

# What's New in **SAS® Quality Knowledge Base for Contact Information 32**

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# What's New in SAS Quality Knowledge Base for Contact Information 32

The SAS Quality Knowledge Base (QKB) is a collection of files that store data and logic that define data management operations. SAS software products reference the QKB when performing data management operations on your data.

This document explains the changes in SAS QKB for Contact Information (CI) 32.

- **Overview**
- **QKB Locales**
- **Changes in the QKB**
- **Known Problems**

See the SAS QKB CI 32 online Help for additional information. For information about previous releases, see the SAS QKB product page at <http://support.sas.com/documentation/onlinedoc/qkb/>.

## Overview

SAS QKB CI 32 includes updates for the following locales and definitions:

Dutch, Belgium

- Field Content identification analysis definition added

English, Canada

- Field Content identification analysis definition added

English, United Kingdom

- Field Content identification analysis definition updated

English, United States

- Field Content identification analysis definition updated

French, Belgium

- Field Content identification analysis definition added

French, Canada

- Field Content identification analysis definition added

Japanese, Japan

- Name match, parse, and standardization definitions updated
- Organization match, parse, and standardization definitions updated

Swedish, Sweden

- Field Contact identification analysis definition added

All Locales

- Data Masking standardization definitions added

- Field Name identification analysis definition updated to add support for Dutch, Italian, Japanese, Norwegian, Spanish, and Swedish

The definitions from the SAS QKB for Product Data (PD) 5 have been added to SAS QKB CI 32. For details, see the [Changes in the QKB](#) section.

The file format of libraries in this release differs from the file format of libraries in releases earlier than QKB CI 2010B. Therefore, it is not possible to merge QKB CI 32 into any QKB that was released prior to QKB CI 2010B. If a merge is desired, first install QKB CI 32 in a new location and then merge the QKB CI version prior to 2010B into QKB CI 32. See the QKB Merge Tool section in the DataFlux Data Management Studio Online Help for details.

## QKB Locales

This release includes the following locales:

|                         |                         |                      |
|-------------------------|-------------------------|----------------------|
| Afrikaans, South Africa | English, United Kingdom | Polish, Poland       |
| Arabic, Egypt           | English, United States  | Portuguese, Brazil   |
| Chinese, China          | Finnish, Finland        | Portuguese, Portugal |
| Czech, Czech Republic   | French, Belgium         | Romanian, Romania    |
| Danish, Denmark         | French, Canada          | Russian, Russia      |
| Dutch, Belgium          | French, France          | Slovak, Slovakia     |
| Dutch, Netherlands      | German, Germany         | Slovenian, Slovenia  |
| English, Australia      | Greek, Greece           | Spanish, Argentina   |
| English, Canada         | Hebrew, Israel          | Spanish, Mexico      |
| English, Hong Kong      | Hungarian, Hungary      | Spanish, Spain       |
| English, India          | Italian, Italy          | Swedish, Sweden      |
| English, New Zealand    | Japanese, Japan         | Thai, Thailand       |
| English, Philippines    | Korean, South Korea     | Turkish, Turkey      |
| English, Singapore      | Malay, Malaysia         |                      |
| English, South Africa   | Norwegian, Norway       |                      |

## Changes in the QKB

This section is organized by locale. Tables display the deprecations and enhancements made in this QKB. In some cases, changes to your data job are required. The [Deprecation Actions](#) section describes the actions that are necessary to keep data quality jobs functioning properly. The deprecation process is fully described in the **Deprecation Policy** topic in the SAS QKB online Help

documentation. Definitions with a status of Added or Modified do not require changes to data jobs. See the online Help for details about these definitions.

If a locale shows **None**, it means that no changes were made to the locale.

| Definition Name                           | Definition Type                   | Status   | Action If Job Change Required |
|---|-----------------------------------|----------|-------------------------------|
| <b>Afrikaans, South Africa</b>            |                                   |          |                               |
| Anonymize E-mail Domain                   | Standardization                   | New      | No action required.           |
| Brand to Manufacturer                     | Standardization                   | New      |                               |
| Brand/Manufacturer                        | Extraction                        | New      |                               |
| Color Reduction                           | Standardization                   | New      |                               |
| Country                                   | Match and Standardization         | Modified |                               |
| Country (ISO 2 Char)                      | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                      | Standardization                   | Modified |                               |
| Country (ISO Number)                      | Standardization                   | Modified |                               |
| Country (Region)                          | Standardization                   | Modified |                               |
| Country (Sub-Region)                      | Standardization                   | Modified |                               |
| Date (DMY)                                | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)                                | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)                                | Match, Parse, and Standardization | Modified |                               |
| Date (DMY) (with Combinations)            | Match                             | Modified |                               |
| Date (MDY) (with Combinations)            | Match                             | Modified |                               |
| Dimensions                                | Parse and Standardization         | New      |                               |
| Field Name                                | Identification Analysis           | Enhanced |                               |
| Field Name (v30)                          | Identification Analysis           | Removed  |                               |
| Mask Address Except Street Type           | Standardization                   | New      |                               |
| Mask All Characters                       | Standardization                   | New      |                               |
| Mask All Characters Except First and Last | Standardization                   | New      |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Material   | Standardization                   | New      |                               |
| Package/UOM  | Parse and Standardization         | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Product Attributes                                   | Extraction                        | New      |                               |
| Size   | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Arabic, Egypt  |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Chinese, China                                       |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Field Name (v30)                                     | Identification Analysis           | Removed  |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Czech, Czech Republic                                |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |



| Definition Name                           | Definition Type                   | Status   | Action If Job Change Required |
|---|-----------------------------------|----------|-------------------------------|
| Mask Partial String                       | Standardization                   | New      |                               |
| Mask Phone Number                         | Standardization                   | New      |                               |
| Part Number                               | Standardization                   | New      |                               |
| Truncate Word to Initial                  | Standardization                   | New      |                               |
| Word                                      | Pattern Analysis                  | Modified |                               |
| Danish, Denmark                           |                                   |          |                               |
| Address                                   | Match, Parse, and Standardization | Modified | No action required.           |
| Address (Global)                          | Parse                             | Modified |                               |
| Address (PO Box Only)                     | Match                             | Modified |                               |
| Address (Street Only)                     | Match                             | Modified |                               |
| Anonymize E-mail Domain                   | Standardization                   | New      |                               |
| Country                                   | Match                             | Modified |                               |
| Country (ISO 2 Char)                      | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                      | Standardization                   | Modified |                               |
| Country (ISO Number)                      | Standardization                   | Modified |                               |
| Date (DMY)                                | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)                                | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)                                | Match, Parse, and Standardization | Modified |                               |
| Field Name                                | Identification Analysis           | Enhanced |                               |
| Field Name (v30)                          | Identification Analysis           | Removed  |                               |
| Mask Address Except Street Type           | Standardization                   | New      |                               |
| Mask All Characters                       | Standardization                   | New      |                               |
| Mask All Characters Except First and Last | Standardization                   | New      |                               |
| Mask Digits                               | Standardization                   | New      |                               |
| Mask E-mail Domain                        | Standardization                   | New      |                               |
| Mask E-mail Mailbox                       | Standardization                   | New      |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Organization   | Standardization                   | Modified |                               |
| Part Number  | Standardization                   | New      |                               |
| Proper (Address)                                     | Case                              | Modified |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Dutch, Belgium                                       |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Content  | Identification Analysis           | New      |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask Address Except Street Type                      | Standardization                   | New      |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Dutch, Netherlands                                   |                                   |          |                               |
| Address  | Parse                             | Modified | No action required.           |
| Address (Full)                                       | Parse                             | Modified |                               |
| Address (Global)                                     | Parse                             | Modified |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      |                               |
| City - State/Province - Postal Code                  | Parse                             | Modified |                               |
| City - State/Province - Postal Code (Global)         | Parse                             | Modified |                               |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask Address Except Street Type                      | Standardization                   | New      |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| English, Australia                                   |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Brand/Manufacturer                                   | Extraction                        | New      |                               |
| Brand to Manufacturer                                | Standardization                   | New      |                               |
| Color Reduction                                      | Standardization                   | New      |                               |
| Country  | Match and Standardization         | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Country (Region)                                     | Standardization                   | Modified |                               |
| Country (Sub-Region)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Date (DMY) (with Combinations)                       | Match                             | Modified |                               |

| Definition Name                                      | Definition Type           | Status     | Action If Job Change Required                                      |
|--|---------------------------|------------|--|
| Date (MDY) (with Combinations)                       | Match                     | Modified   |  |
| Dimensions   | Parse and Standardization | New        |  |
| Field Name   | Identification Analysis   | Enhanced   |  |
| Field Name (v30)                                     | Identification Analysis   | Removed    |  |
| Mask All Characters                                  | Standardization           | New        |  |
| Mask All Characters Except First and Last            | Standardization           | New        |  |
| Mask Digits  | Standardization           | New        |  |
| Mask E-mail Domain                                   | Standardization           | New        |  |
| Mask E-mail Mailbox                                  | Standardization           | New        |  |
| Mask E-mail Mailbox Except First and Last Characters | Standardization           | New        |  |
| Mask E-mail Sub-Domain                               | Standardization           | New        |  |
| Mask Letters   | Standardization           | New        |  |
| Mask Partial String                                  | Standardization           | New        |  |
| Mask Phone Number                                    | Standardization           | New        |  |
| Material   | Standardization           | New        |  |
| Package/UOM  | Parse and Standardization | New        |  |
| Part Number  | Standardization           | New        |  |
| Product Attributes                                   | Extraction                | New        |  |
| Size   | Standardization           | New        |  |
| Truncate Word to Initial                             | Standardization           | New        |  |
| Word   | Pattern Analysis          | Modified   |  |
| English, Canada                                      |                           |            |  |
| Contact Info   | Identification Analysis   | Deprecated | Replace with the Field Content identification analysis definition. |
| Anonymize E-mail Domain                              | Standardization           | New        | No action required.  |
| Brand/Manufacturer                                   | Extraction                | New        |  |

| Definition Name                           | Definition Type                   | Status   | Action If Job Change Required |
|---|-----------------------------------|----------|-------------------------------|
| Brand to Manufacturer                     | Standardization                   | New      |                               |
| Color Reduction                           | Standardization                   | New      |                               |
| Country                                   | Match and Standardization         | Modified |                               |
| Country (ISO 2 Char)                      | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                      | Standardization                   | Modified |                               |
| Country (ISO Number)                      | Standardization                   | Modified |                               |
| Country (Region)                          | Standardization                   | Modified |                               |
| Country (Sub-Region)                      | Standardization                   | Modified |                               |
| Date (DMY)                                | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)                                | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)                                | Match, Parse, and Standardization | Modified |                               |
| Date (DMY) (with Combinations)            | Match                             | Modified |                               |
| Date (MDY) (with Combinations)            | Match                             | Modified |                               |
| Dimensions                                | Parse and Standardization         | New      |                               |
| Field Content                             | Identification Analysis           | New      |                               |
| Field Name                                | Identification Analysis           | Enhanced |                               |
| Field Name (v30)                          | Identification Analysis           | Removed  |                               |
| Mask Address Except Street Type           | Standardization                   | New      |                               |
| Mask All Characters                       | Standardization                   | New      |                               |
| Mask All Characters Except First and Last | Standardization                   | New      |                               |
| Mask Digits                               | Standardization                   | New      |                               |
| Mask E-mail Domain                        | Standardization                   | New      |                               |
| Mask E-mail Mailbox                       | Standardization                   | New      |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Material   | Standardization                   | New      |                               |
| Package/UOM  | Parse and Standardization         | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Product Attributes                                   | Extraction                        | New      |                               |
| Size   | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| English, Hong Kong                                   |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Brand/Manufacturer                                   | Extraction                        | New      |                               |
| Brand to Manufacturer                                | Standardization                   | New      |                               |
| Color Reduction                                      | Standardization                   | New      |                               |
| Country  | Match and Standardization         | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Country (Region)                                     | Standardization                   | Modified |                               |
| Country (Sub-Region)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Date (DMY) (with Combinations)                       | Match                             | Modified |                               |

| Definition Name                                      | Definition Type           | Status   | Action If Job Change Required |
|--|---------------------------|----------|-------------------------------|
| Date (MDY) (with Combinations)                       | Match                     | Modified |                               |
| Dimensions   | Parse and Standardization | New      |                               |
| Field Name   | Identification Analysis   | Enhanced |                               |
| Field Name (v30)                                     | Identification Analysis   | Removed  |                               |
| Mask All Characters                                  | Standardization           | New      |                               |
| Mask All Characters Except First and Last            | Standardization           | New      |                               |
| Mask Digits  | Standardization           | New      |                               |
| Mask E-mail Domain                                   | Standardization           | New      |                               |
| Mask E-mail Mailbox                                  | Standardization           | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization           | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization           | New      |                               |
| Mask Letters   | Standardization           | New      |                               |
| Mask Partial String                                  | Standardization           | New      |                               |
| Material   | Standardization           | New      |                               |
| Package/UOM  | Parse and Standardization | New      |                               |
| Part Number  | Standardization           | New      |                               |
| Product Attributes                                   | Extraction                | New      |                               |
| Size   | Standardization           | New      |                               |
| Truncate Word to Initial                             | Standardization           | New      |                               |
| Word   | Pattern Analysis          | Modified |                               |
| English, India                                       |                           |          |                               |
| Anonymize E-mail Domain                              | Standardization           | New      | No action required.           |
| Brand/Manufacturer                                   | Extraction                | New      |                               |
| Brand to Manufacturer                                | Standardization           | New      |                               |
| Color Reduction                                      | Standardization           | New      |                               |
| Country  | Match and Standardization | Modified |                               |



| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Country (Region)                                     | Standardization                   | Modified |                               |
| Country (Sub-Region)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Date (DMY) (with Combinations)                       | Match                             | Modified |                               |
| Date (MDY) (with Combinations)                       | Match                             | Modified |                               |
| Dimensions   | Parse and Standardization         | New      |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Field Name (v30)                                     | Identification Analysis           | Removed  |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Material   | Standardization                   | New      |                               |

| Definition Name                        | Definition Type                   | Status     | Action If Job Change Required |
|--|-----------------------------------|------------|-------------------------------|
| Package/UOM                            | Parse and Standardization         | New        |                               |
| Part Number                            | Standardization                   | New        |                               |
| Product Attributes                     | Extraction                        | New        |                               |
| Size                                   | Standardization                   | New        |                               |
| Truncate Word to Initial               | Standardization                   | New        |                               |
| Word                                   | Pattern Analysis                  | Modified   |                               |
| English, New Zealand                   |                                   |            |                               |
| Address (with Preferred Delivery Info) | Parse                             | Deprecated | Discontinue use.              |
| Anonymize E-mail Domain                | Standardization                   | New        | No action required.           |
| Brand/Manufacturer                     | Extraction                        | New        |                               |
| Brand to Manufacturer                  | Standardization                   | New        |                               |
| Color Reduction                        | Standardization                   | New        |                               |
| Country                                | Match and Standardization         | Modified   |                               |
| Country (ISO 2 Char)                   | Standardization                   | Modified   |                               |
| Country (ISO 3 Char)                   | Standardization                   | Modified   |                               |
| Country (ISO Number)                   | Standardization                   | Modified   |                               |
| Country (Region)                       | Standardization                   | Modified   |                               |
| Country (Sub-Region)                   | Standardization                   | Modified   |                               |
| Date (DMY)                             | Match, Parse, and Standardization | Modified   |                               |
| Date (MDY)                             | Match, Parse, and Standardization | Modified   |                               |
| Date (YMD)                             | Match, Parse, and Standardization | Modified   |                               |
| Date (DMY) (with Combinations)         | Match                             | Modified   |                               |
| Date (MDY) (with Combinations)         | Match                             | Modified   |                               |
| Dimensions                             | Parse and Standardization         | New        |                               |
| Field Name                             | Identification Analysis           | Enhanced   |                               |

| Definition Name                                      | Definition Type           | Status   | Action If Job Change Required |
|--|---------------------------|----------|-------------------------------|
| Field Name (v30)                                     | Identification Analysis   | Removed  |                               |
| Mask Address Except Street Type                      | Standardization           | New      |                               |
| Mask All Characters                                  | Standardization           | New      |                               |
| Mask All Characters Except First and Last            | Standardization           | New      |                               |
| Mask Digits  | Standardization           | New      |                               |
| Mask E-mail Domain                                   | Standardization           | New      |                               |
| Mask E-mail Mailbox                                  | Standardization           | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization           | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization           | New      |                               |
| Mask Letters   | Standardization           | New      |                               |
| Mask Partial String                                  | Standardization           | New      |                               |
| Mask Phone Number                                    | Standardization           | New      |                               |
| Material   | Standardization           | New      |                               |
| Package/UOM  | Parse and Standardization | New      |                               |
| Part Number  | Standardization           | New      |                               |
| Product Attributes                                   | Extraction                | New      |                               |
| Size   | Standardization           | New      |                               |
| Truncate Word to Initial                             | Standardization           | New      |                               |
| Word   | Pattern Analysis          | Modified |                               |
| English, Philippines                                 |                           |          |                               |
| Anonymize E-mail Domain                              | Standardization           | New      | No action required.           |
| Brand/Manufacturer                                   | Extraction                | New      |                               |
| Brand to Manufacturer                                | Standardization           | New      |                               |
| Color Reduction                                      | Standardization           | New      |                               |
| Country  | Match and Standardization | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization           | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization           | Modified |                               |
| Country (ISO Number)                                 | Standardization           | Modified |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Country (Region)                                     | Standardization                   | Modified |                               |
| Country (Sub-Region)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Date (DMY) (with Combinations)                       | Match                             | Modified |                               |
| Date (MDY) (with Combinations)                       | Match                             | Modified |                               |
| Dimensions   | Parse and Standardization         | New      |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Field Name (v30)                                     | Identification Analysis           | Removed  |                               |
| Mask Address Except Street Type                      | Standardization                   | New      |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Material   | Standardization                   | New      |                               |
| Package/UOM  | Parse and Standardization         | New      |                               |
| Part Number  | Standardization                   | New      |                               |

| Definition Name                           | Definition Type                   | Status   | Action If Job Change Required |
|---|-----------------------------------|----------|-------------------------------|
| Product Attributes                        | Extraction                        | New      |                               |
| Size                                      | Standardization                   | New      |                               |
| Truncate Word to Initial                  | Standardization                   | New      |                               |
| Word                                      | Pattern Analysis                  | Modified |                               |
| English, Singapore                        |                                   |          |                               |
| Anonymize E-mail Domain                   | Standardization                   | New      | No action required.           |
| Brand/Manufacturer                        | Extraction                        | New      |                               |
| Brand to Manufacturer                     | Standardization                   | New      |                               |
| Color Reduction                           | Standardization                   | New      |                               |
| Country                                   | Match and Standardization         | Modified |                               |
| Country (ISO 2 Char)                      | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                      | Standardization                   | Modified |                               |
| Country (ISO Number)                      | Standardization                   | Modified |                               |
| Country (Region)                          | Standardization                   | Modified |                               |
| Country (Sub-Region)                      | Standardization                   | Modified |                               |
| Date (DMY)                                | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)                                | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)                                | Match, Parse, and Standardization | Modified |                               |
| Date (DMY) (with Combinations)            | Match                             | Modified |                               |
| Date (MDY) (with Combinations)            | Match                             | Modified |                               |
| Dimensions                                | Parse and Standardization         | New      |                               |
| Field Name                                | Identification Analysis           | Enhanced |                               |
| Field Name (v30)                          | Identification Analysis           | Removed  |                               |
| Mask All Characters                       | Standardization                   | New      |                               |
| Mask All Characters Except First and Last | Standardization                   | New      |                               |
| Mask Digits                               | Standardization                   | New      |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-Mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Material   | Standardization                   | New      |                               |
| Package/UOM  | Parse and Standardization         | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Product Attributes                                   | Extraction                        | New      |                               |
| Size   | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| English, South Africa                                |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Brand/Manufacturer                                   | Extraction                        | New      |                               |
| Brand to Manufacturer                                | Standardization                   | New      |                               |
| Color Reduction                                      | Standardization                   | New      |                               |
| Country  | Match and Standardization         | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Country (Region)                                     | Standardization                   | Modified |                               |
| Country (Sub-Region)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |

| Definition Name                                      | Definition Type           | Status   | Action If Job Change Required |
|--|---------------------------|----------|-------------------------------|
| Date (DMY) (with Combinations)                       | Match                     | Modified |                               |
| Date (MDY) (with Combinations)                       | Match                     | Modified |                               |
| Dimensions   | Parse and Standardization | New      |                               |
| Field Name   | Identification Analysis   | Enhanced |                               |
| Field Name (v30)                                     | Identification Analysis   | Removed  |                               |
| Mask Address Except Street Type                      | Standardization           | New      |                               |
| Mask All Characters                                  | Standardization           | New      |                               |
| Mask All Characters Except First and Last            | Standardization           | New      |                               |
| Mask Digits  | Standardization           | New      |                               |
| Mask E-mail Domain                                   | Standardization           | New      |                               |
| Mask E-mail Mailbox                                  | Standardization           | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization           | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization           | New      |                               |
| Mask Letters   | Standardization           | New      |                               |
| Mask Partial String                                  | Standardization           | New      |                               |
| Mask Phone Number                                    | Standardization           | New      |                               |
| Material   | Standardization           | New      |                               |
| Package/UOM  | Parse and Standardization | New      |                               |
| Part Number  | Standardization           | New      |                               |
| Product Attributes                                   | Extraction                | New      |                               |
| Size   | Standardization           | New      |                               |
| Truncate Word to Initial                             | Standardization           | New      |                               |
| Word   | Pattern Analysis          | Modified |                               |
| English, United Kingdom                              |                           |          |                               |

| Definition Name                              | Definition Type                   | Status     | Action If Job Change Required   |
|--|-----------------------------------|------------|---|
| Contact Info                                 | Identification Analysis           | Deprecated | <b>Replace with the Field Content</b> identification analysis definition. |
| Address                                      | Match and Standardization         | Modified   | No action required.   |
| Address (Detailed)                           | Parse                             | Modified   |   |
| Address (Full)                               | Parse                             | Modified   |   |
| Address (Global)                             | Parse                             | Modified   |   |
| Anonymize E-mail Domain                      | Standardization                   | New        |   |
| Brand/Manufacturer                           | Extraction                        | New        |   |
| Brand to Manufacturer                        | Standardization                   | New        |   |
| City - State/Province - Postal Code          | Match, Parse, and Standardization | Modified   |   |
| City - State/Province - Postal Code (Global) | Parse                             | Modified   |   |
| Color Reduction                              | Standardization                   | New        |   |
| Country                                      | Match and Standardization         | Modified   |   |
| Country (ISO 2 Char)                         | Standardization                   | Modified   |   |
| Country (ISO 3 Char)                         | Standardization                   | Modified   |   |
| Country (ISO Number)                         | Standardization                   | Modified   |   |
| Country (Region)                             | Standardization                   | Modified   |   |
| Country (Sub-Region)                         | Standardization                   | Modified   |   |
| Date (DMY)                                   | Match, Parse, and Standardization | Modified   |   |
| Date (MDY)                                   | Match, Parse, and Standardization | Modified   |   |
| Date (YMD)                                   | Match, Parse, and Standardization | Modified   |   |
| Date (DMY) (with Combinations)               | Match                             | Modified   |   |
| Date (MDY) (with Combinations)               | Match                             | Modified   |   |
| Dimensions                                   | Parse and Standardization         | New        |   |



| Definition Name                                      | Definition Type           | Status   | Action If Job Change Required |
|--|---------------------------|----------|-------------------------------|
| Field Content  | Identification Analysis   | Modified |                               |
| Field Name   | Identification Analysis   | Enhanced |                               |
| Field Name (v30)                                     | Identification Analysis   | Removed  |                               |
| Mask Address Except Street Type                      | Standardization           | New      |                               |
| Mask All Characters                                  | Standardization           | New      |                               |
| Mask All Characters Except First and Last            | Standardization           | New      |                               |
| Mask Digits  | Standardization           | New      |                               |
| Mask E-mail Domain                                   | Standardization           | New      |                               |
| Mask E-mail Mailbox                                  | Standardization           | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization           | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization           | New      |                               |
| Mask Letters   | Standardization           | New      |                               |
| Mask Partial String                                  | Standardization           | New      |                               |
| Mask Phone Number                                    | Standardization           | New      |                               |
| Material   | Standardization           | New      |                               |
| Package/UOM  | Parse and Standardization | New      |                               |
| Part Number  | Standardization           | New      |                               |
| Postal Code  | Parse                     | Modified |                               |
| Postal Code (Validation)                             | Identification Analysis   | Modified |                               |
| Product Attributes                                   | Extraction                | New      |                               |
| Size   | Standardization           | New      |                               |
| Truncate Word to Initial                             | Standardization           | New      |                               |
| Word   | Pattern Analysis          | Modified |                               |
| English, United States                               |                           |          |                               |
| Anonymize E-mail Domain                              | Standardization           | New      | No action required.           |
| Brand/Manufacturer                                   | Extraction                | New      |                               |

| Definition Name                           | Definition Type                   | Status   | Action If Job Change Required |
|---|-----------------------------------|----------|-------------------------------|
| Brand to Manufacturer                     | Standardization                   | New      |                               |
| Color Reduction                           | Standardization                   | New      |                               |
| Country                                   | Match and Standardization         | Modified |                               |
| Country (ISO 2 Char)                      | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                      | Standardization                   | Modified |                               |
| Country (ISO Number)                      | Standardization                   | Modified |                               |
| Country (Region)                          | Standardization                   | Modified |                               |
| Country (Sub-Region)                      | Standardization                   | Modified |                               |
| Date (DMY)                                | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)                                | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)                                | Match, Parse, and Standardization | Modified |                               |
| Date (DMY) (with Combinations)            | Match                             | Modified |                               |
| Date (MDY) (with Combinations)            | Match                             | Modified |                               |
| Dimensions                                | Parse and Standardization         | New      |                               |
| Field Content                             | Identification Analysis           | Modified |                               |
| Field Name                                | Identification Analysis           | Enhanced |                               |
| Field Name (v30)                          | Identification Analysis           | Removed  |                               |
| Mask Address Except Street Type           | Standardization                   | New      |                               |
| Mask All Characters                       | Standardization                   | New      |                               |
| Mask All Characters Except First and Last | Standardization                   | New      |                               |
| Mask Digits                               | Standardization                   | New      |                               |
| Mask E-mail Domain                        | Standardization                   | New      |                               |
| Mask E-mail Mailbox                       | Standardization                   | New      |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Material   | Standardization                   | New      |                               |
| Package/UOM  | Parse and Standardization         | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Product Attributes                                   | Extraction                        | New      |                               |
| Size   | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Finnish, Finland                                     |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| French, Belgium                                      |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Content  | Identification Analysis           | New      |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask Address Except Street Type                      | Standardization                   | New      |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |

| Definition Name                                      | Definition Type                   | Status     | Action If Job Change Required                                      |
|--|-----------------------------------|------------|--|
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New        |  |
| Mask E-mail Sub-Domain                               | Standardization                   | New        |  |
| Mask Letters   | Standardization                   | New        |  |
| Mask Partial String                                  | Standardization                   | New        |  |
| Mask Phone Number                                    | Standardization                   | New        |  |
| Part Number  | Standardization                   | New        |  |
| Truncate Word to Initial                             | Standardization                   | New        |  |
| Word   | Pattern Analysis                  | Modified   |  |
| French, Canada                                       |                                   |            |  |
| Contact Info   | Identification Analysis           | Deprecated | Replace with the Field Content identification analysis definition. |
| Anonymize E-mail Domain                              | Standardization                   | New        | No action required.  |
| Brand to Manufacturer                                | Standardization                   | New        |  |
| Brand/Manufacturer                                   | Extraction                        | New        |  |
| Color Reduction                                      | Standardization                   | New        |  |
| Country  | Match and Standardization         | Modified   |  |
| Country (ISO 2 Char)                                 | Standardization                   | Modified   |  |
| Country (ISO 3 Char)                                 | Standardization                   | Modified   |  |
| Country (ISO Number)                                 | Standardization                   | Modified   |  |
| Country (Region)                                     | Standardization                   | Modified   |  |
| Country (Sub-Region)                                 | Standardization                   | Modified   |  |
| Date (DMY)   | Match, Parse, and Standardization | Modified   |  |
| Date (MDY)   | Match, Parse, and Standardization | Modified   |  |
| Date (YMD)   | Match, Parse, and Standardization | Modified   |  |
| Date (DMY) (with Combinations)                       | Match                             | Modified   |  |
| Date (MDY) (with Combinations)                       | Match                             | Modified   |  |

| Definition Name                                      | Definition Type           | Status   | Action If Job Change Required |
|--|---------------------------|----------|-------------------------------|
| Dimensions   | Parse and Standardization | New      |                               |
| Field Content  | Identification Analysis   | New      |                               |
| Field Name   | Identification Analysis   | Enhanced |                               |
| Field Name (v30)                                     | Identification Analysis   | Removed  |                               |
| Mask Address Except Street Type                      | Standardization           | New      |                               |
| Mask All Characters                                  | Standardization           | New      |                               |
| Mask All Characters Except First and Last            | Standardization           | New      |                               |
| Mask Digits  | Standardization           | New      |                               |
| Mask E-mail Domain                                   | Standardization           | New      |                               |
| Mask E-mail Except First and Last Characters         | Standardization           | New      |                               |
| Mask E-mail Mailbox                                  | Standardization           | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization           | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization           | New      |                               |
| Mask Letters   | Standardization           | New      |                               |
| Mask Partial String                                  | Standardization           | New      |                               |
| Mask Phone Number                                    | Standardization           | New      |                               |
| Material   | Standardization           | New      |                               |
| Package/UOM  | Parse and Standardization | New      |                               |
| Part Number  | Standardization           | New      |                               |
| Product Attributes                                   | Extraction                | New      |                               |
| Size   | Standardization           | New      |                               |
| Truncate Word to Initial                             | Standardization           | New      |                               |
| Word   | Pattern Analysis          | Modified |                               |
| French, France                                       |                           |          |                               |
| Anonymize E-mail Domain                              | Standardization           | New      | No action required.           |
| Brand/Manufacturer                                   | Extraction                | New      |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Brand to Manufacturer                                | Standardization                   | New      |                               |
| Color Reduction                                      | Standardization                   | New      |                               |
| Country  | Match and Standardization         | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Dimensions   | Parse and Standardization         | New      |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Field Name (v30)                                     | Identification Analysis           | Removed  |                               |
| Mask Address Except Street Type                      | Standardization                   | New      |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Material   | Standardization                   | New      |                               |

| Definition Name          | Definition Type                   | Status   | Action If Job Change Required |
|--------------------------|-----------------------------------|----------|-------------------------------|
| Package/UOM              | Parse and Standardization         | New      |                               |
| Part Number              | Standardization                   | New      |                               |
| Product Attributes       | Extraction                        | New      |                               |
| Size                     | Standardization                   | New      |                               |
| Truncate Word to Initial | Standardization                   | New      |                               |
| Word                     | Pattern Analysis                  | Modified |                               |
| German, Germany          |                                   |          |                               |
| Anonymize E-mail Domain  | Standardization                   | New      | No action required.           |
| Address                  | Match, Parse, and Standardization | Modified |                               |
| Address (Global)         | Parse                             | Modified |                               |
| Address (PO Box Only)    | Match                             | Modified |                               |
| Address (Street Only)    | Match                             | Modified |                               |
| Brand/Manufacturer       | Extraction                        | New      |                               |
| Brand to Manufacturer    | Standardization                   | New      |                               |
| Color Reduction          | Standardization                   | New      |                               |
| Country                  | Match                             | Modified |                               |
| Country (ISO 2 Char)     | Standardization                   | Modified |                               |
| Country (ISO 3 Char)     | Standardization                   | Modified |                               |
| Country (ISO Number)     | Standardization                   | Modified |                               |
| Date (DMY)               | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)               | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)               | Match, Parse, and Standardization | Modified |                               |
| Dimensions               | Parse and Standardization         | New      |                               |
| Field Content (v30)      | Identification Analysis           | Removed  |                               |
| Field Name               | Identification Analysis           | Enhanced |                               |



| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Field Name (v30)                                     | Identification Analysis           | Removed  |                               |
| Mask Address Except Street Type                      | Standardization                   | New      |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Material   | Standardization                   | New      |                               |
| Package/UOM  | Parse and Standardization         | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Product Attributes                                   | Extraction                        | New      |                               |
| Size   | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Greek, Greece  |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Hebrew, Israel                                       |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Date (DMY) (with Combinations)                       | Match                             | Modified |                               |
| Date (MDY) (with Combinations)                       | Match                             | Modified |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Field Name   | Identification Analysis           | Enhanced |                               |
| Field Name (v30)                                     | Identification Analysis           | Removed  |                               |
| Mask Address Except Street Type                      | Standardization                   | New      |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Hungarian, Hungary                                   |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Italian, Italy                                       |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Brand/Manufacturer                                   | Extraction                        | New      |                               |
| Brand to Manufacturer                                | Standardization                   | New      |                               |
| Color Reduction                                      | Standardization                   | New      |                               |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Dimensions   | Parse and Standardization         | New      |                               |
| Field Content (v30)                                  | Identification Analysis           | Removed  |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask Address Except Street Type                      | Standardization                   | New      |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Material   | Standardization                   | New      |                               |
| Package/UOM  | Parse and Standardization         | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Product Attributes                                   | Extraction                        | New      |                               |
| Size   | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Japanese, Japan                                      |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |

| Definition Name                                      | Definition Type                           | Status   | Action If Job Change Required |
|--|---|----------|-------------------------------|
| Date (YMD)   | Match, Parse, and Standardization         | Modified |                               |
| Field Name   | Identification Analysis                   | Enhanced |                               |
| Mask All Characters                                  | Standardization                           | New      |                               |
| Mask All Characters Except First and Last            | Standardization                           | New      |                               |
| Mask Digits  | Standardization                           | New      |                               |
| Mask E-mail Domain                                   | Standardization                           | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                           | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                           | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                           | New      |                               |
| Mask Letters   | Standardization                           | New      |                               |
| Mask Partial String                                  | Standardization                           | New      |                               |
| Mask Phone Number                                    | Standardization                           | New      |                               |
| Name   | Gender, Match, Parse, and Standardization | Enhanced |                               |
| Name (Global)  | Parse                                     | Enhanced |                               |
| Organization   | Match, Parse, and Standardization         | Enhanced |                               |
| Organization (Global)                                | Parse                                     | Enhanced |                               |
| Part Number  | Standardization                           | New      |                               |
| Truncate Word to Initial                             | Standardization                           | New      |                               |
| Word   | Pattern Analysis                          | Modified |                               |
| Korean, South Korea                                  |   |          |                               |
| Anonymize E-mail Domain                              | Standardization                           | New      | No action required.           |
| Country  | Match                                     | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                           | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                           | Modified |                               |
| Country (ISO Number)                                 | Standardization                           | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization         | Modified |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Malay, Malaysia                                      |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| <b>Norwegian, Norway</b>                             |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |



| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Polish, Poland                                       |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Portuguese, Brazil                                   |                                   |          |                               |
| Address (Full)                                       | Match                             | Modified | No action required.           |
| Anonymize E-mail Domain                              | Standardization                   | New      |                               |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask Address Except Street Type                      | Standardization                   | New      |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Portuguese, Portugal                                 |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask Address Except Street Type                      | Standardization                   | New      |                               |
| Mask All Character                                   | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Russian, Russia                                      |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Slovak, Slovakia                                     |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Slovenian, Slovenia                                  |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Spanish, Argentina                                   |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Spanish, Mexico                                      |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask Address Except Street Type                      | Standardization                   | New      |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Spanish, Spain                                       |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask Address Except Street Type                      | Standardization                   | New      |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |



| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Swedish, Sweden                                      |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Content  | Identification Analysis           | New      |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Thai, Thailand                                       |                                   |          |                               |
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |
| Turkish, Turkey                                      |                                   |          |                               |

| Definition Name                                      | Definition Type                   | Status   | Action If Job Change Required |
|--|-----------------------------------|----------|-------------------------------|
| Anonymize E-mail Domain                              | Standardization                   | New      | No action required.           |
| Country  | Match                             | Modified |                               |
| Country (ISO 2 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO 3 Char)                                 | Standardization                   | Modified |                               |
| Country (ISO Number)                                 | Standardization                   | Modified |                               |
| Date (DMY)   | Match, Parse, and Standardization | Modified |                               |
| Date (MDY)   | Match, Parse, and Standardization | Modified |                               |
| Date (YMD)   | Match, Parse, and Standardization | Modified |                               |
| Field Name   | Identification Analysis           | Enhanced |                               |
| Mask All Characters                                  | Standardization                   | New      |                               |
| Mask All Characters Except First and Last            | Standardization                   | New      |                               |
| Mask Digits  | Standardization                   | New      |                               |
| Mask E-mail Domain                                   | Standardization                   | New      |                               |
| Mask E-mail Mailbox                                  | Standardization                   | New      |                               |
| Mask E-mail Mailbox Except First and Last Characters | Standardization                   | New      |                               |
| Mask E-mail Sub-Domain                               | Standardization                   | New      |                               |
| Mask Letters   | Standardization                   | New      |                               |
| Mask Partial String                                  | Standardization                   | New      |                               |
| Mask Phone Number                                    | Standardization                   | New      |                               |
| Part Number  | Standardization                   | New      |                               |
| Truncate Word to Initial                             | Standardization                   | New      |                               |
| Word   | Pattern Analysis                  | Modified |                               |

## Deprecation Actions

### Discontinue use

This definition is no longer supported and will be removed in a future release.

## Replace with

This definition is no longer supported and will be removed in a future release. Switch any jobs that use this definition to use the replacement definition specified.

## Modify jobs or the QKB to use the desired definition

Each definition that has been enhanced also has a copy of the original version. The original definition is tagged and deprecated to be replaced by an enhanced definition that requires job changes. The required job changes for the enhanced definition are described in the Deprecation Action section. Users can do one of the following three options:

1. Modify their jobs to fit the new definition.
2. Modify their jobs to use the old QKB.
3. Modify the QKB by removing or renaming the new definition and then untag the old definition.

Users are encouraged to modify their jobs to take advantage of the enhanced processing.

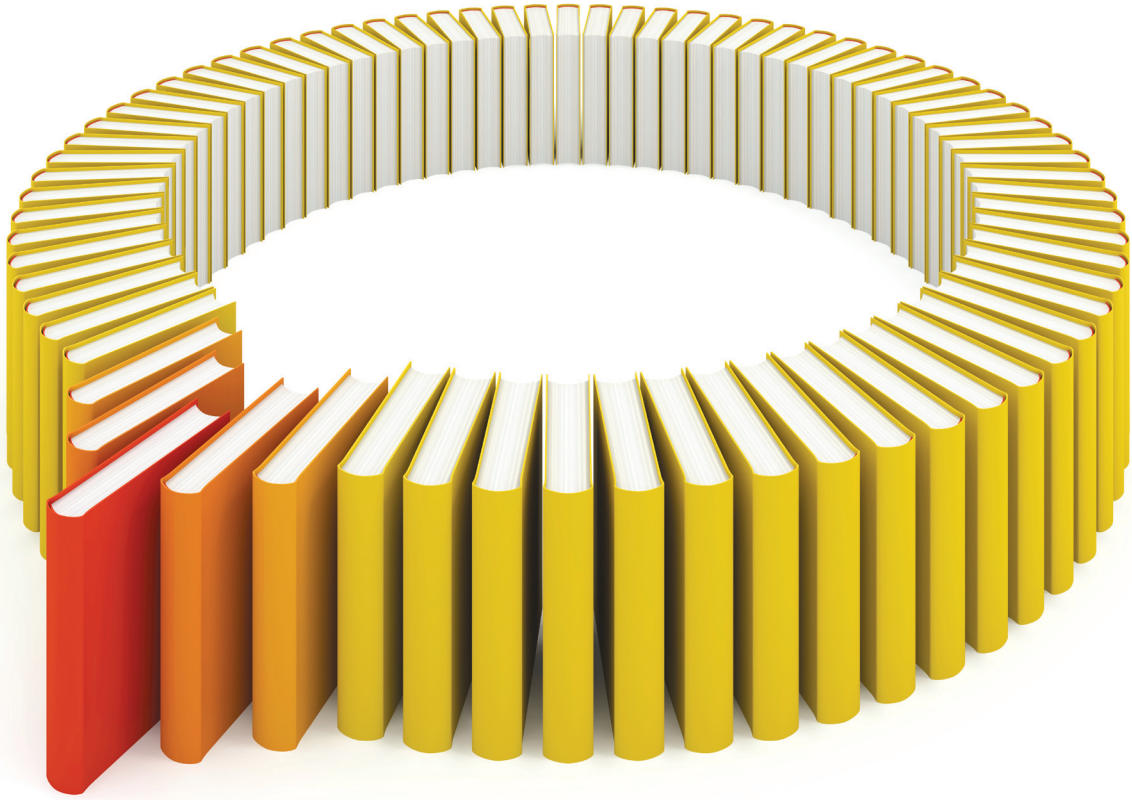
## Modify jobs to use the updated definition

1. Identity names have changed  
The identity names of the definition have changed. This change requires an update to jobs that use the definition so that the identity names that are specified in those jobs match the names in the definition.
2. Preparsed input changes  
Certain data quality functions expect input data that has been previously parsed. In SAS Data Quality Server, these functions are DQGENDERPARSED and DQMATCHPARSED. In DataFlux Data Management Studio, the nodes are Gender Analysis (Parsed), Standardization (Parsed), and Match Codes (Parsed).
  - Definition no longer accepts preparsed input  
If this definition is called by any of the preparsed input data quality functions or nodes, change it to use the corresponding function or node that does not expect preparsed input and provide the input as a single field. Jobs using functions or nodes without PARSED or (Parsed) do not require an update.
  - Preparsed input tokens have changed  
If this definition is called by any of the preparsed input data quality functions or nodes, change the mapping of the input fields to the tokens used by the enhanced definition. Jobs using functions or nodes without PARSED or (Parsed) do not require an update.
3. Output tokens have changed  
Update jobs using the definition so that the output tokens of the enhanced definition are expected by those jobs.

4. Match code length has increased  
Check any jobs using the definition to ensure that the match code fields can accommodate a match code with the new length.

## Known Problems

- Due to the variety and complexity of input data, such as full addresses and long numeric strings, jobs using Field Content identification definitions might take a long time to complete.
- Due to the complexity of full addresses, jobs using **Address (Full)** match, parse, and standardization definitions might take a long time to complete.
- Due to the complexity of Indian addresses, jobs using the **Address**, **Address (Global)**, and **Address (Full)** match, parse, and standardization definitions in the English, India locale might show higher rates of error than are typical for other definitions. Jobs using these definitions might also take a long time to complete.
- Due to the large number of possible telephone area codes in Germany, extensive processing is required to parse German telephone numbers. Therefore, jobs run using the **Phone** match, parse, and standardization definitions in the German, Germany locale might take a long time to complete.
- When multiple locales are selected, the QKB installer for Windows might overestimate the amount of disk space that is required to complete the installation.



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