIP** Click inside the NPS1 box, click **Selection list** ⬇ from the top and select the value from LOV.

9. In the Specification Details grid, select/type the following values:

Seq	Table	Group	Detail
1	P_RATING	RAT_AS	A

10. Click **Save** 💾.

    You can view the specification you have created, i.e. **PIPING** in the tree view below the specification type (**PIPTYPE**).

Task 5: Assign a rating geometric to the specification

1. Right-click **PIPTYPE**, click **Open Cover Page**, and then go to the **Temperature Pressure** page.

2. Click **New** .

3. Click **Assign** beside the **Geometric** box, and select a rating geometric.

   When you click OK, a message prompts you to choose between using the existing geometric code or creating a new geometric code based on the details of the selected geometric code.

4. Click **Use Existing**.

5. Click **Save** .

Task 6: Assign components and branch matrix to the specification

Assign components: Spec Items grid

1. Right-click **PIPTYPE**, click **Open Cover Page**, and then go to the **Components** page.

2. Click New .

3. Type/select the following in the **Spec Items** grid:

Seq	Short Code	Group	Part	Commodity Code	Geometric 1	From 1
1	PIP	P	PP	PPPABQBEACRAAV	P_BI_1NPS_1SCH	0.125

4. Click **Save** .

Assign Branch Matrix

1. In the **Components** page, scroll down and click the plus sign to expand the section.

2. Click **New** .

3. Click **Attach Branch** and select **BR10CA01B1**.

   When you click OK, a message prompts you to choose between using the existing branch or creating a new branch based on the details of the selected branch.

4. Click **Use an Existing Branch**.

5. In the **Short Code** box, select **PIP** by clicking the **Selection list** .

Lab summary

In this lab, you learned to:

1. Create a specification rule
2. Specify tables and attributes for a specification rule
3. Create a new specification type
4. Assign specification type to the specification
5. Assign a rating geometric to the specification
6. Assign components and branch matrix to the specification

Lab 4 - Copy a specification

Objective

In this lab, you will learn how to copy one or more specifications to an existing specification type in Smart Reference Data Plus.

You will learn how to:

1. Search and select a source spec

2. Define copy scope

3. Search and select a target spec

Lab Overview

This tutorial explains how to copy an existing specification to create a new replica of the specification.

Scenario

As an SRD Plus user, you want to copy an existing specification with spec code "PIPING" to another specification type or the source specification type PIPTYPE ".

Prerequisites

For this session, you must know how to log on to the software with the appropriate access rights from your administrator. You also need to have a consolidated knowledge about Smart Materials and Smart Reference Data basic functionality, which means you should be familiar with general screen handling in the software.

You must also be familiar with the process of creating commodity codes and idents. You must have standard SDB data in your database.For copying a specification, you must also have an existing specification in your Smart Reference Data Plus.

Exercises

Task 1: Search and select a source spec

Key Terms:

Spec Type - **piptype**; Unique name for the specification type.

Spec Code - **PIPING**; Unique specification codes from the **Specification Management** screen.

1. Click **SRD > Spec > Spec Editor**.
2. Right-click the specification type, and click **Open Over Page**.
3. Click **Copy Specs** .
4. Select a **Source Project.**
5. (Optional) Enter other search information to refine the search criteria.
6. Click **Search**. The search results are displayed on the right.
7. From the search results window, select **PIPING** specification, and then click **Next**.

Task 2: Define Copy Scope

Key Terms

Insert - Adds new data to the destination spec.

Update - Modifies existing data in the destination spec.

1. Fill out the specification details for **Header**, **Items,** and **Definitions**.

   For each option, specify how the data is handled in the destination spec. When copying specs for the first time, you can select **Insert**. At a later time, if the source spec has been modified, then you can select both **Insert** or **Update** so that the modifications in the source spec are passed on to the destination spec.

   ### NOTES
   a. Selecting both **Insert** and **Update** adds new data and modifies existing data in the destination spec. If no value is selected, the software does not add or modify data in the destination spec.
   b. Select the **Create Log File** check box if you want the software to save a log file for the copying process.

2. Type _**Copy** in the **Append Characters** box.
3. Click **Next** to select the target spec. (applicable only for the single source spec selection)

Task 3: Search and select a target spec

★ IMPORTANT For multiple spec copies, the target specification selection is ignored. All the selected specifications are created under the respective specification type.

📋 NOTE You must at least provide one search criteria.

1. Click ⬇ to select **Spec Type** and then click **Search**.

2. From the search results window, select the target spec type.

   📋 NOTE If no target spec is selected the copy of source spec is created at the source spec type.

3. Click **Copy**, and then click **Yes** to confirm the copy selection.

📋 NOTES

- When no target spec is selected, the source copy is created with suffix - copy at the source spec type.

- After the copy process is complete, click **View Log File** to check the log.

Lab summary

In this lab, you have learned how to:

1. Search and select a source spec

2. Define copy scope

3. Search and select a target spec