# precisely

# EngageOne Generate

Version 6.6 Service Pack 11

### Release Notes

EngageOne Generate is part of Precisely EngageOne Compose and this Service Pack 11 release of Generate 6.6 contains fixes to certain reported issues and new features. Software and associated documentation is provided as a download.

For the protection of our customers, Precisely does not disclose, discuss or confirm security issues. Keeping your software up to date is one of the most important things you can do to maintain your environment's security. Precisely strongly encourages customers to stay current by upgrading to the latest release for EngageOne Compose Generate.

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### Release content

Software and associated documentation is provided as a download.

# Changes in this release

### Changes in z/OS requirements

The Generate compiler on z/OS has been upgraded.

This requires:

- A small increase in Generate Memory usage, requiring the default memory allocation to be increased.
- A small increase in the size of the z/OS Generate executables, which will require additional space.

### Merged paragraph output

Generate will no longer honor the **Design Merged Paragraph** feature where the second paragraph is separated from the first by a system variable in the design logic map. This change ensures that the correct system variable value is produced.

### Language support

From this release, Generate no longer supports localized messages in:

- Portuguese (Brazilian)
- Russian
- Chinese (Simplified)
- Japanese
- Korean

Generate messages for these languages will appear in English.

### Security updates and bug fixes

Security findings in EngageOne Generate have been remediated.

### End of support for PCE

From this release, support for PCE is withdrawn. Although you may continue to use PCE, support, including fixes, will no longer be available. Note that EngageOne Enrichment is the recommended replacement for PCE, click here to view this guide.

### Minimum JRE 8 requirement for plug in charts on AIX and Solaris

The minimum JRE version required for Generate plug in charts composition on AIX and Solaris has changed from 1.5 to 1.8.

### Added Generate host operating system levels

Generate has been certified on the following additional host operating system levels;

- Z/OS 2.4
- RHEL / CentOS Linux (x64) 8.2
- Amazon Linux release 2
- Oracle Solaris 11.1+ on SPARC

### Windows Generate Digital signature

Windows 64 Bit Generate programs have been digitally signed to allow Generate programs to execute with a trusted digital signature from a recognized provider.

#### SHA256 Generate Checksums

Each Generate release media zip/tar file is accompanied by a matching .sha256sum file to allow independent verification that the release media zip/tar file has not been altered.

### PCE AFP NOP support

The PCE =NOP CE command can be used to Insert a NOP Comment into PCE AFP output.

Refer to the Generate Production Guide for syntax and details.

### Generate Server mode optional port auto-allocation

Generate Server mode will optionally request the operating system to auto-allocate a port number if either <code>socket:0</code> or <code>port:0</code> are specified. In addition, Generate will report the Socket allocated via GEN0864I information message to allow requests to be submitted to the relevant port.

### DOC1RPU - Optional AFP image Begin / End Page Segment wrapper

AFP Color - FS45 - images extracted from Designer Published resources and deployed to an AFP Image resource library for AFP output using non embedded resources, require the following new DOC1RPU OPS setting to wrap the Designer published images in the necessary AFP Begin / End Page segment structure;

```
<AFP>
UsePageSegment = TRUE ; Values TRUE | FALSE , Default FALSE
```

Generate on Z/OS - Line drawing QR Code barcode support for Postscript output

Generate Postscript output on Z/OS now supports Line drawing QR Code barcodes.

Generate error reporting improvements for image names and font subset failures.

Generate now reports;

- Design image name when images cannot be found in the run-time resources.
- Meaningful reasons for PDF / Postscript font subset failures, allowing users to diagnose and fix the subset failures.

### Localization

Generate is available for the following languages:

- English
- French
- French Canadian
- German
- Unified Spanish

Translated versions of the user documentation is provided with this release. Utility programs and other resources are in English only.

# Security

As of Generate 6.2 and above, there is no license (keycode) requirement when running any Generate program. Generate configurations specifying an existing license will continue to be honored but are now optional.

# Compatibility

Applications created in DOC1 5.1 onwards are compatible with this release of Generate. The application database from these earlier versions will automatically be upgraded and application design rules will run without the need to regenerate them.

### **Upgrading from 5.6 and earlier – please note the following:**

### Issues with Windows fonts

Successive updates to fonts in Windows 7, 8.1 and Windows 10 have made the True Type (.TTF) Font files supplied by Windows:

- · Significantly larger
- Have significant line spacing differences compared to those supplied with earlier Windows Versions.

### It is important to note that:

- Design Content may alter due to the updated font spacing and that this will be reflected in republished Generate output.
- Generate Output size will be significantly larger and may impact Generate performance compared to that obtained using earlier font versions.

### **Documentation**

Documentation is included in the Designer release distribution in the 'docs' folder.

The following manuals are available with EngageOne Generate 6.6:

Document	Version
Designer User's Guide  This guide provides end-to-end information about designing a publication and preparing it for production. This guide is available in all supported languages, see Localization on page 5 for details.	6.6 Service Pack 11
Designer Utilities  This guide provides information on utilities that are available with Designer and that require some direct programming or command line submission. In particular it covers the Application Import utility and running DOC1 Publish. The guide is provided in English only	6.6 Service Pack 11
Production Guide  This guide provides information on putting publications into production. It also provides information about those parts of the core environment that require some direct programming and utilities that require command line submission. In particular it covers running Generate, creating and running PCE scripts, information about user exits and working with the RPU and DIME utilities. The guide is provided in English only.	6.6 Service Pack 11
Designer Installation Guide  This guide describes the process to install and configure Designer and its associated features. The guide is provided in English only	6.6 Service Pack 11
Designer Diagnostic Message Guide  This guide provides information on diagnostics messages issued by Generate and selected Generate Utilities. The guide is provided in English only	6.6 Service Pack 11
Designer Best Practice Recommendations for eHTML  This guide give guidance on designing publications intended for eHTML output, describing best practices for each of the supported layout options.	6.6 Service Pack 11
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### **Updates to the User Guides**

All manuals are also published in PDF format on the **EngageOne Compose Support website**.

# Customer support

If you find that you require any assistance, contact our Support team - Technical Support/Client Service Contacts .

# 6.6 Release lifecycle

Release Version		Level of Support
EngageOne Generate 6.6 SP11	GA	Investigate, Troubleshoot issues, Provide workarounds, Regular patches, Vulnerability updates
EngageOne Generate 6.6 SP10	GA - 1	Investigate, Troubleshoot issues, Provide workarounds, Regular patches for critical (Severity 1 issues).
EngageOne Generate 6.6 SP9	GA - 2	Phone & Best Effort Support. Will provide workarounds for non-critical issues
EngageOne Generate 6.6 SP8	GA - 3	Phone, Knowledge Base & Best Effort Support only
EngageOne Generate 6.6 SP7	GA – 4 and below	Phone, Knowledge Base & Best Effort only

# Withdrawn support

#### From 6.6 SP11 onwards

### **End of support for PCE**

Support for PCE is withdrawn. Although you may continue to use PCE, support, including fixes, will no longer be available. Note that EngageOne Enrichment is the recommended replacement for PCE. Click here to view this guide.

### Language support

From this release, Generate no longer supports localized messages in:

- Portuguese (Brazilian)
- Russian
- Chinese (Simplified)
- Japanese
- Korean

Generate messages for these languages will appear in English.

### From 6.6 SP10 Release update 4 (June 2020) onwards

### End of support for older operating system levels and replacement with the current level

The following older Operating system levels are no longer supported and have been replaced by the current vendor supported level shown in the table below.

Operating system	Replaced by
RHEL 6.10	*RHEL 7.7 +
CentOS 6.10 and 7.6	*CentOS 7.7 +
Suse Linux 11 (x64) for all SP levels	Suse Linux 12 (x64) +
Solaris 10 (SPARC)	Solaris 11.1 (SPARC) +

<sup>\*</sup>Earlier RHEL/CentOS 7.x versions may be compatible but are not guaranteed.

Note that although you may continue to use the earlier operating system levels, support, including product fixes, is no longer available. We therefore recommend your earliest migration to the current vendor supported levels listed above.

### The following operating systems are retired for EngageOne Designer/Generate

- Redhat Linux (x64) 5.x (Kernel 2.6.18 / glibc below 2.17)
- Suse Linux 11 (s390) aka Zsuse/Zlinux
  - Generate support for these deprecated O/S versions is withdrawn from this release. The minimum Linux x64 Generate supported O/S Version kernel is 3.10.0 with a minimum C runtime library(glibc) version 2.17.

In line with the end of support for Windows 7, distribution of 32-bit Generate utilities will end after the Designer/Generate Service Pack 11 release. Customers are advised to migrate to the 64-bit utilities as this zip file now contains all Generate utilities including those that were previously only available with 32-bit Generate.

- Z/OS 2.2 support for this O/S version is withdrawn from this release as per the O/S Vendor's End of life policy. Z/OS 2.3 is the minimum supported O/S level for this host.
- AIX 7.1 TL4 Generate support for this O/S version is withdrawn from this release and is replaced by AIX 7.1 TL5.

### Language support

Support for the following languages is withdrawn:

- Chinese (Simplified)
- Japanese
- Korean
- Portuguese (Brazilian)
- Russian (Cyrillic)

### From 6.6 SP10 onwards

The following operating systems are retired for EngageOne Designer/Generate:

- Windows Server 2008 R2
- Windows 7 SP1 Client (32 and 64 Bit)

The following EngageOne Designer, Generate, Key Map Generator and PCE versions are no longer supported:

Version History	Date of Availability
Version 6.5 (incl. all 6.5.x)	June 30, 2016

### Version History

### Date of Availability

Version 6.4 (incl. all 6.4.x)	November 13, 2015
Version 6.3 (incl. all 6.3.x)	August 17, 2015
Version 6.2 (incl. all 6.2.x)	June 11, 2015
Version 6.1 (incl. all 6.1.x)	January 30, 2015
Version 6.0 (incl. all 6.0.x)	March 30, 2012
Version 5.6 (incl. all 5.x)	March 17, 2010

### From 6.6 SP9 onwards

the following output devices are no longer supported by Generate:

- VIPP
- VPS
- PPML
- IJPDS
- MIBF
- Metacode

### the following operating systems are no longer supported by Generate:

- HP-UX (PA-RISC)
- HP-UXi (Itanium)
- IBM AIX 6.1 (TL5) Runtime Library Level 12.1 (64-bit)
- IBM OS/400

### From 6.6 onwards

### the following operating systems are no longer supported:

- Microsoft Windows 2008 Server Standard (SP2) 32 and 64 Bit
- Z/OS 1.13 vendor support for Z/OS 1.13 has ended. This version is no longer supported by Generate.

#### From 6.2 onwards

### the following operating systems are no longer supported:

• OS/400 (V5R4M0)

• OS/400 (IBM iSeries)

### From 6.1 onwards

### the following operating systems are no longer supported:

- HP TRU64
- Microsoft Windows XP (SP3) 32 and 64 Bit
- Microsoft Windows Vista (SP1) 32 and 64 Bit
- Microsoft Windows 2003 Server Standard (SP2) 32 and 64 Bit

#### From 6.0 onwards

HP/Compaq/DEC OpenVMS is no longer supported.

# Added support

Generate has been certified on the following additional host operating system levels;

- Z/OS 2.4
- RHEL / CentOS Linux (x64) 8.2
- Amazon Linux release 2
- Oracle Solaris 11.1+ on SPARC

# Fixed issues in this release

Key	Summary
CES1-69102	When producing AFP on Z/OS which uses features which require a System TEMP file , such as External Keyed Images, Incomplete records are written to the AFP print file
	Resolution: Generate on Z/OS has been updated such that when producing an AFP print stream, the record structure of the system TEMP file (if created), matches that of the AFP print stream, producing complete AFP Records in the output.
	Workaround: In Generate 6.6.x versions prior to the fix,
	1) Define an explicit TEMP file in the JCL for each printstream instead of relying on System TEMP files.
	and
	2) Update the OPS file to reference a specific TEMP file as shown below:-
	<pre><output> Output1=DD:AFPOUT, DD:TMPADD:AFPOUT the DD name of the print output file (defined in JCL) DD:TMPA the DD name of the temp file associated output1 (defined in JCL)</output></pre>
	Note that the record structure of the defined TEMP file must match that of the print output file.
CES1-70221	Z/OS Generate using default AFPDS Type1 fonts splits Type1 font records without AFP Record introducer x5A, rendering the AFP invalid.
	<b>Resolution:</b> Z/OS Generate for AFP Type1 splits AFP Type1 font records with correct x5A record introducer.
	<b>Workaround:</b> In Generate versions prior to the fix use alternate True Type or Bitmap font outputs to produce valid Z/OS AFP font records.
CES1-69947	Switching between password encrypted -unencrypted causes Generate in Server mode to abort with missing images in PDF Output.
	<b>Resolution:</b> Generate Server mode has been corrected for PDF image switching.
CES1-68542	Empty Delimited data fields not being treated as empty, causing some applications relying on <b>IsSet</b> or <b>IsNotSet</b> to abort

6.6.10.230 versions did not cater for empty delimited data fields. Generar now caters for empty delimited data fields as well as previous Delimited du used in plug-in charts scenario.  CES1-66899  PCE hangs when reading Input files such as Input Journals or User Exit control file.  Resolution: Windows PCE (32 and 64 Bit) file reading mechanism has be updated to cater for Text files End of file.  CES1-66736  Plug in Line Chart does not show line when values are empty  Resolution: Plug in Line Charts have been updated to show Line when values are empty.  CES1-66482  EBCDIC "Host Default" PostScript and ASCII "Windows 1252" PostScript produce invalid Line Drawing QR Code Barcodes.  Resolution: Generate creation of PostScript QR Code Line Drawing commands on Z/OS has been corrected to produce valid PostScript QRCo Line Drawing barcodes.  CES1-69586  Generate fails when a template contains a single, or merged, paragraph with orphaning set, that break across three or more pages.  Resolution: Generate does not support splitting paragraphs over more the two pages when the orphaning option is set. Generate has been updated to turn off orphaning for a paragraph that breaks two or more page boundaries.  Workaround: Turn off paragraph orphaning for a single paragraph that spans three pages.  CES1-70621  Generate hangs / fails to complete when using DIJ with untrimmed pata Resolution: Generate DIJ output now caters for Fields with untrimmed spaces and completes.  CES1-70553  Requirement for PCE to place NOPs at the start of the each page in an Al document. Thr Existing =OUN command does not meet the requirement it places the NOPs inside AFP Presentation Text group.	Key	Summary
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	CES1-70553	Requirement for PCE to place NOPs at the start of the each page in an AFP document. Thr Existing <b>=OUN</b> command does not meet the requirement as it places the NOPs inside AFP Presentation Text group.
requirement.		<b>Resolution:</b> Added a new CE <b>=NOP</b> command to PCE to meet the requirement.
CE command syntax:		CE command syntax:
=NOPtext		=NOPtext

Key	Summary
	The 2 dots representing the 2 spaces required between NOP and text, like all other commands of the same length. In PCE AFP output, the PCE NOP content is written at the start of the page, immediately before the Active Env Group. Refer to the <i>Composition Edit Commands</i> section in the Generate Production Guide for detailed information.
CES1-71092	Windows & UNIX 64 Bit PCE aborts when a substring start parameter is a negative number.
	<b>Resolution:</b> DOC1PCE has been corrected to ensure it handles negative values for substring start parameters. In such cases a negative substring value returns an empty string, which is in line with existing behavior for other error scenarios.
	<b>Workaround:</b> Ensure you check for a negative value in your PCE script for the Start position and if so do not call the substring.
CES1-70357	When a barcode with a rotation angle is located within a table cell, the barcode is incorrectly drawn or missing in the Generate and Preview output. The problem affects barcodes, images, shapes and textboxes with a Rotation angle when placed within table cells.
	<b>Resolution:</b> Generate/Preview now correctly rotates barcodes and other items with a Rotation angle when placed within table cells. Note that there is no need to re-publish HIP files for Generate.
	Workaround:
	Barcodes: Can be configured to print at 90 degrees orientation in the barcode properties.
	Shapes: For some rotation angles, shapes can be configured to look like their rotated version.
	Images: Images can be rotated externally using other software and imported into Designer.
	Text Boxes: For Text boxes containing only text, the text can be rotated in 90 degree increments using the "Format->Rotate Text" menu option. Note - the text box dimensions may need adjustment.
CES1-69607	Specifying message leading in a Message Stream can cause the first paragraph in the stream to be positioned lower than it should be.
	<b>Resolution:</b> Generate now suspends Merge paragraph processing when Message Stream content is being measured and positioned.
	Workaround: In Generate versions prior to the fix, where possible, do not use the Designer <b>Merge with previous paragraph</b> feature in any document in the Publication when using Content Author Message Stream.

Key	Summary
CES1-71282	Generate AFP output using a Designer auto-generated codepage that has incorrect Code Page Descriptor - CPD - GCIDLength of Hex 80 instead of Hex 08 as per AFP specification. This causes errors in AFP post-processing.
	<b>Resolution:</b> Designer Publish for AFP Codepage has been updated to produce AFP codepage of correct CPD GCIDLength as per specification.
CES1-70442	Windows Generate .exe and dll are not digitally signed.
	<b>Resolution:</b> From 6.6 Service Pack 11 onwards, Windows 64 bit Generate .exes and .dlls are now digitally signed
CES1-69484	Placing multiple Object Container images as required by Designer AFP Device <b>Use originals</b> on the same page causes the AFP to fail to print.
	Resolution: Generate AFP object container image output has been updated to set the codepage before each image is placed allowing the AFP to be printed.
CES1-69517	If Generate finds any issues in the subsetting of fonts it writes a warning message to the output. This message contains an error code which is not descriptive of the issue:
	GEN0841W Font subsetting failed - reason code 25
	<b>Resolution:</b> Generate has been updated to add the font name and additional information to Generate message when issues are detected.
	In this case the issue was that the fonts being added to the PDF had not been used in the publication and therefore had zero characters marked for inclusion. In this case the additional information tells the user the font name and that no characters were used:
	GEN0841W Font subsetting failed - reason code 25, Font 'Calibri-Bold' no characters marked for inclusion in subset font.
	When the PDF documents are merged together the font subsetting is applied for all characters used in all publications in the job. When PDF Compound is used, the fonts are subset on a per-publication basis and included in the output once for each publication generated.
	If there is conditional logic in the template that is not executed in a specific publication then you can have fonts that are not used in the publication having no characters marked as used.
	This change to Generate is not limited to the 'code 25' issues. Any font subsetting issue that put out the 'reason code X' message will now report the font name and provide more information on the cause.

Key	Summary
CES1-68922	DOC1MAKE 6.6.x - the Production Guide default values does not show the $/E=Y$ (Embed = Yes) switch to allow embedding of images in the Generate output.
	<b>Resolution:</b> The Generate Production Guide DOC1MAKE example updated to show $/E=Y$
CES1-68855	Generate error reporting of invalid record / field content adds unwanted extra characters
	<b>Resolution:</b> Generate error reporting of record data content limited the length of record data reported, such that record text was truncated at 30 characters. Generate now truncates at 30 characters, or the length of record, whichever is lower. This allows the record data to be reported correctly.
CES1-68487	Incorrect total number of printed pages using Page Number system variables to a journal for a job containing two publications, one of which uses merge paragraph.
	<b>Resolution:</b> Generate has been updated such that all paragraphs are positioned on the page before the page number is calculated for system variables that determine the current publication/document/job page number. This results in the correct Page number being written to the Journal.
	Workaround: In versions prior to this fix, insert a Page Check logic item (Insert > Control Objects > Condition > Page Check) immediately before the logic that uses the Document Page Number system variable in Designer and re-publish the application. The Page Check does not need to contain any additional logic.
	Note that this will prevent the following paragraph (if there is one) from merging onto the initial paragraph. This workaround should be effective from Generate versions 6.1GA onwards.
CES1-67913	Unexpected characters may appear in QR Code barcodes when the input data is 500 characters or longer. In some instances Generate might also abort.
	<b>Workaround:</b> There are no workarounds for more than 500 characters in QR Code in Generate versions prior to this update.
	<b>Resolution:</b> Generate has been updated to cater for the maximum number of cells required by a Mode 40 Numeric QR code, Note - There is a maximum QR Code limit of 1024 characters. Any extra characters beyond this are discarded.
CES1-66865	EngageOne Server starts Generate server mode with a port number it requests. However on active systems this port can be in use by the time the

Key	Summary
	process starts up at which point the requests cannot be serviced and no output requests processed.
	<b>Resolution:</b> Passing a port number either with socket:0 or localhost:0 to Generate when starting up in server mode will allow it to open a port allocated by the system. Generate message GEN0864I is output during startup to report the port that it bound on. This ensures that the port will be available to service requests.
	GEN0864I Socket allocated: 'xxxxx'
	Where xxxx is the automatically allocated port number.
CES1-67182	Delimited data with repeating fields using a governor field was not able to handle different number of repeats. This led to incorrect data being processed and incorrect repeating data in the output
	<b>Resolution:</b> Generate has been updated to handle repeating field group delimited data with different values in Governor field correctly. Generate now also caters for non-repeating fields after the variable number of repeating field group fields which caused Generate to abort prior to this fix.
CES1-67318	Open Type (Compact Format) Western language (ANSI) design fonts produced incorrect PDF /OpenType Font subtype entry in the font dictionary, causing this to fail on PDF printers.
	<b>Resolution:</b> Generate PDF Font subtype for the dictionary entry of an OpenType Compact Format font has been corrected from OpenType to Type1, allowing PDF OpenType fonts to print correctly
	Notes:
	<ul> <li>Generate OpenType PDF (ANSI encoding) will show the Font subtype as Type1 in PDF Readers such as Adobe Acrobat instead of "Unknown" as in previous 6,6,x versions</li> </ul>
	Generate Main PDF "FontDescriptor" (File3 entry) for these OpenType fonts will continue to refer to "OpenType" in compliance with the PDF specification.
CES1-65050	Composition aborts with No device metrics were found for font when running Batch composition on multiple documents containing Rotated Images.
	<b>Resolution:</b> Generate Server Mode Batch execution (Append Recompose) has been corrected to handle multiple documents with rotated images.
CES1-66555	An inconsistent number of pages produced from Windows PCE AFP Output where the order of input AFP files changes.

Key	Summary
	Resolution: The issue was resolved by removing code that erroneously checked on the end of file out of sequence with reading data from the input file. This caused PCE to detect an end of file situation although there was data remaining to be read. PCE has been updated to perform end of input file check correctly. The issue presented itself differently in the 32 and 64 versions of PCE due to the differing memory models in the 32 and 64 bit versions of PCE.
CES1-66654	PDF/A output using Design editor <b>Unicode language</b> does not adhere to the PDF/A-1b standard when produced using the PDF Output Device <b>Identity-H</b> encoding option.
	<b>Resolution:</b> Generate PDF/A output published using <b>Identity-H</b> has been corrected to validate against the PDF/A-1b standard and render correctly in Edge browser and other PDF Readers. Note that this change requires a new Generate but can be used with existing <b>Identity-H</b> Published resources.
CES1-66608	EngageOne Server Vault utilities <b>mrgdhip</b> and <b>pubproc</b> present with AIX, SUN and Z/Linux Distributions.
	<b>Resolution:</b> Following End of Support of all EngageOne Server 3.x versions , the EngageOne Server Vault utilities "mrgdhip" and "pubproc" have been removed from AIX, SUN and Z/Linux Generate TAR distributions
CES1-71736	Generate using Swiss QR Code for some data values fails when using strict Operating System memory allocation - Generate MMGX command line option.
	Resolution: Generate Swiss QR Code image creation memory handling has been corrected.
	Workaround: In 6.6.10.x versions prior to the fix, remove MMGX from the Generate command line, this will allow Generate to complete.
CES1-69429	When a barcode with a rotation angle is located within a table cell, the barcode is incorrectly drawn or missing in the Generate and preview output. The problem affects barcodes, images, shapes and textboxes with a Rotation angle when placed within table cells.
	<b>Resolution:</b> Generate/Preview now correctly rotates barcodes and other items with a Rotation angle when placed within table cells. There is no need to re-publish HIP files for Generate.
	Workaround: Barcodes can be configured to print at 90 degrees orientation in the barcode properties. For some rotation angles, shapes can be configured to look like their rotated version. Images can be rotated externally using other software and imported into Designer. For Text boxes containing only text, the text can be rotated in 90 degree increments using the

Key	Summary
	<b>Format-&gt;Rotate Text</b> menu option. Note that the text box dimensions may need adjustment.
CES1-69265	Windows images using Color profiles published using AFPDS Device option <b>Use Originals</b> (AFP Object Container format) produced invalid AFP output which failed to print.
	<b>Resolution:</b> AFP <b>Use Originals</b> Object container images now supports Color profiles.
CES1-64956	A long internal keyed image name produces incomplete/invalid eHTML image name.
	<b>Resolution:</b> Image device names in Generate were limited to 65 characters. The filename length has now been increased to max length to overcome this issue.
CES1-70684	Generate DIJ multiple outputs may abort in Server mode using Strict OS Memory management/Generate MMGX mode.
	<b>Resolution:</b> Generate DIJ Multiple outputs run to completion without error.
CES1-71309	AFP Duplex selection set in the AFP Device for each document required for AFP post-processing is missing.
	Resolution: AFP Generate changes added for the design action Duplex Tumble in releases 6.6.10.206-6.6.10.311 inadvertently removed the device duplex <b>Invoke Medium Map</b> selection. The Generate AFP Device <b>Invoke Medium Map</b> insertion for each document to allow post processing to function correctly has been restored.
CES1-67639	EngageOne PCE - Aborts when reading Designer HIP and Content Author HIM.
	<b>Resolution:</b> Common Designer / Generate HIP Reading libraries used by PCE have been reworked to resolve the issue and allow PCE to complete.
	Workaround: Use EngageOne PCE version prior to 6.6.10.218
CES1-70531	The following EngageOne Server Express Batch <advanced> OPS commands were not working via the doc1gen server interface for Generate Dynamic (Job switch) server mode :</advanced>
	Logfile=filename ReportMemoryUsage=Yes
	<b>Resolution:</b> These commands are now working with the following caveats:
	Only one log file can be used for all jobs in a single run.

Key	Summary
	If a different log file is specified for each job in a single run, all jobs will be logged to the first log file specified.
	The ReportMemoryUsage option does not produce meaningful results when used in MMGX mode,. Note this is the mode used for EngageOne Server.

# Fixed issues in previous 6.6 releases

Key	Summary
CES-65342	Plug In Chart (Chart Director) X and Y axis tickmarks failed to appear at high resolution such as 300dpi
	<b>Resolution:</b> The size of the tick marks on both X and Y axis were not scaling correctly when the graphic resolution was increased.
CES-63383	Diagnostic Message Guide - Action listed for Generate Message GEN0242I refers to incorrect host object codepage override.
	<b>Resolution:</b> The Diagnostic message guide Action for GEN0242I has been updated to refer to Generate "SCP" (Set code page) run-time parameter and to the specific codepage values needed for this parameter documented in the Production Guide (Appendix A - SCP).
CES-63286	Unable to set the Generate Lookup table code page used by EngageOne Server
	<b>Resolution:</b> New Generate OPS section <pre>LookupTableCodePages&gt; allows user to specify the lookup table code page for each individual LookupTable</pre>
	Example:
	<lookuptablecodepages> Env=UTF-8 StartOption=UTF-8 Contacts=UTF-8</lookuptablecodepages>
CES-62604	Publications with documents containing single paragraphs with widow/orphan processing, that spanned more than two pages caused doc1gen to crash.
	<b>Resolution:</b> Generate processing for a single paragraph with widow/orphan processing, spanning more than two pages has been updated to ensure that all pages in this scenario are processed correctly.
	Workaround steps:1
	<ol> <li>Break a single widow orphan paragraph into individual paragraphs.</li> <li>Keep widow orphan settings the same for all paragraphs.</li> <li>Enable paragraph numbering only for paragraphs that require it.</li> <li>Switch it off for all other paragraphs.</li> <li>When paragraph numbering is switched back on the sequence will continue from where it left off.</li> </ol>

Key	Summary
	To reset paragraph numbering the checkbox <b>Reset Numbering</b> must be ticked.
CES-63960/ CES-63949	<b>Issue 1 summary:</b> QRCode output using CRLF characters produces extra Line Feed
	<b>Resolution:</b> To get \r in the QR Barcode, you must change the barcode lookup file to contain a carriage return only, instead of carriage return and line feed characters.
	Issue 2 summary: Code 128 Barcode produces an extra Line
	<b>Resolution:</b> The Generate Code128 barcode algorithm has been updated from our barcode vendor to support carriage return and line feed correctly.
CES-63423	Generate runs in an infinite loop when using a nested multi-column balanced transaction table with widow set followed by a large parent table footer and where the parent footer overflows the page.
	<b>Resolution:</b> Generate has been updated in this scenario such that when the parent footer overflows the page, if the widow processing can not be satisfied, a new page is thrown instead of looping as in previous versions.
CES-63443	<b>Host Default</b> EBCDIC Postscript produced by Z/OS DOC1GEN placed all Line drawing barcode data in a single record , breaking the maximum PostScript record length and rendering the PostScript invalid.
	<b>Resolution:</b> Generate on Z/OS <b>Host Default</b> (EBCDIC) postscript data produced for Line drawing Barcodes has been updated to split the Line Drawing Barcodes on to separate records; one record for each complete invocation of the rectfill procedure.
CES-63329	<b>Issue 1 summary:</b> Generate 6.x (Windows 64 Bit), rotated images in PDF output produces unreadable (100% Black) Images.
	<b>Resolution:</b> 64 Bit Windows Generate was not handling rotated content correctly. Generate has been updated to convert the image on 64 Bit Windows.
	Workaround: In versions before this fix, use 32 Bit Windows Generate instead.
	Issue 1 summary: Generate 6.x (All) - EPS with a low quality embedded <b>Design</b> Preview TIFF Image renders the poor <b>Design Preview</b> image instead of the actual EPS Image
	<b>Resolution:</b> The image quality issue is due to the imported EPS file being an EPSF format containing a high-quality postscript version and low-quality TIFF version. The import process uses the TIFF version for display in the editor and for image conversions. The TIFF version of the image embedded in the EPSF file is the low quality patterned version.

Key	Summary
	Best Practice: Convert the EPSF file to a printing only EPS file for printing (without the windows preview embedded), to allow Designer and Generate to use the actual print resources for design and production.
CES-62611	External Keyed CMYK JPG images appear inverted in PDF output.
	<b>Resolution:</b> Generate has been updated to invert external keyed CMYK JPG images in PDF using the decode command so that these images are now displayed correctly.
	The update impacts external keyed CMYK JPG images only, as the same images are already inverted in the Designer publish process for internal design images.
	<b>Workaround:</b> Use Alternate format RGB JPG or BMP for External Keyed image PDF output.
CES-62794	Text output in a paragraph using a combination of Justified alignment and right-aligned user tabs may be wrapped differently in releases after 6.6.8.167, resulting in unexpected text positioning.
	<b>Resolution:</b> Generate has been updated so that the behavior is now correct for this combination. Generated output now matches that shown in the Designer editor.
	<b>Possible workaround:</b> It may be possible to workaround this issue by changing the paragraph alignment to <b>Left</b> , ensuring any right justified tabs have sufficient space for the text being placed, or using left aligned tabs.
CES-62433	The emulation of bold and italic font attributes was inconsistently applied to True Type font output if the text was split over two or more paragraphs, leading to a loss of the italic attribute on the second paragraph.
	<b>Resolution:</b> When an installed True Type font, for example, <b>HelveticaNeue LT 65 Medium</b> , does not support Bold or Italic, the attribute is emulated by Generate PDF output. Generate PDF Bold emulation has been removed as it is not supported.
	Generate PDF Italic emulation is now applied to each paragraph instead of just the first in the sequence, as in previous versions.
CES-62495	Structured XML Journal filenames characters are not written out as control characters leading to incorrect Structured XML Journal filenames.
	<b>Resolution:</b> Generate has been updated so that the XML special characters are written out correctly
	Workaround: Do not use XML control characters &<>" in the filenames.
CES-62266	Error handling behavior for option <b>Record data and skip publication</b> produces unexpected results.

Key	Summary
	<b>Resolution:</b> The <b>Record data and skip publication</b> feature is intended for use for missing or bad data fields within a publication dataset. This feature does not cater for invalid <b>Start of Publication</b> record keys.
	One of the error messages GEN0057W was found to be in error shown below :
	GEN0057W Record %1 of publication is a badly formed CSV record. Field %2 invalid.
	Two values are associated with this message; the second %2 was found to be invalid as it previously reported the wrong field; this has now been corrected.
CES-62217	Generate does not report an error condition when a data field containing a quoted string is missing the closing quote; this is a regression issue caused by CES-1912
	<b>Resolution:</b> Generate has been updated to report an error if a data field containing a quoted string is missing the closing quote.
CES-61432	When a transaction table is used within a column definition that specifies a spanning overflow footer, the <b>Spaning overflow footer</b> is not displayed correctly.
	Root Cause: Data for the Spaning overflow footer was erroneously taken from the Spanning overflow header
	Resolution: Generate has been updated to retrieve the correct data for the Spanning overflow footer.
CES-61166	Incorrect PDF output is produced by Generate when processing a publication using the updated Publishable Active Content. This occurs when the Publishable Active Content is updated by replacing or adding images.
	<b>Root Cause:</b> The updated/new image in the Publishable Active Content previously had no association with any output device.
	<b>Resolution:</b> Generate has been updated so that modified/updated images in Publishable Active Content are associated with the published output devices, and correct output is produced.
	<b>Workaround:</b> Re-publish the publication containing the updated Publishable Active Content.
CES-65342	Plug-In Chart (Chart Director) X and Y-axis tickmarks failed to appear at high resolution, such as 300dpi.
	<b>Resolution:</b> The size of the tick marks on both X and Y-axis were not scaling correctly when the graphic resolution was increased.
	Generate Chart Director has been updated so that the tick mark size increases in size in line with the graphic (image) resolution.

Key	Summary
CES-64398	Publish for AFPDS Outline Type1 produces German Umlaut in an unexpected code page position.
	<b>Resolution:</b> The default AFPDS Outline Type1 codepage - T1Z1148 - EBCDIC International + Euro - is used for Publishing Western European languages (such as German / Austria) producing the German Umlaut character in a specific position.
	To use a country specific Codepage (such as German) for AFPDS Outline Type1 fonts, the Override Resource Map can be used to associate a specific codepage for each published font style.
CES-63966	This issue occurs when generating multiple output, specifically to PDF and eHTML, with balanced columns. In this scenario, blank table output is produced.
	<b>Resolution:</b> When a table was being placed on the page in balanced columns, Generate was not calculating correctly how much space on the page, the table needs resulting in the presentation of white space. This situation would only be seen when Generate is creating HTML output and PDF output in the same run.
	Generate has been updated to correctly calculate the page space needed to produce the expected results.
CES-64225	EngageOne Server Metrics XML Journal (Neutral and Recompose) was missing a composition time entry.
	Resolution: Generate XML Metrics (Neutral and Recompose) Journal created for use by EngageOne Server has been updated to add a new <compositiontime> tag using HH:MM:SS format. This new element is located underneath the existing <compositiondate> Journal element.</compositiondate></compositiontime>
	Example:
	<pre><compositiondate>2019-12-12</compositiondate> <compositiontime>10:03:59</compositiontime></pre>
CES-61129	When processing rounded corner boxes and on invalid commands, the Generate Test Driver Comparison Report (DOC1DIFF) - Test Driver difference reporting tool aborted.
	<b>Resolution:</b> Generate Test Driver comparison tool (DOC1Diff) has been updated to:
	<ul> <li>prevent the tool from aborting when setting MFC recent files list.</li> <li>support Polyline commands in a Complex Polygon as used in rounded corners.</li> <li>allow Doc1Diff to continue processing commands after an invalid sub-command is found for a complex polygon.</li> </ul>

Key	Summary
CES-61508	PDF document attributes - version stamp has incorrect extra "<" at the end of the version.
	Resolution: version stamp corrected to remove trailing character.
CES-60483	Generate Server mode terminates unexpectedly on multiple submissions which produce large number of entries in the Document Interchange Journal (DIJ).
	<b>Resolution:</b> Generate Server mode DIJ XML output has been updated so that Generate will complete successfully and produce expected DIJ output when multiple requests are received.
CES-61190	Generate Started task aborts when switching to and from a Generate OPS which uses a temporary output file, needed for External Keyed image output.
	<b>Resolution:</b> Generate Started Task usage of Generate temporary files has been reworked to correctly open and close temporary files when requested via an OPS file.
CES-61189	Generate Started task produces invalid AFP Page Data Record output for second and subsequent Data submissions when a Generate temporary output file required, such as for External Keyed image output.
	<b>Resolution:</b> The temporary dataset defined in the print output section of the OPS file was not used by ZOS Generate started task.
	ZOS Generate started task has been updated to use the defined temporary output file.
CES-61177	Right aligned tabs with soft carriage return are mispositioned on the next line
	<b>Resolution:</b> Generate right aligned tab placement has been reworked to take account of soft carriage return.
CES-60818	Text output after a right aligned tab can appear beyond the boundary of an enclosing area such as a Message or Text box.
	<b>Resolution:</b> The expected Generate result is that the text is wrapped onto the next line.
	The issue occurs when the character that exceeds the boundary is either the last character on the line or is followed by zero width, non-printable characters. Generate has been updated to detect and remedy this issue.
CES-59535	Generate did not support the rendering of Thai fonts that require the placement of diacritics with a horizontal or vertical offset from the origin. In such cases overprinting occurs.
	<b>Resolution:</b> functionality to support Thai fonts that require the horizontal and vertical movement of diacritics has been added.

Key	Summary
CES-59534	Generate may fail when a publication level variable is used inside a URL link or clickable image.
	Resolution: Generate processing of publication level variables has been updated when used within URL link or Image URL design objects.
CES-58372	AFP True Type (DOF) font resource records were formatted incorrectly when output on ZOS, causing AFP postprocessors on ZOS to fail.
	<b>Resolution:</b> Generate AFP True Type (DOF) font record output on Z/OS have been updated so that each AFP DOF font resource record begins with the expected AFP 5A introducer.
CES-47127	AFP Outline font resources did not include non-breaking space characters.
	<b>Resolution:</b> If the font contains the space character but not the non-breaking space then add the non-breaking space.
CES-58284	Engage One Generate journals were not being written out in the selected code page selected from Engage One Designer production job.
	<b>Resolution:</b> Generate has been updated to ensure that the correct code page as specified in the Production Job is used to generate the specific Journal.
CES-56013	Generate aborts if Publishable Active Content contains a clickable image that in turn uses variables to define the address or alternate text for the clickable image.
	<b>Resolution:</b> Generate support for Image URL (Address and Tooltip) in Publishable Active Content using variables has been implemented,
CES-58148	External Keyed Binary image files that end with a NULL character used with the AFPDS device image <b>Colour Management</b> option turned off caused Generate on Windows/LINUX/AIX to be stuck in an infinite loop when processing HIP files.
	<b>Resolution:</b> Binary file handling functionality in Generate has been updated to read binary files ending with NULL (Hex Zero) characters correctly.
	Workarounds: In Generate 6.x versions prior to the fix:
	Enable AFPDS Device Image option "Colour Management" and Republish HIP
	- OR -
	2. Regenerate TIFF image File to exclude Hex 00 at end of file.
CES-58157	Verbose level trace information was produced when the Generate Trace is enabled instead of selected Trace level.
	Resolution: Generate has been corrected to output the Trace level specified.

Key	Summary
CES-55858/58173	EngageOne server has no mechanism to modify the behavior of Generate in EngageOne Server
	Resolution: A new config file eo-server.config has been added within the execution directory of EngageOne Server Generate. This file is of the same format as the OPS file giving the ability to the user to alter the operation of Generate to suit specific requirements.
	Additional Trace options
	<trace> Outputfile=trace%d.out</trace>
	When specifying the trace output file If %d is included within the filename then when the trace file is created the %d will be replaced by the date and time of the submission.
	This operation is currently restricted to windows and Linux only.
	An additional informational message GEN0018I Processing /eo-server.config has also been added to Generate.
	Generate " <messages>" OPS Settings have also been implemented for use with Current Designer Published Publications (Templates) containing Content Author Message Box/Stream when Published to EngageOne.</messages>
CES-54746	Internal Keyed Images missing from second and subsequent publications
	Resolution: Generate Internal Keyed image processing has been re-worked such that Keyed Images in the second and subsequent publications have no missing images.
CES-55593	This item covers two issues as follows:
	Issue 1
	DOC1GEN aborts in server mode when the submission of a HIP file is immediately followed by a recompose request to the same process.
	<b>Resolution:</b> A handle was not being reset after releasing memory allocated during the creation of the ONH file. This has been fixed.
	Issue 2
	Doc1Gen may abort in server mode when the submission of a HIP file to a Generate Server Mode instance containing multiple URLs is either closed or followed by the submission of another HIP file (the second HIP file does not need to contain URLs for the abort to occur).
	Resolution: Generate has been updated to ensure the correct amount of memory is allocated to process the URL commands.

Key	Summary
CES-57666	Thai Tone Marks being placed incorrectly. Most noticeable when the SARAAM character is used.
	<b>Resolution:</b> True Type fonts contain implicit rules governing the placement of characters. In the case of Thai Tone Marks such as SARAAM no rule existed in the font. Designer / Generate has been updated to place such Thai Tone Marks correctly.
	<b>Workaround:</b> Use Alternative keystrokes - Rather the use a single keystroke when typing SARAAM use two keystrokes <nikhahit, aa="" sara=""></nikhahit,>
CES-54723	Generate Server mode as used EngageOne Server sometimes terminates unexpectedly.
	Resolution: Generate Repeating Data field handling has been updated
CES-40315	Thai tone marks above the diacritics do not appear correctly in Generate output for any device unless the language is specifically set to the Unicode Language. On close examination you may observe that the tone marks are there; they overprint the diacritics rather than appear above them.
	<b>Resolution:</b> Treat Thai text as a 'complex script' automatically (as per the Unicode and Arabic languages), so that it does not need to be set to the Unicode Language to appear correctly. This means that the required resources are automatically created for Generate during publishing. Note that this requires the publication to be republished - old HIP files will still appear incorrectly.
CES-25235	Rounding errors when drawing the borders of a table in Generate, leading to visible errors in the output especially at the table corners.
	<b>Resolution:</b> Improved accuracy of calculation that converts internal units of measurement to device units of measurement for 240 dpi output devices.
CES-57596	Z/OS Generate aborts on publications where multiple pages are held in memory
	<b>Resolution:</b> Generate processing of page layouts requires in some cases two pages to be held in memory, for example, conditional data added to the page content causing an overflow to the next page.
	Generate Page Layout processing has been reworked to cater for this.
CES-56753	Incorrect text placement occurring in the output where the same paragraph from Active Content occurs in different Column/Page layouts.
	<b>Resolution:</b> Generate has been updated to detect changes in Column/Page layouts more accurately when determining if a previously printed paragraph can be reused without re-positioning the text.
CES-57366	This item covers two issues as follows:

Key	Summary
	Issue 1
	PCE PostScript which reads Generate input Postscript containing Open Type Font, hangs on all hosts.
	Resolution: PCE has been updated to correctly read in and write out PCE Open Type Postscript output.
	Issue 2
	PCE PostScript Output on Z/OS where Input DOC1GEN PostScript contains Open Type Fonts, outputs Open Type font attributes in EBCDIC causing ASCII PCE Postscript output to be invalid
	Resolution: Z/OS PCE PostScript output has been updated to output Open Type PCE ASCII PostScript output using the correct codepage.
CES-57141	Using External Keymaps and <b>Additional Resources</b> in the production job causes a conflict in Generate, resulting in a Generate abort with incorrect image paths for the External Keyed images.
	<b>Resolution:</b> EngageOne Generate has been updated to ensure that there is no clash between additional fonts and External Keyed images and Generate will run correctly.
	<b>Workaround:</b> In Generate versions prior to this fix, it is recommended not to use <i>Additional Resources</i> in the Designer Production job; but instead use a document that is conditional and contains the required fonts and images.
CES-56454	PCL output that contains a Native Chart inside a table with rounded corners is drawn incorrectly and differs from PDF output.
	<b>Resolution:</b> Generate PCL commands used for drawing Native Charts inside Table (Complex polygons) have been updated to prevent Table contents from being obscured in the reported scenario.
	Generate PCL output for Native Chart color ranges have also been corrected to improve the fidelity of RGB colors.
	This latter issue was especially noticeable for any Multicolored Native Chart in PCL viewers.
CES-52487	PCE output of Open Type (Postscript Outline) fonts using Czech and non-ANSI languages produces incorrect characters.
	<b>Resolution:</b> The issue was caused by PCE not including the Generate Open Type (PostScript Outline) Font encoding in PCE output.
	PCE has been updated to include the specific Code Page information used by the Open Type Font from the Generate PostScript input file in the PCE PostScript output, which allows the characters to be rendered correctly.

Key	Summary
	Note - This fix also removes the previous restriction of GET RESOURCES FROM HIP in the PCE Script file for Open Type Font (.OTF) in PCE Postscript output.
CES-44331	Postscript driver not maintaining Z ordering (Object Layering) for text in Rotated Text Box which produces EPS images as specified in publication. The Postscript driver groups operations by type, i.e. Text, graphics, EPS_images. The grouping forces the objects to become out of order.
	<b>Resolution:</b> The Generate Postscript driver has been updated to write out EPS data in the order it is presented to the driver by splitting the object types into smaller groups, thus writing the smaller grouped data out in the correct order to produce Generate PostScript that matches the Z-Order defined in the Design.
CES-57286	Font names contained within Content Author HIM files were written incorrectly to the EngageOne Server Batch Intermediate Neutral file on Linux (x64) hosts which caused final EngageOne Server Batch Print composition to abort on these invalid font references.
	<b>Resolution:</b> Generate Intermediate Neutral output on Unix hosts that use 4-byte characters has been updated to output the Neutral file font references correctly.
CES-56940	DOC1GEN may behave unpredictably in server mode when submitting a HIP file containing multiple URLs.
	Resolution: Generate has been updated to ensure the correct amount of memory is allocated to process the URL commands.
CES-56653	The version of PDF being determined by the available fonts in the HIP file rather then the fonts actually being used.
	<b>Resolution:</b> Generate has been updated so that the version of the PDF Output file is determined by the fonts actually used in the output.
CES-55976	The use of message boxes inside a table cell in a Designer application can cause the contents of the table cell to be missing from the corresponding Generate output. Note this also includes the Content Author messages.
	<b>Resolution:</b> This issue is caused by initialization for each individual message when it is evaluated by Generate for a message box; it typically affects the first few documents.
	Generate initialization of Content Author messages has been updated to prevent existing table cell contents from being cleared.
CES-55998	This item covers two issues as follows:
	Issue 1
	Using Linedata output to produce text which cannot be split is limited by the 500 Linedata character grid width.

Key	Summary
	<b>Resolution:</b> The Line data width of character grid must be set to a high enough value to prevent line breaks within contiguous HTML data. For the Designer output device type LineData, increase width of character grid to a maximum of 1024 and republish
	Note: Line data width of character grid must be set to a high enough value to prevent line breaks within contiguous HTML data
	Issue 2
	Executing Multiple Output Devices in a single HIP where the First Device(s) are set to a "Non AUTO" page size and other Devices do not have the Device "Layout / Page Size" setting results in incorrect Output for these "Non Layout" Device page outputs
	<b>Resolution:</b> Generate has been updated for multiple output processing to allow Document page size to be used with Non AUTO Page setting for Designer Devices which do not have Page Layouts;
	LineData
	HTML for e-Mail (eHTML)
	HTM for Web page (HTML)
	• RTF
CES-53909	When Publishable Active Content is used, Generate output from 5.6 onwards may produce incorrect output such as blank pages when the document/publication page number value is used to determine the next page action.
	<b>Resolution:</b> Generate output in all 5.6 and previous 6.x versions added Paragraph buffering ( <i>Paragraph option Merge with previous paragraph</i> ) from the point where Publishable Active Content was used in the Design Application.
	Paragraph buffering can delay the creation of a new page causing applications to execute differently if the document/publication page number value is used to determine the next page action.
	Generate has been corrected to check that when Publishable Active Content is being used, it also checks if the Paragraph option <i>Merge with previous paragraph</i> feature has been used before enabling Paragraph buffering.
CES-52704	Datamatrix barcodes were being rejected erroneously when the length of the value was at maximum capacity. This was the case for both square and flat modes, but was more apparent for flat mode as the capacity is far less.
	Resolution: The issue has been fixed.
CES-52862	Issue summary:

Key	Summary
	<ol> <li>Font scaling mode is not supported for eHTML output. A warning is printed and the barcode is discarded.</li> <li>Mixing standard barcodes with font scaling barcodes in the same publication corrupts the sizes of standard barcodes in eHTML output.</li> <li>QR code images are corrupted in eHTML output and cannot be scanned (even when using the supported standard mode).</li> </ol>
	Resolution:
	These issues were caused by inconsistencies in both publishing and Generate; these have now been fixed. Note that font scaling mode is now supported and it is recommended that this mode is used instead of standard mode so that the point size can be adjusted to increase the size of the QR code.
CES-53866	Generate on UNIX hosts terminates unexpectedly when using custom OPS file output settings for large data input
	<b>Resolution:</b> Generate on UNIX hosts has been updated to implement large Input data file buffering
CES-52943	Generate aborts when more than 128 individual font point sizes are used in the Design Publication / Production Job.
	<b>Resolution:</b> All Generate versions from 5.1M5 onwards incorrectly aborted when more than 128 font point sizes were used throughout the Publication.
CES-29584	Characters are missing in Generate output when using a Windows True Type font which has been updated on the Designer Client O/S since the original application design.
	<b>Resolution:</b> When the Windows True Type font on the Designer Client has been significantly updated by the font vendor (e.g Microsoft) and no longer matches the font version and content used in the original application and stored in the design repository, then significant differences may result in the published / generated font output.
	This version adds the ability to update the previous font version stored in the design repository using the Designer <i>Import Fonts / Windows font</i> functionality to replace the existing font version with the current Designer Client version by re-importing each individual point size/language used in the design application of the relevant font.
	Following the font replacement, the user will need to clear the Designer Publish Localcache and Publish for EngageOne Driver cache(s) as required before republishing Generate resources and executing the matching Generate version with the republished resources.
CES-50770	PostScript %%Title contains security risk Server Path

Key	Summary
	<b>Resolution</b> DOC1GEN and DOC1PCE have been updated to remove the output file path from the generated PostScript output %%Title comment
CES-52483	This issue occurs when using the Designer option <b>Start of new page / Always on odd page</b> for new page or section items. When using multiple output devices with different Simplex/Duplex setting it was observed that pages may not be present from the Simplex output (in this case Output1 - PDF) but are present in the Duplex output (Output2 - Postscript).
	<b>Resolution:</b> Generate has been updated to cater for multiple output devices with different Simplex/Duplex settings used with the Design setting <b>Start on Odd Page</b> regardless of the order in which the devices appear in the production job.
	<b>Workaround:</b> In Generate versions prior to this fix switch the order of the devices in the Designer production job so that the Duplex device is defined as Output1 instead of the Simplex device, Republish and execute the updated HIP in Generate.
CES-42251	Using the system variable <b>Page X of y</b> in right aligned text can cause overprinting in Generate output when number separators are present.
	<b>Resolution:</b> The measuring (width calculation) of the <i>Page X of Y</i> system variable text in Generate was not taking into account the width of any thousand separators present. This caused overprinting to occur when the variable was used in right aligned text as the position of the text was incorrectly calculated.
	This issue has been resolved. Note that this fix does not address the cosmetic <b>Page X of Y</b> system variable issue in the Designer editor which has no effect on the final Generate output.
CES-51215	Generate builds on Z/OS 2.1 was using a migrated obsolete 1.13 MQ Library from the out of support Z/OS 1.13.
	<b>Resolution:</b> This release of Generate on Z/OS 2.x has been updated to use the current MQ installed on Z/OS which is supported by IBM.
CES-37042	Linedata output:
	<ul> <li>Adds extra space for adjacent paragraphs on the same line,</li> <li>adds extra space for any Font attribute change,</li> <li>discards Full Stop "." character.</li> </ul>
	<b>Resolution:</b> Generate LineData output has been updated to correctly position adjacent paragraphs on the same line and not to add unwanted spaces for font attribute changes such style, point size, color, etc.
	Generate LineData wrapping behavior is determined by the Designer LineData Output device grid width. The desired wrapping behavior is achieved by increasing the Linedata grid width.

Key	Summary		
CES-53525	Generate behaves unexpectedly when the address field length for a PDF URL link exceeds 512 characters.		
	<b>Resolution:</b> Generate text and image URL links have been updated to allow for as many characters as required.		
CES-51258	Certification of the Generate Program suite on latest Z/OS version 2.3 was not available.		
	<b>Resolution:</b> DOC1GEN, PCE, RPU, DOC1ST (Started Task) all executed and outputs verified from this release onwards on Z/OS v2.3.		
CES-49779	White lines may appear in PDF417 barcode output when using standard and font scaling modes. Line drawing cannot be used to overcome this as PDF output does not support this option.		
	<b>Resolution:</b> PDF has been added to the list of output devices that support line drawing for most barcode types, including PDF417. Unwanted white lines no longer appear in PDF output when using the line drawing option.		
	The fonts used to render the barcode for standard and line drawing modes have also been updated to eliminate the thick white lines (note that for these modes, single pixel lines can still appear at certain resolutions as with all barcode fonts).		
	If you prefer to continue using fonts over line drawing, then the following must be done on the client machine for the change to take effect:		
	<ol> <li>Uninstall the old windows fonts PD2w Regular, PD3w Regular and PD4w Regular. It may be necessary to restart the computer to allow this.</li> <li>Clear Designer local file cache.</li> </ol>		
	<ol> <li>Clear the resource cache used for EngageOne publishing.</li> <li>Regenerate any HIP files.</li> </ol>		
CES-50657	Custom overflow data buffering settings to cater for very large input data on all 64 Bit Generate hosts did not work.		
	<b>Resolution:</b> <i>DataTextBuffer</i> functionality has been updated for 64 Bit Generate distributions.		
	These Custom Settings are required for very large input data and previously worked only on 32 Bit Generate versions.		
	Example DataBuffer configuration is shown below:-		
	<pre><custom> DataFieldBufferFile=tmpfile\GENFBUF.file DataTextBufferFile=tmpfile\GENTBUF.file DataBufferThreshold=10M ReadAheadThreshold=2M</custom></pre>		

Key	Summary				
CES-51696	Table function transaction number is missing from Generate output when a transaction table breaks a page and the <i>Merge Paragraph</i> feature is used implicitly by Publishable Active Content				
	<b>Resolution:</b> If for any reason the merge paragraph functionality is enabled, for example using the <i>Merge Paragraph</i> feature or as in this case referencing Publishable Active Content. The behavior of transaction tables was incorrect prior this fix as follows:				
	If a transaction table breaks a page then data from table function Transaction     Number is missing from the first table strow after a page break.				
	Generate has been updated for transaction tables which use merged paragraphs to produce correct table function values on page overflow.				
	<b>Workaround:</b> In Generate versions prior to fix, use a Design Application Variable (Local scope) to store the result of the table function and then place the variable on the design page instead of directly placing the table function.				
CES-47362	Character spacing was inconsistent for PDF and PostScript when Unicode or Arabic encoding is used on a fixed width True Type font with font subsetting enabled.				
	<b>Resolution:</b> Generate font subsetting has been updated to include all relevant font information when subsetting characters using Unicode or Arabic font encoding on a fixed width font.				
	Workaround(s):				
	In DOC1GEN versions prior to the fix, either:				
	Apply ANSI Font language (e.g Spanish, etc) to the Fixed Width Font (e.g "Courier New") Designer Paragraph				
	OR				
	<ul> <li>Update PDF / PostScript Output Device Font Section to use <i>Embed</i> option instead of <i>Subsetting</i></li> </ul>				
	and Republish / execute DOC1GEN				
CES-49225	Writing PostScript files using journal offsets produces incorrect PostScript Output				
	<b>Resolution:</b> Problem found in Microsoft Universal C Runtime library - as used by DOC1PCE on Windows for File Input/Output. The issue is resolved in 10.0.15063.468 or later, C Runtime library. This issue is caused by a bug in the Microsoft Universal C Runtime library.				
	This forms part of the Operating system for Windows 8.1/ Server 2012 R2 and Windows 10 / Server 2016.				

Key	Summary
	For Windows 8.1 / Windows Server 2012 R2 Please upgrade to at least Microsoft KB3118401.
	For Windows 10 / Windows Server 2016 Standard Please upgrade to at least Microsoft KB4025342.
	For details refer to: https://support.microsoft.com/en-gb/help/3118401/update-for-universal-c-runtime-in-windows
CES-22534	Changing AFP input tray in the application logic fails when the document orientation changes from portrait to landscape.
	<b>Resolution:</b> Generate was incorrectly trying to switch to the tumble tray when moving from portrait to landscape, even though the AFP device was not configured for double-sided tumble processing.
	Generate now checks the <i>Duplex processing</i> option in the AFP device before switching to the tumble tray. It will only switch to the tumble tray if theAFP device <i>Duplex processing</i> option is set to <i>Double-sided tumble</i> .
	<b>Workaround:</b> In Generate 6.x versions prior to the fix, create a matching <i>Tumble</i> medium map for the same tray and bin selections required for the Duplex tray and bin combination
CES-48074	Non Windows hosts were unable to access all available code page overrides using the DOC1GEN <i>SCP</i> command line argument.
	<b>Resolution:</b> The DOC1GEN <i>SCP</i> (Set Code Page) command line argument used to enable all override code pages to be accessed had been standardized across all Generate host platforms allowing an incorrect <i>Host Default</i> data format codepage definition to be corrected at Generate run-time.
CES-41204	PDF output for images in Server Mode can result in invalid PDF where:
	<ul> <li>PDF output device <i>Translate to 7 bit</i> option is enabled</li> <li>Publication attribute <i>PDF Password</i> is set</li> </ul>
	<b>Resolution:</b> When password protecting a PDF file, the content is treated as binary regardless of the PDF output device <i>Translate to 7 bit</i> option. This can cause image caching conflict issues in Server Mode, preventing unprotected PDF files from being viewed and image corruption in protected PDF files. Generate has been updated to cater for this scenario.
	Workaround:
	In Generate versions prior to this fix, the issue can be avoided if the PDF output device <i>Translate to 7 bit</i> option is unchecked.

# Changes in Previous 6.6 releases

For reference purposes this section shows changes that were made to EngageOne Generate 6.6. Details of these features and enhancements are in the user guides issued with this release

# 6.6 Service Pack 10

### Operating systems

### **AIX 7.1**

Generate execution on IBM AIX requires a minimum level of AIX 7.1 TL5 SP3 or higher (7100-05-03-1838)

### RHEL / CentOS / Oracle Linux Enterprise Server 7.6 (64 Bit)

This release adds support for RHEL / CentOS / Oracle Linux Enterprise Server 7.6 (64 Bit). Support for this O/S level is provided through the Generate release media distribution lnx64/doc1lnx64host.tar.

### SUSE Linux Enterprise Server 11 SP3 (s390x)

This release adds support for Suse Linux Enterprise Server 11 SP3 on s390, also known as Z/Linux. This version is now the minimum supported O/S level for this host, with no earlier Z/Linux versions supported. Support for this O/S level is provided through the Generate release media distribution zlnx/doc1zlnxhost.tar.

### **Amazon Linux 2 support**

This release adds support for Generate Linux x64 distribution execution on the Amazon Linux release 2 operating system.

It has been tested on and is compatible with Kernel version 4.14.173-137.229.amzn2.x86\_64 or higher.

### Other changes

#### Windows 64-bit Generate utilities

The Windows 64-bit Generate doc1gen64.zip file now has 64-bit versions of all Generate utilities including those previously available only in the Windows 32-bit Generate doc1host.zip.

Windows Generate customers no longer need to extract the doc1host.zip to use any of the Windows Generate utilities when using a 64-bit operating system.

### **Documentation update for Generate override settings**

Information has been added to the Production Guide for the following Generate overrides:

- ReportMemoryUsage reports Generate memory usage
- LookupTableCodePages code page assignments to lookup tables
- · Input file caching options:
  - DataBufferThreshold
  - DataTextBufferFile
  - DataFieldBufferFileReadAheadThreshold

### **Ghostscript 9.27**

This release adds support for Ghostscript 9.27.Please ensure that you install the correct 32 or 64 Bit version for use with the matching 32 or 64 Bit version of DOC1MAKE.

## 6.6 Service Pack 9

### **IBM AIX support**

 Generate (DOC1GEN, DOC1PCE, etc) is now certified to run under IBM AIX 7.1 (TL4) Service Pack 6 (64-bit).

### Withdrawn support

The following output devices are no longer supported by Generate:

- VIPP
- VPS
- PPML
- IJPDS
- MIBF
- Metacode

### The following operating systems are no longer supported by Generate:

- HP-UX (PA-RISC)
- HP-UXi (Itanium)
- IBM AIX 6.1 (TL5) Runtime Library Level 12.1 (64-bit)
- IBM OS/400

# 6.6 Service Pack 8

### **Generate Line Drawing support for Aztec barcodes**

Generate support added for Aztec barcodes in Line Drawing mode.

### **Generate C40 Data Matrix barcode support**

Generate support added for the C40 Data Matrix barcode for Standard , Font Scaling and Line Drawing modes.

### **Generate Line Drawing Barcode support on Z/OS**

Previous restriction on executing Line Drawing Barcode types 2 of 5, UCC/EAN128, Code 128 and QR Code on Z/OS has been removed.

### **GhostScript 9.25 support for DOC1MAKE**

Generate DOC1MAKE utility now supports GhostScript 9.25 (32 Bit), an important security remediation release, for use when Generating Keyed Image metrics on EPS Images.

## 6.6 Service Pack 7

### Support for RHEL / Centos 7.5

Generate (DOC1GEN, DOC1PCE, etc) has been certified under the Current RHEL /Centos 7.5 version.

### Removal of 128 font limit restriction for AFPDS Generate output

The Generate AFP font limit has been updated in this release to 254 fonts per page instead of previous 128 font limit per job.

# 6.6 Service Pack 6

### **Line Drawing Barcode support for PDF Output**

This release adds support for Line Drawing Barcodes published to PDF Output

### **LineData Output improvements**

Generate Linedata output has been reworked to improve output consistency for all Design font attribute changes.

### Z/OS 2.3 Support

This release adds support for Generate program suite execution under Z/OS Version 2.3.

## 6.6 Service Pack 5

### Generate "SCP" Set Code Page extended to Windows and UNIX

Generate Set Code Page "SCP" parameter to override Host / Data Code Page has been extended from Z/OS to formally include Windows and UNIX in this release.

- Windows / UNIX Generate Hosts now support the full range of SCP Code Pages previously supported only by Z/OS
- The full list of "SCP" Codepage overrides has been added to the Production Guide See "SCP" Production Guide Appendix A for details.

### Generate Started Task (DOC1ST) on Z/OS

Generate Started Task (DOC1ST) support on Z/OS 2.1 / 2.2 has been added.

### **Generate Diagnostic Messages Guide**

Generate Diagnostic Messages (English only) for Generate and selected Generate Utilities are now documented in a Diagnostic Message Guide in this release.

### Generate PDF Output Changes and PDF Reader advisory

Generate PDF Output in this release has changed for Publications which use Non "ANSI" (Western Europe / Americas / Nordics) Languages.

Previous Generate versions used a Default "Identity-H" (Non Embedded) encoding for Non ANSI Font Languages (e.g. Arabic, CJK (DBCS), Thai, Cyrillic, Bengali, "Unicode", etc.) which allowed Generate PDF to render on older PDF Reader technologies.

As of 6.6 Service Pack 5 Generate PDF Output for both pre- existing and Designer 6.6 SP5+ HIPs has been updated to now EMBED a "Character Map" (CMap) for these Font languages to cater for the Latest .OTF and .TTF Font formats.

PDF Readers such as Windows 8.1 and Windows 10 Inbuilt PDF Readers which do not support Embedded "CMap" will not render Generate 6.6 SP5 PDF Output for these languages.

Desktop PDF Readers such as Adobe Reader DC (Version 15.0 onwards) for such languages is recommended.

Mobile and Tablet PDF Readers which support embedded PDF CMaps are unaffected.

### **Ghostscript 9.21 (32 bit) support**

Designer now supports Ghostscript 9.21 (32 bit) to use the DOC1MAKE utility for generating external key maps.

# 6.6 Service Pack 4

### Designer/Generate improved support for bidirectional text entry

- Specifically, rules governing the placement of punctuation characters in a right-to-left paragraph have been put in place for the following items:
  - Open bracket
  - · Close bracket
  - · Decimal point and thousands separator- Arabic decimal and thousands separators
  - · Percent sign and currency symbols
  - · Default placement following a number

# 6.6 Service Pack 2

### New supported platforms

This release introduces support for the following platforms:

- Microsoft Windows 2016 Server
- Microsoft Windows 10

# 6.6 Service Pack 1

### Generate PDF font subsetting enhancements

This release introduces font subsetting support for the following in Generate PDF output:

- Designer Standard True Type barcodes such as DataMatrix and QRCode
- All Designer Font Scaling True Type barcodes
- All Windows True Type Symbol fonts such as Wingdings and variants.

This enhancement results in smaller PDF filesizes and improved Generate PDF performance for applications containing any of the above fonts. Font subsetting using the PDF Device Subsetting option applies to both pre-existing HIPs from previous versions and to HIPs published from the current version onwards, when using these fonts.

# 6.6

### **DOC1PCE - Support for moving Plug In Charts for AFP**

Support has been added to allow the Plug in style charts produced by DOC1GEN to be moved by DOC1PCE.

# DOC1PCE – Support for Adding Text to an AFP page where the total number of fonts is greater than 255

Support has been added to allow the addition of text via DOC1PCE to an AFP Page where the number of fonts exceeded 255. All previous versions were limited to 255 fonts per AFP page. This restriction has now been removed.

### DOC1PCE - Support for BEGIN CE "=OUN" to add AFP NOP

Support has been added to allow the placement of an AFP NOP using DOC1PCE. Refer to the "Composition Edit Commands" section in the Production Guide for Command Syntax.

# Known issues

### Plug-in chart support

Z/OS 2.x do not currently support plug-in charts.

### PCE - AFP Outline Type1 fonts

When using PCE to add text using AFP Outline Type1 font references, the

GET RESOURCES FROM HIP

command must be coded in the PCE script before any OPEN commands.

### Z/OS Line Drawing PCL Barcode output

Line drawing mode for DOC1GEN on Z/OS is not supported for PCL output for the following Barcode types :

- 2 of 5
- UCC/EAN128
- Code 128

# Supported platforms requirements and installation

Generate includes the main production engine (DOC1GEN), the Post Composition Engine (DOC1PCE) and various production utilities.

**Note:** refer to Release media on page 54 for details regarding the availability of doc1pce and other host utilities on 64-bit generate.

You can use Generate to create one or more types of output datastream. This release is intended for use on processors running the following operating systems:

- z/OS
- UNIX
  - AIX
  - Amazon Linux release 2
  - Oracle Linux Enterprise Server (x64)
  - Red Hat Enterprise Linux (x64)
  - · Oracle Solaris on SPARC
  - SUSE Linux (x64)
- Windows (x64)
  - · Windows 2019 Standard
  - · Windows 2016 Standard
  - Windows 2012 R2
  - Windows 10
  - Windows 8.1

Refer to the following sections for detailed information on supported platforms:

z/OS on page 48, UNIX on page 51, Windows on page 54

# Host build authenticity

SHA-256 hash codes have been added to the release material as follows:

- Generate Windows and UNIX contains sha256 files for AIX, Linux, Sun, and Windows distributions.
- Generate ZOS contains sha256 files for z/OS tso.zip file distribution.

Using the AIX distribution as an example, you can ensure that the release material you have downloaded is not corrupt or has been tampered with by comparing the SHA-256 hash code of the distribution (doc1aixhost.tar) with that of the checksum file (doc1host.tar.sha256sum). Note that there are various utilities available that can be used to provide file hash code details.

# z/OS

### System requirements

Generate operates in a batch IBM z/OS environment and has been tested under:

- z/OS 2.3
- z/OS 2.4

Later versions of z/OS will normally be able to run the software without modification. Earlier z/OS versions are not supported and are not compatible.

# Datasets included with distribution material

Name	Org	RECFM	LRECL	BLKSIZE	Contents
DOC1HOST.LOADLIB	PDS	U	0	32760	Contains all the program modules. These are ready to run; no local linking is required.
DOC1HOST.RESOURCE	PDS	VB	256	27998	Resources & confidence test jobs
DOC1HOST.CNTL	PDS	FB	80	3120	JCL for confidence tests
DOC1HOST.AFP	PDS	VBM	32756	32760	AFP confidence material for PCE
DOC1HOST.MTC	PDS	VBM	300	2000	Metacode confidence material for PCE
DOC1HOST.PST	PDS	VB	300	2000	PostScript confidence material for PCE
DOC1HOST.VPS	PDS	VB	300	2000	VPS confidence material for PCE

### Installation

Generate is provided as a download.

The release datasets are provided as TSO Transmitted files on the Generate download under the directory ZOS and \SAMPLES\ZOS in TSO.ZIP. The datasets within the TSOs are as detailed in the z/OS on page 48 section.

Upload the TSO files from the download to a temporary dataset on your z/OS service as binary files with a record length of 80 bytes and no carriage returns (NOASCII NOCRLF LRECL 80).

Use the following Dataset Attributes for your UNLOAD Dataset:

```
Organisation =PS
Record Format = FB
Record Length = 80
Block Size = 3120
1st Extent Megabytes = 55
Secondary Megabytes =2
```

Use the TSO RECEIVE command to restore the data and the dataset attributes:

```
RECEIVE INDSN('seq dataset name')
```

where seq\_dataset\_name is the temporary sequential dataset and respond to the prompt with

```
DSN('pds dataset name')
```

where <code>pds\_dataset\_name</code> is the name of a new partitioned dataset which will receive the Generate files. Be sure to give the recipient dataset a meaningful name in accordance with the transmitted dataset name displayed as part of the prompt.

# Confidence testing

In order to confirm that the installation has been successful a range of confidence test jobs are supplied that produce sample output for each supported type of output datastream. To run such a job open the appropriate JCL deck within the <code>DOC1HOST.CNTL</code> dataset and customize it for your installation. You will also need to edit the OPS (override production settings) file in the <code>RESOURCE</code> dataset to specify your license keycode details for Generate. These are provided on the keycode report that should accompany your product distribution material.

The JCL decks are set up to write actual print datastream output from the test jobs to held SYSOUT or disk file depending on the format most suitable for the datastream being generated. You can, of course, redirect this output as required using the DD names indicated above.

The Sample installation (Confirmation test material) is contained within samples.zip which can be found in the...\samples\zos directory

This zip file contains:

tso name	Description
cntl.tso	Generate Confirmation Test JCL
resource.tso	Generate Confirmation Test HIPs, INIs, OPS
afp.tso	Generate AFP Confirmation Test Resources
mtc.tso	Generate Metacode Confirmation Test Resources
pst.tso	Generate PostScript Confirmation Test Resources
vps.tso	Generate VPS Confirmation Test Resources

You can see the source publications used for the confidence tests by importing them into Designer. Refer to the **Resources for samples** /confidence tests section in the Designer Installation Guide for details.

# **UNIX**

Generate is available for AIX, Linux and Sun Solaris. Other than the program modules themselves, the same release material and installation procedures are provided for all platforms.

System requirements

Generate operates as standard UNIX batch programs. No additional software is required except when using plug-in charts and rotated objects, refer to Plug-in chart support on page 53 for further information. Generate has been tested under the following software levels:

#### **IBM AIX**

†IBM AIX 7.1 Technology Level 5 - Service Pack 3 (7100-05-03-1838 or higher)

• Release media aix/doclaixhost.tar

### Linux x64 - Kernel 3.10.0 with glibc (C runtime library) 2.17 or higher

Red Hat Enterprise / Centos Linux 7.7+ (64 bit)

Red Hat Enterprise / Centos Linux 8.2+ (64 bit)

Oracle Linux Enterprise Server 7.6+ (64 Bit)

Suse Linux Enterprise Server 12+ (64 bit)

Amazon Linux release 2 (64 bit)

Release media lnx64/doc1lnx64host.tar for all the above operating systems

### **Oracle Solaris**

Oracle Solaris 11.1+ on SPARC (64-bit)

• Release media sun/doc1sun64host.tar

† IBM AIX support has now been moved from 32-bit to 64-bit, all user exit libraries currently in use will therefore need to be recompiled.

Later versions of these operating systems will normally be able to run the software without modification. Earlier versions may also be compatible but are not guaranteed.

### Release media

Generate for UNIX platforms is provided as a single download set of release media. This may also contain material for other platforms. The release material is provided as two TAR files – one for the Generate material and one for the sample confidence test files:

```
/<host>/doc1<host>host.tar
/samples/unix/samples.tar
```

# Installation procedure

Extract the entire contents of both the Generate TAR file and the samples TAR file to a suitable location where you will run Generate.

```
tar -xf /<extractpath>/<host>/doc1<host>host.tar
tar -xf /<extractpath>/samples/unix/samples.tar
```

Add the installation directory into your library search path. To do this in C shell:

### on IBM AIX:

```
setenv LIBPATH /<installdir>
```

### on SUN Solaris & Linux

```
setenv LD LIBRARY PATH /<installdir>
```

# Plug-in chart support

All Linux x64 (Kernel 3.10 or later) operating systems support plug-in charts natively and do not require any additional software.

The following operating systems support plug-in charts but require the Java Runtime Environment (JRE)

**Note:** the minimum java runtime environment required for these operating systems is JRE 1.8. this must be downloaded and installed if it is not already available. Note that the library path must include the JRE.

• IBM AIX 7.1 Technology Level 5 - Service Pack 3 (7100-05-03-1838 or higher)

Ensure that the LIBPATH environment variable contains the following JRE ppc64 paths:

```
<install_dir>/jre/lib/ppc64
<install_dir>/jre/lib/ppc64/j9vm
```

If these ppc64 paths are not present, charts may be produced with no label text.

SUN Solaris 11 on SPARC (64-bit)

**Note:** If you are installing Generate in a Sun Solaris environment, you will need to add JAVA 8 JDK to the Generate library path.

On C Shell, enter the following

```
setenv LD_LIBRARY_PATH
/home/group1/doc1gen:/opt/oracle/64/jdk1.8.0_202/jre/lib/sparcv9/server
```

# Confidence testing

In order to confirm that the installation has been successful a range of confidence test jobs are supplied that produce sample output for each supported type of output datastream.

To run a test job, first check the list of available job files (.hip) in the installed directory and identify the one related to the output datastream you want to create. Ensure the Generate directory is the current path and enter the following on the command line:

```
doclgen <testname>.hip ops=testgen.ops
```

You can see the source publications used for the confidence tests by importing them into Designer. See "Resources for samples /confidence tests" in the Designer Release Notes for details.

## Windows

### System requirements

Generate operates as standard batch programs. No additional software is required. It has been tested under the following platforms:

- Microsoft Windows Server 2019 Standard (64 Bit)
- Microsoft Windows Server 2016 Standard (64 Bit)
- Microsoft Windows Server 2012 R2 Update (KB2919355) (64 Bit)
- Microsoft Windows 10 (64 Bit)
- Microsoft Windows 8.1 Update (KB2919355) (64 Bit)

Later versions of these operating systems will normally be able to run the software without modification.

### Release media

Generate for Windows is provided as a download. This may also contain material for other platforms. The release material is provided as three ZIP files – two for the Generate material and one for the sample confidence test files:

### 32-bit Generate

\windows\doc1host.zip

#### 64-bit Generate

\windows\Doc1Gen64.zip

### Samples

\samples\windows\samples.zip

# Installation procedure

Extract the entire contents of Doc1Gen64.zip, doc1host.zip and samples.zip to a suitable location on the machine that is to run Generate.

### **DOC1MAKE** utility

If you require the DOC1MAKE utility to generate an external key map metrics file when using Encapsulated PostScript (EPS) Images, you must also install:

Ghostscript .9.27+

Ensure that

- 64 Bit Ghostscript is installed for use with 64 Bit DOC1MAKE
- 32 Bit Ghostscript is installed for use with 32 Bit DOC1MAKE

This release of DOC1MAKE is certified and supported when using GhostScript 9.27 or later. The only earlier Ghostscript version supported is 9.25 due to potential third party security vulnerabilities in earlier versions.

GhostScript software is available for download from a number of third party sites available using any popular search engine.

# Confidence testing

In order to confirm that the installation has been successful a range of confidence test jobs are supplied that produce sample output for each supported type of output datastream.

To run a test job, first check the list of available job files (.hip) in the installed directory and identify the one related to the output datastream you want to create. Ensure the Generate directory is the current path and enter the following on the command line:

```
doc1gen <testname>.hip ops=testgen.ops
```

You can see the source publications used for the confidence tests by importing them into Designer. See "Resources for samples /confidence tests" in the Designer Release Notes for details.

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