

# Font Support from HP



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# Introduction

As today's businesses become more global, the demand for multiple language support continues to grow as well. Unicode is a universal character set and encoding standard that encompasses all characters from all languages in the world. It has been adopted by industry leaders such as Apple, HP, IBM, Microsoft, Oracle, SAP, Sun, Sybase, Unisys and others. In fact, all new SAP solutions are Unicode compliant.

There are two key parts to Unicode – the characters that it includes, and the way these characters are encoded in files. The character set grows with each version. The way the characters are encoded does not change between versions.

Updates between versions of Unicode include changes to conformance specifications, character content, formal definitions, and data files. These may also include new character assignments, character database changes such as new properties, case mapping, character sequencing, numeric properties, bidirectional behavior, text and line breaking, case related properties, and other changes affecting conformance and stability.

Each subsequent version of Unicode is a superset of the previous one, and no characters are deleted or renamed. This is part of the stability clause for the standard.

HP's goal is to support all languages in common usage today. We support all versions of Unicode (i.e the encoding method and the new characters), but we do not necessarily provide the full character set as part of our solutions. For example, if someone from India wants to know if we support the new Indic characters added to Unicode 5.0, the answer is yes. If they have the font, we can print the characters. HP will continue to support all versions as they come out.

HP provides customers several options for printing Unicode based data. Customers using SAP's SAPWIN device type for MS Windows printing can automatically download and print Unicode on any HP printing device. For those customers who do not use MS Windows in their SAP environment, HP offers the following alternatives.

## HP LaserJet Printers with UTF-8 Firmware

Internal HP LaserJet fonts include characters from the Basic Latin, Latin-1, Latin-2, Latin-4, and Latin-5 symbol sets which encompass the following languages:

- |             |                   |              |
|-------------|-------------------|--------------|
| • Albanian  | • French          | • Maltese    |
| • Basque    | • Gaelic          | • Norwegian  |
| • Breton    | • German          | • Polish     |
| • Catalan   | • Greenlandic     | • Portuguese |
| • Croat     | • Hungarian       | • Romanian   |
| • Czech     | • Icelandic       | • Sami       |
| • Danish    | • Irish           | • Serbian    |
| • Dutch     | • Italian         | • Slovak     |
| • English   | • Kurdish (Latin) | • Slovene    |
| • Esperanto | • Lappish         | • Spanish    |
| • Estonian  | • Lappish (Sami)  | • Swedish    |
| • Faroese   | • Latvian         | • Turkish    |
| • Finnish   | • Lithuanian      | • Welsh      |

For languages not included in the list above, the font provided as part of HP's International Printing Solution is needed.

## HP's International Printing Solution

Co-developed and co-tested with SAP, the HP International Printing Solution (IPS) allows you to quickly and easily print Unicode™ based data on a broad range of HP printing devices including monochrome, color and multifunction devices. With IPS, you can confidently purchase and deploy your HP printing devices anywhere in the world, knowing you can print virtually all of the world's languages without making costly and time-consuming hardware or software adjustments. With the addition of IPS on flash memory cards and support for USB flash drives, HP offers the most affordable Unicode-based printing solution on the market – priced significantly less than the total installation cost of CD alternatives which require a hard disk.

The IPS solution is made up of the following two components:

- A Unicode font that provides the proper character representation of the data stream.
- An SAP Unicode device type (ZHPUTF8F.PRI) that delivers UTF-8 data to the HP device.

The majority of the common characters used in the major languages of the world are encoded within the first 65,536 code points; also known as the Basic Multilingual Plane (BMP). The HP International Printing Solution (IPS) includes the majority of the characters within the Basic Multilingual Plane (BMP), which includes character encodings from 0 to FFFF<sub>16</sub>. Listed below is a summary of the languages supported by the IPS solution.

- |                                 |  |                    |
|---------------------------------|--|--------------------|
| • Afrikaans                     | • Georgian                                       | • Norwegian        |
| • Amharic                       | • German   | • Ogham            |
| • Arabic                        | • Gondi (Adilabad and Koi dialects)*             | • Oriya*           |
| • Armenian                      | • Gondi (Betul, Chhindwara and Mandla dialects)* | • Oromo            |
| • Assamese*                     | • Greek  | • Pali*            |
| • Awadhi*                       | • Greek Extended                                 | • Panjabi*         |
| • Badaga*                       | • Greenlandic                                    | • Pashto*          |
| • Bagheli*                      | • Gujarati*                                      | • Persian          |
| • Bahasa                        | • Harauti*                                       | • Polish           |
| • Basque                        | • Hebrew   | • Portuguese       |
| • Bengali                       | • Hindi*   | • Provencal        |
| • Bihari*                       | • Ho*  | • Rhaeto-Romanic   |
| • Bhili*                        | • Hungarian                                      | • Romanian         |
| • Braille                       | • Icelandic                                      | • Romany           |
| • Braj*                         | • Irish  | • Runic            |
| • Breton                        | • Italian  | • Russian          |
| • Burmese*                      | • Jaipuri*                                       | • Saami            |
| • Canadian Aboriginal Syllabics | • Japanese                                       | • Sanskrit*        |
| • Catalan                       | • Judexmo (Ladino)                               | • Santali*         |
| • Cherokee                      | • Kachchhi*                                      | • Sindhi*          |
| • Chhattisgarhi*                | • Kanauji*                                       | • Sinhala*         |
| • Chinese, Simplified           | • Kannada*                                       | • Slavic languages |
| • Chinese, Traditional          | • Khasi  | • Slovak           |
| • Croatian                      |  | • Slovenian        |

- Cyrillic
- Czech
- Danish
- Divehi\*
- Dutch
- Dzongkha\*
- English
- Esperanto
- Estonian
- Faroese
- Finnish
- Flemish
- French
- Frisian
- Garhwali\*
- Ge'ez
- Khmer\*
- Konkani\*
- Korean
- Kurdish\*
- Kurukh\*
- Lambadi\*
- Lao\*
- Latin
- Lativan
- Lithuanian
- Malayalam\*
- Maltese
- Manipuri\*
- Mizo
- Mongolian\*
- Newari\*
- Sorbian
- Spanish
- Swedish
- Syriac\*
- Tamil\*
- Telugu\*
- Thai\*
- Tibetan\*
- Tigre
- Tulu\*
- Turkish
- Urdu
- Vietnamese
- Welsh
- Yi
- Yiddish

\* The basic characters (as listed in Unicode 3.0) for this language are included in the font. Some of the variant forms and combinations of these same characters used outside of standard business printing may not be included.

For more information, see the Unicode Standard documentation.

## IPS CD version (BA392AA)

- Supported by a wide range of HP printing devices including monochrome, color and multifunction devices.
- EIO hard disk required -- to find out more, or to purchase, contact your sales representative or reseller or follow this link <http://h10010.www1.hp.com/wwpc/us/en/sm/WF17a/A10-51210-64269-18970-64269-66299.html>. You can also go to <http://www.hp.com/go/laserjet> click on "other supplies and accessories" near the bottom of the page, and then click on "HP Accessories" to find the HP LaserJet EIO hard drive (installation instructions are included).
- Price \$199.00 (plus the cost of an EIO hard disk)

NOTE: For HP LaserJet printers that support Host-USB, a USB flash drive can be substituted for an HP EIO hard disk. The printer will need an available host-USB port. You must supply and install a 256 MByte or larger USB flash drive.

## IPS Flash memory card version (BA438AA)

- Supported by any HP printing device with an internal compact flash slot. This includes a wide range of HP monochrome, color and multifunction devices.
- Additional RAM may be needed
- Options contain the full IPS Unicode font. The difference in the options is the character preference for the visual appearance or style of Asian characters.
  - Option ABJ – with Japanese character preferences
  - Option AB0 – with Traditional Chinese character preferences
  - Option AB1 – with Korean character preferences
  - Option AB2 – with simplified Chinese character preferences
- Price \$349.00

Note: If the printer displays the error message “Insufficient Memory to Load Font/Data Card Slot x” after installing the flash memory card, you will need to add additional RAM in your printer. For best results, HP recommends HP product #Q3982, 32 MByte 100-pin DDR DIMM.

## What HP devices support IPS?

While this solution is primarily available for most HP LaserJet 3000 series through 9000 series products released in June 2004 and later, many legacy products can utilize IPS by simply upgrading firmware.

HP Products released after June 2004 will not require firmware updates.

Printers requiring a firmware update include the HP LaserJet 4100 mfp, 4200, 4300, 9000, 9000 mfp, 9055 mfp, 9065 mfp, and HP Color LaserJet 5500 and 9500 printers.

To support IPS, the HP product must support an EIO hard drive, compact flash, or Host USB. For more information on specific HP product support, contact your HP sales representative or reseller, or go to <http://www.hp.com/go/laserjet>.

## What else is required to install and run IPS?

For IPS on a flash memory card, a minimum amount of memory is required. These memory requirements will vary depending on the finishing features included on the printer or multifunction device.

For the CD-ROM version, an EIO hard disk is required.

NOTE: For HP LaserJet printers that support Host-USB, a USB flash drive can be substituted for an HP EIO hard disk. The printer will need an available host-USB port. You must supply and install a 256 MByte or larger USB flash drive.

## Which version of IPS works with your device?

The version of IPS you use depends on your printing needs and whether your printer supports an EIO hard drive, compact flash or Host-USB. If your printer did not come standard with an EIO hard drive and you need the faster throughput and high-capacity storage provided by the EIO hard drive, the CD version may best suit your needs.

- The CD version requires that an EIO hard disk is installed in the printer. Some models of HP printers may come standard with an EIO hard drive, while it may be an option on others.
- For HP LaserJet printers that support Host-USB, a USB flash drive can be substituted for an HP EIO hard disk. This solution is supported by any HP printing device with an available Host USB port. You must supply and install a 256 MByte or larger USB flash drive.

- The flash memory card solution is supported by any HP printing device with an available internal compact flash slot. This includes a wide range of HP monochrome, color and multifunction devices. Depending on the amount of available RAM in the printer, you may need to purchase additional RAM.

For the latest information on HP products supported by IPS, contact your HP sales representative or reseller. For information and specifications on new HP printers, go to <http://www.hp.com/go/laserjet>.

## For more information

For more information on the HP International Printing Solution, or for ordering information, go to <http://www.hp.com/go/sap/drivers>.

## HP International Printing for HP Output Server

For environments that are using the HP Output Server, the HP International Printing for HP Output Server, an add-on module to HP Output Server (HPOS), enables HPOS to accept and process files containing primarily UTF-8 characters based on the Unicode Standard. This module examines each printer individually and attaches the minimum amount of font resources to print the document at that printer, thereby minimizing file size and network traffic. It is centrally located, making it easy to deploy and administer. HPOS output can be sent to Unicode-enabled and non-Unicode-enabled output devices in any combination and in any geography. It can deliver output to your existing fleet of printers, both Unicode and non-Unicode-enabled, without requiring any upgrades or changes, and it can perform transformations between many of the page description languages such as PostScript to PDF.

For example, HPOS can deliver a document to a Unicode-compliant printer located in the United States, a non-Unicode-compliant printer in India, a fax device in France, and email simultaneously. It also enables you to output a document that contains multiple languages, such as Japanese, Chinese and German, instead of sending it to separate devices, each with the appropriate single-language DIMM installed.

There is no need to modify individual output devices at anytime. There is no need to change the HPOS infrastructure other than to install the software for HP International Printing for HP Output Server and to install any Unicode font sets that you like to employ in your business beyond the default font set: Monotype Andale™ San-Serif.

## For more information

For more information, go to <http://www.hp.com/united-states/outputmanagement>.

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