

# Out-of-the-Box Rule Package for IDQ embedded in Product 360

# Out-of-the-Box Product 360 Rule Package

- Implement consistent, re-usable and automated data quality processes throughout the entire product information supply chain
  - Mandatory field checks
  - Language identification
  - Terminology checks
  - Color parsing and standardization
  - Company name standardization
  - Unit of measure standardization
  - Product code validations (GTIN / UPC)
  - Field dependency checks
  - Field length checks
  - Auto classification of products
  - Automatic attribute value extraction
  - Complex attribute and structure checks
  - “Is equal” checks
  - And many more...

# Classification Rules

Data quality rules that can be used specifically to classify objects based on their individual input values

## Language identification

- Ensure that product information is always in expected language
- Analyze descriptions to ensure they are in the right language

## Automatic classification of products

- Natural Language Processing (NLP) technology supports automated classification of data to Product 360 structure systems
- Products get automatically classified to groups based on their descriptions and/or attribute values

# Complex Attribute and Structure Checks

DQ rules that can be used for feature / attribute relational checks

- Attribute data type check
  - Check that the data type of an attribute is the same as the one of the assigned feature or at least a character string
  - The data type for the attribute size has to be a String (or Int)
- Check for mandatory but missing attribute values
  - Check that attributes have values if assigned to a feature that is defined as mandatory
  - T-Shirt needs to have a value for size
- Attribute preset values check
  - Check that the value of an attribute matches the defined preset values of the feature it is assigned to
  - T-Shirt needs to have an attribute value like S, M, L or XL
- Check for missing attributes of a product
  - Check that products have attributes for all features defined by their assigned structure group
  - T-Shirt needs to an attribute for size

# Generic Rules

Basic data quality rules that can be used in multiple use cases and scenarios to validate any product data

## Field dependency check

- Check field content dependent on the values of other fields
  - e.g., if classified as “hazardous material” → “risk and security sentences” must be filled out

## Mandatory value check

- Checks if a given data field is null or empty

# Generic Rules

Basic data quality rules that can be used in multiple use cases and scenarios to validate any product data

## Field length checks

- Check fields for minimum or maximum length
  - Individual values for minimum and maximum length based on flexible configuration

## „Is equal“ check

- Checks if two given data fields are equal to another

# Lookup and Standardization Rules

Data quality rules that can be used specifically to standardize input values based on reference table lookups

## Terminology / profanity checks

- Ensure that product information always conforms to corporate guidelines
- Parse texts to ensure that descriptions are based on a consistent terminology
  - Reference table functionality to ensure that terms are standardized

## Color parsing

- Parse out color values and exchange them with the standardized format of the same color
  - Reference table functionality to ensure that terms are standardized

# Lookup and Standardization Rules

Data quality rules that can be used specifically to standardize input values based on reference table lookups

## Color standardization

- Derive base color values
- Extract color values from descriptions
  - “periwinkle”, “denim”, “azure” → “blue”
  - Reference table functionality to ensure that terms are standardized

## Company name standardization

- Standardize company names
  - “hp”, “hewlett-packard”, “hewlett packard” → “HP”
  - Reference Table functionality to ensure that terms are standardized



# Lookup and Standardization Rules

## Unit of measure standardization

- DQ rules to standardize input values based on reference table lookups
- Extract and standardize units of measure
  - “millimeters” → “mm”
  - “kilogram” → “kg”
- Reference table functionality to ensure that terms are standardized

# Product Code Validation Rules

## Product code validation

- DQ rules that can be used specifically to validate product code specific norms
- Validate product codes against GTIN or UPC
  - Algorithm based checks