



Hewlett-Packard PCLII/SAP DEVICE TYPE

This document describes the SAP Compatible Hewlett-Packard DEVICE TYPE. Appendix 1 provides step-by-step instructions for installing into the list of DEVICE TYPES in the SAP R/3 spooling system. The Hewlett-Packard PCLII/SAP DEVICE TYPE is designed for use on the SAP R/3. The procedures outlined below specifically pertain to SAP version 3.1H. However, if your SAP R/3 system version is 3.0 or higher, the procedures are identical. PCLII/SAP DEVICE TYPE is also compatible with other versions of SAP, including SAP R/2.

PCLII/SAP DEVICE TYPE is designed by Hewlett-Packard specifically for the LineJet and LP Series printers and is compliant with all requirements for SAP R/3 compatible DEVICE TYPES. Once installed in an R/3 system's list of DEVICE TYPES, Hewlett-Packard PCLII/SAP DEVICE TYPE can be assigned to LineJet and LP Series printers by the SAP System Administrator. Hewlett-Packard PCLII/SAP DEVICE TYPE functions entirely within the host's SAP R/3 software system. Hewlett-Packard PCLII/SAP DEVICE TYPE allows SAP system users to print SAP application documents, which contain Hewlett-Packard Line Printer Plus (PCLII) bar codes and its set of fixed and scalable fonts conveniently from their SAP standard toolbars and transaction menus.

Familiarity with the SAP System Administration screens (SPAD), will be needed. We recommend reading the SAP Basis Component Printing Guide on the online SAP help system, as well as the "The SAP R/3 Handbook", J. A. Hernandez, McGraw-Hill, 1997.

Operation of the SAP R/3 Printing System

The SAP R/3 Printing System has a proprietary spooling system to receive, process, schedule, print, and distribute documents requested for printing by SAP users. The SAP spooling system performs two major functions: (1) formatting the document according to the parameters of the DEVICE TYPE assigned to the OUTPUT DEVICE (printer) and (2) communicating the formatted output data to the spooling system of the host computer system, where the OUTPUT DEVICE is physically connected.

Basically, SAP system users working on data within a SAP application module can request the printing of a displayed document by clicking on the print button in any SAP transaction screen that presents a standard toolbar or by choosing the Print function from the transaction's List



menu. This step presents the user with a Print Screen List, which allows the user to enter an OUTPUT DEVICE name and results in the transaction generating a SPOOL REQUEST.

The SPOOL REQUEST starts a SAP spool work process to handle the SPOOL REQUEST for the user-named OUTPUT DEVICE, which is a printer in this case. To do that, the OUTPUT DEVICE works with a System Administrator-assigned DEVICE TYPE, which is available in a list of DEVICE TYPES within the SAP spooling system. The DEVICE TYPE provides all necessary spool processing information via a command translation table for the OUTPUT DEVICE. As a result, the spool work process is able to translate the SAP native output control commands contained in the SAP application's print controls into the command language of the named OUTPUT DEVICE.

SAP R/3 LIST OF DEVICE TYPES

In SAP, a DEVICE TYPE is a printer parameter interface between an OUTPUT DEVICE and set of logical information components that define how that printer prints documents. These logical information components are a collection of printer-specific control properties.

The standard SAP system “out-of-the-box” supplies an extensive list of resident DEVICE TYPES to enable printing with a variety of commercially available OUTPUT DEVICES. SAP assures that these resident DEVICE TYPES will work properly with the SAP R/3. In the SAP SPOOL ADMINISTRATION (SPAD) screens, SAP provides System Administrators the capability to define new DEVICE TYPES and append them to the resident list of available DEVICE TYPES. However, the creator of such a new DEVICE TYPE is responsible for its accuracy, performance, and support, not SAP.

Note: Any of the resident DEVICE TYPES, regardless of origin, can be used “as is” or modified by the System Administrator. Depending on the specific SAP system environment, a DEVICE TYPE, such as ZHPPCLII, may be customized to meet OUTPUT DEVICE specific requirements. Typically, the list of resident DEVICE TYPES provides a good starting set of templates to create custom DEVICE TYPES. A simple way to create a custom DEVICE TYPE is to copy the definition and then change it as necessary to meet system OUTPUT DEVICE requirements. Modifications to the DEVICE TYPES can be made easily by using the fill-in-the-box tables in the SAP SPOOL ADMINISTRATION screens.



SAPscript Printer Drivers

The SAP system provides a list of “out-of-the-box” SAPscript printer drivers, which are assigned to various DEVICE TYPES in the SAP list of available DEVICE TYPES. The purpose of these SAPscript printer drivers is to make the conversion from the output format of SAPscript to the print format of the DEVICE TYPE assigned with the OUTPUT DEVICE. The list below identifies five of the most common of the SAPscript printer drivers.

Each of these SAPscript printer drivers is named in the SAP system with unique four character code, such as STN2.

1. HPL2: HP PCL4/PCL5 (LJ 3, 4, 5, 6)
2. POST: PostScript (Adobe)
3. PRES: Prescribe(Kyocera)
4. SWIN: Windows (SAPlpd/SAPWIN)
5. STN2: SAP Standard Line Printer Driver

System Administrators, who create DEVICE TYPES, specify one of these SAPscript printer drivers in the Driver field of the SPAD “Create Device Type” screen.

Note: The ZHPPCLII Device type is intended to be used with the STN2 Printer Driver



Printing to an OUTPUT DEVICE

For a SAP transaction to print a document, it must deliver an output data stream to an OUTPUT DEVICE connected to the R/3 system. To prepare the data for that output stream, the SAP spooling system needs a substantial amount of information about the physical device represented by the OUTPUT DEVICE. In SAP R/3, each OUTPUT DEVICE is assigned a specific DEVICE TYPE that provides for the storage of the details about the physical device and other required data within the spooling system. The information contained in each DEVICE TYPE is organized as a collection of tables that define the attributes of a specific OUTPUT DEVICE.

A printer is a common example of an OUTPUT DEVICE. When R/3 has multiple printers connected, it requires separate OUTPUT DEVICE (printer) definitions, each of which has been assigned the proper printer-specific DEVICE TYPE definition.

Creation of an OUTPUT DEVICE

In SAP, an OUTPUT DEVICE is a unique four character system name for the physical device. This OUTPUT DEVICE name is registered in the SAP spooling system and is specified each time a print request is made to print a document to the device. The SPAD Create Output Device screen is used to specify the OUTPUT DEVICE definition, which includes the four character OUTPUT DEVICE name, the DEVICE TYPE, and other essential system information about the physical device to the SAP spooling system.



Description of Hewlett-Packard PCLII/SAP DEVICE TYPE

Hewlett-Packard PCLII/SAP DEVICE TYPE contains all the LineJet and LP Series printer-specific information required for the SAP spooling system to respond to a user's print request and deliver a properly prepared output data stream to LineJet and LP Series printers as an assigned OUTPUT DEVICE.

The Hewlett-Packard PCLII/SAP DEVICE TYPE has the following logical components:

SAPSCRIPT DRIVER

This component contains the SAPscript printer driver, which makes the conversion from the output format of SAPscript to the print format of the DEVICE TYPE assigned to the OUTPUT DEVICE. This driver uses the properties and attributes resident in the DEVICE TYPE definition to translate SAPscript forms into an output data stream that can be printed by the physical printer.

CHARACTER SETS

This component is a collection of character sets, or code pages, that are available in the OUTPUT DEVICE. The SAP spooling system uses this collection of character sets to translate SAP code values in its own system character set into an output data stream of code values understood by the OUTPUT DEVICE.

PRINT CONTROLS

This component contains the command set of the OUTPUT DEVICE and makes it possible for the SAP spooling system to translate its system print controls used in ABAP/4 programs and in SAPscript forms into the escape sequences required by the OUTPUT DEVICE.

FORMATS

This component determines how the output will appear on the paper and primarily specifies paper sizes, such as Letter and DINA4. It allows SAPscript forms to construct a layout and portrait or landscape orientation in the printable area of the page.

DEVICE INITIALIZATION

This component is a group of escape sequences used to configure the OUTPUT DEVICE for the requirements of the specific document in the print request. These configuration escape sequences, containing information such as cpi, lpi and fonts, are sent to the printer prior the initiation of an output data stream for the document.



Hewlett-Packard PCLII/SAP DEVICE TYPE: Bar Code And Font Support

Hewlett-Packard PCLII/SAP DEVICE TYPE provides SAP system users the ability to print documents utilizing the bar codes and serif and sans serif fonts that are resident in Line Printer Plus (PCLII), which is standard firmware in every LineJet and LP Series printer.

The PCLII/SAP DEVICE TYPE is designed to make “out-of-the-box” SAP bar codes and Hewlett-Packard resident bar codes available to SAP report programmers. These PCLII/SAP/Hewlett-Packard bar codes are shown in Table 1 below.

The PCLII serif and sans serif font sets contain the fonts that are standard in the emulated printers, along with a number of additional popular fonts that are provided by Hewlett-Packard. The PCLII/SAP DEVICE TYPE is designed with these PCLII bar codes and the PCLII font set as part of the DEVICE TYPE definition.

When a PCLII/SAP DEVICE TYPE has been specified in the OUTPUT DEVICE (printer) definition, all the PCLII bar codes and fonts are immediately available for use by SAP report programmers, who write SAP reports in either SAPscript or ABAP/4 programming language. All standard SAPscript bar codes are automatically mapped to the equivalent device-specific escape sequences that represent the bar codes in the OUTPUT DEVICE.

The PCLII/SAP DEVICE TYPE is thus very convenient for the SAP report programmer. To insert either PCLII bar codes in reports generated by SAPscript and/or ABAP/4 programs, it is only necessary to write the name of the bar code type and the bar code data at the proper location on the page of the report.

When the SAP System Administrator has assigned a PCLII/SAP DEVICE TYPE to the LineJet or LP Series OUTPUT DEVICE, SAP system users will be able to print SAP documents containing PCLII bar codes and fonts by simply using their SAP standard toolbars and transaction menus.



Table 1: Bar code symbologies supported by Hewlett-Packard PCLII/SAP DEVICE TYPE

PCLII Barcode Types	SAP Names	Names Assigned by
Code 39	BC_CD39	SAP (out-of-the-box)
Code 39C	BC_CD39C	SAP (out-of-the-box)
EAN 13	BC_EAN13	SAP (out-of-the-box)
EAN 8	BC_EAN8	SAP (out-of-the-box)
Interleaved 2/5	BC_I25	SAP (out-of-the-box)
Interleaved 2/5	BC_125C	SAP (out-of-the-box)
POSTNET 5	BC_PSN5	SAP (out-of-the-box)
POSTNET 9	BC_PSN9	SAP (out-of-the-box)
Industrial 2 of 5	ZHPIND25	Hewlett-Packard
Royal Mail	ZHPRMAIL	Hewlett-Packard
Royal Mail with Kix	ZHPRMKIX	Hewlett-Packard
UCC 128	ZHPUCC	Hewlett-Packard
UPC-A	ZHPUPCA	Hewlett-Packard
UPC-E	ZHPUPCE	Hewlett-Packard

The PCLII/SAP DEVICE TYPE supports SAP “out-of-the-box” bar codes and Hewlett-Packard resident bar codes shown in Table 1 above by including them in its DEVICE TYPE definition. However, the addition of other bar code types into the SAP system may be done by using the System Administration Spool menu, which provides this capability in its “SAPscript Font Maintenance: Initial Screen”. Detailed instructions for adding Hewlett-Packard bar codes to SAP using this method are provided on pp. 10-14.

Note: When a report programmer designs a form in SAP, we suggest that the programmer examine the actual printout (hard copy) of the form at the printer rather than view the print preview mode of the document in SAP. The reason is that the printed page image of a bar code will appear in exactly the same position as designed into the document’s SAP program. Specifically, the upper left hand corner of the bar code image box generated by the document programmer is automatically placed at the cursor position of the programmer’s source code editor. This places the bar code box below the cursor position on the printed page. However, in a SAP transaction’s Print Preview function, the lower left hand corner of the bar code image box is placed at the cursor position in the Print Preview display. This places the box above the screen cursor position and may interfere with the display of text or other material that has been written above the cursor position in the program.

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How to install a Hewlett-Packard PCLII/SAP DEVICE TYPE

For the Hewlett-Packard PCLII/SAP DEVICE TYPE to be available to SAP R/3 applications, it must be imported into the SAP spooling system. R/3 provides two import utilities in SAP transaction SA38 to store the DEVICE TYPE information in the proper places within the spooling system. One utility is used to import the PCLII/SAP DEVICE TYPE character sets. The other is used for the remaining components of PCLII/SAP DEVICE TYPE.

Briefly, the PCLII/SAP DEVICE TYPE installation steps are:

- **Test** the printer outside SAP R/3 to verify its printing operation.
- **Import** the PDT files using the two SA38 utilities.
- **Create** an OUTPUT DEVICE for the SAP spooling system. This makes a logical connection between the OUTPUT DEVICE, the DEVICE TYPE, and the COMMUNICATION PATH to the printer (physical device).
- **Print** a test document selected in a user's SAP application transaction screen. Specify the OUTPUT DEVICE name in the Print List screen and the list printing of the test document should take place at the printer.

Successful implementation of these steps will verify correct installation of PCLII/SAP DEVICE TYPE.



Appendix 1

Installation of the Hewlett-Packard PCLII/SAP Device Type: ZHPPCLII

The following procedures detail the use of the SAP R/3 System to install the Hewlett-Packard PCLII/SAP DEVICE TYPE in the list of available DEVICE TYPES in the spool system of SAP R/3. The outlined procedures below is specifically pertain to SAP version 3.1H. If your SAP R/3 system version is 3.0 or higher, the procedures are similar and the PCLII/SAP DEVICE TYPE is also compatible with other versions of SAP.

Preliminary Printer Verification Stage: print Non-SAP documents in Non-SAP environment

This is to confirm that the host OS/printer attachment works properly outside of SAP. This enhances the assurance that the host operating system and the printer are correctly configured prior to creating the Hewlett-Packard printer as an OUTPUT DEVICE to the SAP R/3 internal spool system.

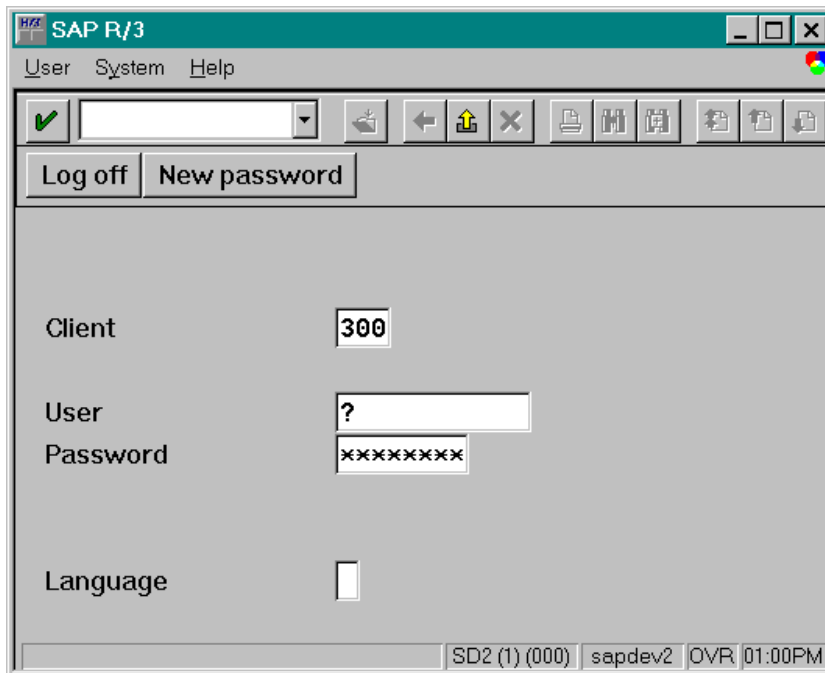
SAP R/3 documentation strongly advises that the printer should be thoroughly pre-tested in printing Non-SAP documents in the host OS system without SAP. Typically, the host OS could be any one of these platforms: UNIX systems, Windows or Windows NT, AS/400, or IBM mainframe platforms.

After the "Printer's Requirements" above are satisfied, generate a few printouts to the Hewlett-Packard printers from any non-SAP applications such as MS Word or any ASCII text editor. If no printouts were generated, check all connections to and from the printers. If all else failed, contact Hewlett-Packard Support Group to resolve it. ***Do not proceed any further!***



PROCEDURE ONE:

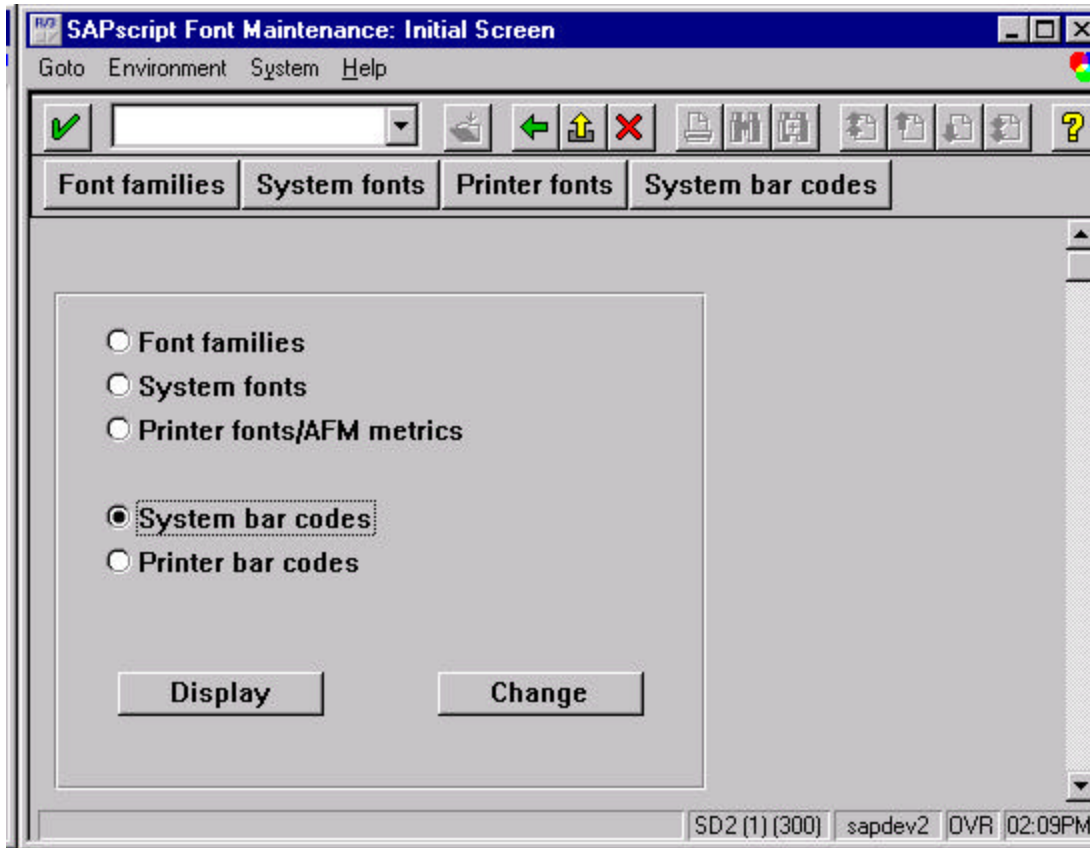
Add Hewlett-Packard bar code definitions to SAP R/3 System

1. To utilize Hewlett-Packard bar codes in SAP R/3 applications, SAP R/3 requires the definitions of these bar codes to be incorporated into the naming space of SAP R/3 System. All non-standard (not “out-of-the-box”) bar code names begin with the letter Z to conform with SAP naming convention for non-system objects.
2. Start the SAP R/3 front-end client GUI. Log into the central instance of SAP Server with administrator rights. Type in your User name and Password at the appropriate text box. Press the <ENTER> key to continue to the next screen. The screen should look very much like the illustration below.



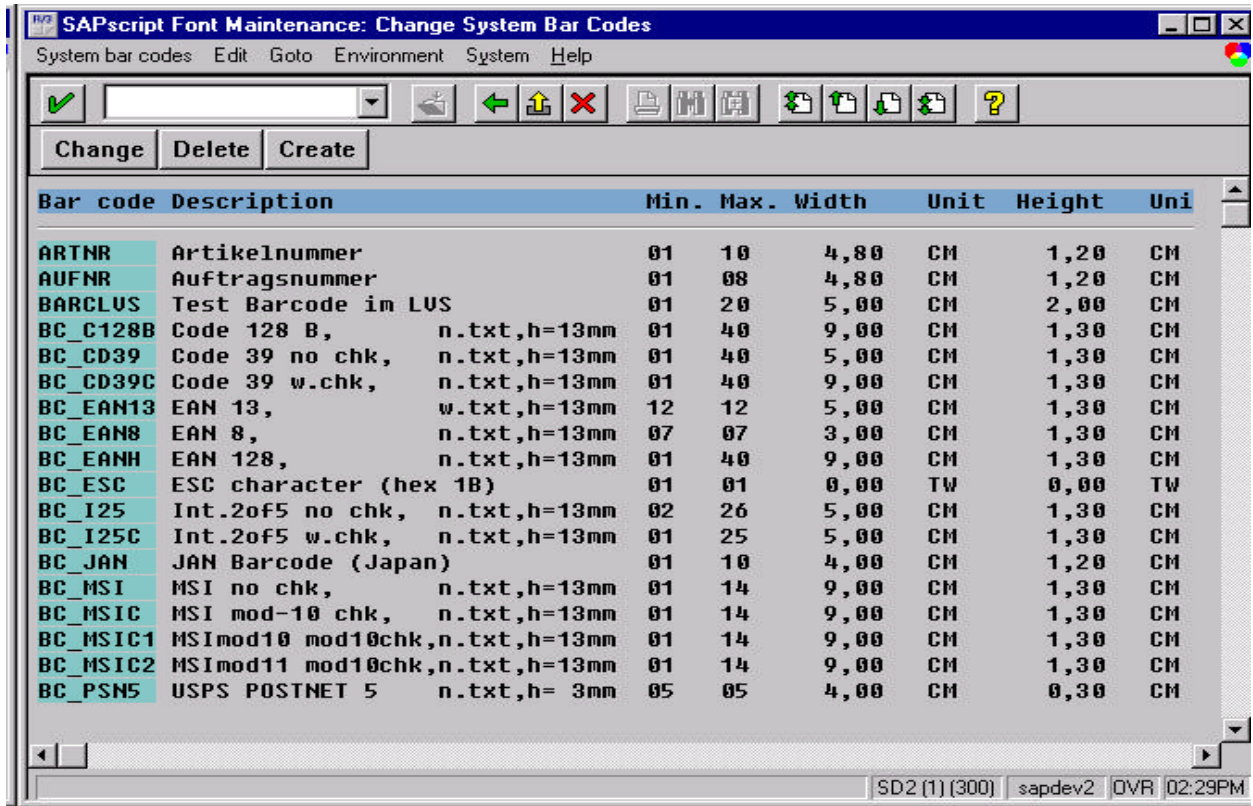
SAP R/3 Login Screen

3. Start the *SAPscript Font Maintenance* transaction SE73 by entering `/nse73` in the command line text box located just below the menu bar of the SAP R/3 System screen . Press the <Enter> key or click once on the  box adjacent to the command line text box. Alternate method is to use the menu bar by selecting *Tools->Administration->Spools->Font maintenance*. The “SAPScript Font Maintenance” screen should look very much like the illustration below.



SAPscript Font Maintenance: Initial Screen

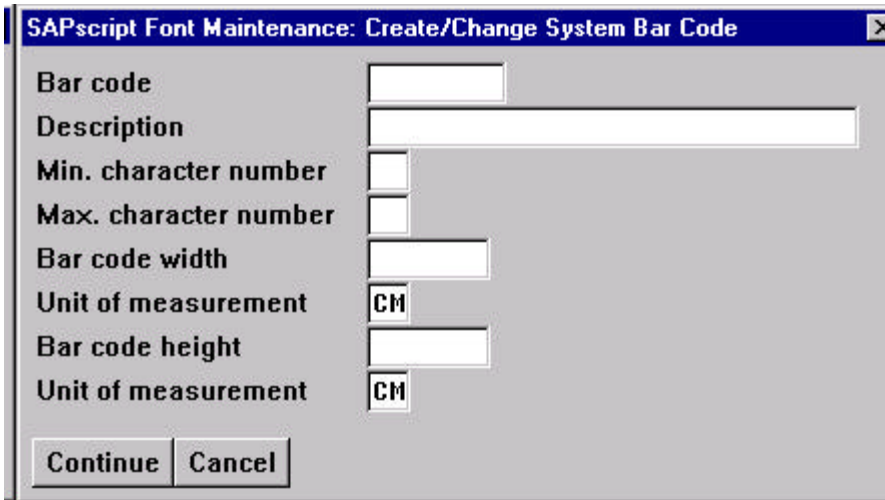
4. At the “*SAPscript Font Maintenance: Initial Screen*”, select **System bar codes** option by clicking on the radio button to activate it. Click the **Change** command button to enter the “*SAPscript Font Maintenance: Change System Bar Codes*” screen.
5. At the “*SAPscript Font Maintenance: Change System Bar Codes*” screen shown below, click **Create** command button located just below the Formatting toolbar to define a new bar code.



SAPscript Font Maintenance: Change System Bar Codes Screen

6. At the “SAPscript Font Maintenance: Create/Change System Bar Code” screen, enter the appropriate entries for each field of the ZHPIND25 bar code as indicated in the table below. Click **Continue** when all the entries are entered.

<u>Field Name</u>	<u>Field Entry</u>
<i>Bar code</i>	ZHPIND25
<i>Description</i>	Hewlett-Packard: Industrial 2 of 5
<i>Min. character number</i>	1
<i>Max. character number</i>	32
<i>Bar code width</i>	9
<i>Unit of measurement</i>	CM
<i>Bar code height</i>	1,30
<i>Unit of measurement</i>	CM



SAPscript Font Maintenance: Create/Change System Bar Code

Bar code

Description

Min. character number

Max. character number

Bar code width

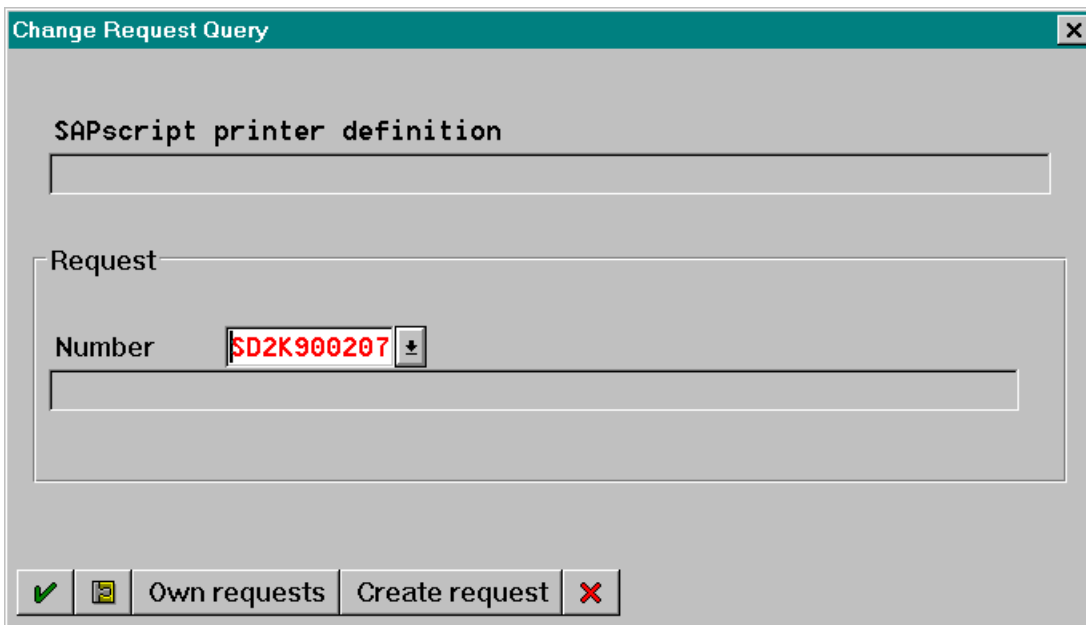
Unit of measurement **CM**

Bar code height

Unit of measurement **CM**

SAPscript Font Maintenance: Create/Change System Bar Code Screen

- When making changes or defining new objects in the SAP R/3 system, an object is assigned a request number so that SAP R/3 system can track its profile as to when, who, what, and how that object was created. In this case, it is appropriate to request a new number since you are about to create a new bar code definition object. To obtain a new request number, at the pop-up dialog “ *Change Request Query* ” windows shown below, simply click on the command button.




Change Request Query

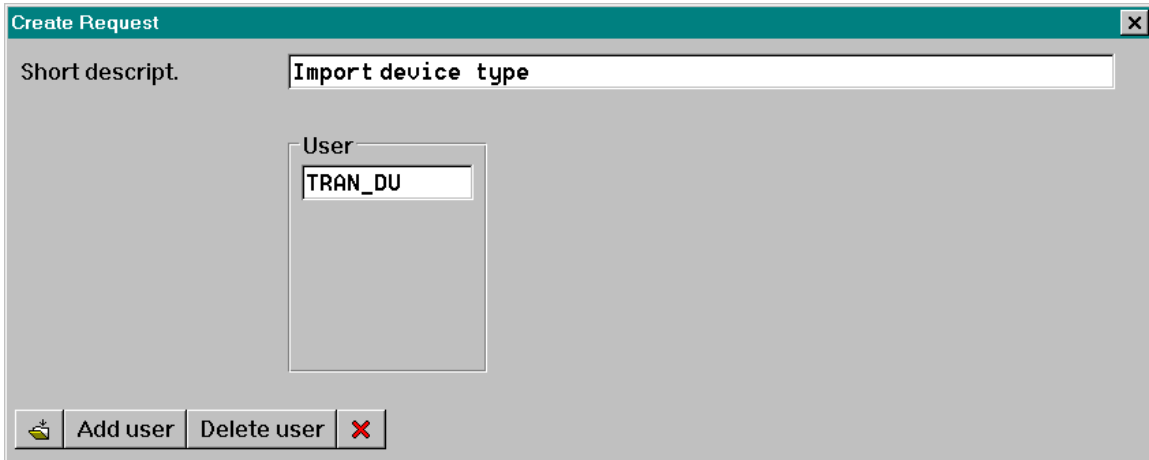
SAPscript printer definition

Request


Number **SD2K900207**

Change Request Query Screen

- Type in the description for the newly created request at the “ *Create Request* ” screen very much like the illustration below. Key in the description such as “Hewlett-Packard: Create new bar code ZHPIND25 to work with ZHPPCLII”. Click the save button  to continue.



Create Request Screen

- Notice that a new request number is placed in the *Number* field entry text box of the **Change Request Query Screen** and that the description of the request that you have just entered in the “ *Create Request* ” screen, is displayed just below the request number. Next, click the enter button  located at the lower left corner of the current active window.

- Repeat steps 5 through 9 of **PROCEDURE ONE** above for the following bar codes:

<i>Bar code</i>	<i>Description</i>	<i>Min. character number</i>	<i>Max. character number</i>	<i>Bar code width</i>	<i>Unit of measurement</i>	<i>Bar code height</i>	<i>Unit of measurement</i>
ZHPRMAIL	Hewlett-Packard: Royal Mail	1	50	1,30	CM	1,50	CM
ZHPRMKIX	Hewlett-Packard: Royal Mail (Kix)	1	50	1,67	CM	1,30	CM
ZHPUCC	Hewlett-Packard: UCC 128	1	50	1,30	CM	1,30	CM
ZPTXUPCA	Hewlett-Packard: UPC-A	11	11	1,30	CM	1,30	CM

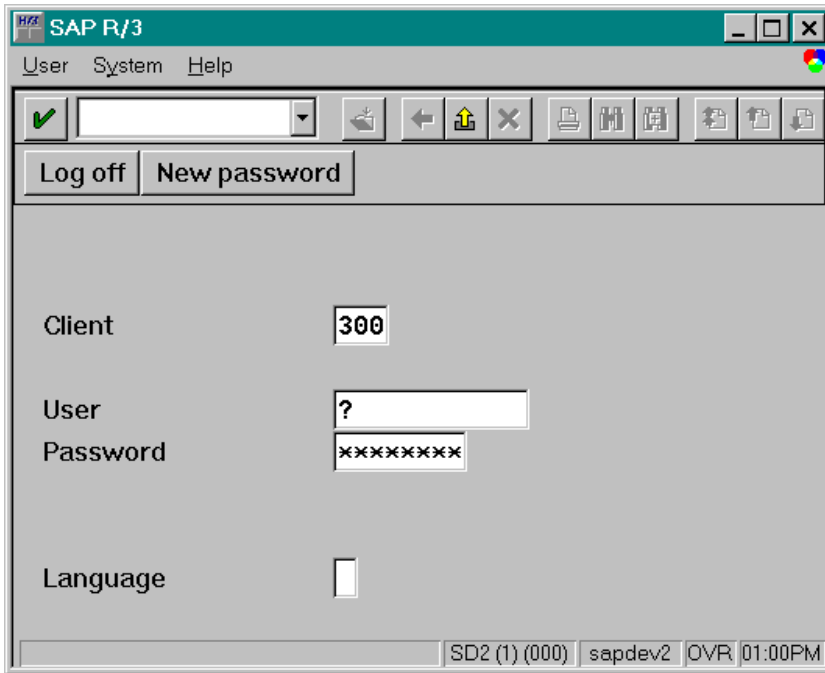


<i>Bar code</i>	<i>Description</i>	<i>Min. character number</i>	<i>Max. character number</i>	<i>Bar code width</i>	<i>Unit of measurement</i>	<i>Bar code height</i>	<i>Unit of measurement</i>
ZHPUPCE	Hewlett-Packard: UPC-E	11	11	1,30	CM	1,30	CM


PROCEDURE TWO:

Install the ZHPPCLII DEVICE TYPE to an existing SAP R/3 System

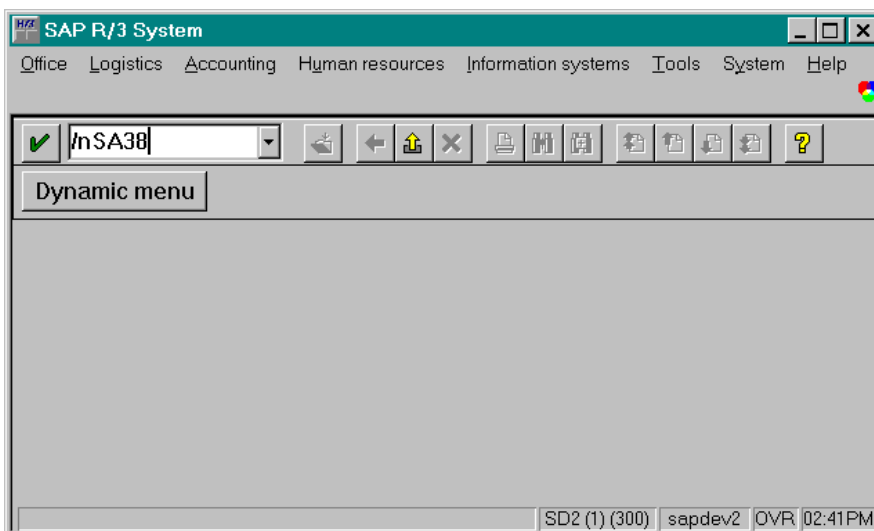
1. Set the printer emulation to P-Series from the printer's panel. The printer emulation should already be set in PCLII mode when powered ON. Next, print the printer's configuration from the printer's panel to make sure that the firmware is loaded correctly and the Flash-RAM and DRAM installed memory satisfied the printer's memory requirement.
2. Save the current printer's configuration so that whenever the printer is turn OFF and ON the same settings will be loaded into the memory. Refer to the User's Reference Manual of the Hewlett-Packard printer for a complete procedure on how to accomplish step 1 and 2.
3. Double-click the self-extracting ZHPPCLII DEVICE TYPE file *354629.exe* you have just download from the DEVICE TYPE DOWNLOAD PAGE. Two files named as *S9256.CPA* and *ZHPPCLII.PRI* will be required during the installation of the ZHPPCLII DEVICE TYPE. Note the path where these files are located because you will be asked to specify the path during the import process of the ZHPPCLII DEVICE TYPE.
4. Start the SAP R/3 front-end client GUI. Log into the central instance of SAP Server with administrator rights. Type in your User name and Password at the appropriate text box. Press the <ENTER> key to continue to the next screen. The screen should look very much like the illustration below.




SAP R/3 Login Screen

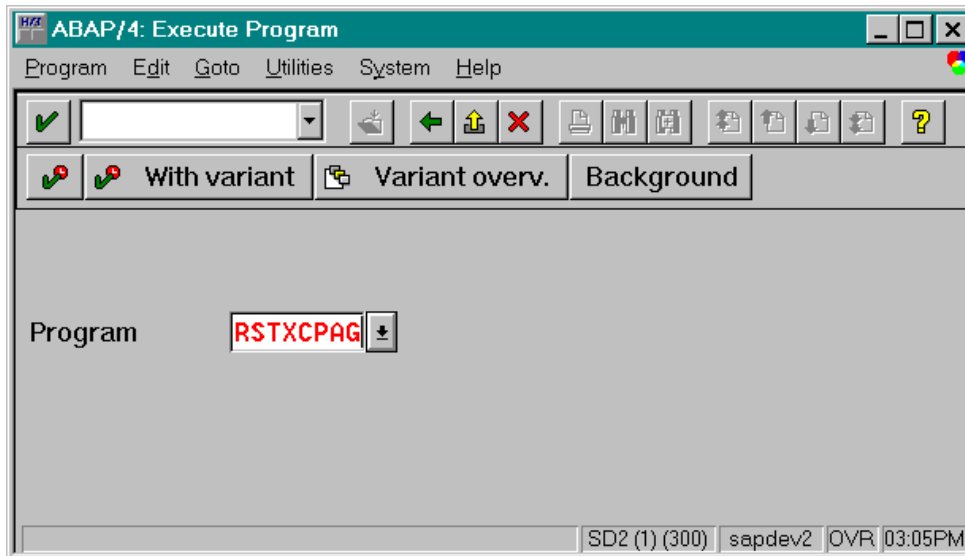
5. Start the *Program Execution* transaction SA38 by enter `/nSA38` in the command line text box located just below the menu bar of the SAP R/3 System screen 

Press the `<Enter>` key or click once on the  box adjacent to the command line text box. The screen should look very much like the illustration below.




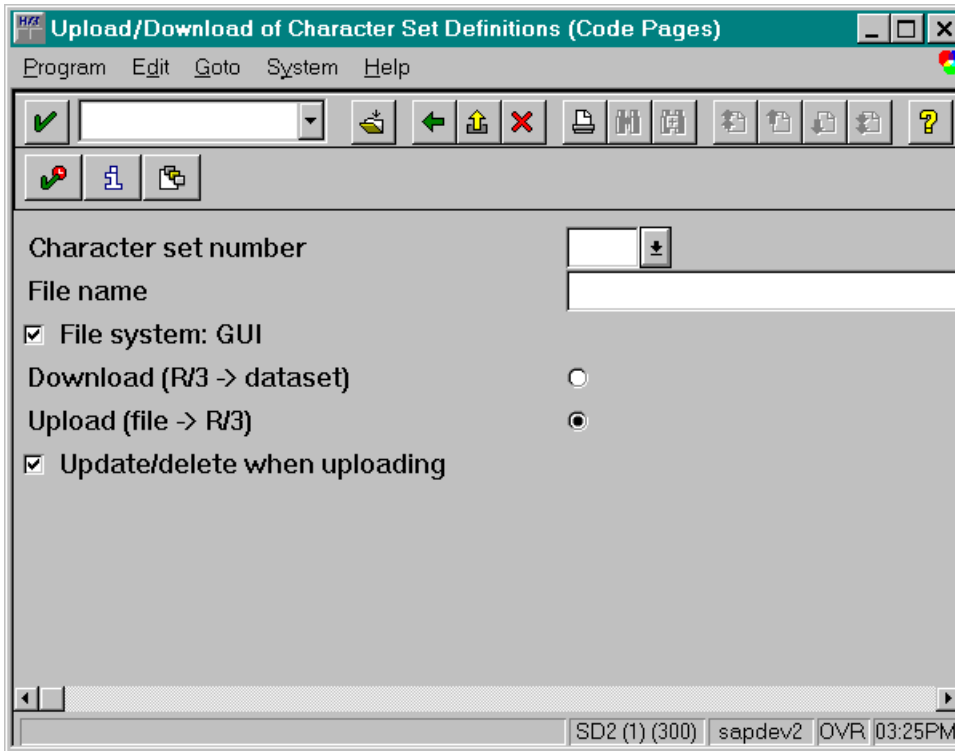
SAP R/3 System Screen

- At the “ ABAP/4: Execute Program ” screen shown below, key in *RSTXCPAG* in the **Program** field to upload the *S9256.CPA* file into the SAP printing system. Next, click the execute button  when done.





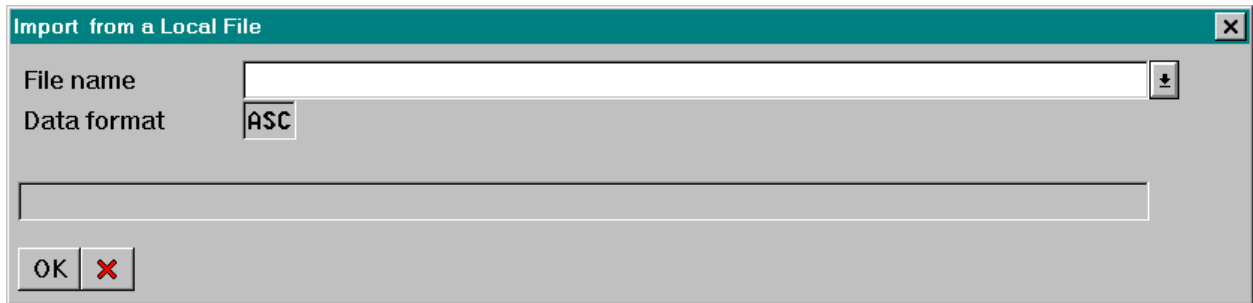
ABAP/4: Execute Program Screen

- Next, at the window titled “*Upload/Download of Character Set Definitions (Code Pages)*”, enter the appropriate entries for each field as indicated by the illustration screen below. Key in *9256* for **Character set number** field and */tmp/S9256.CPA* for **File name** field. Next, select the **File system: GUI** field by clicking on the check box adjacent to the field, select **Upload (file→ R/3)** option by clicking on the radio button to turn it ON, select the **Update/delete when uploading** option by place a check inside the check box. When all the entries are entered correctly, click on the execute button  to continue.





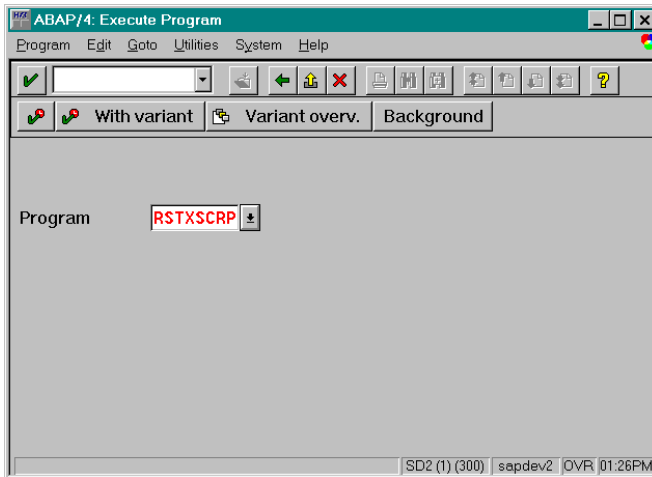
Upload/Download Character Set Definition Screen

- A pop-up dialog text box labeled “ *Import from a Local File* ” prompts for character set filename and the its location. Use the browse button  to located *S9256.CPA* file in the ***File name*** entry text box. Click the  button to continue. The screen should look very much like the illustration below.




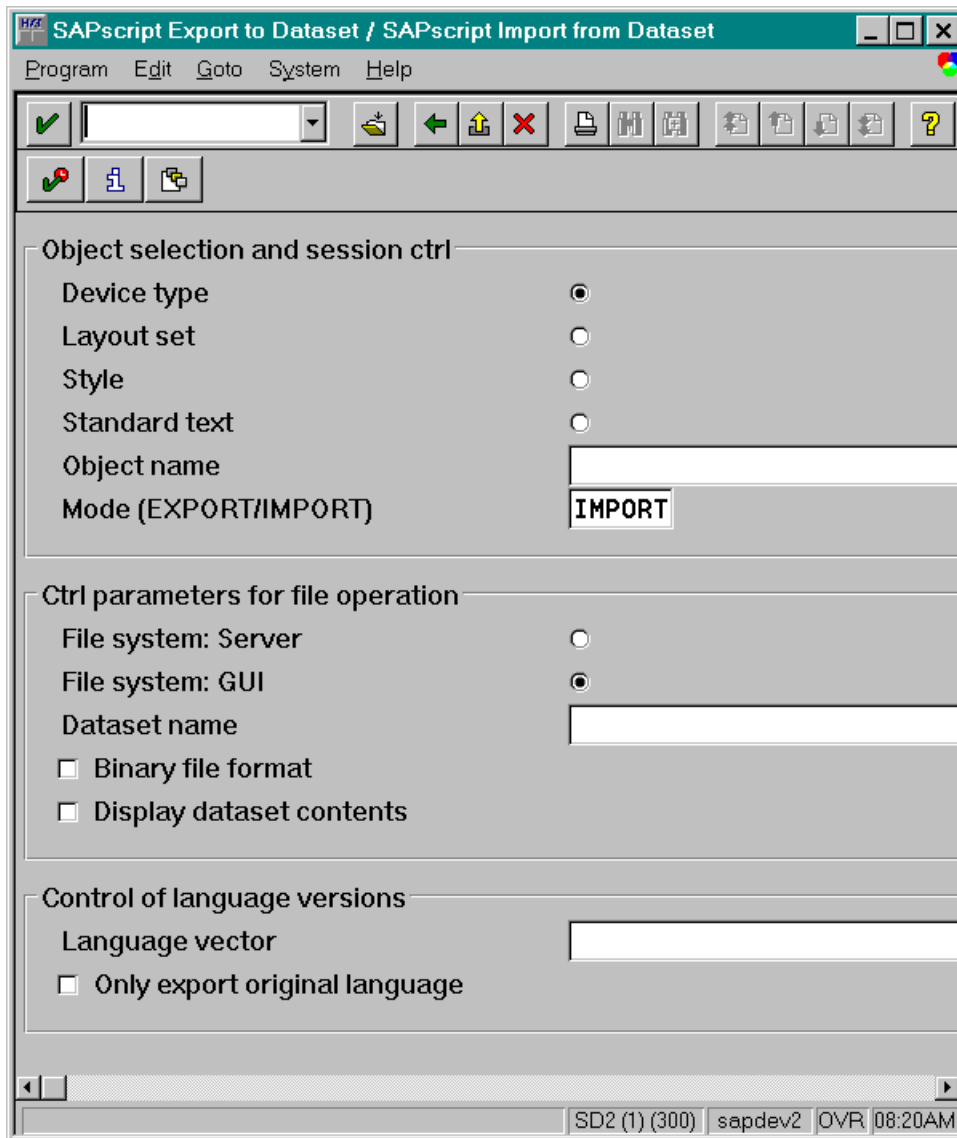
Import from a Local File dialog

- If no error occurs, the SAP R/3 system will display upload result messages inside the “*Upload/Download Character Set Definition*” screen. Otherwise a pop-up error message dialog box will appear on the screen. Repeat steps 5-7 and make sure all the entries are correct before continuing to the next screen.
- The next series of steps outline the import procedure of the device type definition file *ZHPPCLII.PRI* from the floppy disk to the SAP R/3 printing system. First, execute the Program Execution transaction SA38 by keying in */nSA38* at the command line entry text box located just below menu bar of the current screen . At the window screen “*ABAP/4: Execute Program*”, very much like the illustration below, key in *RSTXSCR****P*** in the ***Program*** text entry box then click  execute button to launch the device type definition import program.



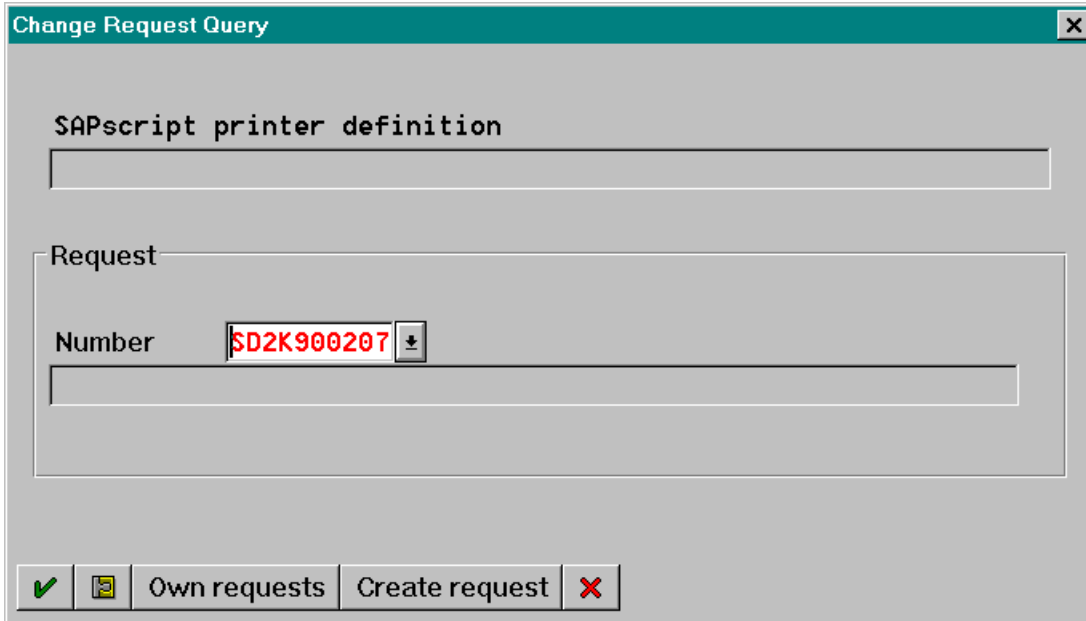
ABAP/4 Execute Program Screen

- At the next window titled “ *SAPscript Export to Dataset / SAPscript Import from Dataset* ” shown below, select **Device type** option, key in *ZHPPCLII* for **Object name** text box, enter *IMPORT* for **Mode (EXPORT/IMPORT)** option, select **File system: GUI** option, and key in */tmp/ZHPPCLII.PRI* in the **Dataset name** text box. When the entries for all the requirement fields are entered correctly, click on  execute button to start the import process. Ignore all other options.




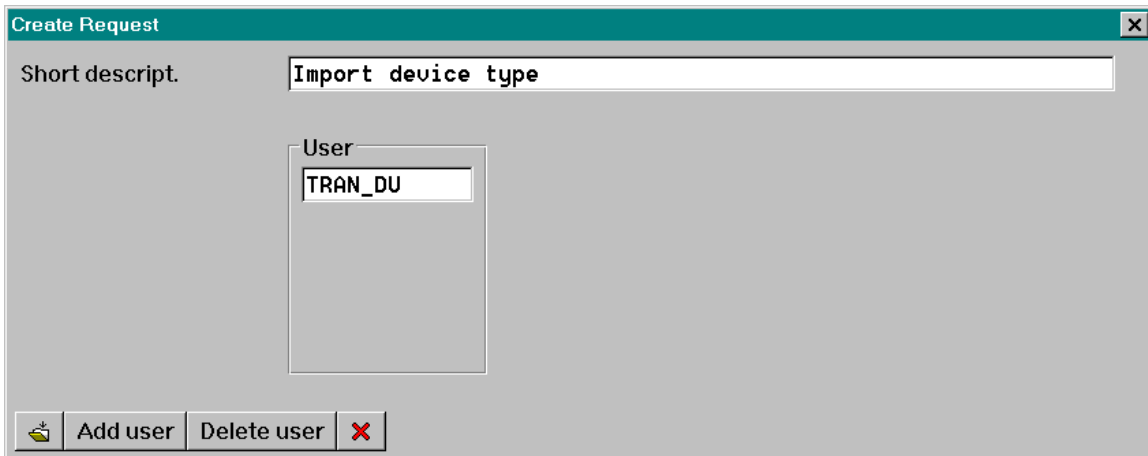
SAPscript Import from Dataset Screen

12. When making changes or defining new objects in the SAP R/3 system, an object is assigned a request number so that SAP R/3 system can track its profile as to when, who, what, and how that object was created. In this case it is appropriate to request a new number since you are about to create a new printer definition object. To obtain a new request number, at the pop-up dialog “ *Change Request Query* ” windows shown below, simply click on the **Create request** command button.






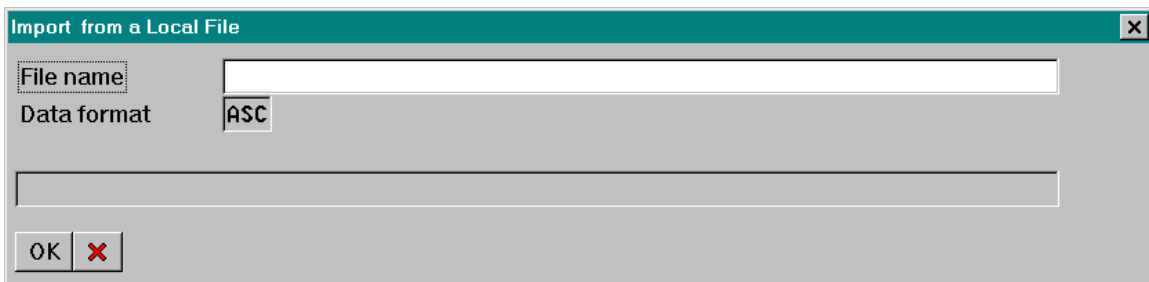
Change Query Request Screen

13. Next, type in the description for the newly created request at the “ *Create Request* ” screen very much like the illustration below. Next click the save button  to continue.



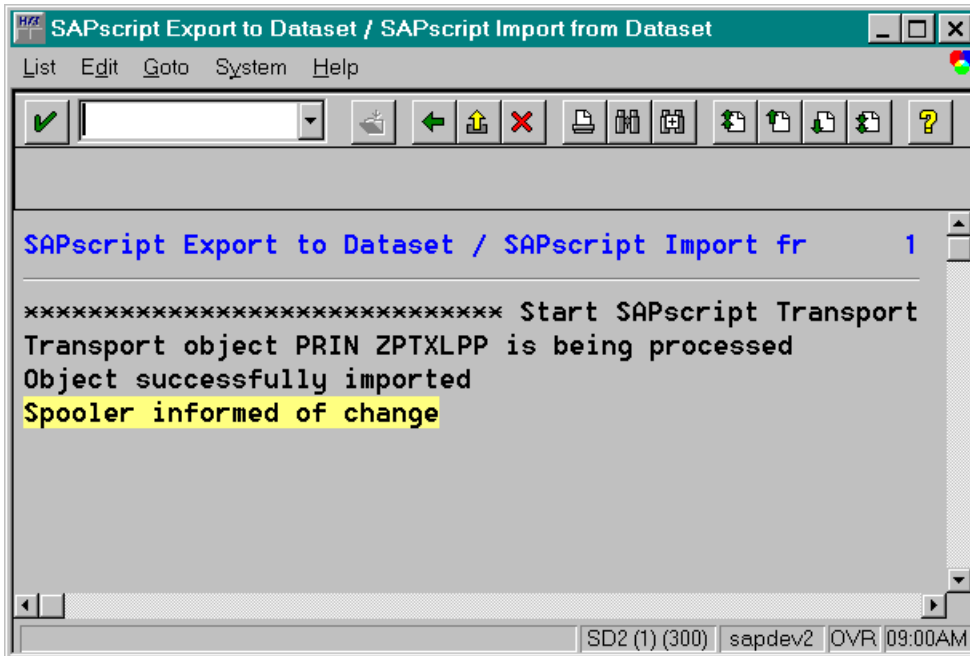
Create Request Screen

14. Notice that a new request number is placed in the **Number** field entry text box and the description of the request that you have just entered in the “ Create Request ” screen, is displayed just below the request number. Next, click the enter button  located at the lower left corner of the current active window.
15. A pop-up dialog text box labeled “ *Import from a Local File* ” prompts for the device type definition file and the its location. Use the browse button  to locate the *ZHPPCLII.PRI* in the **File name** entry text box and then click the  command button to start the upload process. The screen should look very much like the illustration below.



Import from a Local File dialog

16. When the import process is finished, update messages will be displayed in the current active window very much like the illustration below.




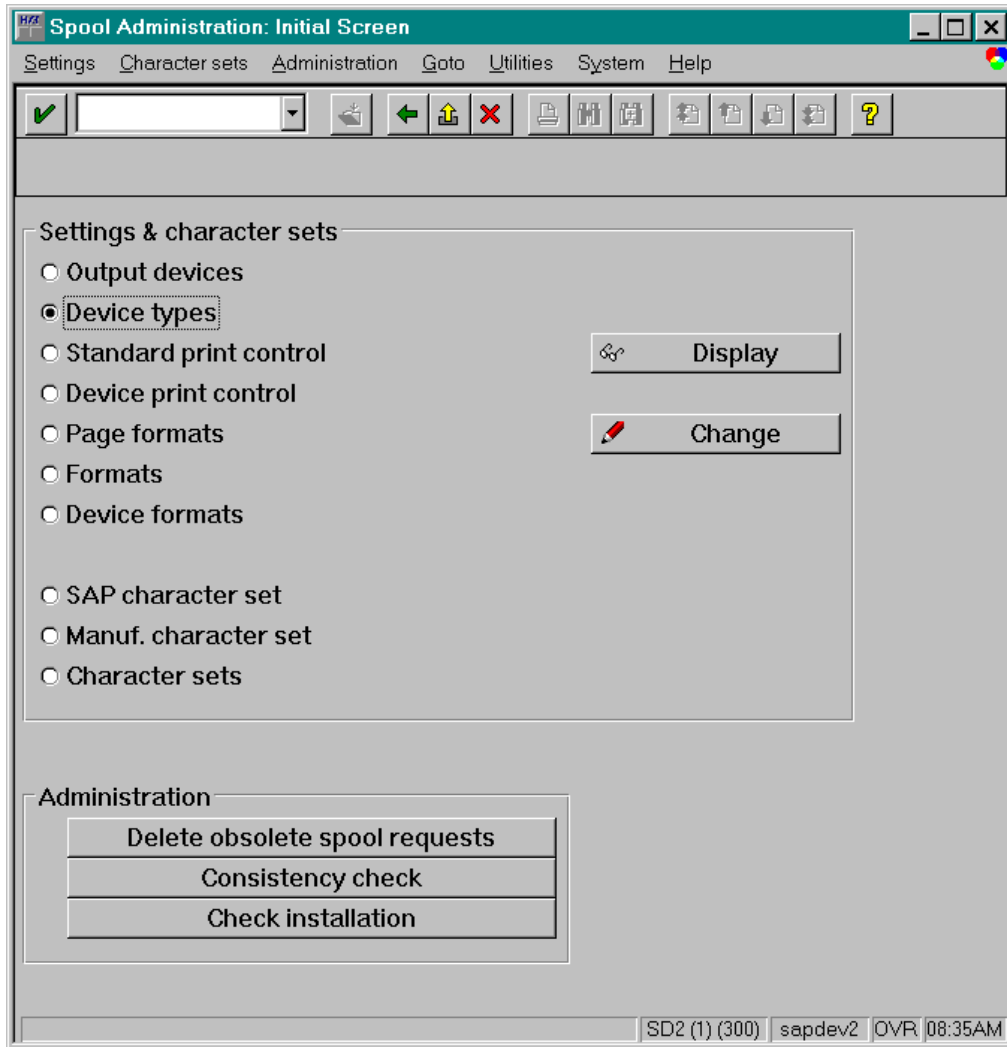
PROCEDURE THREE:

Verify the import of ZHPPCLII DEVICE TYPE in the SAP R/3 System

1. Start the Spool Administration transaction program SPAD by enter `/nSPAD` in the command line text box located just below the menu bar of the current active window of SAP R/3 system. Press the `<Enter>` key or click on the check box adjacent to the command line text box entry.

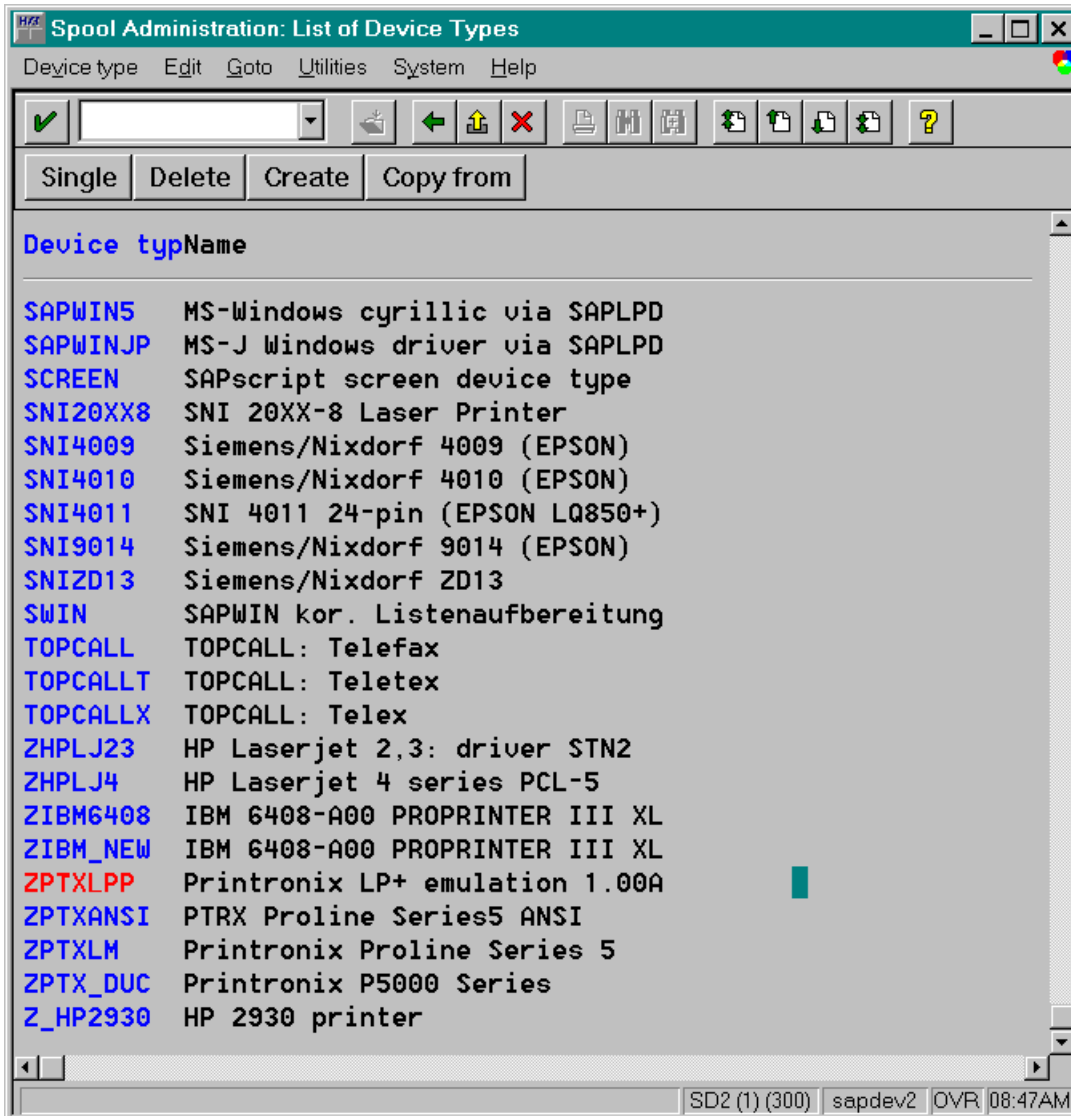


2. At the “ *Spool Administration Initial Screen* ” very much like the illustration below, select **Device type** option so that the radio button is ON and then click the  button.



SPAD Initial Screen

3. Scroll down the “*List of Device Types*” screen shown below, if you don’t see *ZHPPCLII* on the list. The Hewlett-Packard device type should be listed as **ZHPPCLII HP-PCLII Line Printers**. If the device type is not listed, repeat PROCEDURE ONE again.




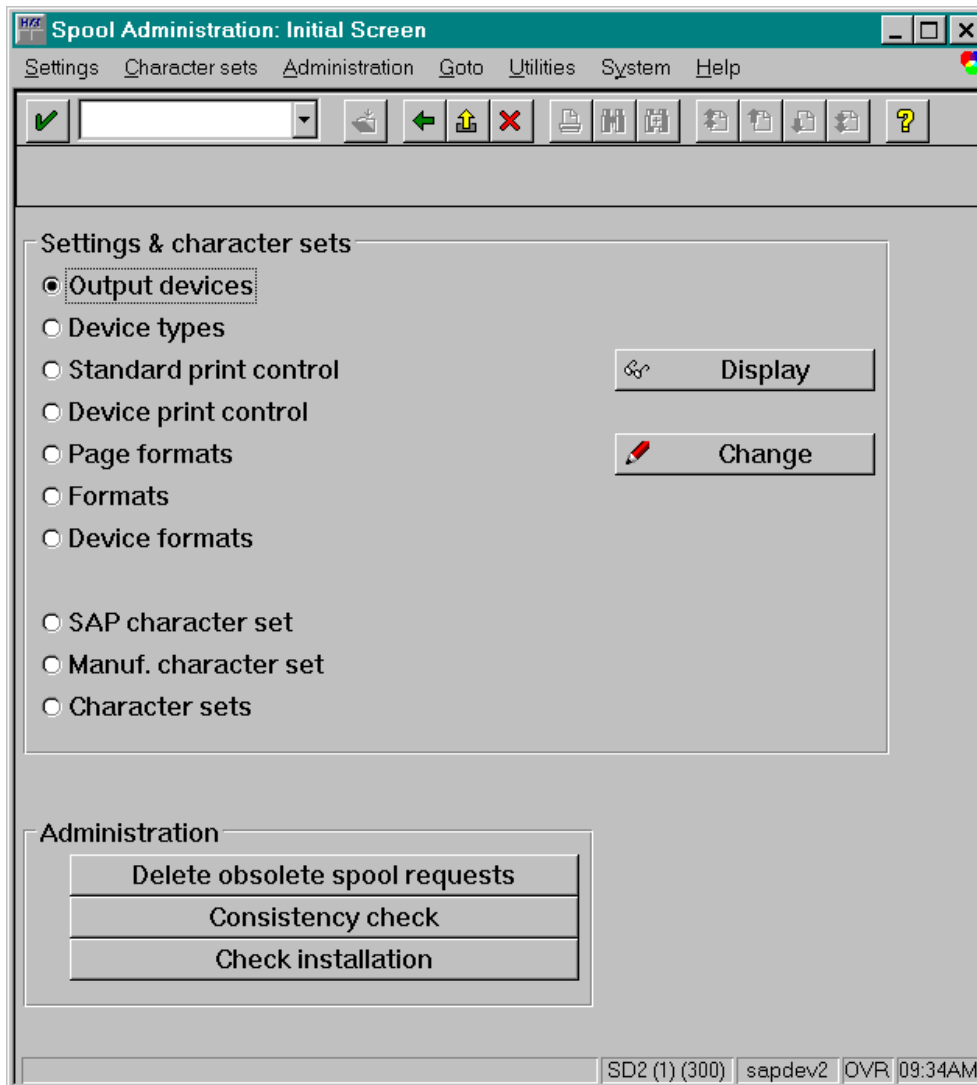
SPAD List of Device Types Screen

Using the Hewlett-Packard ZHPPCLII DEVICE TYPE Create an “Output Device” in SAP for the Hewlett-Packard LP Series printer

1. From the current active SAP R/3 system window enter the “*System Administration*” screen by keying in */nSPAD* at the command line text box entry located just below the menu bar

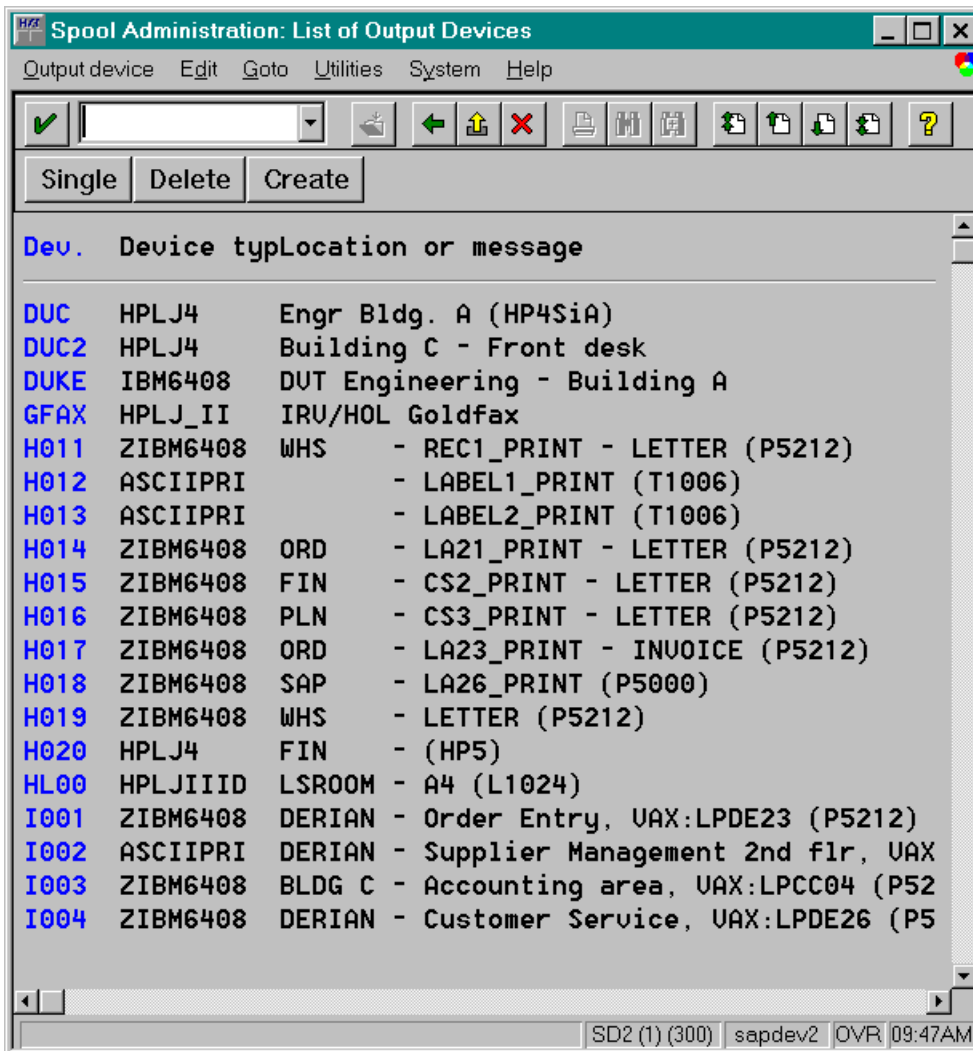


2. At the “*Spool Administration : Initial Screen*” very much like the one shown below, select the *Output devices* option and then click the  command button to define a Hewlett-Packard output device.



SPAD Initial Screen

- At the “*Spool Administration: List of Output Devices*” screen very much like the illustration below, click on the **Create** command button located just below the formatting toolbar, to enter the create output device screen.



SPAD List of Output Devices Screen



- Next, at the “*Spool Administration: Create Output Device*” screen shown below, two fields on this screen are the most important for you to create the printer as an output device in SAP: (1) **Output device** field, which names the printer within the SAP system and (2) **Device type** field, which specifies the internal SAP driver and other properties of the printer within the SAP system. Key in four alphanumeric characters in the **Output device** text box entry field. Next, click anywhere on the text entry box of the **Device type** field to get a list of available device types. Select *ZHPPCLII HP-PCLII Line Printers* device type from the pick list. *ZHPPCLII* should be displayed inside the **Device type** text entry box. For other fields listed below:

Spool Server: The name of the SAP Spooler Server.

Host: The host operating system where the SAP Spooler Server is configured and installed.

Host Printer: The name of the printer where it is defined in the host operating system.

Device class: do not change.

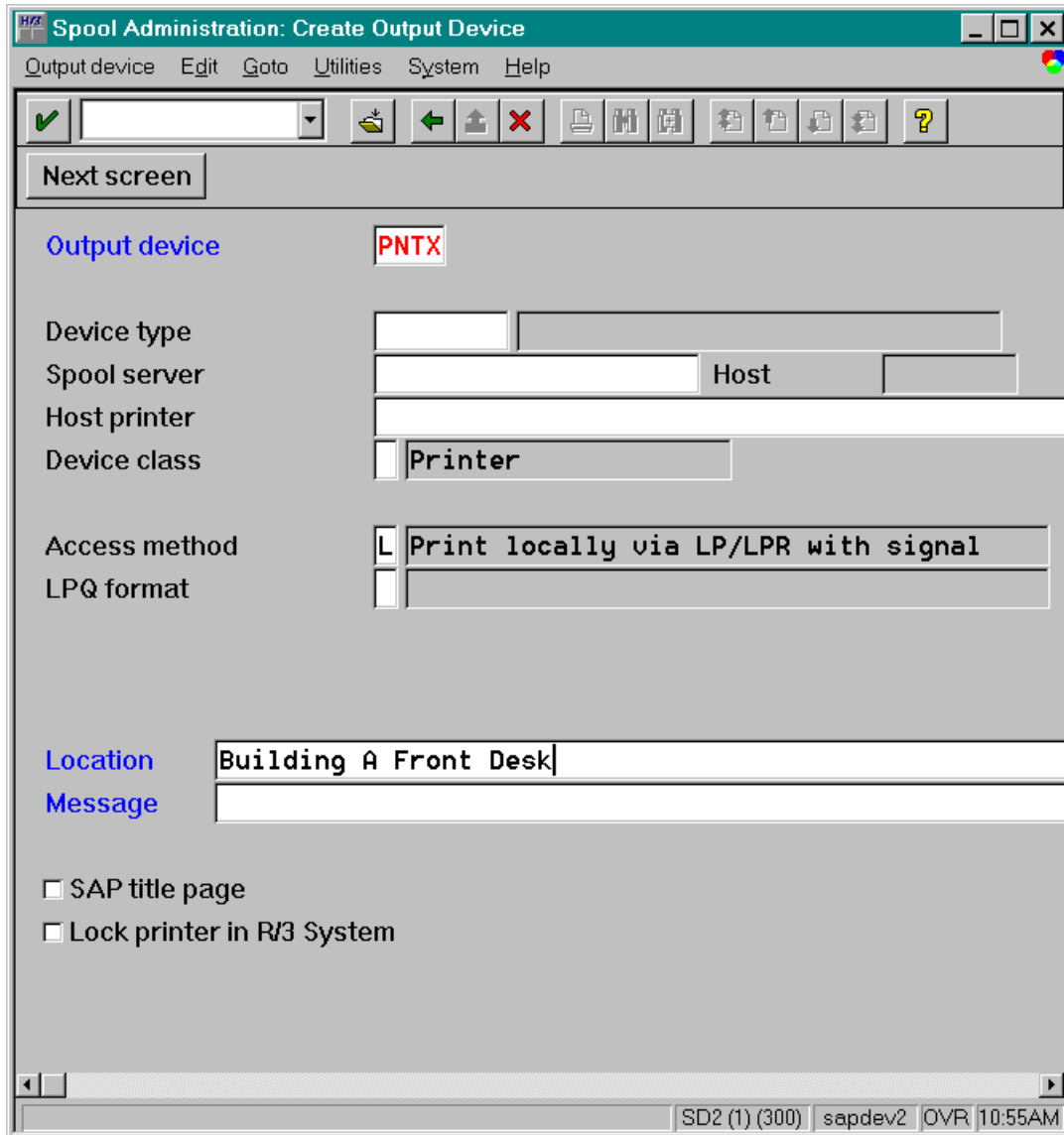
Access method: Enter the following entries depending on the access method (connection method) between the SAP Server Spooler and the host operating system spool.

LPQ format: Enter *B* in the entry text box.


Location: Administrative information field to describe the physically location of the printer.

Message: Administrative information field for SAP administrator to display the message to users.

Consult the on-line help *BC Printing Guide* in SAP R/3 system for a complete description of each field and what options are available for it.



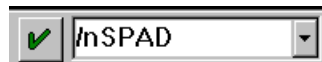
SPAD Create Output Device Screen


5. When all the fields are correctly enter with appropriate entries, save the output device definition by selecting from the menu bar *Output device* → *Save*. A shorter way to save is to click on the save button  on the formatting toolbar just below the menu bar of the “*Spool Administration: Create Output Device*” screen.
6. The “*Spool Administration: List of Output Devices*” screen now displays a list the output devices for the SAP R/3 system. Scroll up or down to find the output device that has just been named in the ***Output device*** field along with the text description of where the printer is located entered in the ***Location*** field of the “*Spool Administration: Create Output Device*” screen.

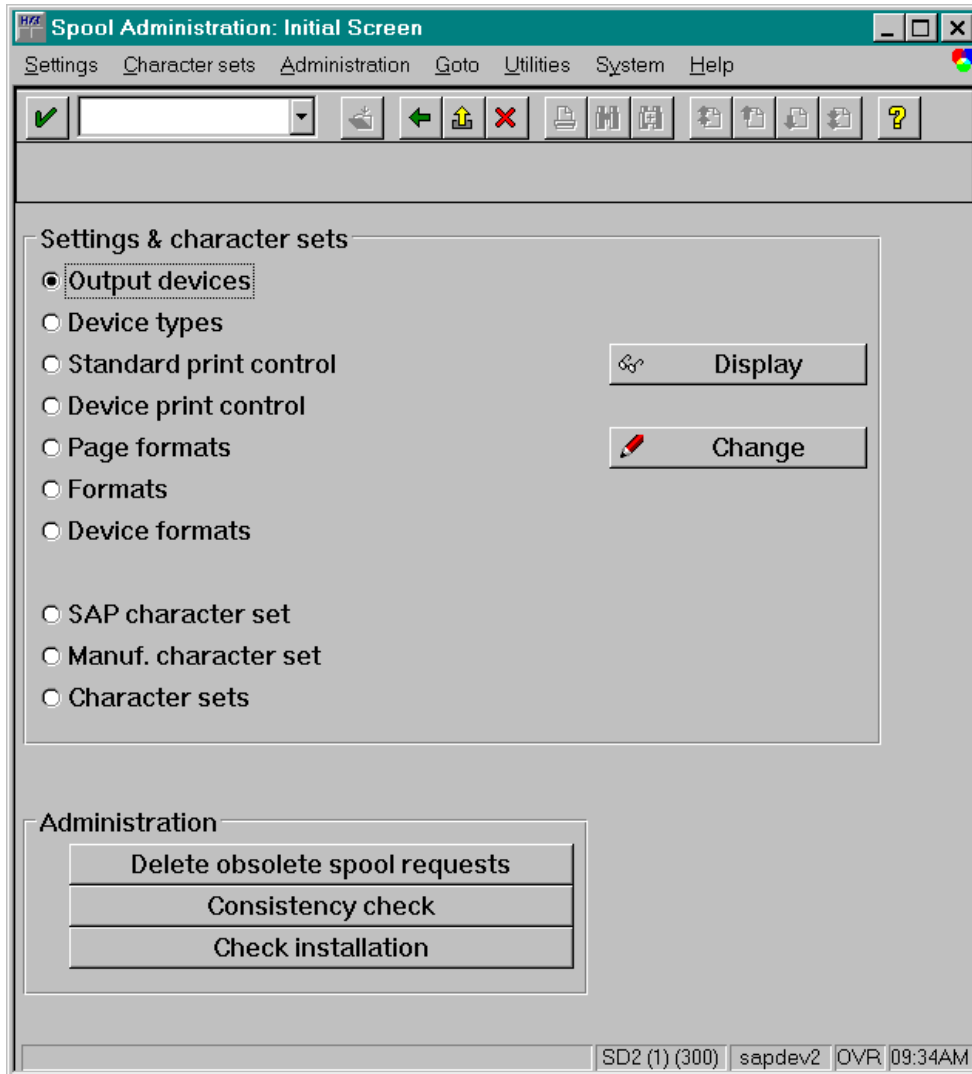
LineJet and LP Series printer should now be ready for SAP document printing.

Reassign an existing “Output Device” in SAP for the LineJet and LP Series printer

1. From the current active SAP R/3 system window enter the “ *System Administration: Initial Screen*” screen by keying in */nSPAD* at the command line text box entry located just below the menu bar.

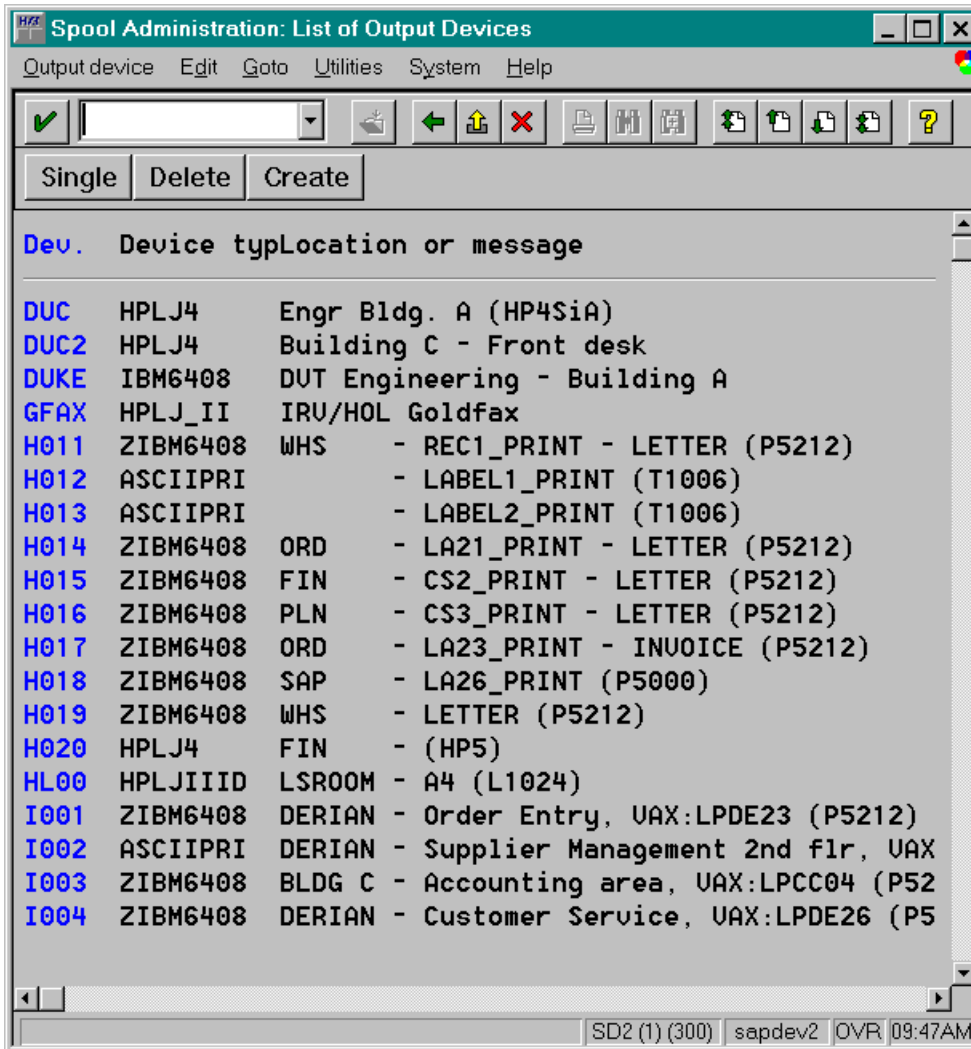


2. At the “ *Spool Administration : Initial Screen*” very much like the one shown below, select the *Output devices* option and then click the  **Change** command button to continue.



SPAD Initial Screen

3. At the “*Spool Administration: List of Output Devices*” screen shown below, double-click on the desired output device from the list of output devices.



SPAD List of Output Devices Screen



4. At the “*Spool Administration: Change Output Device*” screen very much like the illustration below, click anywhere on the text entry box of the **Device type** field to get a list of available device types. Select *ZHPPCLII HP-PCLII Line Printers* device type from the pick list. *ZHPPCLII* should be displayed inside the **Device type** text entry box. Note that the name displayed inside the **Output device** text box represents the output device name that you have selected in the previous screen. For other entries listed below:

Spool Server: The name of the SAP Spooler Server.

Host: The host operating system where the SAP Spooler Server is configured and installed.

Host Printer: The name of the printer where it is defined in the host operating system.

Device class: do not change.

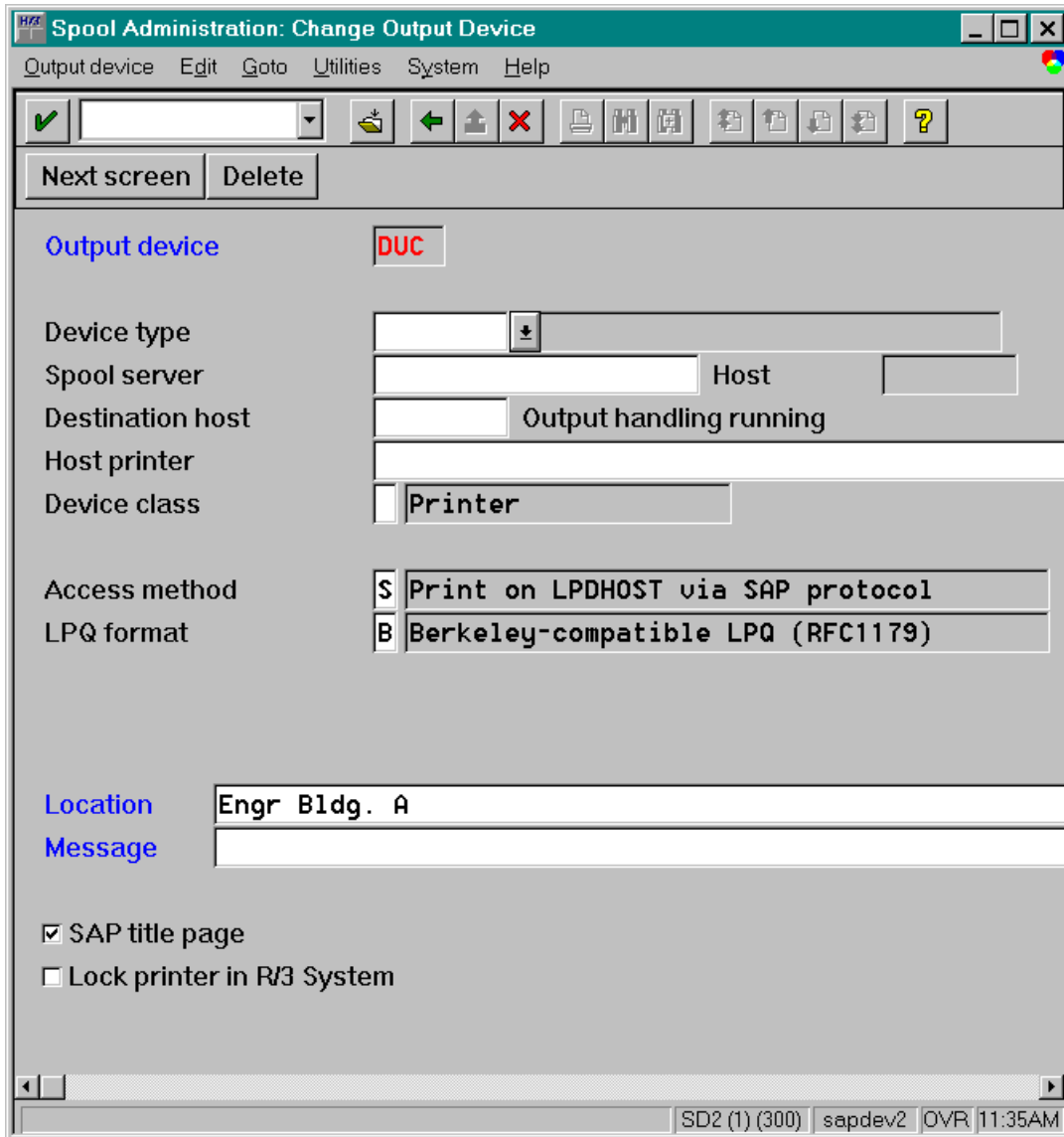
Access method: Enter the following entries depending on the access method (connection method) between the SAP Server Spooler and the host operating system spool.

LPQ format: Enter *B* in the entry text box.


Location: Administrative information field to describe the physically location of the printer.

Message: Administrative information field for SAP administrator to display the message to users.

Consult the on-line help *BC Printing Guide* in SAP R/3 system for a complete description of each field and what options are available for it.



SPAD Change Output Device Screen



5. When all the fields are correctly enter with appropriate entries, save the output device definition by selecting from the menu bar *Output device* → *Save*. A shorter way to save is to click on the save button  on the formatting toolbar just below the menu bar of the “*Spool Administration: Change Output Device*” screen.
6. The “*Spool Administration: List of Output Devices*” screen now displays a list the output devices for the SAP R/3 system. One of which is the one you have just modified to use the *ZHPPCLII* device type.

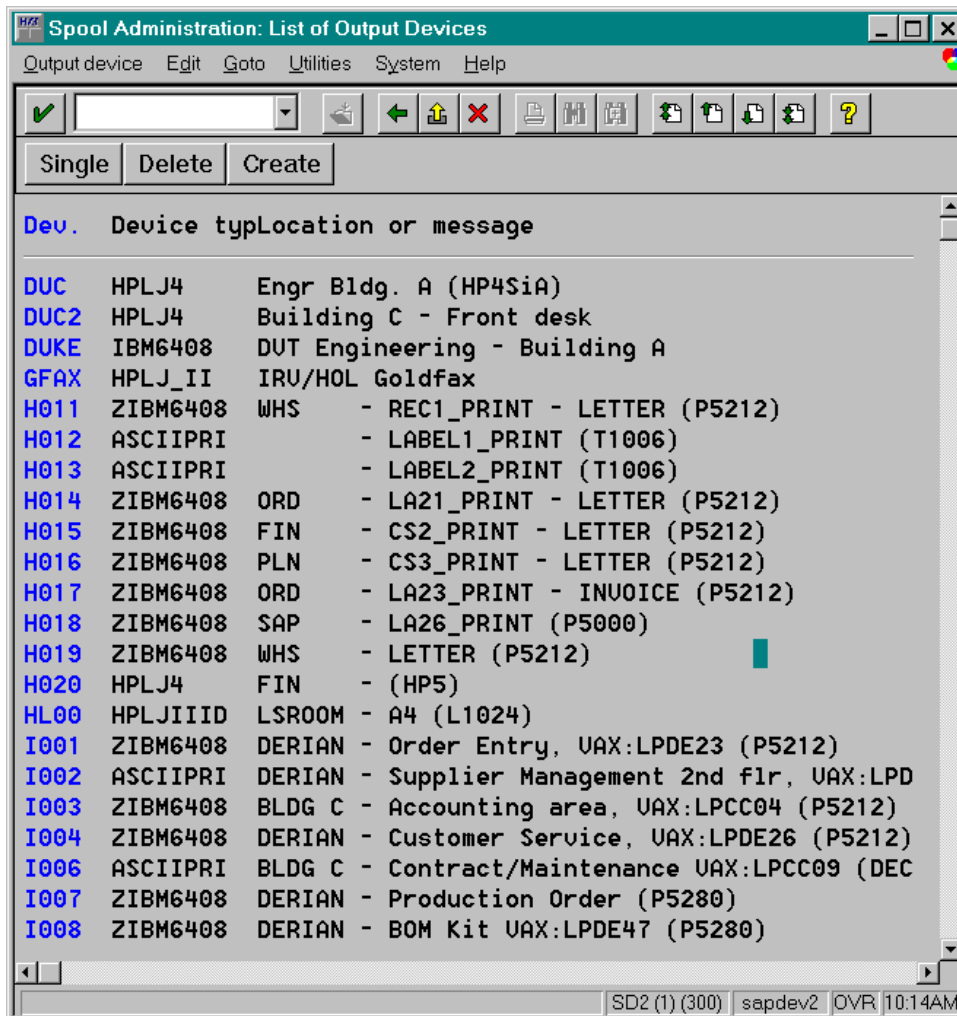


LineJet and LP Series printer should now be ready for SAP document printing.


Test the installed Hewlett-Packard ZHPPCLII DEVICE TYPE

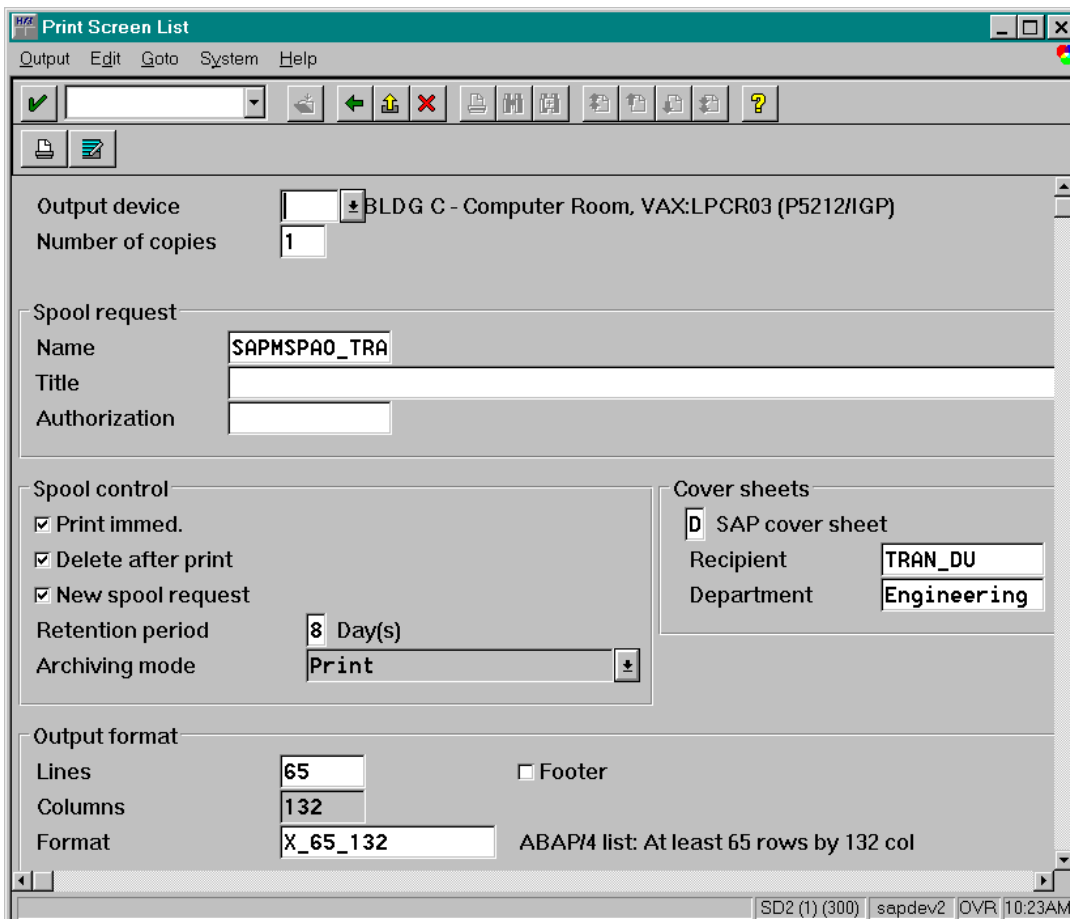
1. To test the newly installed Hewlett-Packard printer and the new ZHPPCLII Device Type in SAP R/3 System, many SAP transactions generate and display results in a list format at the current window. At any given screen, a print option can be selected to print the current list to

the desired printer. To accomplish this, first, key in `/nSPAD`  in the command text entry box located just below the menu bar of the current active window of SAP R/3 system. Next select **Output devices** then click on the  command button. A list of available output device types will be displayed. The screen should look very much like the illustration below.



SPAD List of Output Devices Screen

- Next select from the menu bar *Output device* → *Print this list*, a “Print Screen List” screen similar to the one shown below will be displayed. Key in the name for the **Output device** field which has been defined earlier in section “Using the Hewlett-Packard ZHPPCLII DEVICE TYPE” of this document. Check the **Print immed** and the **Delete after print** under the *Spool Control* area of the *Print Screen List*. Next click on the  command button to print.



Print Screen List

- If there is no output from the printer, check to make sure that the printer is properly connected and able to print non-SAP applications from the host system where the printer is connected. Otherwise contact your SAP administrator for support.



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