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What's New in **SAS[®] Quality Knowledge Base for Contact Information 23**

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What's New in SAS® Quality Knowledge Base for Contact Information 23

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SAS Institute Inc., SAS Campus Drive, Cary, North Carolina 27513-2414.

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What's New in SAS Quality Knowledge Base for Contact Information 23

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 Quality Knowledge Base for Contact Information (CI) 23.

- [Overview](#)
- [Locale Support](#)
- [Deprecations](#)
- [Enhancements](#)
- [Known Problems](#)

See the SAS Quality Knowledge Base for Contact Information 23 online Help for additional information. For information about previous releases, see the SAS Quality Knowledge Base (QKB) product page at <http://support.sas.com/documentation/onlinedoc/qkb/>.

Overview

SAS QKB CI 23 introduces support for Hebrew, Israel **Date** definitions.

SAS QKB CI 23 includes updates for the following locales and definitions:

- Portuguese, Brazil
 - o **Address** match, parse, and standardization definitions
 - o **Name** standardization definitions
 - o **Phone** standardization definitions
- Spanish, Mexico
 - o **Address** parse definitions
 - o **Name** parse and gender analysis definitions
 - o **Phone** parse definitions

- Turkish, Turkey
 - o **Address** parse definitions
 - o **Name** parse definitions
 - o **Organization** match, parse, and standardization definitions
- All locales
 - o **Address (Global)** parse definitions
 - o **E-mail** match definitions

SAS QKB CI 23 includes updates for **Field Name** identification analysis and match definitions for the following locales:

- All English locales
- Chinese, China
- Danish, Denmark
- German, Germany
- French, France
- Hebrew, Israel

See the [Enhancements](#) section for a list of definitions that have been added, removed, or modified in this release. See the [Deprecations](#) section for a list of definitions that have been deprecated, renamed, or removed in this release.

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 23 into any QKB that was released prior to QKB CI 2010B. It is possible to merge an earlier QKB into QKB CI 23 after installing it into a separate location. See the "QKB Merge Tool" section in the online Help for details.

Locale Support

This release includes support for the following locales:

- Afrikaans, South Africa
- Arabic, Egypt (partial support; see QKB documentation)
- Chinese, China
- Czech, Czech Republic
- Danish, Denmark
- Dutch, Belgium
- Dutch, Netherlands
- English, Australia

- English, Canada
- English, Hong Kong (partial support; see QKB documentation)
- English, India
- English, New Zealand
- English, South Africa
- English, United Kingdom
- English, United States
- Finnish, Finland
- French, Belgium
- French, Canada
- French, France
- German, Germany
- Greek, Greece
- Hebrew, Israel
- Hungarian, Hungary
- Italian, Italy
- Japanese, Japan
- Korean, South Korea
- Malay, Malaysia
- Norwegian, Norway
- Polish, Poland
- Portuguese, Brazil
- Portuguese, Portugal
- Russian, Russia
- Slovak, Slovakia
- Spanish, Mexico
- Spanish, Spain
- Swedish, Sweden
- Thai, Thailand
- Turkish, Turkey

Deprecations

SAS deprecates QKB definitions for various reasons, including:

- The definition is removed or renamed
- The output tokens of the definitions are changed
- The length of the match code is increased

Deprecated definitions are retained in the QKB for one release and are then removed from the QKB in the following release.

You might notice that some new definition names include a version tag (denoting the QKB release in which the definition was introduced). This naming convention indicates that a definition is scheduled to be replaced by a new definition. For example, you might see definitions like the following in this release:

- **Phone**
- **Phone (v23)**

These names indicate that the **Phone** definition will be replaced by the **Phone (v23)** definition in a subsequent release. The name **Phone** does not change, however. In that release, the definition with the version tag in its name, **Phone (v23)**, will be deprecated and removed:

- **Phone**
- **Phone (v23) —> Phone**
- **Phone (v23) —> Phone (v23) <deprecated>**

The deprecated **Phone (v23)** definition will then be removed in a future release.

The following is a list of definitions that were affected by this deprecation policy in the 22 or 23 release:

Marked	Description
Added	Definitions marked "Added" are new definitions with updated tokens, match code lengths, or definition name changes. We recommend that you replace calls to current definitions with calls to the new definitions in all jobs. Names of new definitions often include a version tag such as (v23).
Deprecated	Definitions marked "Deprecated" are deprecated and will be removed or replaced in a future release. We recommend that you remove calls to deprecated definitions and replace them with calls to the replacement definitions in all jobs. Names of deprecated definitions often include a version tag such as (v23).
Replaced	Definitions marked "Replaced" are replaced by copies of other definitions, but have retained their original names. Because definitions that are replaced often have new or different tokens or match code lengths, you might need to update your job to use the enhancements if your job calls a definition that is replaced.

Marked	Description
Same	Definitions marked "Same" have not been significantly changed in this release but are related to added or deprecated definitions.

Type of Deprecated Definitions

Afrikaans, South Africa

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match
Field Name	Deprecated	Identification Analysis
Field Name (v23)	Added	Identification Analysis

Afrikaans, South Africa

Chinese, China

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match
Field Name	Deprecated	Identification Analysis
Field Name (v23)	Added	Identification Analysis

Chinese, China

Czech, Czech Republic

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Czech, Czech Republic

Danish, Denmark

Definition Name	Action	Type of Definition
Address	Replaced	Match and Parse
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
Address (Street Only)	Replaced	Match
Address (Street Only) (v22)	Deprecated	Match
Address (Street Only) (v23)	Deprecated	Match
Address (v22)	Deprecated	Match and Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Definition Name	Action	Type of Definition
Field Name	Deprecated	Identification Analysis
Field Name (v23)	Added	Identification Analysis

Danish, Denmark

Dutch, Belgium

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Dutch, Belgium

Dutch, Netherlands

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Dutch, Netherlands

English, Australia

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match
Field Name	Deprecated	Identification Analysis
Field Name (v23)	Added	Identification Analysis

English, Australia

English, Canada

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match
Field Name	Deprecated	Identification Analysis
Field Name (v23)	Added	Identification Analysis

English, Canada

English, Hong Kong

Definition Name	Action	Type of Definition
E-mail	Deprecated	Match
E-mail (v23)	Added	Match
Field Name	Deprecated	Identification Analysis
Field Name (v23)	Added	Identification Analysis

English, Hong Kong

English, India

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match
Field Name	Deprecated	Identification Analysis
Field Name (v23)	Added	Identification Analysis

English, India

English, New Zealand

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
Address (PO Box Only)	Deprecated	Match
Address (PO Box Only) (v22)	Same	Match
Address (Street Only)	Deprecated	Match
Address (Street Only) (v22)	Same	Match
E-mail	Deprecated	Match
E-mail (v23)	Added	Match
Field Name	Deprecated	Identification Analysis
Field Name (v23)	Added	Identification Analysis

English, New Zealand

English, South Africa

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match
Field Name	Deprecated	Identification Analysis
Field Name (v23)	Added	Identification Analysis

English, South Africa

English, United Kingdom

Definition Name	Action	Type of Definition
Address (Full)	Replaced	Match
Address (Full) (2011A)	Deprecated	Match
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match
Field Name	Deprecated	Identification Analysis
Field Name (v23)	Added	Identification Analysis

English, United Kingdom

English, United States

Definition Name	Action	Type of Definition
Address	Replaced	Match, Parse, and Standardization
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
Address (v22)	Deprecated	Match, Parse, and Standardization
Contact Info	Replaced	Identification Analysis
Contact Info (v22)	Deprecated	Identification Analysis
E-mail	Deprecated	Match
E-mail (v23)	Added	Match
Field Name	Deprecated	Identification Analysis
Field Name (v23)	Added	Identification Analysis

English, United States

Finnish, Finland

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Finnish, Finland

French, Belgium

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

French, Belgium

French, Canada

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match
Field Name	Deprecated	Identification Analysis
Field Name (v23)	Added	Identification Analysis

French, Canada

French, France

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v22)	Deprecated	Match
E-mail (v23)	Added	Match
Field Name	Deprecated	Identification Analysis
Field Name (v23)	Added	Identification Analysis

French, France

German, Germany

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match
Field Name	Deprecated	Identification Analysis
Field Name (v23)	Added	Identification Analysis

German, Germany

Greek, Greece

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Greek, Greece

Hebrew, Israel

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse

Definition Name	Action	Type of Definition
E-mail	Deprecated	Match
E-mail (v23)	Added	Match
Field Name	Deprecated	Identification Analysis
Field Name (v23)	Added	Identification Analysis

Hebrew, Israel

Hungarian, Hungary

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Hungarian, Hungary

Italian, Italy

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Italian, Italy

Japanese, Japan

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Japanese, Japan

Korean, South Korea

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Korean, South Korea

Malay, Malaysia

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse

Definition Name	Action	Type of Definition
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Malay, Malaysia

Norwegian, Norway

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Norwegian, Norway

Polish, Poland

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Polish, Poland

Portuguese, Brazil

Definition Name	Action	Type of Definition
Accent and Space Normalization	Deprecated	Standardization
Address	Deprecated	Match and Parse
Address (Global)	Deprecated	Match and Parse
Address (Global) (v23)	Added	Parse
Address (v23)	Added	Match and Parse
Blank Removal	Deprecated	Standardization
E-mail	Deprecated	Match
E-mail (v23)	Added	Match
Generic Letter Marker	Deprecated	Standardization
Generic Number Marker	Deprecated	Standardization
Generic Number/Letter Marker	Deprecated	Standardization
Name	Replaced	Parse
Name (v22)	Deprecated	Parse
Phone	Replaced	Match and Parse
Phone (v22)	Deprecated	Parse
Phone (v23)	Added	Match
Standard Uppercase	Deprecated	Standardization

Portuguese, Brazil

Portuguese, Portugal

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Portuguese, Portugal

Russian, Russia

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Russian, Russia

Slovak, Slovakia

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Slovak, Slovakia

Spanish, Mexico

Definition Name	Action	Type of Definition
Address	Deprecated	Parse
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
Address (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match
Name	Deprecated	Parse
Name (v23)	Added	Parse
Phone	Deprecated	Parse
Phone (v23)	Added	Parse

Spanish, Mexico

Spanish, Spain

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse

Definition Name	Action	Type of Definition
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Spanish, Spain

Swedish, Sweden

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Swedish, Sweden

Thai, Thailand

Definition Name	Action	Type of Definition
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match

Thai, Thailand

Turkish, Turkey

Definition Name	Action	Type of Definition
Address	Deprecated	Parse
Address (Full)	Deprecated	Parse
Address (Full) (v23)	Added	Parse
Address (Global)	Deprecated	Parse
Address (Global) (v23)	Added	Parse
Address (v23)	Added	Parse
E-mail	Deprecated	Match
E-mail (v23)	Added	Match
Organization	Deprecated	Match
Organization (v23)	Added	Match
Proper (Organization)	Deprecated	Case

Turkish, Turkey

Enhancements

Definitions named with the suffix (v23) are the newest definitions. We recommend that you use these new definitions when possible. Be aware that software version restrictions apply for some definitions. See [Deprecations](#) for more details.

The following is a list of definitions that have been added or modified in this release. See the online Help for details about these definitions.

Enhancements Completed in This Release

- [Afrikaans, South Africa](#)
- [Arabic, Egypt](#)
- [Chinese, China](#)
- [Czech, Czech Republic](#)
- [Danish, Denmark](#)
- [Dutch, Belgium](#)
- [Dutch, Netherlands](#)
- [English, Australia](#)
- [English, Canada](#)
- [English, Hong Kong](#)
- [English, India](#)
- [English, New Zealand](#)
- [English, South Africa](#)
- [English, United Kingdom](#)
- [English, United States](#)
- [Finnish, Finland](#)
- [French, Belgium](#)
- [French, Canada](#)
- [French, France](#)
- [German, Germany](#)
- [Greek, Greece](#)
- [Hebrew, Israel](#)
- [Hungarian, Hungary](#)
- [Italian, Italy](#)
- [Japanese, Japan](#)
- [Korean, South Korea](#)
- [Malay, Malaysia](#)
- [Norwegian, Norway](#)
- [Polish, Poland](#)

- [Portuguese, Brazil](#)
- [Portuguese, Portugal](#)
- [Russian, Russia](#)
- [Slovak, Slovakia](#)
- [Spanish, Mexico](#)
- [Spanish, Spain](#)
- [Swedish, Sweden](#)
- [Thai, Thailand](#)
- [Turkish, Turkey](#)

Afrikaans, South Africa

Definition Name	Action	Type of Definition
Address	Modified	Locale Guess, Match, Parse, and Standardization
Address (Full)	Modified	Match, Parse, and Standardization
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
City - State/Province - Postal Code	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code (Global)	Modified	Parse
Contact Info	Modified	Identification Analysis
Date (DMY)	Modified	Match, Parse, and Standardization
Date (DMY) (with Combinations)	Modified	Match
Date (MDY)	Modified	Match, Parse, and Standardization
Date (MDY) (with Combinations)	Modified	Match
Date (YMD)	Modified	Match, Parse, and Standardization
Date/Time (DMY)	Modified	Match and Parse
Date/Time (DMY) Basic	Modified	Standardization
Date/Time (DMY) Extended	Modified	Standardization
Date/Time (MDY)	Modified	Match and Parse
Date/Time (MDY) Basic	Modified	Standardization
Date/Time (MDY) Extended	Modified	Standardization
Date/Time (YMD)	Modified	Match and Parse
Date/Time (YMD) Basic	Modified	Standardization
Date/Time (YMD) Extended	Modified	Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Field Name	Modified	Identification Analysis and Match
Field Name (v23)	New	Identification Analysis
Individual/Organization	Removed	Identification Analysis

Definition Name	Action	Type of Definition
Name	Modified	Gender, Match, and Standardization
Name (Multiple Name)	Modified	Parse
Name (with Combinations)	Modified	Match
Organization	Modified	Match, Parse, and Standardization
Organization (Global)	Modified	Parse
Organization (with Site)	Modified	Match
Proper (Name)	Modified	Case
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Afrikaans, South Africa

Arabic, Egypt

Definition Name	Action	Type of Definition
E-mail	New	Match
E-mail	Modified	Parse and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Governorate	Modified	Match
Governorate (Arabic to English Translation)	Modified	Standardization
Governorate (English to Arabic Translation)	Modified	Standardization
Name	Modified	Standardization
Name (Arabic to English Transliteration)	Modified	Standardization
Name (English to Arabic Transliteration)	Modified	Standardization
Phone	Modified	Identification Analysis, Match, Parse, and Standardization
Phone (Electronic)	Modified	Standardization
Phone (Global)	Modified	Parse
Phone (Legacy Mobile Conversion)	Modified	Standardization
Phone (with Country Code)	Modified	Standardization
Phone (with Governorate)	Modified	Standardization
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Arabic, Egypt

Chinese, China

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Full)	Modified	Match, Parse, and Standardization
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
City	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code (Global)	Modified	Parse
Date	Modified	Match and Parse
Date (Chinese Calendar)	Modified	Standardization
Date (Western Calendar)	Modified	Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Field Name	Modified	Identification Analysis and Match
Field Name (v23)	New	Identification Analysis
ID Number	Modified	Gender, Parse, and Standardization
Individual/Organization	Modified	Identification Analysis
Name	Modified	Match, Parse, and Standardization
Name (Global)	Modified	Parse
Organization	Modified	Match, Parse, and Standardization
Organization (Global)	Modified	Parse
Phone	Modified	Match, Parse, and Standardization
Phone (Electronic)	Modified	Standardization
Phone (Global)	Modified	Parse
Phone (with Country Code)	Modified	Standardization
Postal Code	Modified	Match, Parse, and Standardization
Postal Code (with Country Code)	Modified	Standardization
Punctuation Removal	Modified	Standardization
State/Province	Modified	Match and Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Chinese, China

Czech, Czech Republic

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
Address (PO Box Only)	Modified	Match
Address (Street Only)	Modified	Match
Birth Number	Modified	Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Name	Modified	Standardization
Organization	Modified	Match, Parse, and Standardization
Organization (Global)	Modified	Parse
Phone	Modified	Match, Parse, and Standardization
Phone (Electronic)	Modified	Standardization
Phone (Global)	Modified	Parse
Phone (with Country Code)	Modified	Standardization
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Czech, Czech Republic

Danish, Denmark

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Global) (v23)	New	Parse
Address (PO Box Only)	Modified	Match
Address (Standard)	Removed	Match
Address (Street Only)	Modified	Match
Address (Street Only) (v22)	Modified	Match
Address (v22)	Modified	Match and Parse
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Field Name	Modified	Identification Analysis and Match
Field Name (v23)	New	Identification Analysis
Name	Modified	Match
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Danish, Denmark

Dutch, Belgium

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Full)	Modified	Parse
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
City	Modified	Standardization
City - State/Province - Postal Code	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code (Global)	Modified	Parse
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Name	Modified	Standardization
Name (No Translation)	Modified	Standardization
Organization	Modified	Standardization
Phone	Modified	Standardization
Phone (with Country Code)	Modified	Standardization
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Dutch, Belgium

Dutch, Netherlands

Definition Name	Action	Type of Definition
Address	Modified	Standardization
Address (Global) (v23)	New	Parse
Address (Short Street Name)	Modified	Standardization
City	Modified	Standardization
City - State/Province - Postal Code	Modified	Standardization
City - State/Province - Postal Code (International)	Modified	Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Name	Modified	Standardization
Name (with Punctuation)	Modified	Standardization
Organization	Modified	Match, Parse, and Standardization
Organization (Abbr)	Modified	Match

Definition Name	Action	Type of Definition
Organization (Global)	Modified	Parse
Phone	Modified	Match, Parse, and Standardization
Phone (Electronic)	Modified	Standardization
Phone (Global)	Modified	Parse
Phone (with Country Code)	Modified	Standardization
Punctuation Removal	Modified	Standardization
State/Province	Modified	Standardization
State/Province (Postal Standard)	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Dutch, Netherlands

English, Australia

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Full)	Modified	Identification Analysis, Match, and Parse
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
Address (PO Box Only)	Modified	Match
Address (Street Only)	Modified	Match
City - State/Province - Postal Code	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code (Global)	Modified	Parse
Contact Info	Modified	Identification Analysis
Date (DMY)	Modified	Match, Parse, and Standardization
Date (DMY) (with Combinations)	Modified	Match
Date (MDY)	Modified	Match, Parse, and Standardization
Date (MDY) (with Combinations)	Modified	Match
Date (YMD)	Modified	Match, Parse, and Standardization
Date/Time (DMY)	Modified	Match and Parse
Date/Time (DMY) Basic	Modified	Standardization
Date/Time (DMY) Extended	Modified	Standardization
Date/Time (MDY)	Modified	Match and Parse
Date/Time (MDY) Basic	Modified	Standardization
Date/Time (MDY) Extended	Modified	Standardization
Date/Time (YMD)	Modified	Match and Parse
Date/Time (YMD) Basic	Modified	Standardization
Date/Time (YMD) Extended	Modified	Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Field Name	Modified	Match and Identification Analysis

Definition Name	Action	Type of Definition
Field Name (v23)	New	Identification Analysis
Individual/Organization	Removed	Identification Analysis
Name	Modified	Gender, Match, and Standardization
Name (Multiple Name)	Modified	Parse
Name (with Combinations)	Modified	Match
Name (with Suggestions)	Modified	Match
Organization	Modified	Match, Parse, and Standardization
Organization (Global)	Modified	Parse
Phone	Modified	Standardization
Phone (with Country Code)	Modified	Standardization
Proper (Name)	Modified	Case
Punctuation Removal	Modified	Standardization
State/Province	Modified	Match
URL	Modified	Standardization
Website	Modified	Standardization

English, Australia

English, Canada

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (2012A)	Removed	Match and Parse
Address (Detailed)	Modified	Parse
Address (Global) (v23)	New	Parse
City	Modified	Standardization
City (2012A)	Removed	Match
City - State/Province - Postal Code	Modified	Standardization
City - State/Province - Postal Code (2012A)	Removed	Match and Parse
City - State/Province - Postal Code (International)	Modified	Standardization
Date (DMY)	Modified	Match, Parse, and Standardization
Date (DMY) (with Combinations)	Modified	Match
Date (MDY)	Modified	Match, Parse, and Standardization
Date (MDY) (with Combinations)	Modified	Match
Date (YMD)	Modified	Match, Parse, and Standardization
Date/Time (DMY)	Modified	Match and Parse
Date/Time (DMY) Basic	Modified	Standardization
Date/Time (DMY) Extended	Modified	Standardization
Date/Time (MDY)	Modified	Match and Parse
Date/Time (MDY) Basic	Modified	Standardization
Date/Time (MDY) Extended	Modified	Standardization
Date/Time (YMD)	Modified	Match and Parse
Date/Time (YMD) Basic	Modified	Standardization
Date/Time (YMD) Extended	Modified	Standardization

Definition Name	Action	Type of Definition
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Field Name	Modified	Match and Identification Analysis
Field Name (v23)	New	Identification Analysis
Name	Modified	Gender Analysis, Match, and Standardization
Name (Multiple Name)	Modified	Parse
Name (with Combinations)	Modified	Match
Name (with Suggestions)	Modified	Match
Organization	Modified	Match, Parse, and Standardization
Organization (Global)	Modified	Parse
Phone	Modified	Match, Parse, and Standardization
Phone (2012A)	Removed	Match and Parse
Phone (Electronic)	Modified	Standardization
Phone (Global)	Modified	Parse
Phone (Validation)	Modified	Identification Analysis
Phone (with Country Code)	Modified	Standardization
Postal Code (2012A)	Removed	Match
Proper (Address)	Modified	Case
Proper (Name)	Modified	Case
Punctuation Removal	Modified	Standardization
State/Province	Modified	Standardization
State/Province (Postal Standard)	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

English, Canada

English, Hong Kong

Definition Name	Action	Type of Definition
Contact Info	Modified	Identification Analysis
Date (DMY)	Modified	Match, Parse, and Standardization
Date (DMY) (with Combinations)	Modified	Match
Date (MDY)	Modified	Match, Parse, and Standardization
Date (MDY) (with Combinations)	Modified	Match
Date (YMD)	Modified	Match, Parse, and Standardization
Date/Time (DMY)	Modified	Match and Parse
Date/Time (DMY) Basic	Modified	Standardization
Date/Time (DMY) Extended	Modified	Standardization
Date/Time (MDY)	Modified	Match and Parse
Date/Time (MDY) Basic	Modified	Standardization
Date/Time (MDY) Extended	Modified	Standardization

Definition Name	Action	Type of Definition
Date/Time (YMD)	Modified	Match and Parse
Date/Time (YMD) Basic	Modified	Standardization
Date/Time (YMD) Extended	Modified	Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Field Name	Modified	Identification Analysis and Match
Field Name (v23)	New	Identification Analysis
Individual/Organization	Removed	Identification Analysis
Name	Modified	Gender Analysis, Match, and Standardization
Name (Multiple Name)	Modified	Parse
Name (with Combinations)	Modified	Match
Organization	Modified	Match, Parse, and Standardization
Organization (Global)	Modified	Parse
Proper (Address)	Modified	Case
Proper (Name)	Modified	Case
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

English, Hong Kong

English, India

Definition Name	Action	Type of Definition
Address	Modified	Standardization
Address (Generic)	Modified	Standardization
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
City	Modified	Standardization
City - State/Province - Postal Code	Modified	Standardization
Contact Info	Modified	Identification Analysis
Date (DMY)	Modified	Match, Parse, and Standardization
Date (DMY) (with Combinations)	Modified	Match
Date (MDY)	Modified	Match, Parse, and Standardization
Date (MDY) (with Combinations)	Modified	Match
Date (YMD)	Modified	Match, Parse, and Standardization
Date/Time (DMY)	Modified	Match and Parse
Date/Time (DMY) Basic	Modified	Standardization
Date/Time (DMY) Extended	Modified	Standardization
Date/Time (MDY)	Modified	Match and Parse
Date/Time (MDY) Basic	Modified	Standardization
Date/Time (MDY) Extended	Modified	Standardization
Date/Time (YMD)	Modified	Match and Parse
Date/Time (YMD) Basic	Modified	Standardization

Definition Name	Action	Type of Definition
Date/Time (YMD) Extended	Modified	Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Field Name	Modified	Identification Analysis and Match
Field Name (v23)	New	Identification Analysis
Individual/Organization	Removed	Identification Analysis
Name	Modified	Gender Analysis and Standardization
Name (Multiple Name)	Modified	Parse
Name (with Combinations)	Modified	Match
Name (with Extensions)	Modified	Match
Organization	Modified	Match, Parse, and Standardization
Organization (Global)	Modified	Parse
Punctuation Removal	Modified	Standardization
State	Modified	Match and Standardization
URL	Modified	Standardization
Website	Modified	Standardization

English, India

English, New Zealand

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (2013A)	Removed	Match, Parse, and Standardization
Address (Extended)	Modified	Standardization
Address (Full)	Modified	Parse
Address (Global) (v23)	New	Parse
Address (PO Box Only)	Modified	Match
Address (PO Box Only) (v22)	Modified	Match
Address (Street Only)	Modified	Match
Address (Street Only) (v22)	Modified	Match
City - State/Province - Postal Code	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code (2013A)	Removed	Match, Parse, and Standardization
Contact Info	Modified	Identification Analysis
Date (DMY)	Modified	Match, Parse, and Standardization
Date (DMY) (with Combinations)	Modified	Match
Date (MDY)	Modified	Match, Parse, and Standardization
Date (MDY) (with Combinations)	Modified	Match
Date (YMD)	Modified	Match, Parse, and Standardization
Date/Time (DMY)	Modified	Match and Parse
Date/Time (DMY) Basic	Modified	Standardization
Date/Time (DMY) Extended	Modified	Standardization
Date/Time (MDY)	Modified	Match and Parse
Date/Time (MDY) Basic	Modified	Standardization

Definition Name	Action	Type of Definition
Date/Time (MDY) Extended	Modified	Standardization
Date/Time (YMD)	Modified	Match and Parse
Date/Time (YMD) Basic	Modified	Standardization
Date/Time (YMD) Extended	Modified	Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Field Name	Modified	Identification Analysis and Match
Field Name (v23)	New	Identification Analysis
Individual/Organization	Removed	Identification Analysis
Name	Modified	Gender Analysis, Match, and Standardization
Name (Multiple Name)	Modified	Parse
Name (with Combinations)	Modified	Match
Name (with Suggestions)	Modified	Match
Organization	Modified	Match, Parse, and Standardization
Organization (Global)	Modified	Parse
Phone	Modified	Identification Analysis, Match, Parse, and Standardization
Phone (Electronic)	Modified	Standardization
Phone (Global)	Modified	Parse
Phone (with Country Code)	Modified	Standardization
Proper (Address)	Modified	Case
Proper (Name)	Modified	Case
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

English, New Zealand

English, South Africa

Definition Name	Action	Type of Definition
Address	Modified	Locale Guess, Match, Parse, and Standardization
Address (Full)	Modified	Match, Parse, and Standardization
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
City - State/Province - Postal Code	Modified	Parse
City - State/Province - Postal Code (Global)	Modified	Parse
Contact Info	Modified	Identification Analysis
Date (DMY)	Modified	Match, Parse, and Standardization
Date (DMY) (with Combinations)	Modified	Match
Date (MDY)	Modified	Match, Parse, and Standardization
Date (MDY) (with Combinations)	Modified	Match

Definition Name	Action	Type of Definition
Date (YMD)	Modified	Match, Parse, and Standardization
Date/Time (DMY)	Modified	Match and Parse
Date/Time (DMY) Basic	Modified	Standardization
Date/Time (DMY) Extended	Modified	Standardization
Date/Time (MDY)	Modified	Match and Parse
Date/Time (MDY) Basic	Modified	Standardization
Date/Time (MDY) Extended	Modified	Standardization
Date/Time (YMD)	Modified	Match and Parse
Date/Time (YMD) Basic	Modified	Standardization
Date/Time (YMD) Extended	Modified	Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Field Name	Modified	Identification Analysis and Match
Field Name (v23)	New	Identification Analysis
Individual/Organization	Removed	Identification Analysis
Name	Modified	Gender Analysis, Match, and Standardization
Name (Multiple Name)	Modified	Parse
Name (with Combinations)	Modified	Match
Organization	Modified	Match, Parse, and Standardization
Organization (Global)	Modified	Parse
Organization (with Site)	Modified	Match
Proper (Name)	Modified	Case
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

English, South Africa

English, United Kingdom

Definition Name	Action	Type of Definition
Address (Full)	Modified	Match and Parse
Address (Full) (2011A)	Modified	Match
Address (Full) (with Combinations)	Modified	Match
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
City - State/Province - Postal Code	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code (Global)	Modified	Parse
Date (DMY)	Modified	Match, Parse, and Standardization
Date (DMY) (with Combinations)	Modified	Match
Date (MDY)	Modified	Match, Parse, and Standardization

Definition Name	Action	Type of Definition
Date (MDY) (with Combinations)	Modified	Match
Date (YMD)	Modified	Match, Parse, and Standardization
Date/Time (DMY)	Modified	Match and Parse
Date/Time (DMY) Basic	Modified	Standardization
Date/Time (DMY) Extended	Modified	Standardization
Date/Time (MDY)	Modified	Match and Parse
Date/Time (MDY) Basic	Modified	Standardization
Date/Time (MDY) Extended	Modified	Standardization
Date/Time (YMD)	Modified	Match and Parse
Date/Time (YMD) Basic	Modified	Standardization
Date/Time (YMD) Extended	Modified	Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Field Name	Modified	Identification Analysis and Match
Field Name (v23)	New	Identification Analysis
Name	Modified	Gender Analysis, Match, and Standardization
Name (Multiple Name)	Modified	Parse
Name (Title)	Removed	Match
Name (with Combinations)	Modified	Match
Name (with Suggestions)	Modified	Match
Organization	Modified	Match, Parse, and Standardization
Organization (Global)	Modified	Parse
Phone	Modified	Identification Analysis, Match, Parse, and Standardization
Phone (Electronic)	Modified	Standardization
Phone (Global)	Modified	Parse
Phone (with Country Code)	Modified	Standardization
Proper (Name)	Modified	Case
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

English, United Kingdom

English, United States

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Full)	Modified	Parse
Address (Global) (v23)	New	Parse
Address (Long)	Modified	Match
Address (v22)	Modified	Match, Parse, and Standardization
City	Modified	Match and Standardization
City - State/Province - Postal	Modified	Match and Standardization

Definition Name	Action	Type of Definition
Code		
Contact Info	Modified	Extraction and Identification Analysis
Contact Info (v22)	Modified	Identification Analysis
Date (DMY)	Modified	Match, Parse, and Standardization
Date (DMY) (with Combinations)	Modified	Match
Date (MDY)	Modified	Match, Parse, and Standardization
Date (MDY) (with Combinations)	Modified	Match
Date (YMD)	Modified	Match, Parse, and Standardization
Date/Time (DMY)	Modified	Match and Parse
Date/Time (DMY) Basic	Modified	Standardization
Date/Time (DMY) Extended	Modified	Standardization
Date/Time (MDY)	Modified	Match and Parse
Date/Time (MDY) Basic	Modified	Standardization
Date/Time (MDY) Extended	Modified	Standardization
Date/Time (YMD)	Modified	Match and Parse
Date/Time (YMD) Basic	Modified	Standardization
Date/Time (YMD) Extended	Modified	Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Field Name	Modified	Identification Analysis and Match
Field Name (v23)	New	Identification Analysis
Individual/Organization	Removed	Identification Analysis
Name	Modified	Gender Analysis, Match, and Standardization
Name (Multiple Name)	Modified	Parse
Name (with Combinations)	Modified	Match
Name (with Suggestions)	Modified	Match
Organization	Modified	Match, Parse, and Standardization
Organization (Global)	Modified	Parse
Phone	Modified	Match, Parse, and Standardization
Phone (Electronic)	Modified	Standardization
Phone (Global)	Modified	Parse
Phone (with Country Code)	Modified	Standardization
Proper (Address)	Modified	Case
Proper (Name)	Modified	Case
Punctuation Removal	Modified	Standardization
State/Province	Modified	Match
State/Province (Abbreviation)	Modified	Standardization
State/Province (Full Name)	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

English, United States

Finnish, Finland

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Full)	Modified	Match, Parse, and Standardization
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
Address (PO Box Only)	Modified	Match
Address (Street Only)	Modified	Match
City - State/Province - Postal Code	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code (Global)	Modified	Parse
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Name	Modified	Standardization
Name (No Translation)	Modified	Standardization
Name (Swedish)	Modified	Standardization
Organization	Modified	Standardization
Phone	Modified	Standardization
Phone (with Country Code)	Modified	Standardization
Postal Code	Modified	Match and Standardization
Postal Code (International)	Modified	Standardization
Proper (Address)	Modified	Case
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Finnish, Finland

French, Belgium

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Full)	Modified	Parse
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
City	Modified	Standardization
City - State/Province - Postal Code	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code (Global)	Modified	Parse
E-mail	Modified	Match, Parse, and

Definition Name	Action	Type of Definition
		Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Name	Modified	Standardization
Name (No Translation)	Modified	Standardization
Organization	Modified	Standardization
Phone	Modified	Standardization
Phone (with Country Code)	Modified	Standardization
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

French, Belgium

French, Canada

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (2012A)	Removed	Match and Parse
Address (Detailed)	Modified	Parse
Address (Global) (v23)	New	Parse
City	Modified	Standardization
City (2012A)	Removed	Match
City - State/Province - Postal Code	Modified	Standardization
City - State/Province - Postal Code (2012A)	Removed	Match and Parse
City - State/Province - Postal Code (International)	Modified	Standardization
Date (DMY)	Modified	Match, Parse, and Standardization
Date (DMY) (with Combinations)	Modified	Match
Date (MDY)	Modified	Match, Parse, and Standardization
Date (MDY) (with Combinations)	Modified	Match
Date (YMD)	Modified	Match, Parse, and Standardization
Date/Time (DMY)	Modified	Match and Parse
Date/Time (DMY) Basic	Modified	Standardization
Date/Time (DMY) Extended	Modified	Standardization
Date/Time (MDY)	Modified	Match and Parse
Date/Time (MDY) Basic	Modified	Standardization
Date/Time (MDY) Extended	Modified	Standardization
Date/Time (YMD)	Modified	Match and Parse
Date/Time (YMD) Basic	Modified	Standardization
Date/Time (YMD) Extended	Modified	Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match

Definition Name	Action	Type of Definition
Field Name	Modified	Identification Analysis and Match
Field Name (v23)	New	Identification Analysis
Name	Modified	Gender Analysis, Match, and Standardization
Name (2012A)	Removed	Match
Name (Multiple Name)	Modified	Parse
Name (with Combinations)	Modified	Match
Name (with Suggestions)	Modified	Match
Organization	Modified	Match, Parse, and Standardization
Organization (Global)	Modified	Parse
Phone	Modified	Match, Parse, and Standardization
Phone (2012A)	Removed	Match and Parse
Phone (Electronic)	Modified	Standardization
Phone (Global)	Modified	Parse
Phone (Validation)	Modified	Identification Analysis
Phone (with Country Code)	Modified	Standardization
Postal Code (2012A)	Removed	Match
Proper (Address)	Modified	Case
Proper (Name)	Modified	Case
Punctuation Removal	Modified	Standardization
State/Province	Modified	Standardization
State/Province (Postal Standard)	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

French, Canada

French, France

Definition Name	Action	Type of Definition
Address	Modified	Standardization
Address (2012A)	Removed	Match, Parse, and Standardization
Address (Global) (v23)	New	Parse
Address (PO Box Only) (2012A)	Removed	Match
Address (Street Only) (2012A)	Removed	Match
City	Modified	Standardization
City (2012A)	Removed	Match
City - State/Province - Postal Code	Modified	Standardization
Country	Modified	Standardization
Country (ISO 2 Char)	Modified	Standardization
Country (ISO 3 Char)	Modified	Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v22)	Modified	Match
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Field Name	Modified	Identification Analysis and Match

Definition Name	Action	Type of Definition
Field Name (v23)	New	Identification Analysis
Individual/Organization Name	Removed	Identification Analysis and Parse
Name	Modified	Standardization
Name (2012A)	Removed	Match
Name/Organization	Modified	Identification Analysis
Organization	Modified	Standardization
Organization (Upper)	Modified	Standardization
Phone	Modified	Match, Parse, and Standardization
Phone (2012A)	Removed	Match
Phone (Electronic)	Modified	Standardization
Phone (Global)	Modified	Parse
Phone (Validation)	Modified	Identification Analysis
Phone (with Country Code)	Modified	Standardization
Proper (Address)	Modified	Case
Punctuation Removal	Modified	Standardization
Text	Modified	Match
URL	Modified	Standardization
Website	Modified	Standardization

French, France

German, Germany

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
Address (PO Box Only)	Modified	Match
Address (Street Only)	Modified	Match
City	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code (Global)	Modified	Parse
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Field Name	Modified	Identification Analysis and Match
Field Name (v23)	New	Identification Analysis
Name	Modified	Standardization
Name (with Suggestions)	Modified	Match
Organization	Modified	Standardization
Phone	Modified	Standardization
Phone (with Country Code)	Modified	Standardization

Definition Name	Action	Type of Definition
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

German, Germany

Greek, Greece

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Full)	Modified	Parse
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
Address (PO Box Only)	Modified	Match
Address (Street Only)	Modified	Match
City	Modified	Standardization
City - State/Province - Postal Code	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code (Global)	Modified	Parse
City - State/Province - Postal Code (International)	Modified	Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Individual/Organization	Modified	Identification Analysis
Island	Modified	Standardization
Name	Modified	Standardization
Name (Multiple Name)	Modified	Standardization
Name (Salutation)	Modified	Standardization
Organization	Modified	Standardization
Patronym	Modified	Standardization
Postal Code	Modified	Match and Standardization
Postal Code (with Country Code)	Modified	Standardization
Punctuation Removal	Modified	Standardization
State/Province	Modified	Standardization
State/Province (Postal Standard)	Modified	Standardization
Tax ID	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Greek, Greece

Hebrew, Israel

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Detailed)	Modified	Parse
Address (Full)	Modified	Match and Parse
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
Address (PO Box Only)	Modified	Match
Address (Street Only)	Modified	Match
City	Modified	Match and Standardization
City - State/Province - Postal Code	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code (Global)	Modified	Parse
City - State/Province - Postal Code (International)	Modified	Standardization
Date (DMY)	New	Match, Parse, and Standardization
Date (DMY) (with Combinations)	New	Match
Date (MDY)	New	Match, Parse, and Standardization
Date (MDY) (with Combinations)	New	Match
Date (YMD)	New	Match, Parse, and Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Field Name	Modified	Identification Analysis and Match
Field Name (v23)	New	Identification Analysis
Name	Modified	Standardization
Organization	Modified	Match and Standardization
Phone	Modified	Match, Parse, and Standardization
Phone (Electronic)	Modified	Standardization
Phone (Global)	Modified	Parse
Phone (Multiple Number)	Modified	Parse
Phone (with Country Code)	Modified	Standardization
Postal Code	Modified	Match and Standardization
Postal Code (with Country Code)	Modified	Standardization
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Hebrew, Israel

Hungarian, Hungary

Definition Name	Action	Type of Definition
Address (Full)	Modified	Standardization
Address (Global) (v23)	New	Parse
City	Modified	Standardization
City - State/Province - Postal Code	Modified	Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Hungarian, Hungary

Italian, Italy

Definition Name	Action	Type of Definition
Address	Modified	Match and Standardization
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
Address (Postal Standard)	Modified	Standardization
Address (Street Only)	Modified	Match
City	Modified	Standardization
City (Postal Standard)	Modified	Standardization
City - State/Province - Postal Code	Modified	Standardization
City - State/Province - Postal Code (International)	Modified	Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Individual/Organization	Modified	Identification Analysis
Name	Modified	Standardization
Name (with Family Name Extension)	Modified	Parse
Organization	Modified	Match, Parse, and Standardization
Organization (Global)	Modified	Parse
Phone	Modified	Match, Parse, and Standardization
Phone (Electronic)	Modified	Standardization
Phone (Global)	Modified	Parse
Phone (Separate Mobile Prefix)	Modified	Parse
Phone (with Country Code)	Modified	Standardization
Punctuation Removal	Modified	Standardization

Definition Name	Action	Type of Definition
State/Province	Modified	Standardization
State/Province (Postal Standard)	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Italian, Italy

Japanese, Japan

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Full)	Modified	Match, Parse, and Standardization
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
Address (PO Box Only)	Modified	Match
Address (Street Only)	Modified	Match
City	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code (Global)	Modified	Parse
Date	Modified	Match
Date (Japanese Calendar)	Modified	Standardization
Date (Western Calendar)	Modified	Standardization
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Individual/Organization	Modified	Identification Analysis
Organization	Modified	Match, Parse, and Standardization
Organization (Global)	Modified	Parse
Phone	Modified	Standardization
Phone (with Country Code)	Modified	Standardization
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Japanese, Japan

Korean, South Korea

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Apartment Only)	Modified	Match

Definition Name	Action	Type of Definition
Address (Full)	Modified	Match, Parse, and Standardization
Address (Full) (Apartment Only)	Modified	Match
Address (Full) (PO Box)	Modified	Match
Address (Full) (Street Only)	Modified	Match
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
Address (PO Box Only)	Modified	Match
Address (Street Only)	Modified	Match
City - State/Province - Postal Code	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code (Global)	Modified	Parse
E-mail	Modified	Identification Analysis, Match, Parse, and Standardization
E-mail (Multiple Address)	Modified	Parse
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Korean, South Korea

Malay, Malaysia

Definition Name	Action	Type of Definition
Address (Global) (v23)	New	Parse
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Malay, Malaysia

Norwegian, Norway

Definition Name	Action	Type of Definition
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization

Definition Name	Action	Type of Definition
Website	Modified	Standardization

Norwegian, Norway

Polish, Poland

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Polish, Poland

Portuguese, Brazil

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Abbreviated Street Type and Title)	New	Standardization
Address (Detailed)	Modified	Parse
Address (Full)	New	Parse
Address (Full) (Detailed)	New	Parse
Address (Global) (v23)	New	Parse
Address (PO Box Only)	New	Match
Address (Street Only)	New	Match
Address (v23)	New	Match and Parse
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
ID Number (CNPJ)	Modified	Standardization
ID Number (CPF)	Modified	Standardization
Name	Modified	Gender Analysis, Match, Parse, and Standardization
Name (Expanded Prefix)	New	Standardization
Name (Global)	Modified	Parse
Name (v22)	Modified	Parse
Phone	Modified	Match, Parse, and Standardization
Phone (Detailed)	Modified	Parse
Phone (Electronic)	New	Standardization
Phone (Global)	Modified	Parse
Phone (with Country Code)	New	Standardization

Definition Name	Action	Type of Definition
Phone (v22)	Modified	Parse
Phone (v23)	New	Match
Punctuation Removal	Modified	Standardization
State	Modified	Match
State (Full Name)	Modified	Standardization
State (Two Letter)	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Portuguese, Brazil

Portuguese, Portugal

Definition Name	Action	Type of Definition
Address (Global) (v23)	New	Parse
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Portuguese, Portugal

Russian, Russia

Definition Name	Action	Type of Definition
Address	Modified	Locale Guess, Match, Parse, and Standardization
Address (Full)	Modified	Match, Parse, and Standardization
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
Address (PO Box Only)	Modified	Match
Address (Street Only)	Modified	Match
City	Modified	Identification Analysis
City - State/Province - Postal Code	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code (Global)	Modified	Parse
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Russian, Russia

Slovak, Slovakia

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Full)	Modified	Parse
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
Address (PO Box Only)	Modified	Match
Address (Street Only)	Modified	Match
Birth Number	Modified	Standardization
City	Modified	Standardization
City - State/Province - Postal Code	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code (Global)	Modified	Parse
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Name	Modified	Standardization
Organization	Modified	Match, Parse, and Standardization
Organization (Global)	Modified	Parse
Phone	Modified	Match, Parse, and Standardization
Phone (Electronic)	Modified	Standardization
Phone (Global)	Modified	Parse
Phone (with Country Code)	Modified	Standardization
Postal Code	Modified	Standardization
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Slovak, Slovakia

Spanish, Mexico

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (v23)	New	Parse
Address (Full)	New	Parse
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with	Modified	Match

Definition Name	Action	Type of Definition
Combinations)		
Individual/Organization	Modified	Identification Analysis
Name	Modified	Gender Analysis, Match, Parse, and Standardization
Name (v23)	New	Parse
Phone	Modified	Match, Parse, and Standardization
Phone (Basic)	Modified	Standardization
Phone (IFETEL)	New	Parse
Phone (v23)	New	Parse
Proper (Name)	Modified	Case
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Spanish, Mexico

Spanish, Spain

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Full)	Modified	Parse
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
Address (PO Box Only)	Modified	Match
Address (Street Only)	Modified	Match
City	Modified	Match and Standardization
City - State/Province - Postal Code	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code (Global)	Modified	Parse
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Name	Modified	Gender Analysis
Name (Multiple Name)	Modified	Parse
Organization	Modified	Match, Parse, and Standardization
Organization (Global)	Modified	Parse
Phone	Modified	Match, Parse, and Standardization
Phone (Electronic)	Modified	Standardization
Phone (Global)	Modified	Parse
Phone (with Country Code)	Modified	Standardization
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization

Definition Name	Action	Type of Definition
Website	Modified	Standardization

Spanish, Spain

Swedish, Sweden

Definition Name	Action	Type of Definition
Address (Global) (v23)	New	Parse
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Swedish, Sweden

Thai, Thailand

Definition Name	Action	Type of Definition
Address (Global) (v23)	New	Parse
E-mail	Modified	Match, Parse, and Standardization
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Thai, Thailand

Turkish, Turkey

Definition Name	Action	Type of Definition
Address	Modified	Match, Parse, and Standardization
Address (Full)	Modified	Parse
Address (Full) (v23)	New	Parse
Address (Global)	Modified	Parse
Address (Global) (v23)	New	Parse
Address (v23)	New	Parse
City	Modified	Match
City - State/Province - Postal Code	Modified	Match, Parse, and Standardization
City - State/Province - Postal Code (Global)	Modified	Parse
E-mail	Modified	Match, Parse, and Standardization
E-mail (Multi-Address)	Modified	Parse

Definition Name	Action	Type of Definition
E-mail (v23)	New	Match
E-mail (Validation)	Modified	Identification Analysis
E-mail (with Combinations)	Modified	Match
Name	Modified	Match, Parse, and Standardization
Name (Global)	Modified	Parse
Organization	Modified	Match and Standardization
Organization	New	Parse
Organization (Global)	New	Parse
Organization (v23)	New	Match
Proper (Address)	Modified	Case
Proper (Organization)	Modified	Case
Punctuation Removal	Modified	Standardization
URL	Modified	Standardization
Website	Modified	Standardization

Turkish, Turkey

Known Problems

- 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 support for multiple locales is installed, the QKB installer for Windows might overestimate the amount of disk space required to complete the installation.