

What's New in **SAS® Quality Knowledge Base for Contact Information 29**

The correct bibliographic citation for this manual is as follows: SAS Institute Inc. 2018. *What's New in SAS® Quality Knowledge Base for Contact Information 29*. Cary, NC: SAS Institute Inc.

What's New in SAS® Quality Knowledge Base for Contact Information 29

Copyright © 2018, SAS Institute Inc., Cary, NC, USA

All Rights Reserved. Produced in the United States of America.

For a hard-copy book: No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise, without the prior written permission of the publisher, SAS Institute Inc.

For a web download or e-book: Your use of this publication shall be governed by the terms established by the vendor at the time you acquire this publication.

The scanning, uploading, and distribution of this book via the Internet or any other means without the permission of the publisher is illegal and punishable by law. Please purchase only authorized electronic editions and do not participate in or encourage electronic piracy of copyrighted materials. Your support of others' rights is appreciated.

U.S. Government License Rights; Restricted Rights: The Software and its documentation is commercial computer software developed at private expense and is provided with RESTRICTED RIGHTS to the United States Government. Use, duplication, or disclosure of the Software by the United States Government is subject to the license terms of this Agreement pursuant to, as applicable, FAR 12.212, DFAR 227.7202-1(a), DFAR 227.7202-3(a), and DFAR 227.7202-4, and, to the extent required under U.S. federal law, the minimum restricted rights as set out in FAR 52.227-19 (DEC 2007). If FAR 52.227-19 is applicable, this provision serves as notice under clause (c) thereof and no other notice is required to be affixed to the Software or documentation. The Government's rights in Software and documentation shall be only those set forth in this Agreement.

SAS Institute Inc., SAS Campus Drive, Cary, NC 27513-2414

June 2018

SAS® and all other SAS Institute Inc. product or service names are registered trademarks or trademarks of SAS Institute Inc. in the USA and other countries. ® indicates USA registration.

Other brand and product names are trademarks of their respective companies.

SAS software may be provided with certain third-party software, including but not limited to open-source software, which is licensed under its applicable third-party software license agreement. For license information about third-party software distributed with SAS software, refer to <http://support.sas.com/thirdpartylicenses>.

What's New in SAS Quality Knowledge Base for Contact Information 29

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) 29.

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

See the SAS Quality Knowledge Base for Contact Information 29 online Help for additional information. For information about previous releases, see the SAS Quality Knowledge Base product page at <http://support.sas.com/documentation/onlinedoc/qkb/>.

Overview

SAS QKB CI 29 introduces support for the following definitions:

Danish, Denmark

- Field Content identification analysis definition

English, United States

- Address (PO Box Only) match definition
- Address (Street Only) match definition
- Field Content identification analysis definition

French, France

- Field Content identification analysis definition

German, Germany

- Field Content identification analysis definition

Italian, Italy

- Field Content identification analysis definition

All locales

- HTML Character Reference Conversion standardization definition
- Symbol Removal standardization definition
- Symbol Space Replacement standardization definition

SAS QKB CI 29 includes updates for the following locales and definitions:

English, United States

- Address match definition

French, Canada

- Country standardization definition

French, France

- Country standardization definition

All locales

- Hyphen/Dash Removal standardization definition
- Hyphen/Dash Space Replacement standardization definition
- Non-Alphanumeric Removal standardization definition
- Non-Number Removal standardization definition
- Number Removal standardization definition
- Punctuation Removal standardization definition
- Punctuation Space Replacement standardization definition
- Space Removal standardization definition
- Surrounding Quote Removal standardization definition

See the [Enhancements](#) section for a list of definitions that have been added 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 29 into any QKB that was released prior to QKB CI 2010B. If a merge is desired, first install QKB CI 29 in a new location and then merge the pre 2010B QKB CI into the QKB CI 29. See the QKB Merge Tool section in the DataFlux Data Management Studio online Help for details.

Locale Support

This release includes support for the following locales:

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

Deprecations

The following tables list the deprecated definitions that exist in this QKB and their current statuses with the actions that users should take within the existing jobs to use the latest processing. Details about the deprecation status and the changes to each definition are available in the documentation for the definition. The deprecation process is fully described in the Deprecation Policy topic in the SAS QKB online Help.

Afrikaans, South Africa

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use
Country (FIPS)	Standardization	Removed	Discontinue use
Country (Internet)	Standardization	Removed	Discontinue use

Chinese, China

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Czech, Czech Republic

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Danish, Denmark

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use
Individual/Organization	Identification Analysis	Deprecated	Replace with Field Content identification analysis definition
Org/Individual/Address	Identification Analysis	Deprecated	Replace with Field Content identification analysis definition

Dutch, Belgium

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Dutch, Netherlands

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

English, Australia

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use
Country (FIPS)	Standardization	Removed	Discontinue use
Country (Internet)	Standardization	Removed	Discontinue use

English, Canada

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use
Country (FIPS)	Standardization	Removed	Discontinue use
Country (Internet)	Standardization	Removed	Discontinue use

English, Hong Kong

Definition Name	Definition Type	Status	Action
Country (FIPS)	Standardization	Removed	Discontinue use
Country (Internet)	Standardization	Removed	Discontinue use

English, India

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use
Country (FIPS)	Standardization	Removed	Discontinue use
Country (Internet)	Standardization	Removed	Discontinue use

English, New Zealand

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use
Country (FIPS)	Standardization	Removed	Discontinue use
Country (Internet)	Standardization	Removed	Discontinue use

English, Philippines

Definition Name	Definition Type	Status	Action
Country (FIPS)	Standardization	Removed	Discontinue use
Country (Internet)	Standardization	Removed	Discontinue use

English, South Africa

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use
Country (FIPS)	Standardization	Removed	Discontinue use
Country (Internet)	Standardization	Removed	Discontinue use

English, United Kingdom

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use
Country (FIPS)	Standardization	Removed	Discontinue use
Country (Internet)	Standardization	Removed	Discontinue use

English, United States

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use
Address	Match	Outdated	Temporary Address (v29) match definition contains updated processing
Contact Info	Identification Analysis	Deprecated	Replace with Field Content identification analysis definition
Country (FIPS)	Standardization	Removed	Discontinue use
Country (Internet)	Standardization	Removed	Discontinue use
Proper (Address)	Case	Removed	Replace with Address standardization definition

Finnish, Finland

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

French, Belgium

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

French, Canada

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use
Country (FIPS)	Standardization	Removed	Discontinue use
Country (Internet)	Standardization	Removed	Discontinue use

French, France

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Definition Name	Definition Type	Status	Action
Name/Organization	Identification Analysis	Deprecated	Replace with Field Content identification analysis definition

German, Germany

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use
Individual/Organization	Identification Analysis	Deprecated	Replace with Field Content identification analysis definition

Greek, Greece

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Hungarian, Hungary

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Italian, Italy

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use
Individual/Organization	Identification Analysis	Deprecated	Replace with Field Content identification analysis definition

Japanese, Japan

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Korean, South Korea

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Malay, Malaysia

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Norwegian, Norway

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Polish, Poland

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Portuguese, Brazil

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Portuguese, Portugal

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Russian, Russia

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Slovak, Slovakia

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Spanish, Mexico

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Spanish, Spain

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Swedish, Sweden

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Thai, Thailand

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Turkish, Turkey

Definition Name	Definition Type	Status	Action
Address	Locale Guess	Removed	Discontinue use

Enhancements

Definitions including the version tag (v29) 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.

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

Afrikaans, South Africa

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization

Definition Name	Action	Type of Definition
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Arabic, Egypt

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Chinese, China

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization

Definition Name	Action	Type of Definition
Symbol Space Replacement	New	Standardization

Czech, Czech Republic

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Danish, Denmark

Definition Name	Action	Type of Definition
Field Content	New	Identification Analysis
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Dutch, Belgium

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Dutch, Netherlands

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

English, Australia

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

English, Canada

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

English, Hong Kong

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

English, India

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

English, New Zealand

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

English, Philippines

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

English, South Africa

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

English, United Kingdom

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

English, United States

Definition Name	Action	Type of Definition
Address (PO Box Only)	New	Match
Address (Street Only)	New	Match
Address (v29)	New	Match
Field Content	New	Identification Analysis
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Finnish, Finland

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

French, Belgium

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

French, Canada

Definition Name	Action	Type of Definition
Country	Modified	Standardization
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

French, France

Definition Name	Action	Type of Definition
Country	Modified	Standardization
Field Content	New	Identification Analysis
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Organization	Modified	Match
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization
Text	Modified	Match

German, Germany

Definition Name	Action	Type of Definition
Field Content	New	Identification Analysis
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization

Definition Name	Action	Type of Definition
Symbol Space Replacement	New	Standardization

Greek, Greece

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Hebrew, Israel

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Hungarian, Hungary

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Italian, Italy

Definition Name	Action	Type of Definition
Field Content	New	Identification Analysis
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Japanese, Japan

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Korean, South Korea

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Malay, Malaysia

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Norwegian, Norway

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Polish, Poland

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Portuguese, Brazil

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Portuguese, Portugal

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Russian, Russia

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Slovak, Slovakia

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Spanish, Mexico

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Spanish, Spain

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Swedish, Sweden

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Thai, Thailand

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

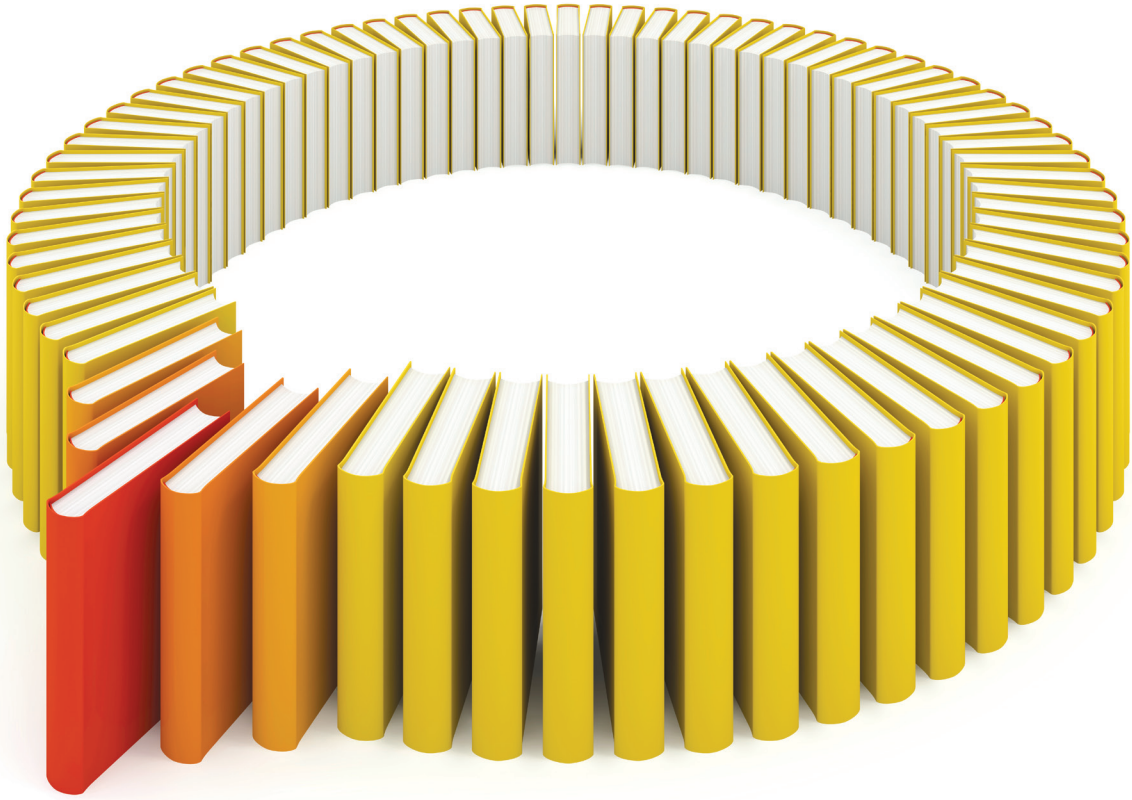
Turkish, Turkey

Definition Name	Action	Type of Definition
HTML Character Reference Conversion	New	Standardization
Hyphen/Dash Removal	Modified	Standardization
Hyphen/Dash Space Replacement	Modified	Standardization
Non-Alphanumeric Removal	Modified	Standardization
Non-Number Removal	Modified	Standardization
Number Removal	Modified	Standardization
Punctuation Removal	Modified	Standardization
Punctuation Space Replacement	Modified	Standardization
Space Removal	Modified	Standardization
Surrounding Quote Removal	Modified	Standardization
Symbol Removal	New	Standardization
Symbol Space Replacement	New	Standardization

Known Problems

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



Gain Greater Insight into Your SAS[®] Software with SAS Books.

Discover all that you need on your journey to knowledge and empowerment.



support.sas.com/bookstore
for additional books and resources.

