New Infoprint 4000 Features Improve Productivity, Performance, and Versatility

Overview
The following new functions and features for the Infoprint® 4000 family of printers offer new enhancements in a variety of areas:

New **Gray-Scale** standard function allows color Advanced Function Presentation (AFP) jobs to print on monochrome AFP printers; minimizing the need for creating and storing duplicate color and monochrome print jobs.

An **Enhanced Operator Console** feature includes new hardware (keyboard, mouse, and flat-panel touch-screen display) and a new Graphic User Interface (GUI) that provide a very versatile operator interface for improved productivity and operations control.

New **Short- and Tall Turn-Bar** features allow more versatile printer configuration.

A **512 MB Additional Memory (Modules)** feature helps maintain the rated throughput speed and productivity of the Infoprint 4000 IR1/IR2 and Infoprint 4000 IR3/IR4 printing systems when printing signature pages and other complex pages.

A **Function/Performance Enhancement** feature supports increasingly complex applications and robust new features and capabilities.

A **Gigabit Ethernet SX Attachment** feature provides connection to a Gigabit Ethernet LAN over fiber optic cabling for blazing throughput to reduce network bottlenecks when printing large and complex jobs in demanding server environments.

**Key Prerequisites**
- Infoprint 4000 Printer
- Software at the appropriate level; refer to the **Software Requirements** section.
- Microcode at the appropriate level; refer to the **Description and Hardware Requirements** sections.

**Planned Availability Dates**
April 20, 2001, except for the Enhanced Operator Console, the Function/Performance Enhancement, and Gigabit Ethernet SX Attachment features which are available July 27, 2001. Refer to the **Description** section for more details.

**At a Glance**
New Infoprint 4000 features and functions include:
- Gray-Scale
- Enhanced Operator Console
- Short and Tall Turn-Bars
- Additional Memory (Modules)
- Function/Performance Enhancement feature
- Gigabit Ethernet SX Attachment

These new features and functions improve productivity, performance, control, and versatility.
**Gray-Scale**

The new Gray-Scale feature simulates color using gray tones. With this new function the Infoprint 4000 printers will now accept the same IPDS™ color information sent to your color printers; allowing customers that are currently designing and developing applications for both monochrome printers and color printers to reduce their application development.

The new Gray-Scale feature accepts the following AFP color objects and converts them to shades of gray:

- PTOCA text
- GOCA graphics
- Color object areas and logical pages
- Bi-level IOCA image (FS10)

In addition, the Gray-Scale feature accepts color BCOCA barcodes and converts them to black. Other kinds of color objects must be transformed prior to printing. IBM includes color transforms in the following program products:

- In the OS/390® and z/OS environments, IBM Infoprint Server Transforms for OS/390 V1R1 (5697-F51) can be used to convert PostScript, PDF, and PCL 5E to bi-level IOCA and SAP print data to AFP. These transforms must be invoked as batch jobs. In the next OS/400® Version/Release transforms will be invoked automatically to convert PostScript, PDF, PCL 5E, TIFF, GIF, and JPEG to bi-level IOCA.

- In the AIX® environment, IBM Infoprint Manager for AIX V3R2 (5765-E42) includes transforms to convert PostScript, PDF, PCL 5E, TIFF, GIF, and JPEG to bi-level IOCA. The optional SAP Print feature of Infoprint Manager for AIX V3R2 includes a transform to convert SAP print data to AFP. These transforms are invoked automatically.

- In the Windows NT™ and Windows™ 2000 environments, IBM Infoprint Manager for Windows NT and Windows 2000 V1R1 (5639-I27) include transforms to convert PostScript, PDF, PCL 5E, TIFF, GIF, and JPEG to bi-level IOCA. These transforms are invoked automatically.

**Note:** While these PostScript transforms may be used to convert Embedded PostScript (EPS) objects, these objects are not intended to be printed stand-alone and may lack the PostScript showpage command necessary for physical printing or the PostScript positioning commands necessary for proper orientation and printing on the physical page.

**Enhanced Operator Console**

The new Enhanced Operator Console provides a new operator interface and Graphic User Interface (GUI) designed to be user-friendly. The fundamental interface alternatives have been extended. In addition to the touch-screen panel, both a keyboard and a mouse are now included. The number of clicks necessary to execute a given function has been reduced. The visual interface is truly graphic in nature and customizable.

The Enhanced Operator Interface is designed with productivity and versatility in mind.

**Short and Tall Turn-Bars**

The new Short Turn-Bar and Tall Turn-Bar features give customers the versatility to order the required height Turn-Bar and the number of Turn-Bars necessary for their given printer configuration.

**512 MB Additional Memory (Modules)**

The 512 MB Additional Memory (Modules) feature allows Infoprint 4000 IR1/IR2 and Infoprint 4000 IR3/IR4 customers to improve printer performance during complex print jobs, such as printing signature pages.

**Function/Performance Enhancement**

The Function/Performance Enhancement feature more than doubles the Infoprint 4000 IS1 and IS2 processor power. This Function/Performance Enhancement provides the raw performance power necessary to support many of the advanced feature and function as well as larger and more complex print jobs.

**Gigabit Ethernet SX Attachment**

The Gigabit Ethernet SX Attachment feature provides blazing network throughput for large and complex print jobs in demanding server environments.

**Planned Availability Dates:**

- **Gray-Scale** available as a standard feature for Infoprint 4000 Models IR2, IR4, and ID6 — April 20, 2001.
- **Enhanced Operator Console** will be available as a special feature for Infoprint 4000 Models IS1, IS2, ID2, ID4, IR2, and IR4; and as a standard feature on the ID6 — July 27, 2001.
- **Short Buffer/Flipper Unit** will be available as a special feature for Infoprint 4000 Models IS1, IS2, ID1, ID3, ID5, and IR3 — April 20, 2001.
- **Tall Buffer/Flipper Unit** will be available as a special feature for Infoprint 4000 Models IS1, IS2, ID1, ID3, ID5, and IR3 — April 20, 2001.
- **512 MB Additional Memory (Modules)** feature will be available as a special feature for Infoprint 4000 Models IS1, IS2, ID1, ID3, ID5, and IR3 — April 20, 2001.
- **Function/Performance Enhancement** feature will be available as a special feature for Infoprint 4000 Models IS1 and IS2 — July 27, 2001.
- **Gigabit Ethernet SX Attachment** will be available as a special feature for Infoprint 4000 Models ID4 and ID6 — July 27, 2001.

**Euro Currency**

This product is not impacted by euro currency.

**Statement of General Direction**

IBM plans to make available as a standard function support for 2D Barcode on the Infoprint 4000 family of printers. This plan includes support by the software products on the OS/390, AS/400®, Infoprint Manager for AIX, and Infoprint Manager for Windows NT and Windows 2000 platforms.

In support of MICR printing, IBM plans to make available a customer changeable developer on the Infoprint 4000 printers.

These statements represent IBM’s current plans and objectives and are subject to change or withdrawal without notice.
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Publications

You may obtain the following publication from your IBM Printing Systems Division representative.

- Infoprint 4000 Models with Enhanced Operator Console Planning and Configuration Guide (S544-5790)

Some publications listed below may be shipped softcopy with the product. For additional copies, or hardcopy, contact your IBM Printing Systems Division representative.

- Infoprint 4000 Models with Enhanced Operator Console User’s Guide (S544-5791)
- Infoprint 4000 Models with Enhanced Operator Console Quick Reference Guide (S544-5792)

Technical Information

Specified Operating Environment

**Physical Specifications:** The features in this announcement do not change the physical specifications of the printing systems; which remain the same as announced for the specific Infoprint 4000 Printers.

- For Infoprint 4000 Model IS1 and IS2, refer to Hardware Announcement 196-285, dated October 22, 1996.
- For Infoprint 4000 Model ID1 and ID2, refer to Hardware Announcement 196-284, dated October 22, 1996.
- For Infoprint 4000 Model IS2, refer to Hardware Announcement 198-036, dated February 17, 1998.
- For Infoprint 4000 Model ID3 and ID4, refer to Hardware Announcement 197-323, dated November 11, 1997.
- For Infoprint 4000 Model IR1 and IR2, refer to Hardware Announcement 197-101, dated May 6, 1997.
- For Infoprint 4000 Model ID5 and ID6, refer to Hardware Announcement 100-333, dated October 10, 2000.

**Operating Environment:** Refer to the specific announcement for your Infoprint 4000 model listed above.

Hardware Requirements

Gray-Scale

Gray-Scale is a standard function now available on the Infoprint 4000 models IR1/IR2, IR3/IR4, and ID5/ID6. The Gray-Scale function allows color Advanced Function Presentation (AFP™) jobs to be printed on these monochrome printers. In many cases, this can allow customers to create a single color print job that can be routed, without modification, to color or monochrome printers.

- Corequisite: None
- Prerequisite: None
- Limitations:
  - The Gray-Scale feature accepts PTOCA text, GOCA graphics, AFP color object areas and logical pages, bi-level IOCA image (FS10) and BCOCOA only. Other color objects must be transformed before being sent to the printer.
  - The Gray-Scale feature does not support full-process color IOCA image (FS42 and FS45) nor gray-scale IOCA. IBM does not currently offer transforms for these objects.

Enhanced Operator Console (#4450 and #9450)

The Enhanced Operator Console feature provides a new more user-friendly operator interface including both a new flat-screen touch-panel, keyboard, mouse, and a new Graphic User Interface (GUI). This provides versatility and production improvement by offering interface alternatives and minimizing the number of clicks required to execute functions.

- Minimum required:
  - Infoprint 4000 ID6 (#9450): 1
  - Infoprint 4000 IS1, IS2, ID2, ID4, IR2, IR4 (#4450): 0
- Maximum allowed:
  - Infoprint 4000 ID6 (#9450): 1
  - Infoprint 4000 IS1, IS2, ID2, ID4, IR2, IR4 (#4450): 1
- Corequisite: None
- Prerequisites for feature number 4450 MES are:
  - IS1 requires feature numbers 4445 and 4410 or 9410
  - IS2 requires feature numbers 4445 and 4410 or 9410
  - ID2 requires feature number 4441, or 4445, or 4231, or 4232 and 4410, or 9410
  - ID4 requires feature number 4441, or 9941 and 4410, or 9410
  - IR2 requires feature number 4410 or 9410
  - IR4 requires feature number 4410 or 9410
- Microcode must be at level 11.0, or higher
- Limitations:
Plant installation: Feature number 9450 Yes; feature number 4450 Yes
Field installation: Feature number 9450 No; feature number 4450 Yes

Short Buffer-Flipper Unit (#4402 and #9402)
The Short Buffer-Flipper Unit provides an alternative to those customers using printer configurations, such as "H" configuration, where the distance between duplex print engines is normally long enough to cool down the paper path without the use on the Tall Buffer-Flipper. It is the standard buffer-flipper recommended for use with the Infoprint 4000 models ID1 and IR3.

- Minimum required:
  - Feature number 9402: 0
  - Feature number 4402: 0

- Maximum allowed:
  - Feature number 9402: 1
  - Feature number 4402: No limit

- Corequisite: None
- Prerequisite: None

- Limitations:
  - Plant installation: Feature number 9402 Yes; feature number 4402 Yes
  - Field installation: Feature number 9402 No; feature number 4402 Yes
  - Upgrades: When applicable, model upgrades will include an opportunity to select the specify feature number 9402.

Tall Buffer-Flipper Unit (#4403 and #9403)
The Tall Buffer-Flipper Unit provides an alternative to those customers using printer configurations, such as "Inline" configuration, where the distance between duplex print engines is normally too short to cool down the paper path without the use on the Tall Buffer-Flipper. It is the standard buffer-flipper recommended for use with the Infoprint 4000 models ID3 and ID5.

- Minimum required:
  - Feature number 9403: 0
  - Feature number 4403: 0

- Maximum allowed:
  - Feature number 9403: 1
  - Feature number 4403: No limit

- Corequisite: None

- Limitations:
  - Plant installation: Feature number 9403 Yes; feature number 4403 Yes
  - Field installation: Feature number 9403 No; feature number 4403 Yes
  - Upgrades: When applicable, model upgrades will include an opportunity to select the specify feature number 9403.

512 MB Additional Memory (Modules) (#4369)
The 512 MB Additional Memory (Modules) feature provides the additional performance necessary for some complex print jobs, such as signature pages.

- Minimum required: 0
- Maximum allowed: 1

- Corequisite: None
- Prerequisite:
  - Infoprint 4000 IR4
  - Infoprint 4000 IR2 with feature number 4368

- Limitations:
  - Requires microcode level 10.2, or higher; or microcode level 11.0, or higher.

Function/Performance Enhancement (#4445)
This Function/Performance Enhancement provides a larger, faster processor to support throughput performance and productivity when running complex print jobs, and to support new function rich features.

- Minimum required: 0
- Maximum allowed: 1

- Corequisite: None
- Prerequisite: None

- Limitations:
  - Requires microcode level 10.2, or higher; or microcode level 11.0, or higher.

Gigabit Ethernet SX Attachment (#4172 and #9972)
The Gigabit Ethernet SX Attachment provides blazing network throughput for large and complex print jobs in demanding server environments.

- Minimum required: 0
- Maximum allowed: 1

- Corequisite: None
- Prerequisite: Feature number 4450 or 9450

- Limitations:
  - Only available for Infoprint 4000 ID4 and Infoprint 4000 ID6.
  - Only one feature number 4172 or one feature number 9972 can be installed.
  - Only one TCP/IP attachment of any kind can be installed.
  - One feature number 4172 or one feature number 9972 can be installed with one other non-TCP/IP feature. For example, a feature number 9972 with an ESCON® feature number 4131.
  - Must have microcode version V11.0, or later.
Field installation: Feature number 4172 Yes; feature number 9972 No

Software Requirements: The Gray-Scale standard feature and function is supported by the following operating system environments as described:

- **OS/390** operating environment:
  - Print Services Facility™ V3 for OS/390 R1 (5655-B17), or later
  - If you wish to print PostScript, PDF, PCL, or SAP print data, IBM Infoprint Server Transforms for OS/390 (5697-F51) and its prerequisites are also required

- **MVS™** operating environment:
  - Print Services Facility/MVS (PSF/MVS) V2R2 (5695-040), or later
  - Transforms for non-BCOCA color objects are not supported

- **VM** operating environment:
  - Print Services Facility/VM (PSF/VM) V2R1 (5664-312), or later
  - Transforms for non-BCOCA color objects are not supported

- **VSE** operating environment:
  - Print Services Facility/VSE (PSF/VSE) V2R2 (5686-040) with APARS DY44429 and DY43437, or later
  - Transforms for non-BCOCA color objects are not supported

- **OS/400** operating environment:
  - Print Services Facility/400 (PSF/400) V4R4, or later
  - If you wish to print PostScript, PDF, PCL, TIFF, GIF, or JPEG, the next OS/400 Version/Release and its prerequisites are also required

- **AIX®**: Infoprint Manager for AIX V3R2 (5765-E42)
  - If you wish to print SAP data, the SAP Print feature of Infoprint Manager for AIX is also required

- **Windows NT™** and **Windows™** 2000:
  - Infoprint Manager for Windows NT and Windows 2000 V1R1 (5639-I27)

Infoprint 4000 ID3/ID4 and ID5/ID6 Gigabit Ethernet SX Attachment Support*

<table>
<thead>
<tr>
<th>Description</th>
<th>Feature Number</th>
<th>Install Time</th>
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<tr>
<td>Gray-Scale*</td>
<td>4450</td>
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<tr>
<td>Enhanced Operator Console</td>
<td>4450</td>
<td>5.0 hours</td>
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<tr>
<td>Short Buffer-Flipper Unit</td>
<td>4402</td>
<td>1.5 hours</td>
</tr>
<tr>
<td>Tall Buffer-Flipper Unit</td>
<td>4403</td>
<td>1.5 hours</td>
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<tr>
<td>512 MB Additional Memory (Modules)</td>
<td>4369</td>
<td>1.0 hours</td>
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<tr>
<td>Function/Performance Enhancement (Field)</td>
<td>4445</td>
<td>4.0 hours</td>
</tr>
<tr>
<td>Gigabit Ethernet SX Attachment</td>
<td>4172</td>
<td>2.0 hours</td>
</tr>
</tbody>
</table>

* This is a standard feature, no feature code is associated with this feature. The installation time reflects a microcode update, if required. In the case of non-Enhanced Operator Console printers this standard feature must be activated by a CE.

Direct Customer Support: Eligible customers can obtain installation and usage assistance through ASK Support. To obtain information on customer eligibility and registration procedures, refer to HONE SUPPORTINFO, using the search word HDWR4000 or IBMLink™ ASKQ.

Security, Auditability, and Control

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communications facilities.
Terms and Conditions

Feature Section

This product is available for purchase under the terms of the IBM Customer Agreement.

IBM hardware products are manufactured from new parts and used parts. In some cases, the hardware product may have been previously installed. Regardless, IBM’s warranty terms apply.

MES Discount Applicable: Equal to the volume commitment discount

Field Installable Feature: Yes

Warranty Period: Three months

Customer Setup: No

Licensed Internal Code: Same license terms and conditions as designated machine

Prices

Contact your IBM representative for prices information for this announcement.

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