**Attributes and Attribute Groups**

Attributes and Attribute Groups are tools to define, organize, and manage data related to object records in a structured and flexible manner.

**1. Attribute Types**

Attributes are categorized based on the type of data they store. Examples include:

|  |  |  |
| --- | --- | --- |
| **Attribute Type** | **Definition** | **Example** |
| **Text** | Stores alphanumeric data. | Brand Name: "ACME Corp" |
| **Number** | Stores numeric data. | Length: 1500 mm |
| **Range** | Specifies a range of numeric values. | Width: 0–20 mm |
| **Multi-select** | Allows multiple options from a predefined list. | Color Options: Red, Blue, Green |
| **Boolean** | Stores yes/no or true/false values. | Is Eco-Friendly: True |
| **Date** | Stores a specific date. | Manufacture Date: 2025-01-09 |

**2. Attribute Groups**

Attribute Groups organize attributes into logical categories for better clarity and management. They ensure related attributes are grouped together.

|  |  |  |
| --- | --- | --- |
| **Group Name** | **Purpose** | **Example Attributes** |
| **Product Dimensions** | Defines size-related attributes. | Length, Width, Height |
| **Mechanical Properties** | Stores mechanical performance details. | Thickness, Strength, Elasticity |
| **Tolerance Properties** | Tracks allowable variations. | Width Range, Thickness Tolerance |
| **Packaging Details** | Captures packaging information. | Packaging Type, Packaging Size |
| **Brand Details** | Stores brand-specific information. | Brand Name, Product Line |

**3. Creating and Managing Attributes**

**Creating an Attribute**

1. Navigate to **Attributes** under **PIM**.
2. Click **Create Attribute**.
3. Define:
   * **Name**: E.g., "Thickness."
   * **Type**: E.g., "Number."
   * **Unit**: E.g., "mm."
   * **Group**: E.g., "Tolerance Properties."
4. Save.

**Example Table for Attributes**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Attribute Name** | **Attribute Type** | **Unit** | **Group** | **Example Values** |
| Width Range (<1500) | Range | mm | Tolerance Properties | Min: 0 mm, Max: 20 mm |
| Thickness | Number | mm | Tolerance Properties | 1.6 ± 0.12 mm |
| Brand Name | Text | N/A | Brand Details | Acme Corp |
| Manufacture Date | Date | N/A | Production Information | 2025-01-09 |

**4. Examples of Attribute Usage**

**Scenario: Product Specification**

* **Product Dimensions Group**:
  + Length: 1500 mm
  + Width: 1200 mm
  + Height: 10 mm
* **Tolerance Properties Group**:
  + Width Range: 0–20 mm (for W < 1500)
  + Thickness Tolerance: 1.6–2.0 ± 0.12 mm
* **Brand Details Group**:
  + Brand Name: Acme Corp
  + Product Line: EcoSteel