



Informatica® Address Verification  
5.16.4

# Release Guide (On-Premises)

© Copyright Informatica LLC 2013, 2024

This software and documentation are provided only under a separate license agreement containing restrictions on use and disclosure. No part of this document may be reproduced or transmitted in any form, by any means (electronic, photocopying, recording or otherwise) without prior consent of Informatica LLC.

U.S. GOVERNMENT RIGHTS Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation is subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License.

Informatica, AddressDoctor, the Informatica logo, and any other Informatica-owned trademarks that appear in the document are trademarks or registered trademarks of Informatica LLC in the United States and many jurisdictions throughout the world. A current list of Informatica trademarks is available on the web at <https://www.informatica.com/trademarks.html>. Other company and product names may be trade names or trademarks of their respective owners.

Portions of this software and/or documentation are subject to copyright held by third parties, including without limitation: Copyright DataDirect Technologies. All rights reserved. Copyright © Sun Microsystems. All rights reserved. Copyright © RSA Security Inc. All Rights Reserved. Copyright © Ordinal Technology Corp. All rights reserved. Copyright © Aandacht c.v. All rights reserved. Copyright Genivia, Inc. All rights reserved. Copyright Isomorphic Software. All rights reserved. Copyright © Meta Integration Technology, Inc. All rights reserved. Copyright © Intalio. All rights reserved. Copyright © Oracle. All rights reserved. Copyright © Adobe Systems Incorporated. All rights reserved. Copyright © DataArt, Inc. All rights reserved. Copyright © ComponentSource. All rights reserved. Copyright © Microsoft Corporation. All rights reserved. Copyright © Rogue Wave Software, Inc. All rights reserved. Copyright © Teradata Corporation. All rights reserved. Copyright © Yahoo! Inc. All rights reserved. Copyright © Glyph & Cog, LLC. All rights reserved. Copyright © Thinkmap, Inc. All rights reserved. Copyright © Clearpace Software Limited. All rights reserved. Copyright © Information Builders, Inc. All rights reserved. Copyright © OSS Nokalva, Inc. All rights reserved. Copyright Edifecs, Inc. All rights reserved. Copyright Cleo Communications, Inc. All rights reserved. Copyright © International Organization for Standardization 1986. All rights reserved. Copyright © ej-technologies GmbH. All rights reserved. Copyright © Jaspersoft Corporation. All rights reserved. Copyright © International Business Machines Corporation. All rights reserved. Copyright © yWorks GmbH. All rights reserved. Copyright © Lucent Technologies. All rights reserved. Copyright © University of Toronto. All rights reserved. Copyright © Daniel Veillard. All rights reserved. Copyright © Unicode, Inc. Copyright IBM Corp. All rights reserved. Copyright © MicroQuill Software Publishing, Inc. All rights reserved. Copyright © PassMark Software Pty Ltd. All rights reserved. Copyright © LogiXML, Inc. All rights reserved. Copyright © 2003-2010 Lorenzi Davide, All rights reserved. Copyright © Red Hat, Inc. All rights reserved. Copyright © The Board of Trustees of the Leland Stanford Junior University. All rights reserved. Copyright © EMC Corporation. All rights reserved. Copyright © Flexera Software. All rights reserved. Copyright © Jinfonet Software. All rights reserved. Copyright © Apple Inc. All rights reserved. Copyright © Telerik Inc. All rights reserved. Copyright © BEA Systems. All rights reserved. Copyright © PDFlib GmbH. All rights reserved. Copyright © Orientation in Objects GmbH. All rights reserved. Copyright © Tanuki Software, Ltd. All rights reserved. Copyright © Ricebridge. All rights reserved. Copyright © Sencha, Inc. All rights reserved. Copyright © Scalable Systems, Inc. All rights reserved. Copyright © jQWidgets. All rights reserved. Copyright © Tableau Software, Inc. All rights reserved. Copyright © MaxMind, Inc. All Rights Reserved. Copyright © TMate Software s.r.o. All rights reserved. Copyright © MapR Technologies Inc. All rights reserved. Copyright © Amazon Corporate LLC. All rights reserved. Copyright © Highsoft. All rights reserved. Copyright © Python Software Foundation. All rights reserved. Copyright © BeOpen.com. All rights reserved. Copyright © CNRI. All rights reserved.

This product includes software developed by the Apache Software Foundation (<http://www.apache.org/>), and/or other software which is licensed under various versions of the Apache License (the "License"). You may obtain a copy of these Licenses at <http://www.apache.org/licenses/>. Unless required by applicable law or agreed to in writing, software distributed under these Licenses is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the Licenses for the specific language governing permissions and limitations under the Licenses.

This product includes software which was developed by Mozilla (<http://www.mozilla.org/>), software copyright The JBoss Group, LLC, all rights reserved; software copyright © 1999-2006 by Bruno Lowagie and Paulo Soares and other software which is licensed under various versions of the GNU Lesser General Public License Agreement, which may be found at <http://www.gnu.org/licenses/lgpl.html>. The materials are provided free of charge by Informatica, "as-is", without warranty of any kind, either express or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose.

The product includes ACE(TM) and TAO(TM) software copyrighted by Douglas C. Schmidt and his research group at Washington University, University of California, Irvine, and Vanderbilt University, Copyright (©) 1993-2006, all rights reserved.

This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (copyright The OpenSSL Project. All Rights Reserved) and redistribution of this software is subject to terms available at <http://www.openssl.org> and <http://www.openssl.org/source/license.html>.

This product includes Curl software which is Copyright 1996-2013, Daniel Stenberg, <[daniel@haxx.se](mailto:daniel@haxx.se)>. All Rights Reserved. Permissions and limitations regarding this software are subject to terms available at <http://curl.haxx.se/docs/copyright.html>. Permission to use, copy, modify, and distribute this software for any purpose with or without fee is hereby granted, provided that the above copyright notice and this permission notice appear in all copies.

The product includes software copyright 2001-2005 (©) MetaStuff, Ltd. All Rights Reserved. Permissions and limitations regarding this software are subject to terms available at <http://www.dom4j.org/license.html>.

The product includes software copyright © 2004-2007, The Dojo Foundation. All Rights Reserved. Permissions and limitations regarding this software are subject to terms available at <http://dojotoolkit.org/license>.

This product includes ICU software which is copyright International Business Machines Corporation and others. All rights reserved. Permissions and limitations regarding this software are subject to terms available at <http://source.icu-project.org/repos/icu/icu/trunk/license.html>.

This product includes software copyright © 1996-2006 Per Bothner. All rights reserved. Your right to use such materials is set forth in the license which may be found at <http://www.gnu.org/software/kawa/Software-License.html>.

This product includes OSSP UUID software which is Copyright © 2002 Ralf S. Engelschall, Copyright © 2002 The OSSP Project Copyright © 2002 Cable & Wireless Deutschland. Permissions and limitations regarding this software are subject to terms available at <http://www.opensource.org/licenses/mit-license.php>.

This product includes software developed by Boost (<http://www.boost.org/>) or under the Boost software license. Permissions and limitations regarding this software are subject to terms available at [http://www.boost.org/LICENSE\\_1\\_0.txt](http://www.boost.org/LICENSE_1_0.txt).

This product includes software copyright © 1997-2007 University of Cambridge. Permissions and limitations regarding this software are subject to terms available at <http://www.pcre.org/license.txt>.

This product includes software copyright © 2007 The Eclipse Foundation. All Rights Reserved. Permissions and limitations regarding this software are subject to terms available at <http://www.eclipse.org/org/documents/epl-v10.php> and at <http://www.eclipse.org/org/documents/edl-v10.php>.

This product includes software licensed under the terms at <http://www.tcl.tk/software/tcltk/license.html>, <http://www.bosrup.com/web/overlib/?License>, <http://www.stlport.org/doc/license.html>, <http://asm.ow2.org/license.html>, <http://www.cryptix.org/LICENSE.TXT>, <http://hsqldb.org/web/hsqldbLicense.html>, <http://httpunit.sourceforge.net/doc/license.html>, <http://jung.sourceforge.net/license.txt>, [http://www.gzip.org/zlib/zlib\\_license.html](http://www.gzip.org/zlib/zlib_license.html), <http://www.openldap.org/software/release-license.html>, <http://www.libssh2.org>, <http://slf4j.org/license.html>, <http://www.sente.ch/software/OpenSourceLicense.html>, <http://fusesource.com/downloads/license-agreements/fuse-message-broker-v-5-3-license-agreement>, <http://antlr.org/license.html>, <http://aopalliance.sourceforge.net/>, <http://www.bouncycastle.org/licence.html>, <http://www.jgraph.com/jgraphdownload.html>, <http://www.jcraft.com/jsch/LICENSE.txt>, [http://jotm.objectweb.org/bsd\\_license.html](http://jotm.objectweb.org/bsd_license.html), <http://www.w3.org/>

Consortium/Legal/2002/copyright-software-20021231; <http://www.slf4j.org/license.html>; <http://nanoxml.sourceforge.net/orig/copyright.html>; <http://www.json.org/license.html>; <http://forge.ow2.org/projects/javaservice/>; <http://www.postgresql.org/about/license.html>; <http://www.sqlite.org/copyright.html>; <http://www.tcl.tk/software/tcltk/license.html>; <http://www.jaxen.org/faq.html>; <http://www.jdom.org/docs/faq.html>; <http://www.slf4j.org/license.html>; <http://www.iodbc.org/dataspace/iodbc/wiki/IODBC/License>; <http://www.keplerproject.org/md5/license.html>; <http://www.toedter.com/en/jcalendar/license.html>; <http://www.edankert.com/bounce/index.html>; <http://www.net-snmp.org/about/license.html>; <http://www.openmdx.org/#FAQ>; [http://www.php.net/license/3\\_01.txt](http://www.php.net/license/3_01.txt); <http://srp.stanford.edu/license.txt>; <http://www.schneider.com/blowfish.html>; <http://www.jmock.org/license.html>; <http://xsom.java.net>; <http://benalman.com/about/license/>; <https://github.com/CreateJS/EaselJS/blob/master/src/easeljs/display/Bitmap.js>; <http://www.h2database.com/html/license.html#summary>; <http://jsoncpp.sourceforge.net/LICENSE>; <http://jdbc.postgresql.org/license.html>; <http://protobuf.googlecode.com/svn/trunk/src/google/protobuf/descriptor.proto>; <https://github.com/rantav/hector/blob/master/LICENSE>; <http://web.mit.edu/Kerberos/krb5-current/doc/mitK5license.html>; <http://jibx.sourceforge.net/jibx-license.html>; <https://github.com/lyokato/libgeohash/blob/master/LICENSE>; <https://github.com/hjiang/jsonxx/blob/master/LICENSE>; <https://code.google.com/p/lz4/>; <https://github.com/jedisct1/libsodium/blob/master/LICENSE>; <http://one-jar.sourceforge.net/index.php?page=documents&file=license>; <https://github.com/EsotericSoftware/kryo/blob/master/license.txt>; <http://www.scala-lang.org/license.html>; <https://github.com/tinkerpop/blueprints/blob/master/LICENSE.txt>; <http://gee.cs.oswego.edu/dl/classes/EDU/oswego/cs/dl/util/concurrent/intro.html>; <https://aws.amazon.com/asl/>; <https://github.com/twbs/bootstrap/blob/master/LICENSE>; <https://sourceforge.net/p/xmlunit/code/HEAD/tree/trunk/LICENSE.txt>; <https://github.com/documentcloud/underscore-contrib/blob/master/LICENSE>, and <https://github.com/apache/hbase/blob/master/LICENSE.txt>.

This product includes software licensed under the Academic Free License (<http://www.opensource.org/licenses/afl-3.0.php>), the Common Development and Distribution License (<http://www.opensource.org/licenses/cddl1.php>), the Common Public License (<http://www.opensource.org/licenses/cpl1.0.php>), the Sun Binary Code License Agreement Supplemental License Terms, the BSD License (<http://www.opensource.org/licenses/bsd-license.php>), the new BSD License (<http://opensource.org/licenses/BSD-3-Clause>), the MIT License (<http://www.opensource.org/licenses/mit-license.php>), the Artistic License (<http://www.opensource.org/licenses/artistic-license-1.0>) and the Initial Developer's Public License Version 1.0 (<http://www.firebirdsql.org/en/initial-developer-s-public-license-version-1-0/>).

This product includes software copyright © 2003-2006 Joe Walnes, 2006-2007 XStream Committers. All rights reserved. Permissions and limitations regarding this software are subject to terms available at <http://xstream.codehaus.org/license.html>. This product includes software developed by the Indiana University Extreme! Lab. For further information please visit <http://www.extreme.indiana.edu/>.

This product includes software Copyright (c) 2013 Frank Balluffi and Markus Moeller. All rights reserved. Permissions and limitations regarding this software are subject to terms of the MIT license.

See patents at <https://www.informatica.com/legal/patents.html>.

DISCLAIMER: Informatica LLC provides this documentation "as is" without warranty of any kind, either express or implied, including, but not limited to, the implied warranties of noninfringement, merchantability, or use for a particular purpose. Informatica LLC does not warrant that this software or documentation is error free. The information provided in this software or documentation may include technical inaccuracies or typographical errors. The information in this software and documentation is subject to change at any time without notice.

## NOTICES

This Informatica product (the "Software") includes certain drivers (the "DataDirect Drivers") from DataDirect Technologies, an operating company of Progress Software Corporation ("DataDirect") which are subject to the following terms and conditions:

1. THE DATADIRECT DRIVERS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT.
2. IN NO EVENT WILL DATADIRECT OR ITS THIRD PARTY SUPPLIERS BE LIABLE TO THE END-USER CUSTOMER FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR OTHER DAMAGES ARISING OUT OF THE USE OF THE ODBC DRIVERS, WHETHER OR NOT INFORMED OF THE POSSIBILITIES OF DAMAGES IN ADVANCE. THESE LIMITATIONS APPLY TO ALL CAUSES OF ACTION, INCLUDING, WITHOUT LIMITATION, BREACH OF CONTRACT, BREACH OF WARRANTY, NEGLIGENCE, STRICT LIABILITY, MISREPRESENTATION AND OTHER TORTS.

The information in this documentation is subject to change without notice. If you find any problems in this documentation, report them to us at [infa\\_documentation@informatica.com](mailto:infa_documentation@informatica.com).

Informatica products are warranted according to the terms and conditions of the agreements under which they are provided. INFORMATICA PROVIDES THE INFORMATION IN THIS DOCUMENT "AS IS" WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NON-INFRINGEMENT.

Publication Date: 2024-03-18

# Table of Contents

<b>Preface .....</b>	<b>10</b>
Informatica Resources. ....	10
Informatica Network. ....	10
Informatica Knowledge Base. ....	10
Informatica Documentation. ....	10
Informatica Product Availability Matrices. ....	11
Informatica Velocity. ....	11
Informatica Marketplace. ....	11
Informatica Global Customer Support. ....	11
 <b>Chapter 1: Version 5.16.4.....</b>	 <b>12</b>
New Features and Enhancements (Version 5.16.4). ....	12
Ghana. ....	12
Liberia. ....	12
Malawi. ....	12
Saint Lucia. ....	12
Saint Vincent and the Grenadines. ....	13
Samoa. ....	13
 <b>Chapter 2: Version 5.16.3.....</b>	 <b>14</b>
New Features and Enhancements (Version 5.16.3). ....	14
Anguilla. ....	14
Barbados. ....	14
Denmark. ....	14
Israel. ....	15
Kiribati. ....	15
Montserrat. ....	15
Myanmar. ....	15
Namibia. ....	15
Nauru. ....	15
United States. ....	16
 <b>Chapter 3: Version 5.16.2.....</b>	 <b>19</b>
New Features and Enhancements (Version 5.16.2). ....	19
Viet Nam. ....	19
 <b>Chapter 4: Version 5.16.1.....</b>	 <b>20</b>
New Features and Enhancements (Version 5.16.1). ....	20
Australia. ....	20

<b>Chapter 5: Version 5.16.0.....</b>	<b>21</b>
New Features and Enhancements (Version 5.16.0). . . . .	21
Australia. . . . .	21
Canada. . . . .	21
Ireland. . . . .	21
Japan. . . . .	21
New Zealand. . . . .	21
United States. . . . .	22
<b>Chapter 6: Version 5.15.0.....</b>	<b>23</b>
New Features and Enhancements (Version 5.15.0). . . . .	23
All Countries. . . . .	23
Japan. . . . .	23
Spain. . . . .	23
United States. . . . .	24
<b>Chapter 7: Version 5.14.0.....</b>	<b>25</b>
New Features and Enhancements (Version 5.14.0). . . . .	25
All Countries. . . . .	25
Australia. . . . .	25
Israel. . . . .	25
Japan. . . . .	26
Spain. . . . .	26
United States. . . . .	27
<b>Chapter 8: Version 5.13.0.....</b>	<b>29</b>
New Features and Enhancements (Version 5.13.0). . . . .	29
Bolivia. . . . .	29
Canada. . . . .	29
Colombia. . . . .	30
France. . . . .	30
Global Single-Line. . . . .	30
Peru. . . . .	31
Sweden. . . . .	31
<b>Chapter 9: Version 5.12.0.....</b>	<b>32</b>
New Features and Enhancements (Version 5.12.0). . . . .	32
Argentina. . . . .	32
Brazil. . . . .	32
Colombia. . . . .	32
Hong Kong. . . . .	33
India. . . . .	33

Mexico. . . . .	33
South Africa. . . . .	33
South Korea. . . . .	34
Spain. . . . .	35
Taiwan. . . . .	35
Thailand. . . . .	35
United Arab Emirates. . . . .	35
United Kingdom. . . . .	35
United States. . . . .	36
Austria, Germany, and Switzerland. . . . .	36
<b>Chapter 10: Version 5.11.0. . . . .</b>	<b>37</b>
New Features and Enhancements (Version 5.11.0). . . . .	37
China. . . . .	37
Georgia. . . . .	37
Hong Kong. . . . .	37
Japan. . . . .	38
Macau. . . . .	39
Mexico. . . . .	40
South Korea. . . . .	40
Taiwan. . . . .	41
United Kingdom. . . . .	41
United States. . . . .	42
Updates to Input Language Identification in China, Hong Kong, Macau, and Taiwan. . . . .	42
<b>Chapter 11: Version 5.10.0. . . . .</b>	<b>44</b>
New Features and Enhancements (Version 5.10.0). . . . .	44
Austria. . . . .	44
Czech Republic. . . . .	45
Hong Kong. . . . .	45
Japan. . . . .	46
Kuwait. . . . .	46
United States. . . . .	46
Updated Certification Standards in Multiple Countries. . . . .	47
Transaction Key and Record ID Values in Address Code Lookup Mode. . . . .	47
Single-Line Address Verification in Multiple Countries. . . . .	47
<b>Chapter 12: Version 5.9.0. . . . .</b>	<b>50</b>
New Features and Enhancements (Version 5.9.0). . . . .	50
Bahrain. . . . .	50
China. . . . .	50
Ireland. . . . .	51
Italy. . . . .	51

Japan. . . . .	52
Qatar. . . . .	52
Saudi Arabia. . . . .	53
South Korea. . . . .	53
Spain. . . . .	53
United States. . . . .	54
<b>Chapter 13: Version 5.8.x. . . . .</b>	<b>56</b>
New Features and Enhancements (Version 5.8.1). . . . .	56
Support for Eircodes in Ireland Addresses. . . . .	56
Support for Hexaligne 3 Level of Service National de L'Adresse Certification for France Addresses. . . . .	56
New Features and Enhancements (5.8.0). . . . .	57
New Product Name. . . . .	57
Support for RedHat Enterprise Linux Version 7. . . . .	57
Enhancements to Address Code Lookup Mode. . . . .	57
Enhancements to Rooftop Geocoding Support for United Kingdom Addresses. . . . .	58
Reference Data Support for Individual House Numbers in Germany. . . . .	58
Additional Enrichment to Germany Addresses. . . . .	58
Reference Data Support for Individual House Numbers in Italy. . . . .	58
Enhancements to South Korea Address Verification. . . . .	58
Support for Macau. . . . .	59
Support for Eircodes in Ireland addresses. . . . .	59
Support for Non-Postal Addresses in New Zealand. . . . .	59
Multilanguage Support for Province Information in Switzerland Addresses. . . . .	60
Subbuilding Support for Spain. . . . .	60
Support for House Number Verification in Taiwan Addresses. . . . .	60
Support for Timor-Leste. . . . .	60
Additional Enrichments for United Kingdom Addresses. . . . .	61
Support for UPRN in the AddressCodeLookup mode.. . . .	61
<b>Chapter 14: Version 5.7.0. . . . .</b>	<b>62</b>
New Features and Enhancements (5.7.0). . . . .	62
NIS Code as Enrichment to Belgium Addresses. . . . .	62
Bulgaria Addresses in Cyrillic Script. . . . .	62
China and Japan Addresses without Locality and Province Descriptors . . . . .	63
FIAS ID as Enrichment to Russia Addresses. . . . .	63
Multilanguage Support for Locality Information in Switzerland Address Output. . . . .	63
UPRN as Enrichment to the United Kingdom Addresses. . . . .	64
Building-Level Rooftop Geocoordinates for the United Kingdom Addresses. . . . .	64
Comprehensive Coverage of Business Names and Addresses in the United Kingdom. . . . .	64
Province ISO Codes in Batch, Interactive, and Fast Completion Results. . . . .	64

<b>Chapter 15: Version 5.6.0.....</b>	<b>65</b>
New Features and Enhancements (Version 5.6.0). . . . .	65
Enhancements to Brazil Address Validation. . . . .	65
Enhancements to Address Validation in the DACH Region. . . . .	65
INSEE Code as Enrichment to France Addresses. . . . .	65
Enhancements to India Address Validation and Parsing. . . . .	66
Seven-Digit Postal Codes in Israel. . . . .	66
Enhancements to Japan Address Validation. . . . .	66
Extended Data Support for Japan. . . . .	66
New and Improved Reference Address Database for Spain. . . . .	67
Taiwan Addresses in the Mandarin Traditional Chinese Script. . . . .	67
Improved Data Coverage and Address Validation for Turkey. . . . .	67
New and Improved Reference Address Database for UAE. . . . .	67
Address Key Codes as Enrichment to the United Kingdom Addresses. . . . .	67
Rooftop Geocoordinates for the United Kingdom Addresses. . . . .	68
Enhancements to United States Address Validation. . . . .	68
Configurable Output Format for Element Descriptors. . . . .	68
Support for New Versions of Operating Systems. . . . .	69
 <b>Chapter 16: Version 5.5.0.....</b>	 <b>70</b>
New Features and Enhancements (Version 5.5.0). . . . .	70
Single Line Address Validation. . . . .	70
Support for Taiwan. . . . .	70
Support for Locality Aliases. . . . .	70
Support for Java Version 7. . . . .	70
New Enrichments. . . . .	71
New Addresses in South Korea. . . . .	71
Support for Preserving Input Scripts. . . . .	71
Support for Cyrillic Script in Belarus and Macedonia Addresses. . . . .	71
Enhancements to United States Address Validation. . . . .	71
 <b>Chapter 17: Version 5.4.x.....</b>	 <b>72</b>
New Features and Enhancements (Version 5.4.2). . . . .	72
SERP 2014. . . . .	72
New Features and Enhancements (Version 5.4.1). . . . .	72
Address Code Lookup. . . . .	72
Address Enrichments. . . . .	72
Country-Specific Improvements. . . . .	73
Logical Sorting of House Numbers. . . . .	73
Unlock Codes and Engine Expiration. . . . .	73
SendRight Certification. . . . .	73
New Features and Enhancements (Version 5.4.0). . . . .	73



Point Address Geocoding. . . . .	73
<b>Chapter 18: Version 5.3.x. . . . .</b>	<b>75</b>
New Features and Enhancements (Version 5.3.1). . . . .	75
Address Enrichments. . . . .	75
Address Resolution Codes. . . . .	75
Extended Element Result Status. . . . .	75
Enhancements to Canada Address Validation. . . . .	75
Country Improvements. . . . .	76
New Features and Enhancements (Version 5.3.0). . . . .	76
Address Resolution Code. . . . .	76
Extended Element Result Status. . . . .	76
Standardization of Non-valid Address Elements. . . . .	76
Dual Address Priority. . . . .	76
Additional Results in Fast Completion and Interactive Modes. . . . .	76
Support for Ireland. . . . .	77
British Forces Postal File. . . . .	77
Multilanguage Support for Belgium. . . . .	77
Language ISO Code Output. . . . .	77
Austrian Postal Changes. . . . .	77
Additional Countries and Territories. . . . .	77
SubBuilding Changes in Australia Addresses. . . . .	78
Singapore Updates. . . . .	78
Japan Updates. . . . .	78
Certifications. . . . .	78
<b>Chapter 19: Version 5.2.x. . . . .</b>	<b>79</b>
New Features and Enhancements (Version 5.2.9). . . . .	79
Country Improvements. . . . .	79
Enhancements to India Address Validation. . . . .	79
Enhancements to Transliteration, Parsing, and Formatting for Japan Addresses. . . . .	80
New Features and Enhancements (Version 5.2.8). . . . .	80
CAMEO Social and Demographic Profiles. . . . .	80
Australian Localities and Vanity Names. . . . .	80
Incremental Change File for Australia. . . . .	80
Czech Republic Address Validation Enhancements. . . . .	80
AddressType Output Field. . . . .	80
SERP and AMAS Certification. . . . .	80

# Preface

Read the *Informatica Address Verification (On-Premises) Release Guide* to learn about the new features and enhancements in Informatica Address Verification (On-Premises), also known as Informatica AddressDoctor®. The guide covers the current version and earlier versions. For additional information about current product features and updates, see the *Informatica Address Verification (On-Premises) Release Notes*.

## Informatica Resources

Informatica provides you with a range of product resources through the Informatica Network and other online portals. Use the resources to get the most from your Informatica products and solutions and to learn from other Informatica users and subject matter experts.

### Informatica Network

The Informatica Network is the gateway to many resources, including the Informatica Knowledge Base and Informatica Global Customer Support. To enter the Informatica Network, visit <https://network.informatica.com>.

As an Informatica Network member, you have the following options:

- Search the Knowledge Base for product resources.
- View product availability information.
- Create and review your support cases.
- Find your local Informatica User Group Network and collaborate with your peers.

### Informatica Knowledge Base

Use the Informatica Knowledge Base to find product resources such as how-to articles, best practices, video tutorials, and answers to frequently asked questions.

To search the Knowledge Base, visit <https://search.informatica.com>. If you have questions, comments, or ideas about the Knowledge Base, contact the Informatica Knowledge Base team at [KB\\_Feedback@informatica.com](mailto:KB_Feedback@informatica.com).

### Informatica Documentation

Use the Informatica Documentation Portal to explore an extensive library of documentation for current and recent product releases. To explore the Documentation Portal, visit <https://docs.informatica.com>.

If you have questions, comments, or ideas about the product documentation, contact the Informatica Documentation team at [infa\\_documentation@informatica.com](mailto:infa_documentation@informatica.com).

## Informatica Product Availability Matrices

Product Availability Matrices (PAMs) indicate the versions of the operating systems, databases, and types of data sources and targets that a product release supports. You can browse the Informatica PAMs at <https://network.informatica.com/community/informatica-network/product-availability-matrices>.

## Informatica Velocity

Informatica Velocity is a collection of tips and best practices developed by Informatica Professional Services and based on real-world experiences from hundreds of data management projects. Informatica Velocity represents the collective knowledge of Informatica consultants who work with organizations around the world to plan, develop, deploy, and maintain successful data management solutions.

You can find Informatica Velocity resources at <http://velocity.informatica.com>. If you have questions, comments, or ideas about Informatica Velocity, contact Informatica Professional Services at [ips@informatica.com](mailto:ips@informatica.com).

## Informatica Marketplace

The Informatica Marketplace is a forum where you can find solutions that extend and enhance your Informatica implementations. Leverage any of the hundreds of solutions from Informatica developers and partners on the Marketplace to improve your productivity and speed up time to implementation on your projects. You can find the Informatica Marketplace at <https://marketplace.informatica.com>.

## Informatica Global Customer Support

You can contact a Global Support Center by telephone or through the Informatica Network.

To find your local Informatica Global Customer Support telephone number, visit the Informatica website at the following link:

<https://www.informatica.com/services-and-training/customer-success-services/contact-us.html>.

To find online support resources on the Informatica Network, visit <https://network.informatica.com> and select the eSupport option.

# CHAPTER 1

## Version 5.16.4

This chapter includes the following topic:

- [New Features and Enhancements \(Version 5.16.4\), 12](#)

## New Features and Enhancements (Version 5.16.4)

### Ghana

Effective in version 5.16.4, Informatica Address Verification can recognize post code information as a three-digit number and as a five-character string that includes the two-letter ISO country code in Ghana addresses.

For example, Address Verification can recognize GA183 as a post code in Ghana.

### Liberia

Effective in version 5.16.4, Informatica Address Verification can recognize post code information as a four-digit number in Liberia addresses.

For example, Address Verification recognizes 4000 as a post code in Liberia.

### Malawi

Effective in version 5.16.4, Informatica Address Verification can recognize post code information as a six-digit number in Malawi addresses.

For example, Address Verification recognizes 102010 as a post code in Malawi.

### Saint Lucia

Effective in version 5.16.4, Informatica Address Verification can recognize post code information in Saint Lucia addresses in the following formats:

- As a five-digit number.
- As a string that includes the two-letter ISO country code before the five-digit number and that adds a space between the fourth and fifth characters.

For example, Address Verification can recognize LC05 201 as a post code in Saint Lucia.

## Saint Vincent and the Grenadines

Effective in version 5.16.4, Informatica Address Verification can recognize post code information as a four-digit number and as a six-character string that includes the two-letter ISO country code in Saint Vincent and the Grenadines addresses.

For example, Address Verification can recognize VC0120 as a post code in Saint Vincent and the Grenadines.

## Samoa

Effective in version 5.16.4, Informatica Address Verification can recognize post code information as a four-digit number and as a six-character string that includes the two-letter ISO country code in Samoa addresses.

For example, Address Verification can recognize WS1334 as a post code in Samoa.

Previously, Address Verification recognized four-digit postcodes in Samoa.

## CHAPTER 2

# Version 5.16.3

This chapter includes the following topic:

- [New Features and Enhancements \(Version 5.16.3\), 14](#)

## New Features and Enhancements (Version 5.16.3)

### Anguilla

Effective in version 5.16.3, Informatica Address Verification can verify post code information in Anguilla addresses.

The reference data contains the post code as a four-digit number.

For example, Address Verification recognizes 2640 as a post code in Anguilla.

Address Verification writes the postcode as four digits in formatted and delivery address lines and in postal code address elements.

### Barbados

Effective in version 5.16.3, Informatica Address Verification can verify Barbados addresses to street level. Additionally, the reference data for Barbados includes street and post code data.

The reference data contains the post code as a five-digit number.

Address Verification can recognize the postcode as a five-digit number and as a seven-character string that includes the two-letter ISO country code.

For example, Address Verification can recognize 26028 and BB26028 as post codes in Barbados.

Address Verification writes the postcode with the prefix BB in formatted and delivery address lines and without BB in postal code address elements.

### Denmark

Effective in version 5.16.3, Informatica Address Verification verifies sub-building information in Denmark addresses. Additionally, Informatica updates the reference data for Denmark.

## Israel

Effective in version 5.16.3, Informatica Address Verification can return standard geocodes for Israel addresses in the Hebrew script in addition to address in a Latin script.

## Kiribati

Effective in version 5.16.3, Informatica Address Verification can verify post code information in Kiribati addresses.

The reference data contains the post code as a four-digit number.

Address Verification can recognize the postcode as a four-digit number and as a six-character string that includes the two-letter ISO country code.

For example, Address Verification recognizes 0107 and KI0107 as post codes in Kiribati.

Address Verification writes the postcode with the country prefix KI in formatted and delivery address lines and without KI in postal code address elements.

## Montserrat

Effective in version 5.16.3, Informatica Address Verification can verify post code information in Montserrat addresses.

The reference data includes the post code as a four-digit number.

Address Verification can recognize the postcode as a four-digit number and as a seven-character string that includes the three-letter ISO country code.

For example, Address Verification recognizes 1230 and MSR1230 as post codes in Montserrat.

Address Verification writes the postcode with the prefix MSR in formatted and delivery address lines and without MSR in postal code address elements.

## Myanmar

Effective in version 5.16.3, Informatica Address Verification can verify post code information in Myanmar addresses.

The post codes contain seven digits.

## Namibia

Effective in version 5.16.3, Informatica Address Verification can verify post code information in Namibia addresses.

The post codes contain five digits.

## Nauru

Effective in version 5.16.3, Informatica Address Verification can verify post code information in Nauru addresses.

The reference data for Nauru stores the post code as a two-digit number.

Address Verification can recognize the postcode as a two-digit number and as a five-character string that includes the three-letter ISO country code.

For example, Address Verification recognizes 68 and NRU68 as post codes in Nauru.

Address Verification writes the postcode with the country prefix NRU in formatted and delivery address lines and without NRU in postal code address elements.

## United States

Informatica Address Verification introduces the following features and enhancements for the United States:

### Support for CASS Cycle O

Effective in version 5.16.3, Address Verification supports all requirements of the Coding Accuracy Support System (CASS) Cycle O standard.

Address Verification adds the following Cycle O features in 5.16.3:

#### Updates to High-rise Default Calculation

Address Verification updates the verification logic for the identification of high-rise default addresses.

In line with Cycle O requirements, Address Verification identifies an address as a high-rise default in the following scenario:

- The address has a valid delivery point value at the primary building number and without secondary information.
- The address returns N in the DSF2 No Stats Indicator field.
- The address does not contain a combination of valid primary information and invalid secondary information.

#### Enhanced DPV Return Codes

Address Verification supports the enhanced DPV return codes that the United States Postal Service introduces in Cycle O.

For more information about the return codes, see the On-Premises Developer Guide.

#### Support for Non-Delivery Days Flag

Address Verification returns a single-character value to identify an address that cannot receive mail on one or more days of the week. Address Verification writes the value to a new field named Non-Delivery Days Flag.

The Non-Delivery Days Flag field works in tandem with the current Non-Delivery Days field. Address Verification returns Y to the Non-Delivery Days Flag field for any address that cannot receive mail on a given day. Address Verification continues to populate the Non-Delivery Days field with a seven-character string that indicates the days of the week on which the address cannot receive mail.

#### Verification of non-default locality names in cross-state addresses

Address Verification updates the logic that it uses to verify a non-default locality name in an address for a property that includes a state boundary.

In compliance with Cycle O, Address Verification retains the non-default locality name in the following scenario:

- The input city name is a valid mailing name for the ZIP Code but is not the default city for the ZIP Code.
- The Last Line Key that the USPS stores for the ZIP+4 address record is the default value.
- The input state information matches the state that the ZIP+4 address record identifies.



### TotalDPS support

Address Verification supports the delivery rules that the TotalDPS solution defines. For example, TotalDPS defines rules for additional verification calculations in cases where more than one address shares a Delivery Point Value. TotalDPS also provides rules to enable solutions to 11-digit DPV conflicts.

### Informed Address support

Address Verification supports the Informed Address program. The program allows United States address holders to provide vendors and other mail recipients with an anonymized alphanumeric string in place of an address. The United States Postal Service recognizes the anonymized string and delivers the mail to the corresponding address. Address Verification adds the DPV footnote A1IA to any address that it identifies as an informed address. Address Verification can add an informed address to Form 3553 if the address contains a valid five-digit ZIP code.

**Note:** Address Verification does not provide a delivery point value for an informed address.

### R779 phantom route identification

Address Verification recognizes R779 in addition to R777 as a phantom carrier route designation.

### Form 3553 compliance

Address Verification supports the data requirements of Form 3553 as defined by the United States Postal Service in August 2022.

### Drop Indicator recognition

Address Verification adds a field for values that reflect the status of an address in the DPV Drop Indicator table. The Drop Indicator table identifies mailbox addresses that serve multiple households or businesses.

Address Verification stores Drop Indicator table data in the following reference data file: `USA5C133.MD`.

### DSF2 No Stats Reason Field Updates

Address Verification can return 6 as a value in the DSF2 No Stats Reason field. The United States Postal Service introduces the value with Cycle 0 to identify addresses that require secondary information.

## Updates to Military Address Recognition

Effective in version 5.16.3, Address Verification recognizes the United States military address identifiers that Cycle 0 mandates in addition to the previous versions of the identifiers.

The following table lists the newer and older identifiers:

Cycle 0 Identifiers	Previous Identifiers
Community Postal Room (CPR)	Community Mail Room (CMR)
Unit Postal Room (UPR)	Unit Mail Room (UMR)
Official Postal Center (OPC)	Official Mail Center (OMC)

## Improved Census Tract Identification

Effective in version 5.16.3, Address Verification improves the accuracy of census tract identification for addresses with house numbers that form part of a range.

Address Verification improves census tract identification in the following ways:

- The verification engine improves identification of house numbers that contain hyphens.
- The verification engine improves identification of house numbers that contain alphanumeric data.

- If the engine cannot return a census tract number for an address to house number-level precision, it returns the census tract number to street-level precision.

## CHAPTER 3

# Version 5.16.2

This chapter includes the following topic:

- [New Features and Enhancements \(Version 5.16.2\), 19](#)

## New Features and Enhancements (Version 5.16.2)

### Viet Nam

Effective in version 5.16.2, Informatica Address Verification recognizes Viet Nam as the International Organization for Standardization (ISO) name for the country in the English language. Address Verification recognizes both Vietnam and Viet Nam in an input address. Address Verification returns Viet Nam as the English-language name in an output address.

Previously, Address Verification recognized Vietnam and returned Vietnam as the country name in the English language.

## CHAPTER 4

# Version 5.16.1

This chapter includes the following topic:

- [New Features and Enhancements \(Version 5.16.1\), 20](#)

## New Features and Enhancements (Version 5.16.1)

### Australia

The following new features in Informatica Address Verification 5.16.1 apply to Australia.

#### AMAS Certification

Effective in version 5.16.1, Informatica Address Verification is certified to the Address Management Approval System (AMAS) Cycle 2021 standard for address verification in Australia.

#### Optimization Level Updates

Effective in version 5.16.1, Informatica Address Verification enables WIDE optimization when you verify Australia data in certified mode.

Previously, Informatica Address Verification disabled WIDE optimization in this scenario. When you selected WIDE optimization in an earlier release and you verified Australia data in certified mode, Informatica Address Verification applied the criteria defined by STANDARD optimization.

**Note:** The AMAS certification standard does not support addresses that you verify with the WIDE optimization level. You can set the optimization level in certified mode to evaluate the effect of the level on your data. If you plan to submit an address set to the Australian postal service as certified to the AMAS standard, use a STANDARD optimization level.

## CHAPTER 5

# Version 5.16.0

This chapter includes the following topic:

- [New Features and Enhancements \(Version 5.16.0\), 21](#)

## New Features and Enhancements (Version 5.16.0)

### Australia

Effective in version 5.16.0, Informatica Address Verification is certified to the Address Matching Approval System (AMAS) 2020 standard for address verification in Australia.

### Canada

Effective in version 5.16.0, Informatica Address Verification is certified to the Software Evaluation and Recognition Program (SERP) 2020 standard for address verification in Canada.

### Ireland

Effective in version 5.16.0, Informatica Address Verification is an accredited eircode encoder in Ireland. Address Verification meets the formal requirements that the eircode accreditation programme defines for the addition of eircodes to addresses. Additionally, Address Verification adds multiple improvements to the parsing and verification of Ireland addresses.

Informatica introduced support for eircodes in version 5.8.1.

### Japan

Effective in version 5.16.0, Informatica Address Verification improves the parsing and validation of Japan addresses based on customer feedback.

### New Zealand

Effective in version 5.16.0, Informatica Address Verification is certified to the SendRight 2020 standard for address verification in New Zealand.

## United States

Effective in version 5.16.0, Informatica Address Verification can assign different scores to street alias candidates for a given address.

Previously, Address Verification assigned a single common score to the street alias candidates.

## CHAPTER 6

# Version 5.15.0

This chapter includes the following topic:

- [New Features and Enhancements \(Version 5.15.0\), 23](#)

## New Features and Enhancements (Version 5.15.0)

### All Countries

Effective in version 5.15.0, Informatica Address Verification retains province information in an output address when the reference data does not contain province information for the country. If the output address is valid without the province data, Address Verification returns a V2 score to indicate that the input address is correct but that the reference database does not contain every element in the address.

Previously, if the address reference data did not contain province information for the country, Address Verification moved the province information to the Residue field and returned a Cx score.

### Japan

Effective in version 5.15.0, Informatica Address Verification improves the parsing and validation of Japan addresses based on customer feedback.

### Spain

Effective in version 5.15.0, Informatica Address Verification returns an Ix status for an address that requires significant correction to yield a match with an address in the reference data. Previously, Address Verification might correct an address that required significant changes and return an overly optimistic Process Status score for the address.

Additionally, Informatica updates the reference data for Spain.

## United States

Informatica Address Verification introduces the following features and enhancements for the United States:

### **Improvements to United States Addresses**

Effective in version 5.15.0, Address Verification can validate a United States address when organization information precedes street information on a delivery address line. Types of organization include universities, hospitals, and corporate offices. Previously, Address Verification returned an Ix process status for the address.

Address Verification recognizes the organization information when the parsing operation also finds a house number and street type in the street information on the delivery address line.

### **Support for MC as Mailstop Descriptor**

Effective in version 5.15.0, Address Verification recognizes MC as an alternative version of MSC, or Mail Stop Code, in United States addresses.



# CHAPTER 7

## Version 5.14.0

This chapter includes the following topic:

- [New Features and Enhancements \(Version 5.14.0\), 25](#)

## New Features and Enhancements (Version 5.14.0)

This section lists the new features and enhancements to Informatica Address Verification in different countries in version 5.14.0.

### All Countries

Effective October 2018, Informatica no longer supports rooftop and parcel centroid geocode reference data. Informatica last updated the rooftop and parcel centroid reference data in February 2018.

### Australia

Effective in version 5.14.0, you can configure Informatica Address Verification to include address enrichments in the validated Australia addresses. You can use the enrichments to discover the geographic sectors and regions to which an address belongs according to the Australia Bureau of Statistics. The sectors and regions include census collection districts, mesh blocks, and statistical areas.

For information about the enrichments to Australia addresses, see *Informatica Address Verification 5.14.0 (On-Premises) Developer Guide*.

### Israel

Effective in version 5.14.0, Informatica Address Verification can verify Israel addresses in Hebrew.

Address Verification introduces the following features and enhancements for Israel:

#### **Support for Multiple Character Sets for Israel Addresses**

Effective in version 5.14.0, Address Verification can read and write Israel addresses in Hebrew and Latin character sets.

Use the `PreferredScript` attribute to select the preferred character set for the address data. The default character set is Hebrew. When you select the default option, Address Verification returns the addresses in the Hebrew character set. When you set the `PreferredScript` attribute to Latin or Latin-1, Address Verification transliterates the Hebrew addresses to a Latin character set.

You can find the `PreferredScript` attribute in the `Result` element in the `Parameters.xml` file.

### Multilanguage Support for Israel Addresses

Effective in version 5.14.0, you can configure Address Verification to return an Israel address in the English language or the Hebrew language.

Use the `PreferredLanguage` attribute to select the preferred language for the addresses that Address Verification returns. The default language is Hebrew. To return address information in Hebrew, set the `PreferredLanguage` attribute to `DATABASE` or `ALTERNATIVE_1`. To return all address information in English, set the `PreferredLanguage` attribute to `ENGLISH` or `ALTERNATIVE_2`.

You can find the `PreferredLanguage` attribute in the `Result` element in the `Parameters.xml` file.

Israel addresses follow a right-to-left order in the Hebrew language and in the English language. In each case, the street information line begins with the street name, and the house number follows to the left of the street name. Likewise, the locality line begins with the locality name, and the post code follows to the left of the locality name.

For example, consider the following address information:

```
Line1: 23, רב אלוף דוד אלעזר  
Line2: תל אביב יפו 6107000
```

Note the following guidelines when you enter Hebrew addresses:

- Do not include the branch name of a post office with a P.O. Box number.
- When you select a Latin script with the default preferred language option, Address Verification transliterates the Hebrew address data into Latin.
- If the address includes additional street, house number, or sub-building information, add the information in parentheses on the street information line.

## Japan

Effective in version 5.14.0, Informatica Address Verification improves the parsing and validation of Japan addresses based on customer feedback.

For example, in version 5.14.0, Address Verification rejects a Japan address when the postal code is absent from the address or the postal code and the locality information do not match. Previously, Address Verification tried to correct the address.

## Spain

Effective in version 5.14.0, Informatica Address Verification improves the parsing and validation of Spain addresses.

For example, in version 5.14.0, Address Verification rejects a Spain address when the street information needs multiple corrections in order to create a match with the reference data. Previously, Address Verification performed multiple corrections to the street data, which might lead to optimistic assessment of the input address accuracy.

Similarly, if an address matches multiple candidates in the reference data, Address Verification returns a I3 result for the address in Batch mode. Previously, Address Verification might try to correct the input address to a C4 match in the reference data.

Additionally, Informatica updates the reference data for Spain.

## United States

Informatica Address Verification introduces the following features and enhancements for the United States:

### Improved Recognition of Contact Data

Effective in version 5.14.0, Address Verification can recognize contact information that appears on the same address line as the street information.

### Non-Delivery Days

Effective in version 5.14.0, Address Verification can identify Non-Delivery Days (NDD) addresses when you verify addresses in certified mode. NDD addresses do not receive mail on one or more days of the week.

To identify NDD addresses, Address Verification introduces the `NDD` field. The `NDD` field contains a seven-digit string that represents the days of the week from Sunday through Saturday. Each position in the string represents a different day.

Address Verification returns the first letter of a weekday in the corresponding position in the `NDD` field if the address does not receive mail on that day. Address Verification returns a dash symbol in the corresponding position otherwise.

For example, consider the following address:

```
5705 Commander Dr  
38002
```

Address Verification returns an NDD value of `S----FS`, which indicates that the business does not receive mail on Sunday, Friday, and Saturday.

To identify NDD addresses, Address Verification reads the `USA5C129.MD` and `USA5C130.MD` database files.

### NoStat Reason Address Code

Effective in version 5.14.0, Address Verification can provide additional information on why an address fails delivery point validation. Address Verification returns the information as a numeric code in the `DSF2_NOSTATS_REASON` field.

When an address does not yield a positive DPV result, Address Verification returns a value of `Y` in the `DSF2_NOSTATS` field. The `DSF2_NOSTATS_REASON` field contains values in the range 1 through 5 that indicate the reason for the `Y` result.

The following table describes the codes that Address Verification can return in the `DSF2_NOSTATS_REASON` field:

Code	Reason	Description
1	IDA	Internal Drop Address. The verified address does not physically receive mail. Instead, the USPS delivers mail to a 'drop' address associated with the verified address.
2	CDS	The address identifies a new construction that cannot yet accept delivery. Or, the address lies on a Rural Route, Highway Contract Route, or Contract Delivery Service route and the delivery point is unoccupied for more than 90 days.
3	Collision	The address does not DPV confirm.

Code	Reason	Description
4	CMZ	The address is in a college, military, or other zone. A CMZ address is a ZIP+4 address that the USPS has added to the reference data.
5	Regular No-Stat	The address is no longer deliverable or lies on an R777 route. Or, the address includes a Post Office Box that has never been rented or is not available to rent.

To identify NoStat Reason addresses, Address Verification reads the `USA5C131.MD` database file.

#### Throwback Indicator

Effective in version 5.14.0, Address Verification can identify Throwback addresses when you verify addresses in certified mode. A Throwback address is a valid street address for which the USPS forwards mail to a Post Office Box. Address Verification populates the `DPV_THROWBACK` field to indicate the Throwback status of the address.

The `DPV_THROWBACK` field can contain Y or N or the field can be empty. Address Verification returns Y in the `DPV_THROWBACK` field for a Throwback address and returns N otherwise.

To identify Throwback addresses, Address Verification reads the `USA5C132.MD` database file.

#### New Military Address Values

Effective in version 5.14.0, Address Verification can validate United States addresses that include the following abbreviations, which relate to military addresses:

- Unit Mail Room (UMR)
- Official Mail Center (OMC)

#### New DPV Footnote for Trailing Alpha

Effective in version 5.14.0, Address Verification can identify an address that represents a valid delivery point but to which the sender has added an unrecognized trailing character in the house number field. If the address can yield a valid delivery point without the trailing alpha character, Address Verification adds the value TA as a DPV footnote.

For example, Address Verification might return a DPV footnote value of AAN1TA for a high-rise address and a DPV footnote value of AACCTA for a street address.

## CHAPTER 8

# Version 5.13.0

This chapter includes the following topic:

- [New Features and Enhancements \(Version 5.13.0\), 29](#)

## New Features and Enhancements (Version 5.13.0)

This section lists the new features and enhancements to Informatica Address Verification in different countries in version 5.13.0.

### Bolivia

Effective in version 5.13.0, Informatica Address Verification improves the parsing and validation of Bolivia addresses. Additionally, Informatica updates the reference data for Bolivia.

Address Verification includes the following improvements for Bolivia:

- Address Verification validates an address to street level.
- Address Verification returns geocoordinates at street mid-point level for addresses in major cities.

### Canada

Informatica Address Verification introduces the following features and enhancements for Canada:

#### **Support for the `GlobalPreferredDescriptor` attribute in Canada Addresses**

Effective in version 5.13.0, you can configure Address Verification to return the short or long form of an element descriptor.

Address Verification can return the short or long form of the following descriptors:

- Street descriptors
- Directional values
- Building descriptors
- Sub-building descriptors

To specify the output format for the descriptors, configure the `GlobalPreferredDescriptor` attribute of the `Result` parameter in `Parameters.xml`. The `GlobalPreferredDescriptor` attribute applies to English-language and French-language descriptors.

You can set the attribute to LONG, SHORT, DATABASE, or PRESERVE\_INPUT. If you select DATABASE, Address Verification returns the descriptor in the format that the reference data specifies. DATABASE is the default option. If you select PRESERVE\_INPUT, the `PreferredLanguage` attribute takes precedence over the `GlobalPreferredDescriptor` attribute.

#### Support for CH and CHAMBER as Sub-Building Descriptors

Effective in version 5.13.0, Address Verification recognizes CH and CHAMBER as sub-building descriptors in Canada addresses.

## Colombia

Effective in version 5.13.0, Informatica Address Verification improves the way it treats street data in Colombia addresses. Additionally, Informatica updates the reference data for Colombia.

Address Verification can verify a Colombia address that includes information for the street that contains the house number and also for the nearest cross street to the house number.

For example, Address Verification can verify the following addresses:

AVENIDA 31 DIAGONAL 65 29 APTO 1626

AVENIDA 31 65 29 APTO 1626

Note the following guidelines for the address:

- Address Verification can verify the address with and without the cross street descriptor DIAGONAL.
- Address Verification can verify the address with and without a dash symbol between the cross street number and the house number. Address Verification does not include a dash symbol in this position in the verified output address.
- Address Verification can recognize the # symbol before the cross street number in an input address. Address Verification recognizes the address as a reference data match and not a correction.

For example, Address Verification recognizes the following input address as a reference data match and omits the # symbol from the verified output address:

AVENIDA 31 #65 29 APTO 1626

## France

Effective in version 5.13.0, Informatica Address Verification introduces the following improvements for France addresses:

- Address Verification assigns addresses to IRIS units in France with greater accuracy. Address Verification uses the house number in the address to verify the IRIS unit to which the address belongs. The use of house numbers can improve the assignment accuracy when the address lies close to the border between different units.
- Informatica improves the supplementary reference data for France.

## Global Single-Line

Effective in version 5.13.0, Informatica Address Verification supports single-line address verification in every country for which Informatica provides reference address data.

In earlier versions, Address Verification supported single-line address verification for 26 countries.

To verify a single-line address, enter the address in the `AddressComplete` element that the `InputData.xml` file specifies. If the address identifies a country for which the default preferred script is not a Latin or Western script, use the default `PreferredScript` setting with the address.

## Peru

Effective in version 5.13.0, Informatica Address Verification improves the validation of Peru addresses. Additionally, Informatica updates the reference data for Peru.

Address Verification includes the following improvements for Peru:

- Address Verification validates an address up to house number level.
- Address Verification can return arrival point geocoordinates in addition to interpolated geocoordinates.

## Sweden

Effective in version 5.13.0, Informatica Address Verification improves the verification of street names in Sweden addresses.

Address Verification improves the verification of street names in the following ways:

- Address Verification can recognize a street name that ends in the character G as an alias of the same name with the final characters GATAN.
- Address Verification can recognize a street name that ends in the character V as an alias of the same name with the final characters VÄGEN.
- Address Verification can recognize and correct a street name with an incorrect descriptor when either the long form or the short form of the descriptor is used.

For example, Address Verification can correct RUNIUSV or RUNIUSVÄGEN to RUNIUSGATAN in the following address:

```
RUNIUSGATAN 7  
SE-112 55 STOCKHOLM
```

## CHAPTER 9

# Version 5.12.0

This chapter includes the following topic:

- [New Features and Enhancements \(Version 5.12.0\) , 32](#)

## New Features and Enhancements (Version 5.12.0)

This section lists the new features and enhancements to Informatica Address Verification in different countries in version 5.12.0.

### Argentina

Effective in version 5.12.0, you can configure Informatica Address Verification to return valid suggestions for an Argentina address that you enter on a single line.

Enter an Argentina address in the following format:

[Street] [House Number] [Dependent Locality] [Post Code] [Locality]

To verify single-line addresses, enter the addresses in the `AddressComplete` element that the `InputData.xml` file specifies.

### Brazil

Effective in version 5.12.0, you can configure Informatica Address Verification to return valid suggestions for a Brazil address that you enter on a single line.

Enter a Brazil address in the following format:

[Street] [House Number] [Locality] [State Code] [Post Code]

To verify single-line addresses, enter the addresses in the `AddressComplete` element that the `InputData.xml` file specifies.

### Colombia

Effective in version 5.12.0, Informatica Address Verification improves the parsing and validation of Colombia addresses. Additionally, Informatica updates the reference data for the Colombia.

Address Verification includes the following improvements for Colombia:

- Address Verification validates an address to house number level.
- The reference data includes street data.



## Hong Kong

Effective in version 5.12.0, Informatica Address Verification supports rooftop geocoding for Hong Kong addresses. Address Verification can return rooftop geocoordinates for a Hong Kong address that you submit in the Chinese language or the English language.

Address Verification can consider all three levels of building information when it generates the geocoordinates. It delivers rooftop geocoordinates to the lowest level available in the verified address.

To retrieve rooftop geocoordinates for Hong Kong addresses, install the `HKG5GCRT.MD` database.

## India

Effective in version 5.12.0, Informatica Address Verification improves the validation of India addresses. Additionally, Informatica updates the reference data for India.

Address Verification includes the following improvements for India:

- Address Verification validates an address up to house number level.
- Address Verification returns the province information for an address if the information is available in the reference database.
- If you enter only postcode information in an address, Address Verification can return multiple suggestions in fast completion mode.
- Address Verification can add postcode information to an address output if the input address contains street and locality information.

## Mexico

Effective in version 5.12.0, you can configure Informatica Address Verification to return valid suggestions for a Mexico address that you enter on a single line.

Enter a Mexico address in the following format:

```
[Street] [House Number] [Sub-locality] [Post Code] [Locality] [Province]
```

To verify single-line addresses, enter the addresses in the `AddressComplete` element that the `InputData.xml` file specifies.

## South Africa

Effective in version 5.12.0, Informatica Address Verification improves the parsing and verification of delivery service descriptors in South Africa addresses.

Address Verification improves the parsing and verification of the delivery service descriptors in the following ways:

- Address Verification recognizes Private Bag, Cluster Box, Post Office Box, and Postnet Suite as different types of delivery service. Address Verification does not standardize one delivery service descriptor to another. For example, Address Verification does not standardize Postnet Suite to Post Office Box.
- Address Verification parses Postnet Box as a non-standard delivery service descriptor and corrects Postnet Box to the valid descriptor Postnet Suite.
- Address Verification does not standardize the sub-building descriptor Flat to Fl.

## South Korea

Informatica Address Verification introduces the following features and enhancements for South Korea:

### Support for Building Information in South Korea Addresses

Effective in version 5.12.0, the South Korea reference data includes building information. Address Verification can read, verify, and correct the building information in a South Korea address.

When you validate South Korea addresses, bear in mind that building information is postally relevant in some South Korea addresses but is not relevant in others. Additionally, bear in mind that an older South Korea address might identify a property for which multiple current addresses are valid.

Address Verification considers the following scenarios with respect to building information when it validates a South Korea address:

**The input address omits relevant building information but is otherwise complete. The reference data can match a single building with the address.**

In this scenario, Address Verification returns a Vx or Cx status for the address in all process modes and adds the building information to the output address.

**The input address omits relevant building information but is otherwise complete. The reference data can match multiple buildings with the address.**

The scenario might arise when the input address might identify one of several buildings on a property. In this scenario, Address Verification rejects the address with an I3 status. Address Verification returns an Address Resolution Code value of 2 to indicate that the missing information is available in the reference data.

To return the valid addresses with the relevant building information, submit the input address in interactive mode or fast completion mode.

**The input address is valid without building information, but the reference data can also match multiple buildings with the address.**

The scenario might arise when the input address identifies a property on which multiple buildings are located. In this scenario, Address Verification returns a Vx or Cx status for the address in batch or interactive mode and does not append any building information to the output address.

Address Verification returns an Extended Element Result Status value of 1 to indicate that the reference data can match multiple buildings for the address.

To return the valid addresses with the relevant building information, submit the input address in fast completion mode.

**Note:** When you verify older versions of an address, such as a lot-based address in South Korea, set the `MatchingExtendedArchive` attribute of the `Process` element to ON in the `Parameters.xml` file.

### Enhancements to Address Code Lookup Mode for South Korea

Effective in version 5.12.0, Address Verification returns all of the current addresses at a property that an older address represents. The older address might represent a single current address or it might represent multiple addresses, for example if multiple residences occupy the site of the property.

To return the current addresses, first find the address ID for the older property. When you submit the address ID with the final character A in address code lookup mode, Address Verification returns all current addresses that match the address ID.

**Note:** Address Verification uses the `MaxResultCount` parameter to determine the maximum number of addresses to return for the address ID that you enter. The `CountOverflow` parameter indicates whether the database contains additional addresses for the address ID.

## Spain

Effective in version 5.12.0, Informatica Address Verification improves the parsing and validation of Spain addresses based on customer feedback.

## Taiwan

Effective in version 5.12.0, Informatica Address Verification improves the parsing and validation of Taiwan addresses based on customer feedback.

## Thailand

Informatica Address Verification introduces the following features and enhancements for Thailand:

### Improvements to Thailand Addresses

Effective in version 5.12.0, Informatica Address Verification improves the parsing and validation of Thailand addresses in a Latin script.

Additionally, Address Verification validates an address to house number level.

### Native Support for Thailand Addresses

Effective in version 5.12.0, Informatica Address Verification can read and write Thailand addresses in native Thai and Latin scripts. Informatica updates the reference data for Thailand and adds reference data in the native Thai script.

Informatica provides separate reference databases for Thailand addresses in each script. To verify addresses in the native Thai script, install the native Thai databases. To verify addresses in a Latin script, install the Latin databases.

**Note:** If you verify Thailand addresses, do not install both database types. Accept the default `PreferredScript` attribute of the `Result` element in `Parameters.xml`. The default value on the attribute is `DATABASE`.

## United Arab Emirates

Effective in version 5.12.0, Informatica Address Verification introduces the following improvements for the United Arab Emirates address:

- Address Verification improves the processing of United Arab Emirates addresses in interactive mode.
- Address Verification verifies street names in United Arab Emirates addresses. To verify street names in United Arab Emirates, install the latest reference address databases for the United Arab Emirates.

## United Kingdom

Informatica Address Verification introduces the following features and enhancements for the United Kingdom:

### Support for Territory Information in United Kingdom Addresses

Effective in version 5.12.0, Address Verification can return a territory name in a United Kingdom address in a `Country` address element.

Address Verification returns the territory name in the `Country_2` element. Address Verification returns the country name in the `Country_1` element. You can configure an output address with both elements, or

you can omit the Country\_1 element if you post mail within the United Kingdom. The territory name appears above the postcode in a United Kingdom address on an envelope or label.

Address Verification returns Country\_1 and Country\_2 data in fielded or partially-fielded output.

To return the territory name, install the current United Kingdom reference data.

The following address demonstrates the envelope or label format for the United Kingdom:

```
BARCLAYS BANK FLAT  
6-8 HIGH STREET  
ST. PETER PORT  
GUERNSEY  
GY1 2LB
```

#### Decommission of Business Indicators in United Kingdom Reference Data

Effective in November 2017, Informatica reference data for the United Kingdom no longer includes data about the presence of a business at a given address.

## United States

Effective in version 5.12.0, Informatica Address Verification can recognize up to three sub-building levels in a United States address.

In compliance with the United States Postal Service requirements, Address Verification matches the information in a single sub-building element with the reference data. If the Sub-building\_1 information does not match, Address Verification compares the Sub-building\_2 information. If the Sub-building\_2 information does not match, Address Verification compares the Sub-building\_3 information. Address Verification copies the unmatched sub-building information from the input address to the output address.

Address Verification returns each level of sub-building information in a discrete output field. Address Verification continues to support two levels of sub-building information in formatted address line, delivery address line, and complete address output.

## Austria, Germany, and Switzerland

Effective in version 5.12.0, Informatica Address Verification supports the uppercase character ß in Austria, Germany, and Switzerland addresses.

Address Verification supports the character ß in the following ways:

- If you set the `Casing` attribute to UPPER, Address Verification returns the German character ß as B. If you set the `Casing` attribute to LOWER, Address Verification returns the German character ß as b.
- Address Verification treats B and b as equally valid characters in an address. In reference data matches, Address Verification can identify a perfect match when the same values contain either B or b.
- Address Verification treats B and ss as equally valid characters in an address. In reference data matches, Address Verification can identify a standardized match when the same values contain either B or ss.
- If you set the `PreferredScript` attribute to ASCII\_SIMPLIFIED, Address Verification returns the character ß as S.
- If you set the `PreferredScript` attribute to ASCII\_EXTENDED, Address Verification returns the character ß as SS.

# CHAPTER 10

## Version 5.11.0

This chapter includes the following topic:

- [New Features and Enhancements \(Version 5.11.0\), 37](#)

## New Features and Enhancements (Version 5.11.0)

This section lists the new features and enhancements to Informatica Address Verification in different countries in version 5.11.0.

### China

Effective in version 5.11.0, Informatica Address Verification improves the parsing, validation, and transliteration of addresses in China.

For example, Address Verification transliterates the city name 成都 to *Chéngdū*. Previously, Address Verification transliterated the city name incorrectly to *Chéngdōu*.

### Georgia

Effective in version 5.11.0, Informatica Address Verification verifies post codes in Georgia in the current four-digit format.

### Hong Kong

Informatica Address Verification introduces the following features and enhancements for Hong Kong:

#### **Support for Three Levels of Building Information in Hong Kong Addresses**

Effective in version 5.11.0, Informatica Address Verification supports up to three building levels for Hong Kong addresses.

The batch, interactive, and fast completion databases contain all three levels of building information for Hong Kong addresses, and Address Verification validates all three levels of building information.

For example, the following input address contains three levels of building information:

```
THE AVENUE  
PHASE 1 BLOCK 5  
33 TAI YUEN STREET  
WAN CHAI  
HONG KONG ISLAND
```

The following table shows how the input building data maps to elements in Address Verification:

Address Information	Address Element
THE AVENUE	Building_1
PHASE 1	Building_2
BLOCK 5	Building_3

If Address Verification finds a match in the reference data for a valid address that omits a building-level element, Address Verification can return the missing element in the output address.

#### Support for Sub-Building Information in Hong Kong Addresses

Effective in version 5.11.0, Address Verification parses and validates the sub-building information in a Hong Kong address. Address Verification can read and validate the sub-building information in Chinese and in English.

If the input address does not contain sub-building information, Address Verification returns valid sub-building suggestions for the building when you verify the address in interactive mode.

Address Verification also returns the appropriate status code for the sub-building data in a Hong Kong address.

#### Single-Line Address Verification for Native Hong Kong Addresses

Effective in version 5.11.0, you can configure Address Verification to return valid suggestions for a Hong Kong address that you enter on a single line in fast completion mode.

Submit the address in the native Chinese language and in the Hanzi script. Address Verification reads the address in the Hanzi script and returns the address suggestions in Hanzi.

Enter a Hong Kong address in the following format:

```
[Province] [Locality] [Street] [House Number] [Building 1] [Building 2] [Sub-  
building]
```

When you enter a partial address in fast completion mode, Address Verification returns one or more address suggestions for the address that you enter. When you enter a complete or almost complete address in fast completion mode, Address Verification returns a single suggestion for the address that you enter.

To verify single-line addresses, enter the addresses in the `AddressComplete` element that the `InputData.xml` file specifies.

## Japan

Informatica Address Verification introduces the following features and enhancements for Japan:

#### Choumei Aza Code Enrichment

Effective in 5.11.0, Informatica Address Verification can return a `CURRENT_CHOUMEI_AZA_CODE` enrichment for Japan addresses in addition to the `CHOUMEI_AZA_CODE` and `NEW_CHOUMEI_AZA_CODE` enrichments. The `CURRENT_CHOUMEI_AZA_CODE` represents the current version of an address.

Address Verification adds the `CURRENT_CHOUMEI_AZA_CODE` to the output address when you select the Japan enrichments and you verify the address in batch or interactive mode. You can then submit the code in address code lookup mode to retrieve the current version of the address.

Previously, you used the `NEW_CHOUMEI_AZA_CODE` to retrieve a code that represented any updated version of an address. You then submitted the code in address code lookup mode to return the updated address. Because a Japan address can have multiple versions, you previously needed to perform the steps multiple times to confirm the latest address version.

The Choumei Aza code enrichments have the following meanings:

**CHOUMEI\_AZA\_CODE**

The code that corresponds directly to the validated version of the address that you submit.

**NEW\_CHOUMEI\_AZA\_CODE**

The code that corresponds to the next iteration of the input address that you submit. For example, if you enter the first or oldest version of the address, the `NEW_CHOUMEI_AZA_CODE` value that Address Verification returns represents the second version of the address.

**CURRENT\_CHOUMEI\_AZA\_CODE**

The code that corresponds to the current version of the address that you submit.

**Updates to Transliteration of Japan Address Data**

Effective in version 5.11.0, Address Verification transliterates Japan address data from the Kana character set.

Previously, Address Verification transliterated Japan address data from the Kanji character set.

**Updates to Element Result Status Calculations**

Effective in version 5.11.0, Address Verification changes the manner in which it calculates the element result status values for a Japan address when you set the `ElementAbbreviation` attribute to ON.

When you set `ElementAbbreviation` to ON for Japan addresses, Address Verification can combine Street 1, Street 2, and House Number values in a single field. Address Verification can return an element result status for each value in the appropriate position in the status code, although the field that the position represents might not contain any data in the output address.

**Updates to Mailability Score Calculations**

Effective in version 5.11.0, Address Verification changes the manner in which it calculates the mailability score for a Japan address.

Address Verification returns a mailability score of 3 when the following conditions are true:

- The address contains Chome, Ban, and Go information but the reference database cannot verify the information.
- The address has a process status value of C2 or better.

Address Verification copies the unverified Chome, Ban, and Go information to the output address. Address Verification returns a mailability score of 2 for other process status codes.

Previously, an address that contained Chome, Ban, and Go information that was not present in the reference data returned a mailability score of 2.

**Note:** The mailability score is a general indicator of the likely deliverability of an address. Do not define validation logic around mailability score values. Use the process status values and the element result status values to determine the validity or deliverability of an address.

## Macau

Informatica Address Verification introduces the following features and enhancements for Macau:

### Native Support for Chinese-language Addresses

Effective in version 5.11.0, Informatica Address Verification can read and write Macau addresses in traditional Chinese or in Portuguese. The default language is traditional Chinese.

### Multilanguage Support for Macau Addresses

Effective in version 5.11.0, you can configure Address Verification to return Macau address information in traditional Chinese or in Portuguese.

Use the `PreferredLanguage` attribute to select the preferred language for the addresses that Address Verification returns. The default language is traditional Chinese. The `DATABASE` option on the `PreferredLanguage` attribute specifies the default language. To return Macau addresses in Portuguese, update the `PreferredLanguage` attribute to `ALTERNATIVE_2`.

Use the `PreferredScript` attribute to select the preferred character set for the address data. The default character set is Hanzi. The `DATABASE` option on the `PreferredScript` attribute specifies the default character set. To return Macau addresses in Latin characters, update the `PreferredScript` attribute to a Latin or ASCII option.

You can find the `PreferredLanguage` attribute and the `PreferredScript` attribute in the `Result` element in the `Parameters.xml` file.

**Note:** When you select a Latin script with the default preferred language option, Address Verification transliterates the Chinese address data into Cantonese or Mandarin. When you select a Latin script with the `ALTERNATIVE_2` preferred language option, Address Verification returns the address in Portuguese.

### Single-Line Address Verification for Native Macau Addresses in Fast Completion Mode

Effective in version 5.11.0, you can configure Address Verification to return valid suggestions for a Macau address that you enter on a single line in fast completion mode. When you enter a partial address in fast completion mode, Address Verification returns one or more address suggestions for the address that you enter.

Submit the address in the Chinese language and in the Hanzi script. Address Verification returns address suggestions in the Chinese language and in the Hanzi script.

Enter a Macau address in the following format:

```
[Locality] [Street] [House Number] [Building]
```

Use the `PreferredLanguage` attribute to select the preferred language for the addresses. The default preferred language is Chinese. Use the `PreferredScript` attribute to select the preferred character set for the address data. The default preferred script is Hanzi.

To verify single-line addresses, enter the addresses in the `AddressComplete` element that the `InputData.xml` file specifies.

## Mexico

Effective in 5.11.0, Informatica Address Verification returns *delegación* or administrative division information in fielded output and in formatted address line output.

Previously, Address Verification returned the information in fielded output only.

**Note:** In fielded output, Address Verification returns the information in the `Province_2` field.

## South Korea

Effective in version 5.11.0, Informatica Address Verification does not return the following city and county descriptors in South Korea addresses in a Latin script:



Do, Gu, Gun, Si

In this way, Address Verification returns South Korea addresses that conform to international address standards.

## Taiwan

Informatica Address Verification introduces the following features and enhancements for Taiwan:

### Improved Parsing of Taiwan Post Codes

Effective in version 5.11.0, Address Verification parses three-digit and five-digit post codes.

### Improved Reference Data for Taiwan

Effective in version 5.11.0, the Taiwan reference data includes the following improvements:

- The reference data contains the current city and district names.
- The reference data includes 台北市 as a postally-valid synonym for 臺北市 (Taipei) in the Chinese language. When you enter an address with 台北市 as the city name, Address Verification returns the official name 臺北市 by default.

To configure Address Verification to preserve the synonym in the output address, set the `PreferredScript` attribute to `DATABASE` and set the `AliasLocality` attribute to `PRESERVE`.

### Multilanguage Support for Taiwan Addresses

Effective in version 5.11.0, you can configure Address Verification to return a Taiwan address in the Chinese language or the English language.

Specify the language in the `PreferredLanguage` attribute of the `Result` element in `Parameters.xml`. To return all address information in Chinese, set the `PreferredLanguage` attribute to `DATABASE`. To return all address information in English, set the `PreferredLanguage` attribute to `ENGLISH`.

**Note:** The default value is `DATABASE`.

## United Kingdom

Effective in 5.11.0, Informatica Address Verification returns postal, administrative, and traditional county information from the Royal Mail Postcode Address File (PAF).

Previously, Address Verification returned postal county information when the information was postally relevant.

Address Verification returns the county information in Province address elements.

For example, the following input address is valid and does not require a county name:

```
Unit 1  
Anderson Road  
Woodford Green  
IG8 8ET  
United Kingdom
```

The following table lists the county values that Address Verification can return for the address and the Province elements that contain the values:

County Information Type	County Name	Address Element
Postal	ESSEX	Province_1
Administrative	REDBRIDGE	Province_2
Traditional	ESSEX	Province_3

## United States

Informatica Address Verification introduces the following features and enhancements for the United States:

### Support for Door Not Accessible (DNA) Addresses in Certified Mode

Effective in version 5.11.0, Address Verification can identify addresses that do not provide a door or entry point that the postal carrier can access. A DNA address might not provide a door for mail delivery, or the mailbox might reside behind a locked gate.

To identify DNA addresses, Address Verification introduces the `DPV_DNA` field. The `DPV_DNA` field can contain the values *Y* or *N*, or the field can be empty.

Address Verification can update the `DPV_DNA` field when you verify United States addresses in certified mode and when the address has a DPV return code of *Y*, *S*, or *D*. Address Verification returns *Y* in the `DPV_DNA` field for a DNA address and returns *N* otherwise. Address Verification does not update the `DPV_DNA` field in other process modes.

To identify DNA addresses, Address Verification reads the `USA5C127.MD` database file.

### Support for No Secure Location (NSL) Address in Certified mode

Effective in version 5.11.0, Address Verification can identify addresses that do not provide a reliable mailbox or reception point for mail. The United States considers an address that cannot reliably accept mail to be a No Secure Location (NSL) address.

For example, a storefront might be non-secure if the store is closed on one or more weekdays and does not provide a mailbox to receive mail on those days.

To identify NSL addresses, Address Verification introduces the `DPV_NSL` field. The `DPV_NSL` field can contain the values *Y* or *N*, or the field can be empty.

Address Verification can update the `DPV_NSL` field when you verify United States addresses in certified mode and when the address has a DPV return code of *Y*, *S*, or *D*. Address Verification returns *Y* in the `DPV_NSL` for a NSL address and returns *N* otherwise. Address Verification does not update the `DPV_NSL` field in other process modes.

To identify NSL addresses, Address Verification reads the `USA5C128.MD` database file.

## Updates to Input Language Identification in China, Hong Kong, Macau, and Taiwan

Effective in 5.11.0, Informatica Address Verification updates the evaluation criteria that identify the input language for China, Hong Kong, Macau, and Taiwan addresses. Address Verification applies the criteria when you select `PRESERVE_INPUT` as the preferred language option.

In a China, Hong Kong, or Taiwan address, Address Verification identifies the input language as English when the following conditions are true:

- The input data is composed of 7-bit ASCII characters.
- The input data includes at least one English-language descriptor, for example *street*, *avenue*.

Previously, Address Verification identified the input language as English when the input address included an English-language name that matched an entry in the reference data. In the current version, Address Verification does not require a reference data match.

In a Macau address, Address Verification identifies the input language as Portuguese when the following conditions are true:

- The input data is composed of 7-bit ASCII characters.
- The input data includes at least one Portuguese-language descriptor, for example *rua*, *avenida*.

Previously, Address Verification identified the input language as Portuguese when the input address included a Portuguese-language name that matched an entry in the reference data. In the current version, Address Verification does not require a reference data match.

# CHAPTER 11

## Version 5.10.0

This chapter includes the following topic:

- [New Features and Enhancements \(Version 5.10.0\), 44](#)

## New Features and Enhancements (Version 5.10.0)

This section lists the new features and enhancements to Informatica Address Verification in different countries in version 5.10.0.

### Austria

Effective in version 5.10.0, Informatica Address Verification can return an additional Postal Address Code for an address in Austria if the address occupant receives mail at another address. Return the additional code with the PAC\_ID enrichment.

An Austria address has a PAC\_ID value when the address identifies a mailbox that receives mail at another address. For example, a building at an intersection of two streets might have an address on both streets and might specify one of the addresses as the mailbox address.

**Note:** The address that gives access to the mailbox is called the Ident address.

A street address that does not receive mail has a POSTAL\_ADDRESS\_CODE value and a PAC\_ID value. The PAC\_ID value is the POSTAL\_ADDRESS\_CODE value of the Ident address that receives the mail. The postal carrier delivers mail to the address that the PAC\_ID identifies.

You can use the PAC\_ID value to return the corresponding address from the reference data in Address Code Lookup mode. Address Verification reads the address from the `AUT5AC.MD` database.

The following table lists street addresses that identify a single mail destination:

Address	POSTAL_ADDRESS_CODE	PAC_ID
Hauptplatz 4 8010 Graz AUT	100001915	100004254
Neue-Welt-Gasse 2 8010 Graz AUT	100004254	Not applicable

The address "Hauptplatz 4" does not receive mail because the mailbox is at another address at the same location. The building receives mail at "Neue-Welt-Gasse 2" and therefore "Neue-Welt-Gasse 2" is the Ident address. The PAC\_ID is the PAC of the address that receives the mail. The Postal Address Code value for the Ident address is 100004254.

## Czech Republic

Effective in 5.10.0, you can configure Informatica Address Verification to add RUIAN ID values as enrichments to a valid Czech Republic address.

Address Verification reads the enrichment data from the `CZE5E1.MD` database.

The RUIAN ID enrichment comprises the following codes:

- RUIANAM\_ID. Uniquely identifies the address delivery point.
- RUIANSO\_ID. Identifies the address to building level.
- RUIANTEA\_ID. Identifies the building entrance.

The supplementary database for the Czech Republic includes RUIANAM\_ID and RUIANSO\_ID values for ninety-nine percent of Czech Republic addresses. The database includes RUIANTEA\_ID values for a small percentage of addresses.

Before you enable the enrichment for Czech Republic addresses, license and install the supplementary database and include the corresponding unlock code in `SetConfig.xml`.

### Example: RUIAN ID Codes in Address Output

The supplementary database stores all types of RUIAN ID data for the following address:

```
Musorgského 320/2  
Kohoutovice  
623 00 Brno 23  
CZE
```

Address Verification returns the following RUIAN ID codes for the address from the database:

```
<SupplementaryCZ Type="RUIANAM_ID">19382481</SupplementaryCZ>  
<SupplementaryCZ Type="RUIANSO_ID">19204035</SupplementaryCZ>  
<SupplementaryCZ Type="RUIANTEA_ID">76838</SupplementaryCZ>
```

## Hong Kong

Effective in version 5.10.0, Informatica Address Verification provides native support for Hong Kong addresses. Address Verification can read and write Hong Kong addresses in the Chinese language or the English language. Use the `PreferredLanguage` attribute to select the preferred language for the addresses. Use the `PreferredScript` attribute to select the preferred character set for the address data.

For example, Address Verification can match the following Hong Kong addresses with address information in the reference data:

```
Flourish Industrial Building  
33 Sheung Yee Rd.  
Kowloon Bay  
Kowloon  
HKG
```

By default, Address Verification returns Hong Kong addresses in Chinese. The `DATABASE` option on the `PreferredLanguage` attribute specifies the default language. To return Hong Kong addresses in English, set the `PreferredLanguage` attribute to `ENGLISH`.

By default, Address Verification returns Chinese-language addresses in the Hanzi character set. The `DATABASE` option on the `PreferredScript` attribute specifies the default character set. If you specify `ENGLISH`

as the preferred language, set the PreferredScript attribute to any Latin or ASCII option. When you select a Latin script, Address Verification transliterates the address data into Pinyin.

You can find the PreferredLanguage attribute and the PreferredScript attribute in the `Result` element in the `Parameters.xml` file.

## Japan

Effective in version 5.10.0, Informatica Address Verification improves the parsing and validation of Japan addresses in Latin character sets.

Address Verification also returns more accurate Process Status codes and Element Result Status codes for Japan addresses in Latin character sets.

## Kuwait

Effective in version 5.10.0, Informatica Address Verification improves the parsing and validation of Kuwait addresses. Additionally, Address Verification issues updated reference data for Kuwait.

The reference data includes the following enhancements:

- The reference data follows the postal standards of Kuwait.
- The reference data includes city names, zone numbers, street names, house numbers, and postal codes.

For example, Address Verification matches the following Kuwait address with the address information in the reference data:

```
Block 6  
21 Street 5  
65006 Ali Subah Al Salem  
KWT
```

## United States

Informatica Address Verification introduces the following features and enhancements for the United States:

### Support for the Secure Hash Algorithm-compliant versions of CASS data files

Effective in version 5.10.0, Address Verification reads CASS certification data files that comply with the SHA-256 standard.

To identify the files that comply with the SHA-256 standard, Address Verification updates the naming convention for the CASS certification files. The current CASS certification files are numbered `USA5C101.MD` through `USA5C126.MD`. To verify United States addresses in certified mode, you must use the current files.

**Note:** The SHA-256-compliant files are not compatible with older versions of Address Verification.

### Support for Post Office Box Only Delivery Zones

Effective in version 5.10.0, Address Verification can recognize ZIP Codes that contain post office box addresses only. When all addresses in a ZIP Code are post office box addresses, the ZIP Code represents a Post Office Box Only Delivery Zone. Address Verification adds the value Y to the address to indicate that it identifies a ZIP Code as a Post Office Box Only Delivery Zone.

Use the indicator value to determine when a ZIP Code represents a Post Office Box Only Delivery Zone. For example, online address verification software can use the presence of the value to prompt users for a valid address when a P.O. Box address is not provided.

**Note:** A post office box street address (PBSA) does not qualify for inclusion in a Post Office Box Only Delivery Zone. A PBSA address and a non-post office box address can share the same ZIP Code.

Address Verification introduces Post Office Box Only Delivery Zone indicators to support the standards of CASS Cycle O. The United States Postal Service has not implemented Cycle O at the time of the 5.10.0 release. Address Verification introduced additional features in version 5.9.0 to prepare for the implementation of CASS Cycle O.

For more information on the Cycle O features in 5.9.0, see ["United States" on page 54](#).

## Updated Certification Standards in Multiple Countries

Effective in version 5.10.0, Informatica Address Verification supports the following certification standards for address verification software:

- Address Matching Approval System (AMAS) certification for Australia Post. Address Verification updates support to Cycle 2017.
- SendRight certification for New Zealand Post. Address Verification updates support to Cycle 2017.
- Software Evaluation and Recognition Program (SERP) certification for Canada Post. Address Verification updates support to Cycle 2017.

Address Verification continues to support the current versions of the Coding Accuracy Support System (CASS) standards from the United States Postal Service and the Service National de L'Adresse (SNA) standard from La Poste of France. The United States Postal Services specifies Cycle N as the current CASS certification standard.

## Transaction Key and Record ID Values in Address Code Lookup Mode

Effective in version 5.10.0, you can add the Key element to an input address in address code lookup mode. The Key element has the types TRANSACTION\_KEY and RECORD\_ID.

When you include transaction key or record ID values in the input addresses, Address Verification passes the values through to the output addresses. You can use the values to match an address in the output data to the source address in the input data.

## Single-Line Address Verification in Multiple Countries

Effective in version 5.10.0, Informatica Address Verification extends single-line address verification in fast completion mode to many countries. Address Verification also enables single-line address verification in batch and interactive modes.

### New Countries for Single-Line Address Verification

Informatica Address Verification increases the number of countries for which you can perform single-line address verification.

The following table lists the countries that Address Verification supports for single-line address verification and identifies the newly-supported countries in version 5.10.0:

Country Name	Fast Completion Support	Batch and Interactive Support
Australia	Supported prior to version 5.10.0	New
Austria	New	New
Belgium	New	New
Canada	Supported prior to version 5.10.0	New
China	Supported prior to version 5.10.0	New
Denmark	New	New
Finland	New	New
France	New	New
Germany	Supported prior to version 5.10.0	New
Ireland	New	New
Italy	New	New
Japan	Supported prior to version 5.10.0	New
Luxembourg	New	New
Netherlands	New	New
New Zealand	Supported prior to version 5.10.0	New
Norway	New	New
Spain	New	New
Sweden	New	New
Switzerland	New	New
United Kingdom	Supported prior to version 5.10.0	New
United States	Supported prior to version 5.10.0	New

### Support for Single-Line Address Verification in Batch and Interactive Modes

Address Verification supports single-line address verification in batch and interactive modes in addition to fast completion mode. In earlier versions, Address Verification supported single-line address verification in fast completion mode only.

To verify single-line addresses, enter the addresses in the `AddressComplete` element that the `InputData.xml` file specifies. If you verify single-line addresses in batch or interactive mode, you must also set the `FormatAddressComplete` parameter in the `Parameters.xml` file to `SINGLE_LINE`.



When you submit a single-line address in interactive mode or fast completion mode, Address Verification can return multiple address suggestions from the reference data. When you submit a single-line address in batch mode, Address Verification returns a single address.

**Note:** Address Verification processes single-line addresses in the same way as any other type of address in batch, interactive, or fast completion mode.

# CHAPTER 12

## Version 5.9.0

This chapter includes the following topic:

- [New Features and Enhancements \(Version 5.9.0\), 50](#)

## New Features and Enhancements (Version 5.9.0)

This section lists the new features and enhancements to Informatica Address Verification in different countries in version 5.9.0.

### Bahrain

Effective in version 5.9.0, Informatica issues updated reference data for Bahrain. The reference data includes the following enhancements:

- Post code data.
- Address parsing and validation to house number level.

Informatica updates the reference data twice yearly.

### China

Informatica Address Verification introduces the following features and enhancements for China:

#### **Multi-language address parsing and verification**

Effective in version 5.9.0, you can configure Informatica Address Verification to return the street descriptor and street directional information in a valid China address in a transliterated Latin script (Pinyin) or in English. Address Verification returns the other elements in the address in the Hanzi script.

#### **Single-line verification of China addresses in fast completion mode**

Effective in version 5.9.0, you can configure Informatica Address Verification to return valid suggestions for a China address that you enter on a single line in fast completion mode. To enter an address on a single line, use the `AddressComplete` element. Enter the address in the Hanzi script.

When you enter a partial address, Address Verification returns one or more address suggestions for the address that you enter. When you enter a complete valid address, Address Verification returns the valid version of the address from the reference database.

Single-line address verification uses a unique unlock code. To view a list of the countries that support single-line address verification, see the *Informatica Address Verification (On-Premises) Developer Guide*.

## Ireland

Informatica Address Verification introduces the following features and enhancements for Ireland:

### Multi-language address parsing and verification

Effective in version 5.9.0, you can configure Informatica Address Verification to read and write the street, locality, and county information for an Ireland address in the Irish language.

An Post, the Irish postal service, maintains the Irish-language information in addition to the English-language addresses. You can include Irish-language street, locality, and county information in an input address and retrieve the valid English-language version of the address. You can enter an English-language address to Informatica Address Verification and retrieve an address that includes the street, locality, and county information in the Irish language. Informatica Address Verification returns all other information in English.

Use the PreferredLanguage attribute to specify the output language.

### Rooftop geocoordinates in Ireland addresses

Effective in version 5.9.0, you can configure Informatica Address Verification to return rooftop geocoordinates for an address in Ireland. To retrieve rooftop geocoordinates for Ireland addresses, install the IRL5GCRT.MD database.

Address Verification uses a GEO\_ROOFTOP unlock code for the database. Address Verification returns a geocoding status value of EGCB to indicate that the output address contains rooftop geocoordinates. If rooftop geocoordinates are not available, Address Verification does not return any geocoordinates for the address. When geocoordinates are not available, Address Verification returns the geocoding status code EGC0.

### Support for global preferred descriptors in Ireland addresses

Effective in version 5.9.0, you can configure Informatica Address Verification to return the short or long forms of the following elements in the English language:

- Street descriptors
- Directional values

Use the GlobalPreferredDescriptor attribute to configure Address Verification to return the short or long form or to preserve the form that the input address uses. For example, you can configure Address Verification to abbreviate STREET to ST and NORTH to N.

You can also configure Address Verification to return the element values in the default format of the reference data.

Informatica Address Verification writes all street information to the street name field in a fielded Irish-language address.

## Italy

Effective in version 5.9.0, you can configure Informatica Address Verification to add the ISTAT code to a valid Italy address. The ISTAT code contains characters that identify the province, municipality, and region to which the address belongs. The Italian National Institute of Statistics (ISTAT) maintains the ISTAT codes.

Address Verification can return the following status values to indicate the level of ISTAT code enrichment for each address:

- EIT0. ISTAT code data is not available for the input address.
- EIT1. The output address contains ISTAT code data.
- EITC. The enrichment database is corrupted.

- EITN. Address Verification cannot find the enrichment database.
- EITU. The enrichment database is locked.

To return the ISTAT codes for Italy addresses, install the ITA5E1.MD database file and enter the unlock code for the database.

## Japan

Informatica Address Verification introduces the following features and enhancements for Japan:

### Geocoding enrichment for Japan addresses

Effective in version 5.9.0, you can configure Informatica Address Verification to return standard (interpolated) geocoordinates for addresses in Japan.

Address Verification can return geocoordinates at multiple levels of accuracy. When a valid address contains information to the Ban level, Address Verification returns house number-level geocoordinates. When a valid address contains information to the Chome level, Address Verification returns street-level geocoordinates. If an address does not contain Ban or Chome information, Address Verification returns locality-level geocoordinates.

Address Verification returns the following geocoding status values to indicate the geocode level for an address:

- EGC8. The geocoordinates represent the Ban.
- EGC7. The geocoordinates represent the Chome.
- EGC6. The geocoordinates represent the locality.

### Single-line verification of Japan addresses in fast completion mode

Effective in version 5.9.0, you can configure Informatica Address Verification to return valid suggestions for a Japan address that you enter on a single line in Fast Completion mode. You can retrieve suggestions for an address that you enter in the Kanji script or the Kana script. To enter an address on a single line, use the `AddressComplete` element.

When you enter a partial address, Address Verification returns one or more address suggestions for the address that you enter. When you enter a complete valid address, Address Verification returns the valid version of the address from the reference database.

Single-line address verification uses a unique unlock code. To view a list of the countries that support single-line address verification, see the *Informatica Address Verification (On-Premises) Developer Guide*.

## Qatar

Effective in version 5.9.0, Informatica issues updated reference data for Qatar. The reference data includes the following enhancements:

- Street data.
- Post code data.
- Address parsing and validation to house number level.

Informatica updates the reference data twice yearly.

## Saudi Arabia

Effective in version 5.9.0, Informatica issues updated reference data for Saudi Arabia. The reference data includes the following enhancements:

- Street data.
- Address parsing and validation to house number level.
- Improved parsing of delivery service data, including 5+4-digit post codes for delivery service addresses. Address Verification recognizes delivery service indicators such as Postbox, PB, and BP (Boite Postale).

Informatica updates the reference data twice yearly.

## South Korea

Informatica Address Verification introduces the following features and enhancements for South Korea:

### Lot number parsing in South Korea addresses

Effective in version 5.9.0, Address Verification parses lot number and lot sub-number identifiers from a Hangul address to the fields that include the lot number and lot sub-number data.

For example, the following address element includes the `번지` or *bunji* lot number identifier:

```
<AddressComplete>서울시 영등포구 여의도동 20번지</AddressComplete>
```

Address Verification parses 20번지 to the house number field.

### Support for Revised Romanization transliteration in South Korea addresses

Effective in version 5.9.0, Address Verification can use the Revised Romanization system to transliterate an address between Hangul and Latin character sets. To specify a character set for output addresses from South Korea, use the PreferredScript attribute.

### Updates to post code verification in South Korea addresses

Effective in version 5.9.0, Address Verification adds a five-digit post code to a fully valid input address that does not include a post code. The five-digit post code represents the current post code format in use in South Korea. Address Verification can add the five-digit post code to a fully valid lot-based address and a fully valid street-based address. To verify addresses in the older, lot-based format, set the MatchingExtendedArchive attribute to ON.

## Spain

Effective in version 5.9.0, you can configure Informatica Address Verification to add the INE code to a valid Spain address. The INE code contains characters that identify the province, municipality, and street in the address. The National Institute of Statistics (INE) in Spain maintains the INE codes.

Address Verification can return the following status values to indicate the level of INE code enrichment for each address:

- EES0. INE code data is not available for the input address.
- EES1. The output address contains INE code data.
- EESC. The enrichment database is corrupted.
- EESN. Address Verification cannot find the enrichment database.
- EESU. The enrichment database is locked.

To return the INE codes for Spain addresses, install the ESP5E1.MD database file and enter the unlock code for the database.

# United States

Informatica Address Verification introduces the following features and enhancements for the United States:

## Support for CASS Cycle O requirements

Effective in version 5.9.0, Address Verification adds features to support the proposed requirements of the Coding Accuracy Support System (CASS) Cycle O standard. The United States Postal Service has not introduced Cycle O certification at the time of the 5.9.0 release.

To prepare for the Cycle O standard, Address Verification includes the following features:

- Private mailbox and commercial mail receiving agency identification.

The United States Postal Service updates the CASS requirements for private mailbox (PMB) addresses and commercial mail receiving agency (CMRA) addresses in Cycle O. To meet the Cycle O standard, Address Verification adds PMB as a prefix before a private mailbox number in a CMRA address. If a pound sign (#) precedes a private mailbox number in the address, Address Verification converts the pound sign to PMB. To comply with the Cycle O standard, Address Verification does not use the PMB number to verify Delivery Point Validation (DPV) data for an address.

- SuiteLink verification for default records.

The United States Postal Service updates the conditions that determine when CASS-certified software must query the SuiteLink reference data.

The address verification operation must compare high-rise default and street default addresses to the SuiteLink reference data. Additionally, if an address contains secondary information that does not match a DPV address, address verification must compare the address without the secondary information to the SuiteLink reference data.

If the SuiteLink data contains a match with the input address, the address verification operation must add any valid secondary information from the SuiteLink address to the address. The 11-digit bar code for the updated address must match the bar code for the SuiteLink address.

- Post office box street address (PBSA) identification.

The United States Postal Service accepts post office box addresses in a street address format when the street address identifies the post office that contains the box. For example, the following address identifies box number 3094 at a post office on South Center Street:

```
131 S Center St Unit 3094  
Collierville TN 38027-0419
```

**Note:** The Cycle O standard specifies "Unit" as the post office box descriptor in a PBSA.

The United States Postal Service adds the value PB as a Delivery Point Validation footnote to a PBSA. Address Verification writes the value as a DPV footnote.

- R777 address identification.

The United States Postal Service assigns physical addresses that do not receive mail to carrier route R777. An R777 carrier route is known as a phantom carrier route. Address Verification writes the value R7 as a DPV footnote to any address with an R777 carrier route designation.

- Form 3553 completion.

Address Verification also adds a ZIP+4 3553 flag that indicates whether an address is valid for inclusion in the total address count on Form 3553. Address Verification returns N for any address that passes delivery point validation but does not include a valid ZIP+4 Code. For example, Address Verification returns N for an address on an R777 carrier route. When you compile Form 3553, omit any address with a ZIP+4 3553 value of N from the total count.

- Verification of primary house or building numbers that include trailing alphabet characters.  
If the primary house number or building number in a non-valid address includes a trailing alphabet character, CASS standards permit an address verification operation to check the address without the trailing character.

#### **Improved parsing of non-standard first-line data in United States addresses**

Effective in version 5.9.0, Address Verification parses non-standard mailbox data from the first line of the address to sub-building elements. For example, the non-standard data might identify a courtroom or a college campus mailbox.

Address Verification identifies C345 as a sub-building element in the following address:

```
<InputData>
  <AddressElements>
    <Country Item="1" Type="NAME">UNITED STATES</Country>
    <Locality Item="1" Type="COMPLETE">ATHENS</Locality>
    <PostalCode Item="1" Type="UNFORMATTED">247121000</PostalCode>
    <Province Item="1" Type="COUNTRY_STANDARD">WV</Province>
  </AddressElements>
  <AddressLines>
    <DeliveryAddressLine Line="1">COLLEGE BOX C345</DeliveryAddressLine>
    <DeliveryAddressLine Line="2">PO BOX 1000</DeliveryAddressLine>
  </AddressLines>
</InputData>
```

#### **Support for global preferred descriptors in United States addresses**

Effective in version 5.9.0, you can return the short or long forms of the following elements in a United States address:

- Street descriptors
- Directional values
- Sub-building descriptors

For example, you can configure Address Verification to abbreviate STREET to ST and FLOOR to FL. Use the GlobalPreferredDescriptor attribute to configure Address Verification to return the short or long form or to preserve the form that the input address uses.

You can also configure Address Verification to return the element values in the default format of the reference data.

# CHAPTER 13

## Version 5.8.x

This chapter includes the following topics:

- [New Features and Enhancements \(Version 5.8.1\), 56](#)
- [New Features and Enhancements \(5.8.0\), 57](#)

## New Features and Enhancements (Version 5.8.1)

Informatica Address Verification introduces the following features in Version 5.8.1:

### Support for Eircodes in Ireland Addresses

Effective in version 5.8.1, Address Verification supports the eircode system in Ireland. An eircode is a seven-character code that uniquely identifies an Ireland address. The eircode system covers all residences, public buildings, and business premises and includes apartment addresses and addresses in rural townlands.

For example, if the eircode is D04 HY45, Address Verification returns the following address in the batch, interactive, or fast completion mode:

```
Flat 37  
Beech Hill Villas  
Beech Hill Avenue  
Donnybrook  
Dublin 4  
Co. Dublin  
D04 HY45
```

### Support for Hexaligne 3 Level of Service National de L'Adresse Certification for France Addresses

Effective in version 5.8.1, Address Verification uses the Hexaligne 3 repository of Service National de L'Adresse Certification for France Addresses to verify the France addresses in the certified processing mode.

Hexaligne 3 is a master file of France postal addresses. Hexaligne 3 lists all the features specific to the exterior of the building such as entrance, building, apartment block, and residence. Hexaligne 3 applies equally to tower blocks and housing developments.

For example, validate the following input address:

```
<?xml version="1.0" encoding="UTF-8"?>  
<InputData>  
  <AddressElements>
```



```

        <Country Item="1" Type="NAME">FRA</Country>
    </AddressElements>
    <AddressLines>
        <FormattedAddressLine Line="1">BAT A2 RESIDENCE LES MARCHES DU SOLEIL</
FormattedAddressLine>
        <FormattedAddressLine Line="2">67 RUE BENJAMIN ROGER</FormattedAddressLine>
        <FormattedAddressLine Line="3">34200 SETE</FormattedAddressLine>
    </AddressLines>
</InputData>

```

Address Verification returns the following verified address for the input address:

```

<?xml version="1.0" encoding="UTF-8"?>
<AddressLines>
    <FormattedAddressLine Line="1" />
    <FormattedAddressLine Line="2" />
    <FormattedAddressLine Line="3">Bât A2 Résidence les Marches du Soleil</
FormattedAddressLine>
    <FormattedAddressLine Line="4">67 rue Benjamin Roger</FormattedAddressLine>
    <FormattedAddressLine Line="5" />
    <FormattedAddressLine Line="6">34200 Sete</FormattedAddressLine>
</AddressLines>

```

## New Features and Enhancements (5.8.0)

This section lists the new features and enhancements in version 5.8.0.

### New Product Name

Effective in version 5.8.0, Informatica renames Informatica AddressDoctor as Informatica Address Verification.

### Support for RedHat Enterprise Linux Version 7

Effective in version 5.8.0, you can install Informatica Address Verification on devices that run RedHat Enterprise Linux version 7. You can continue to install Informatica Address Verification on devices that run RedHat Enterprise Linux version 6.

You cannot install Informatica Address Verification 5.8.0 on devices that run RedHat Enterprise Linux version 5.

### Enhancements to Address Code Lookup Mode

Effective in version 5.8.0, Informatica Address Verification returns all available enrichment data with an output address from any country that supports a unique identifier value as a lookup key.

You can enter a lookup key for an address in Germany, Great Britain, Japan, Serbia, South Africa, and South Korea in Address Verification 5.8.0.

To retrieve address data in address code lookup mode, install the address code lookup database for the country in which the address is located. Set the process mode in `Parameters.xml` to ADDRESSCODELOOKUP. Additionally, set the `Type` attribute of the `AddressCode` element in `InputData.xml` to an appropriate value.

## Enhancements to Rooftop Geocoding Support for United Kingdom Addresses

Effective in version 5.8.0, Informatica Address Verification introduces the following changes to rooftop geocoding support:

- To retrieve high-precision rooftop geocoordinates for United Kingdom addresses, add the ROOFTOP value to the `EnrichmentGeoCodingType` attribute of the `PROCESS` element in `Parameters.xml`.
- Informatica Address Verification delivers the rooftop geocoordinates in a new reference address database of type Rooftop Geocoding (GCRT) .

To retrieve rooftop geocoordinates for United Kingdom addresses, install the GBR5GCRT.MD database. Address Verification uses a new GEO\_ROOFTOP unlock code for the database. Address Verification returns a geocoding status value of EGCB to indicate that the output address contains rooftop geocoordinates.

## Reference Data Support for Individual House Numbers in Germany

The latest reference address databases for Germany support the verification of individual house numbers in Germany addresses. To verify individual house numbers in Germany, install the latest reference address databases for Germany.

## Additional Enrichment to Germany Addresses

Effective in version 5.8.0, you can retrieve the three-digit street code part of the Frachtleitcode (or Freight Code) as an additional enrichment to verified Germany addresses. Street codes identify streets in Germany. Positions 6, 7, and 8 of the Frachtleitcode form the street code and identify a street. A street code value of 994 indicates that the address points to a packstation. (A packstation is a service delivery point of DHL Parcel Germany).

To retrieve the street code as an enrichment to verified Germany addresses, install the premium database package for Germany. For more information about the premium database package, contact your Informatica sales representative. To receive the street code as an enrichment, you must also set the `EnrichmentSupplementaryDE` attribute of the `Process` element in `Parameters.xml` to ON. Informatica Address Verification returns the street code in the `STREET_CODE` field.

## Reference Data Support for Individual House Numbers in Italy

The latest reference address databases for Italy support the verification of individual house numbers in Italy addresses. To verify individual house numbers in Italy, install the latest reference address databases.

## Enhancements to South Korea Address Verification

Effective in version 5.8.0, Informatica Address Verification introduces the following changes to South Korea address verification:

### Address ID values as an Enrichment to South Korea Addresses

You can retrieve address ID values as an enrichment to valid South Korea addresses. The address ID value is a unique string that Address Verification assigns to South Korea addresses. Use the address ID value to obtain a South Korea address in the current, street-based format or in the older, land lot-based format. You can also use the address ID value to obtain the six-digit post code or the five-digit post code for the address.

To receive the address ID as an enrichment, install the South Korea supplementary reference address database (KOR5E1.MD). After you install, set the `EnrichmentSupplementaryKR` attribute of the `Process` element in `Parameters.xml` to ON.

#### Address Code Lookup Support for South Korea

When you use the address ID value to retrieve South Korea address information, configure Address Verification to run in address code lookup mode. To enable address code lookup for a South Korea address, set the `Type` attribute of the `AddressCode` element in the `InputData.xml` to `KOR_ADDRESS_ID`.

#### Support for the Hangul Script in South Korea Addresses

The default script of the South Korea reference address database is Hangul. You can use Address Verification to verify South Korea addresses in the Hangul script and to receive the result output in Hangul script. Alternatively, you can configure the `PreferredScript` attribute of the `Result` element in `Parameters.xml` to an appropriate value to receive the output in the ASCII script.

#### Support for New Postal Codes in South Korea

Address Verification supports the new, five-digit postal codes and the older, six-digit postal codes in South Korea. To verify the six-digit post codes, set the `MatchingExtendedArchive` attribute of the `Process` element in `Parameters.xml` to ON. If you do not set `MatchingExtendedArchive` to ON, Address Verification identifies the six-digit post codes as not valid.

#### Verification of Outdated South Korea Addresses

You can verify older, land lot-based addresses and addresses with older, six-digit post codes in South Korea. To verify the address and post code data, set the `MatchingExtendedArchive` attribute of the `Process` element in `Parameters.xml` to ON. When you set `MatchingExtendedArchive` to ON, Address Verification returns an extended element result status of F if the address or the post code uses the older format. Address Verification does not return older address information if you set `MatchingExtendedArchive` to OFF.

## Support for Macau

Effective in version 5.8.0, you can use Informatica Address Verification to verify addresses from Macau. You can verify Macau addresses in the batch, interactive, and fast completion modes.

To verify Macau addresses in the batch or interactive mode, you must install the `MAC5BI.MD` database. To verify Macau addresses in the fast completion mode, install the `MAC5FC.MD` database. The reference address databases for Macau contain address information up to the building level. Macau does not have a postal code system. The reference address databases for Macau are in Portuguese language and use the Latin script.

## Support for Eircodes in Ireland addresses

Effective in version 5.8.0, Address Verification supports the eircode system in Ireland. An eircode is a seven-character code that uniquely identifies an Ireland address. The eircode system covers all residences, public buildings, and business premises and includes apartment addresses and addresses in rural townlands.

The eircode reference database is not generally available. To obtain the eircode reference database, contact an Informatica Address Verification account manager.

## Support for Non-Postal Addresses in New Zealand

Effective in version 5.8.0, you can use Informatica Address Verification to verify non-postal addresses, such as prison addresses, graveyards, highways, and community post boxes, in New Zealand.

Address Verification verifies non-postal addresses in the same way that it verifies postal addresses. You can verify non-postal addresses in batch, interactive, and fast completion modes. Note that New Zealand Post neither recognizes the non-postal addresses nor provides such addresses. To verify non-postal addresses, install the premium reference address database package that Informatica provides. For more information about the premium database package for New Zealand addresses, contact your Informatica sales representative.

## Multilanguage Support for Province Information in Switzerland Addresses

Effective in version 5.8.0, Informatica Address Verification extends multilanguage support to province information in Switzerland addresses. Address Verification can return the province information in English, German, French, or Italian.

You can specify the language in the `PreferredLanguage` attribute of the `Result` element in `Parameters.xml`. To return the information in the different languages, download the latest reference data for Switzerland.

By default, Informatica Address Verification returns the information in the main language of the region to which the address belongs. This is the default language in the reference address database. If the reference database does not contain the information in the language that you specify, you receive the information in the default language.

## Subbuilding Support for Spain

Effective in version 5.8.0, you can use Informatica Address Verification to return subbuilding information for addresses in Spain. Address Verification supports up to three subbuilding levels in Spain addresses.

To return the subbuilding information, download the latest reference data for Spain.

## Support for House Number Verification in Taiwan Addresses

Effective in version 5.8.0, Informatica Address Verification verifies the house number information in Taiwan addresses. To verify house numbers in Taiwan addresses, you must install the latest reference address databases for Taiwan.

Address Verification verifies the house number information when you verify addresses in Mandarin Traditional Chinese or in English. However, in the interactive and fast completion modes, you receive the best results for house numbers when you enter Taiwan addresses in Mandarin Traditional Chinese.

## Support for Timor-Leste

Effective in version 5.8.0, you can use Informatica Address Verification to verify addresses from Timor-Leste (East Timor). You can verify addresses from Timor-Leste in batch, interactive, and fast completion modes.

To verify Timor-Leste addresses in the batch or interactive mode, you must install the `TLS5BI.MD` database. To verify Timor-Leste addresses in the fast completion mode, you must install the `TLS5FC.MD` database. The reference address databases for Timor-Leste contain address information up to the street level. Timor-Leste does not have a postal code system. The reference address databases for Timor-Leste are in the Portuguese language and use the Latin script.

## Additional Enrichments for United Kingdom Addresses

Effective in version 5.8.0, you can retrieve delivery point type and organization key information as additional enrichments to verified United Kingdom addresses. The organization key is a unique eight-digit code that Royal Mail assigns to small organizations. The delivery point type is a single-character code that indicates whether the address points to a residence (R), a small organization (O), or a large organization (L).

To receive the delivery point type and organization key, install the supplementary reference address database for the United Kingdom and set the `EnrichmentSupplementaryGB` attribute of the `Process` element in `Parameters.xml` to `ON`.

## Support for UPRN in the AddressCodeLookup mode.

Effective in version 5.8.0, you can use the Unique Property Reference Number (UPRN) codes to retrieve the corresponding United Kingdom addresses in the AddressCodeLookup mode. In the AddressCodeLookup mode, you can enter a UPRN and receive the corresponding address in the result output. UPRN is a numeric code that uniquely identifies a land or property unit in the United Kingdom.

To retrieve United Kingdom addresses using UPRN, you must install the address code lookup (AC) database for the United Kingdom, and set the process mode to ADDRESSCODELOOKUP. You must also set the `Type` attribute of the `AddressCode` element in `InputData.xml` to `GBR_UPRN`.

# CHAPTER 14

## Version 5.7.0

This chapter includes the following topic:

- [New Features and Enhancements \(5.7.0\), 62](#)

### New Features and Enhancements (5.7.0)

This section lists the new features and enhancements in version 5.7.0.

#### NIS Code as Enrichment to Belgium Addresses

Effective in version 5.7.0, you can retrieve the NIS code as an enrichment to validated Belgium addresses. Informatica AddressDoctor returns a combination of the five-digit NIS code and a four-digit Neighborhood ID along with the validated output for Belgium addresses.

To receive NIS codes in the validated output for Belgium addresses, license and install the supplementary reference address database, and configure `EnrichmentSupplementaryBE` in `Parameters.xml`.

For more information about configuring Informatica AddressDoctor to return the NIS code as enrichment to Belgium addresses, see *Informatica AddressDoctor Developer Guide, Version 5.7.0*.

#### Bulgaria Addresses in Cyrillic Script

Effective in version 5.7.0, you can validate Bulgaria addresses in the Cyrillic script. By default, you receive the validated results in the Cyrillic script.

To receive the results in the Latin script, you can set the `PreferredScript` attribute of the `Result` element in `Parameters.xml` to `ASCII_EXTENDED`, `ASCII_SIMPLIFIED`, `LATIN`, `LATIN_1`, or `LATIN_ALT`.

Other improvements to the Bulgaria address validation include high-quality reference address data and improved parsing of locality information.

## China and Japan Addresses without Locality and Province Descriptors

Effective in version 5.7.0, you can receive validated result output for China and Japan addresses without locality and province descriptors.

To remove the locality and province descriptors from China and Japan addresses, set the `PreferredLanguage` attribute of the `Result` element in `Parameters.xml` to `ENGLISH`, and the `PreferredScript` attribute to one of the following values:

- `ASCII_SIMPLIFIED`
- `ASCII_EXTENDED`
- `LATIN`
- `LATIN_1`
- `LATIN_ALT`

## FIAS ID as Enrichment to Russia Addresses

Effective in version 5.7.0, you can retrieve the Federal Information Addressing System (FIAS) ID as an enrichment to validated Russia addresses. FIAS ID is a 16-character alphanumeric string.

To receive FIAS IDs in the validated output for Russia addresses, license and install the supplementary reference address database, and configure `EnrichmentSupplementaryRU` in `Parameters.xml`.

For more information about configuring Informatica AddressDoctor to return FIAS ID in the validated result output, see *Informatica AddressDoctor Developer Guide, Version 5.7.0*.

## Multilanguage Support for Locality Information in Switzerland Address Output

Effective in version 5.7.0, you can configure Informatica AddressDoctor to return the locality information in Switzerland address results consistently in French, German, or Italian. Previously, Informatica AddressDoctor returned the Switzerland address results in the main language of the region to which the address belonged.

You can configure the `PreferredLanguage` attribute of the `Result` element in `Parameters.xml` to one of the following values and receive the locality information in the corresponding language:

### **ALTERNATIVE\_1**

German

### **ALTERNATIVE\_2**

French

### **ALTERNATIVE\_3**

Italian

Additionally, Informatica AddressDoctor returns the Street information for addresses in Biel/Bienne in the alternative language you configured for the `PreferredLanguage` attribute.

For more information about configuring the `PreferredLanguage` attribute for Switzerland addresses, see *Informatica AddressDoctor Developer Guide, Version 5.7.0*.

## UPRN as Enrichment to the United Kingdom Addresses

Effective in version 5.7.0, you can retrieve the Unique Property Reference Number (UPRN) as an enrichment to validated United Kingdom addresses. UPRN is a unique number that the United Kingdom government assigns to land and property units. UPRN can have up to 12 digits.

To receive UPRN in the validated address output, license and install the supplementary reference address database for the United Kingdom, and configure `EnrichmentSupplementaryGB` in `Parameters.xml`.

For more information about configuring Informatica AddressDoctor to return UPRN as an enrichment in United Kingdom addresses, see *Informatica AddressDoctor Developer Guide, Version 5.7.0*.

## Building-Level Rooftop Geocoordinates for the United Kingdom Addresses

Effective in version 5.7.0, Informatica AddressDoctor extends the rooftop geocoding support up to building level. You can retrieve building-level rooftop geocoordinates for the United Kingdom addresses even when the input address does not contain a house number.

For more information about retrieving geocoordinates, see *Informatica AddressDoctor Developer Guide, Version 5.7.0*.

## Comprehensive Coverage of Business Names and Addresses in the United Kingdom

Effective in version 5.7.0, Informatica AddressDoctor extends the coverage of business names and addresses in the United Kingdom.

To access the additional data, you need to license and install the premium on-demand package of the reference address database for the United Kingdom. Effective in version 5.7.0, United Kingdom reference address databases have the following different versions:

- `GBR5BI_03.ZIP` and `GBR5FC_03.ZIP`, which contain the extended data for business names and addresses. These packages work with version 5.7.0 and later.
- `GBR5BI_02.ZIP` and `GBR5FC_02.ZIP`, which contain the Royal Mail data with subbuilding descriptors. These packages work with version 5.7.0 and later.
- `GBR5BI_01.ZIP` and `GBR5FC_01.ZIP`, which contain the Royal Mail data without subbuilding descriptors. These packages work with version 5.6.0 and earlier.

## Province ISO Codes in Batch, Interactive, and Fast Completion Results

Effective in version 5.7.0, you receive the ISO 3166-2 province codes in batch, interactive, and fast completion results for addresses from the following countries:

- Canada
- France
- United States

Informatica AddressDoctor returns only the province part, an alphanumeric string of up to three characters, of the ISO 3166-2 code.

For a complete list of countries for which you receive province ISO codes, see the *Informatica AddressDoctor Developer Guide*.



# CHAPTER 15

## Version 5.6.0

This chapter includes the following topic:

- [New Features and Enhancements \(Version 5.6.0\), 65](#)

## New Features and Enhancements (Version 5.6.0)

This section lists the new features and enhancements in version 5.6.0.

### Enhancements to Brazil Address Validation

Effective in version 5.6.0, Informatica AddressDoctor adds the following improvements to validation of Brazil addresses:

- Addition of the third-level subbuilding information to the Delivery Address Line (DAL) and Formatted Address Line (FAL) output of a valid address. The Brazil address system contains three levels of subbuilding information. Informatica AddressDoctor returns the third level of the subbuilding information in the DAL and FAL elements of valid addresses.
- Validation of kilometer (KM) information in Brazil addresses as additional information in the Street Complete element. Informatica AddressDoctor can also validate the KM information in the input address against a KM range in the reference address database. For example, if the reference database contains the KM information as 20-30 range and the input contains 25 KM, Informatica AddressDoctor marks the input as valid because 25 is within the 20-30 range.

**Note:** Informatica AddressDoctor uses a comma, and not a decimal point, in KM information for Brazil addresses. For example, 23,5 KM, and not 23.5 KM.

### Enhancements to Address Validation in the DACH Region

Effective in version 5.6.0, Informatica AddressDoctor recognizes keywords such as *Zimmer* and *App* in the House Number field for addresses from Germany, Austria, and Switzerland.

Informatica AddressDoctor parses the *Zimmer* and *App* information in the House Number field as subbuilding information.

### INSEE Code as Enrichment to France Addresses

Effective in version 5.6.0, you can configure Informatica AddressDoctor to add the INSEE-9 code to a validated France address. The INSEE-9 code is also called the IRIS code. INSEE, or the National Institute for

Statistics and Economic Research in France, defines IRIS codes to divide France into geographical units. France has approximately 16,000 IRIS units.

To add the INSEE-9 code to a France address, license and install the France supplementary reference address database, and set the `EnrichmentSupplementaryFR` attribute in `Parameter.xml` to ON.

## Enhancements to India Address Validation and Parsing

Informatica AddressDoctor continues to fine tune the parsing and validation processes for India addresses. Informatica AddressDoctor also refines the address validation codes for India addresses to return more accurate process status and validation codes.

Address element correction of India address elements has been standardized to use the same logic that Informatica AddressDoctor uses for correcting addresses from other countries. Informatica AddressDoctor now considers inputs that follow a different casing than what is used in the reference database as exact match and validates the addresses accordingly.

Informatica AddressDoctor does not correct delivery addressline elements such as street, building, and organization if the reference address database does not contain these details for the address. In such situations, Informatica AddressDoctor copies the input to the output and downgrades the status codes and mailability values. Such addresses typically receive a C2 or V2 process status code. However, if the delivery addressline contains some other elements that Informatica AddressDoctor could validate, Informatica AddressDoctor might return higher values.

## Seven-Digit Postal Codes in Israel

Effective in version 5.6.0, Informatica AddressDoctor supports the seven-digit postal codes that Israel Post defines for addresses in Israel.

The seven-digit postal codes replace the five-digit postal codes that Israel post previously defined.

## Enhancements to Japan Address Validation

Effective in version 5.6.0, Informatica AddressDoctor introduces the following enhancements to Japan address validation:

- You can configure Informatica AddressDoctor to add the Gaiku code to validated Japan addresses. The Gaiku code is a four-digit code that identifies the block to which an address belongs. To add the Gaiku code to an address, set the `EnrichmentSupplementaryJP` attribute in `Parameters.xml`.
- You can use a combination of the new Choumei Aza code and Gaiku code in the address code lookup mode to retrieve a Japan address.
- You can retrieve both new and old Choumei Aza codes of an outdated address if you set the `MatchingExtendedArchive` attribute to ON. If the new and old Choumei Aza codes are different, you can use the new Choumei Aza code to retrieve the current address.

## Extended Data Support for Japan

Effective in version 5.6.0, Informatica AddressDoctor can validate *Ban* or block information in a Japan address.

Informatica AddressDoctor parses the Ban data from the input address to the dependent street field or the Street 2 field. A Japanese address lists the address elements in order of size, from the largest or most general unit to the smallest or most specific unit. The *Ban* element follows the *Chome* element and precedes the *Go* element in the address

## New and Improved Reference Address Database for Spain

Effective in version 5.6.0, Informatica AddressDoctor delivers new and improved reference data for addresses in Spain.

The reference data contains the most up-to-date address information for Spain, including subbuilding-level information.

## Taiwan Addresses in the Mandarin Traditional Chinese Script

Effective in version 5.6.0, you can use Informatica AddressDoctor to validate Taiwan addresses in the Mandarin Traditional Chinese script. You can process an address in the Mandarin Traditional Chinese script as a fielded address or as a partially-fielded address. You can also process a Taiwan address in the native script as a single-line address by using the Fielded Address Line (FAL) element.

When you validate Taiwan addresses in the native script as a single-line address in the FAL element, enter the address elements in the following order:

Locality 1, Locality 2, Locality 3, Street 1, Street 1 (Supplementary Information), Street 2, Street 3, House Number, Building, SubBuilding.

## Improved Data Coverage and Address Validation for Turkey

Effective in version 5.6.0, Informatica AddressDoctor delivers improved reference data for addresses in Turkey.

Informatica AddressDoctor also introduces the following improvements to address validation for addresses in Turkey:

- Identification of the building name and street name in the Delivery Address Line 1 field.
- Addition of a slash symbol (/) between a building element and a subbuilding element when the subbuilding element is a number.

## New and Improved Reference Address Database for UAE

Effective in version 5.6.0, Informatica AddressDoctor delivers new and improved reference data for addresses in the United Arab Emirates.

Informatica AddressDoctor offers the new reference address data for the United Arab Emirates as a premium on-demand package that requires an unlock code.

## Address Key Codes as Enrichment to the United Kingdom Addresses

Effective in version 5.6.0, you can retrieve Address Key codes as an enrichment in validated United Kingdom addresses. Address Keys are eight-digit numeric codes that map to addresses in the Postcode Address File from the Royal Mail.

To add an Address Key to an address, license and install the United Kingdom supplementary reference database, and set the `EnrichmentSupplementaryGB` attribute in `Parameters.xml`.

## Rooftop Geocoordinates for the United Kingdom Addresses

Effective in version 5.6.0, you can configure Informatica AddressDoctor to return rooftop-level geocoordinates for addresses in the United Kingdom.

Rooftop geocoordinates are the measured coordinates for the center of the roof for the primary building on a parcel of land. Rooftop geocoordinates help you pinpoint an address with the highest level of precision.

To include the rooftop geocoordinates for the United Kingdom addresses, license and install the `GBR5GCAP.MD` database, and set the `EnrichmentGeoCodingType` attribute of the `Process` element in `Parameters.xml` to `ARRIVAL_POINT`.

## Enhancements to United States Address Validation

Effective in version 5.6.0, Informatica AddressDoctor introduces the following enhancements to the United States address validation:

- Informatica AddressDoctor adds county information and subbuilding information to the address output when you perform address validation in batch mode, certified mode, fast completion mode, and interactive mode. Previously, Informatica AddressDoctor returned this information only in batch mode, certified mode, and interactive mode. Informatica AddressDoctor adds the county information to the Province 2 element in the address output. Informatica AddressDoctor also adds the subbuilding information to the SubBuilding element in the address output.
- When you validate a United States address that contains a valid ZIP code and a valid locality, Informatica AddressDoctor adds the county to the address output. Informatica AddressDoctor can add the county information regardless of an `IX` process status for the address. Informatica AddressDoctor adds the county information to the Province 2 element. If the Province 1 element is missing from the input address, Informatica AddressDoctor also adds the province information in the Province 1 field of the output address.
- When you validate a United States address that contains hyphenated house numbers, Informatica AddressDoctor moves the second part of the house number to the SubBuilding element.

## Configurable Output Format for Element Descriptors

Effective in version 5.6.0, you can specify the output format for street, building, and subbuilding element descriptors and directionals in Australia and New Zealand addresses. You can also configure the output format for the *Strasse* element descriptor in Germany addresses.

To specify the output format for the element descriptors and directionals, configure one of the following values for the `GlobalPreferredDescriptor` attribute in the `Parameters.xml` file:

- `DATABASE`. Returns the element descriptor that the reference database specifies for the address. If the database does not specify a descriptor for the address, Informatica AddressDoctor copies the input value to the output address. `DATABASE` is the default value.
- `LONG`. Returns the expanded form of the element descriptor in the input address.
- `SHORT`. Returns the abbreviated form of the element descriptor in the input address.
- `PRESERVE_INPUT`. Copies the element descriptor from the input address to the output address. If the input element descriptor is not an official synonym, Informatica AddressDoctor returns the corresponding value from the reference database.

## Support for New Versions of Operating Systems

Effective in version 5.6.0, Informatica AddressDoctor adds support for the following operating system versions:

- AIX versions 6 and 7
- RedHat Linux version 6
- Solaris version 11
- SUSE Linux version 11

**Note:** Informatica AddressDoctor supports the older versions of these operating systems only until the next major release of Informatica AddressDoctor.

## CHAPTER 16

# Version 5.5.0

This chapter includes the following topic:

- [New Features and Enhancements \(Version 5.5.0\), 70](#)

## New Features and Enhancements (Version 5.5.0)

This section lists the new features and enhancements in version 5.5.0.

### Single Line Address Validation

Effective in version 5.5.0, Informatica AddressDoctor can parse and validate single-line addresses that you enter in the `AddressComplete` element in the fast completion mode.

You need a separate unlock code for single-line address validation. For a complete list of countries for which you can do single-line address validation, see the *Informatica AddressDoctor Developer Guide*.

### Support for Taiwan

Effective in version 5.5.0, you can use Informatica AddressDoctor to validate Taiwan (Republic of China) addresses.

Note that Informatica AddressDoctor currently supports Taiwan addresses in the Latin script only.

### Support for Locality Aliases

Effective in version 5.5.0, you can retain locality aliases, also known as vanity names, in the validated output.

### Support for Java Version 7

Effective in version 5.5.0, Informatica AddressDoctor uses version 7 of the Java Run-Time Environment. To develop your own applications, you must install the Java Development Kit SE 7 on the development machine.

**Note:** You can continue to use the HP SE 5 version of the Java Development Kit on a machine that runs the HP-UX operating system.

## New Enrichments

Effective in version 5.5.0, Informatica AddressDoctor introduces the following enrichments:

- Postal Address Code (PAC) in validated Austria addresses.
- INSEE code in validated France addresses.
- Gmina codes, Locality TERYT IDs, and Street TERYT IDs in validated Poland addresses.

## New Addresses in South Korea

Effective in version 5.5.0, Informatica AddressDoctor supports the new street name-based address system in South Korea.

## Support for Preserving Input Scripts

Effective in version 5.5.0, you can preserve the input script of addresses from Belarus, China, Greece, Kazakhstan, Macedonia, Russia, and Ukraine.

## Support for Cyrillic Script in Belarus and Macedonia Addresses

Effective in version 5.5.0, Informatica AddressDoctor extends Cyrillic transliteration support to Belarus and Macedonia addresses.

You can enter and validate Belarus and Macedonia addresses in the native script.

## Enhancements to United States Address Validation

Effective in version 5.5.0, Informatica AddressDoctor introduces the following improvements to the United States address processing:

- Support for default unique ZIP code assignments.
- Support for locality name override.
- Improved handling of delivery instructions.
- Improved handling of leading zeros in sub-building number elements.

# CHAPTER 17

## Version 5.4.x

This chapter includes the following topics:

- [New Features and Enhancements \(Version 5.4.2\), 72](#)
- [New Features and Enhancements \(Version 5.4.1\), 72](#)
- [New Features and Enhancements \(Version 5.4.0\), 73](#)

### New Features and Enhancements (Version 5.4.2)

This section lists the new features and enhancements in version 5.4.2.

#### SERP 2014

Effective in version 5.4.2, Informatica AddressDoctor becomes SERP 2014-compliant.

### New Features and Enhancements (Version 5.4.1)

This section lists the new features and enhancements in version 5.4.1.

#### Address Code Lookup

Effective in version 5.4.1, you can enter a country-specific address code and retrieve the complete or partial address for the code in the address code lookup (ADDRESSCODELOOKUP) mode of Informatica AddressDoctor.

For a complete list of countries for which you can retrieve addresses from the address code lookup mode, see the *Informatica AddressDoctor Developer Guide*.

#### Address Enrichments

Effective in version 5.4.1, Informatica AddressDoctor introduces the following address enrichments:

- National Address Database ID as an enrichment to South Africa addresses.
- Brazilian Institute of Geography and Statistics (IBGE) code as an enrichment to Brazil addresses.



- Amtliche Gemeindeschlüssel (AGS), the locality ID, and the street ID as enrichments to Germany addresses.

## Country-Specific Improvements

Effective in version 5.4.1, Informatica AddressDoctor introduces the following country-specific address validation and parsing improvements:

- Native parsing for China. The parsing improvements enable better-quality address validation for China.
- Support for the additional two characters that Swiss Post has added to the Swiss postal codes.
- Ability to return new address code for deprecated or outdated addresses for Japan.
- Parsing and validation improvements for Japan addresses, including the following:
  - Transliteration of the JIS-2004 Japanese character set into the Latin character set.
  - Preserve input script configuration for Japan addresses.
- Support for additional variations of Post Office Box values in Australia addresses.
- Performance improvements for India address validation.
- Ability to return suggestions for partial or incomplete Indian addresses in Interactive mode.

## Logical Sorting of House Numbers

Effective in version 5.4.1, Informatica AddressDoctor returns a list of house numbers in logical order instead of alphanumeric order.

For example, Informatica AddressDoctor now sorts and returns numbers in the following logical order:

1, 2, 3, 11, 12, 13, 14, 21, 22

## Unlock Codes and Engine Expiration

Effective in version 5.4.1, Informatica AddressDoctor introduces new unlock codes for supplementary databases. You must reinitialize the 5.4.1 engine with the new unlock codes in order to enable the supplementary databases.

In addition, the `GetConfig.xml` file reflects the status of the engine at the time of the `AD_Initialize` call.

## SendRight Certification

Effective in version 5.4.1, Informatica AddressDoctor becomes SendRight 2014-compliant.

# New Features and Enhancements (Version 5.4.0)

This section lists the new features and enhancements in version 5.4.0.

## Point Address Geocoding

Effective in version 5.4.0, you can configure Informatica AddressDoctor to provide point-address geocoordinates in the result output. Point Address Geocoding enables highly accurate and precise “to the

premise” geocoding points for properties and premises. Informatica AddressDoctor supports the following types of point-address geocoding:

- Arrival Point geocoding. The geocoordinates are calculated for a point that is placed in the center of a street segment in front of the house.
- Parcel Centroid geocoding. The geocoordinates are calculated for a point that is at the geographic center of the parcel of land.

For a complete list of countries for which you can receive point address geocoding, see the *Informatica AddressDoctor Developer Guide*.

# CHAPTER 18

## Version 5.3.x

This chapter includes the following topics:

- [New Features and Enhancements \(Version 5.3.1\), 75](#)
- [New Features and Enhancements \(Version 5.3.0\), 76](#)

## New Features and Enhancements (Version 5.3.1)

This section lists the new features and enhancements in version 5.3.1.

### Address Enrichments

Effective in version 5.3.1, you can retrieve the following address enrichments:

- The Choumei Aza code as an enrichment to Japan addresses.
- The Unique Delivery Point Reference Number as an enrichment to the United Kingdom addresses.
- The Postal Address Code as an enrichment to Serbia addresses.

### Address Resolution Codes

Effective in version 5.3.1, Informatica AddressDoctor extends support to the address resolution code (ARC).

### Extended Element Result Status

Effective in version 5.3.1, Informatica AddressDoctor provides Extended Element Result Status (EERS) values in the result output.

### Enhancements to Canada Address Validation

Effective in version 5.3.1, Informatica AddressDoctor introduces the following enhancements to Canada address validation:

- Multilanguage support
- Thirteen-character abbreviation for localities
- Rural Route information

## Country Improvements

Effective in version 5.3.1, Informatica AddressDoctor offers improved address validation logic for the following countries:

- France
- South Africa
- China
- Japan
- United Kingdom
- Serbia

## New Features and Enhancements (Version 5.3.0)

This section lists the new features and enhancements in version 5.3.0.

### Address Resolution Code

Effective in version 5.3.0, Informatica AddressDoctor introduces the address resolution code (ARC), a twenty-character output string that is similar to the element result status field.

Informatica AddressDoctor populates the ARC for all non-valid (process status = lx) records. The address resolution code explains why an address is rejected and directs you to possible solutions.

### Extended Element Result Status

Effective in version 5.3.0, Informatica AddressDoctor introduces the extended element result status (EERS) code, a twenty-character output string that is similar to the element result status field.

Informatica AddressDoctor populates the EERS value for valid or corrected addresses. The code indicates that additional information may be available in the reference database for the given address.

### Standardization of Non-valid Address Elements

Effective in version 5.3.0, you can configure Informatica AddressDoctor to standardize address elements for non-valid (process status = lx) addresses. Standardized addresses can improve downstream business processes such as matching and de-duplication.

### Dual Address Priority

Effective in version 5.3.0, you can specify the type of address against which Informatica AddressDoctor should validate an address. This is useful if the input address contains more than one type of address such as street address and delivery service or rural route address.

### Additional Results in Fast Completion and Interactive Modes

Effective in version 5.3.0, Informatica AddressDoctor increases the upper limit of the suggestion list from twenty to one hundred results. In addition, you can configure Informatica AddressDoctor to expand house number ranges for countries where individual house numbers exist.

## Support for Ireland

Effective in version 5.3.0, Informatica AddressDoctor supports validation of Ireland addresses.

## British Forces Postal File

Effective in version 5.3.0, Informatica AddressDoctor implements the Royal Mail British Forces Post Office (BFPO) data.

## Multilanguage Support for Belgium

Effective in version 5.3.0, Informatica AddressDoctor introduces multilanguage support for Belgian addresses.

You can specify the language of the output, or you can preserve the language of the input address. Use the `PreferredLanguage` attribute to write the output address in French, Flemish or German.

## Language ISO Code Output

Effective in version 5.3.0, Informatica AddressDoctor can write the ISO code language as output when the output address contains data from the reference database.

The output is an ISO 639 3-letter code. For example, DEU for German. For transliterated output, Informatica AddressDoctor reports the original language. For example JPN for romanized Japanese output.

## Austrian Postal Changes

Effective in version 5.3.0, Informatica AddressDoctor supports the latest address format for Austria. Austrian Post changed its address format in 2011.

## Additional Countries and Territories

Effective in version 5.3.0, Informatica AddressDoctor extends support to the following countries and territories:

- Curacao (CUW)
- Sint Maarten (SXM)
- Bonaire, Sint Eustatius and Saba (BES)
- Montenegro (MNE)
- Serbia (SRB)
- South Sudan(SSD)

Effective in version 5.3.0, Informatica AddressDoctor discontinues support for the following countries and territories:

- Serbia and Montenegro (SCG)
- Netherlands Antilles (ANT)

## SubBuilding Changes in Australia Addresses

Effective in version 5.3.0, Informatica AddressDoctor validates addresses with sub-building information for Australia addresses in batch and interactive modes.

Subbuilding data is available in the Australia reference address database released in August 2012 and later. Note that Informatica AddressDoctor supports two versions of the Australia reference address databases to ensure compatibility with previous versions of Informatica AddressDoctor. Australia reference address databases that contain the subbuilding information are `DB5_AUS5BI_02_YYMMDD.zip` and `DB5_AUS5FC_02_YYMMDD.zip`. The Australia reference address databases that do not contain the subbuilding information are `DB5_AUS5BI_01_YYMMDD.zip` and `DB5_AUS5FC_01_YYMMDD.zip`.

## Singapore Updates

Effective in version 5.3.0, Informatica AddressDoctor validates floor, suite, and door values in Singapore addresses. This is supported in all process modes. You require the `DB5_SGP5BI_02_YYMMDD.zip` database package and a separate unlock code to receive the subbuilding information.

## Japan Updates

Effective in version 5.3.0, Japan reference data includes house numbers and address codes for Japan. Due to these changes, Informatica AddressDoctor introduces a new format of the Japan reference address database:

- `DB5_JPN5BI_02_YYMMDD.zip`
- `DB5_JPN5FC_02_YYMMDD.zip`

## Certifications

Effective in version 5.3.0, Informatica AddressDoctor is officially certified by five postal organizations around the globe: the United States Postal Service, Canada Post, Australia Post, New Zealand Post, and La Poste of France.

# CHAPTER 19

## Version 5.2.x

This chapter includes the following topics:

- [New Features and Enhancements \(Version 5.2.9\), 79](#)
- [New Features and Enhancements \(Version 5.2.8\), 80](#)

## New Features and Enhancements (Version 5.2.9)

This section lists the new features and enhancements in version 5.2.9.

### Country Improvements

Effective in version 5.2.9, Informatica AddressDoctor offers improved address validation for the following countries:

- Italy
- Netherlands
- Singapore
- Hong Kong
- Malaysia
- United Kingdom
- Germany
- United States.

United States improvements include support for eLOT sequence numbers and street name aliases.

### Enhancements to India Address Validation

Effective in version 5.2.9, Informatica AddressDoctor provides enhanced parsing and validation operations and also provides enhancements to the India reference database.

Informatica AddressDoctor does not support the parse-only (PARSE) mode for India address validation.

Note that older versions of the database are incompatible with version 5.2.9. Use the older database for version 5.2.8 and earlier versions, and use the new database for version 5.2.9 and later versions.

## Enhancements to Transliteration, Parsing, and Formatting for Japan Addresses

Effective in version 5.2.9, Informatica AddressDoctor has made significant improvements to the way Japan addresses are processed and validated.

Due to these changes, the format of the Japan reference address database has changed. To obtain the new functionality, download the new database for Japan.

If you use a previous version of the API with the new database, you do not benefit from the enhancements in version 5.2.9.

## New Features and Enhancements (Version 5.2.8)

This section lists the new features and enhancements in version 5.2.8.

### CAMEO Social and Demographic Profiles

Effective in version 5.2.8, Informatica AddressDoctor returns CAMEO code values for addresses from a number of countries. CAMEO codes from the Callcredit Information Group provide consumer classification systems that indicate the socio-economic and geo-demographic profiles of neighborhoods across the world.

For a complete list of countries for which you can receive the CAMEO codes, see the *Informatica AddressDoctor Developer Guide*.

### Australian Localities and Vanity Names

Effective in version 5.2.8, Informatica AddressDoctor retains a valid vanity name from an input in the output when you validate an Australia address in the certified mode.

### Incremental Change File for Australia

Effective in version 5.2.8, Informatica AddressDoctor supports the Incremental Changes File through the AMAS Certified Software Program. The file contains a list of delivery point IDs that have changed between releases of the Postal Address File.

### Czech Republic Address Validation Enhancements

Effective in version 5.2.8, Informatica AddressDoctor provides district numbers in the Czech Republic reference address database.

### AddressType Output Field

Effective in version 5.2.8, Informatica AddressDoctor returns the AddressType information for all countries whose reference data supports the identification of the address type.

### SERP and AMAS Certification

Effective in version 5.2.8, Informatica AddressDoctor is compliant with the respective requirements for SERP and AMAS 2012 certification.