



Programmers Guide

Printronix IGP® 10/20/40

Emulation

For Printer PP 40x / PP 80x

Printronix IGP® 10/20/40 Emulation Quick Reference

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Great care has been taken to ensure that the information in this handbook is accurate and complete. However, should any errors or omissions be discovered or should any user wish to make suggestions for improving this handbook, please feel encouraged to send us the relevant details.

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This appendix contains basic information on the IGP 10/20/40 Printer Emulation commands supported in those Printer types:



One of the industrial printer language is IGP. An emulation for efficient processing of graphics: boxes, lines, variable barcodes, rotated characters, logos, reverse printing "white on black" - all this is possible in a very fast print speed, but only a low data rate is required.

Traditionally, especially line printer would be used IGP. However, an interesting alternative is that of matrix printers, since they allow the user to print high quality and above all cost-effective at comparable speeds. The following PMs the use of PSi printers in these applications is no problem:

The following modules support the functions of Printronix IGP Emulation:

PP 40x

8707-241-90108 PM PAR IGP PP40x

8707-241-90109 PM ETH IGP PP40x

PP 80x

8707-340-90122 PM SER/PAR STRING CHANGE IGP PP 80x

8707-340-90123 PM ETH 10/100 IGP 80x

8707-340-90144 PM ETH 10/100 Mb/s PjL IGP PP80x

8707-340-90147 PM ETH 10/100 Mb/s PjL STGCHG IGP PP80x

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1 DESCRIPTION OF PM IGP

1.1. INSTALLATION

The **PM IGP** is plugged into the printer when powered off. Push the connector in until it completely locks in place. This procedure is described in the user's manual. The two locking screws must be securely tightened.

1.2. OPERATING ELEMENTS AND INTERFACES OF THE PM IGP

The **PM IGP** (Personality Module with Integrated Graphic Processor) is equipped with:

- An LED (at the right side of the IGP interface) showing the following states:
- Constant green light: normal operation
- Constant red light: data is stored in the Flash-EEPROM.
DO NOT POWER OFF THE DEVICE!
- Flashing and intermitted red light: failure state
- Momentary switch for self-test/hex-dump
- Parallel interface - Centronics for IGP data (**PM PAR IGP** only)
- RJ45 Ethernet 10/100 connector and related 3 LED, and momentary switch for IGP data (**PM ETH 10/100 IGP** only)

The specifications and the pin layout of the interface port are described in detail in the appendix of this manual. It is also explained in the chapter **Interface Descriptions** of the user's manual.

To check the configuration of the **PM IGP** *momentarily* press the test button located to the left of the IGP-Centronics interface. This will initiate a printout list of all parameters set. Proceed as described in the chapter **configuring the PM IGP** if you have to change any of the parameters.

2 CONFIGURING THE PM IGP

2.1 CHECKING THE CONFIGURATION

A printout of the parameter settings is initiated by pressing the button at rear of **PM IGP** or by issuing the **~TEST** command. If the button is pressed for an extended time the data sent by the computer to the printer is printed as a hex-dump. No commands are executed in this mode. The hex-dump can be terminated by powering off the printer or by pressing the button again.

2.2 List of Parameters which has set in the printers menu

PRINT QUALITY	NLQ
LINE SPACING	6 LINES/INCH
FORM LENGTH	72 LINES START OF LINE1st
POSITION END OF LINE	136th POSITION
FIRST LINE	1st LINE
LAST LINE	1st FROM BOTTOM
PERF. SKIP	NO
EMULATION	IBM PROPR. (IBM Proprinter - not AGM)
CAHRACTER SET	IBM SET 2 / GERMANY *)
LINE MODE	LF = LF + CR
INTERFACE TYPE	PARALLEL (for both PM's with Ethernet and Parallel Interface)

*) If another country code was selected using the **~ISET** command it must be set here as well!

Attention: These manual settings must be saved using the **SAVE MENU** option. After saving the printer must be powered off and then powered on again!

2.3 CHANGING THE CONFIGURATION FOR THE PM IGP

Using software commands all necessary parameters can be changed and stored permanently in non-volatile memory. By sending a .PRN file to the PM IGP interface installed in the printer the following settings become effective.

~[/]SETUP

PRINTER;	<i><Printer type></i>
FUNC-PREFIX;	<i><(D)Prefix(D)></i>
ISSET;	<i><Character set></i>
FORMLENGTH;	<i><Length></i>
AUTO-DOWNLOAD;	<i><Auto download> F</i>
LASH-PROTECT;	<i><Flash protect></i>
POWER-UP;	<i><Power up></i>
INTERNAL-FONTS;	<i><Internal fonts></i>
FORM-INIT;	<i><(D)Init string(D)></i>
FORM-RESET;	<i><(D)Reset string(D)></i>
RESET-FUNC;	<i><Reset function></i>
ZERO-STYLE;	<i><Zero style></i>
DARK-MODE;	<i><Mode></i>

SAVE END

The **PM IGP** configuration mode is entered by issuing the **~SETUP** command. Preceding the command by a slash ('/') also starts a printout of all commands and parameters. This is for documentation purposes and for supporting debugging.

The **SAVE** command is used to retain the settings after powering off the unit or after issuing a **~RESET** command.

Note: To activate the new settings of the **PM IGP** it is necessary to power the printer off and on again. A **REBOOT** command following the **END** command can also be placed in the PRN file.

In the following overview the default setting of the parameter is printed **bold**.

PRINTER

This command selects one of the possible printer drivers. The following commands should be selected for the dot matrix printer version:

- **PSI PP 40X (72*120 DPI/NLQ)** (default)
- PSI PP 40X (72*120 DPI/DRAFT)

They are valid for printer family PP40x and PP80x.

FUNC-PREFIX;<(D)Prefix(D)>

Definition of the function prefix. The characters <Prefix> enclosed in two equal characters (D) are used from now on as a function prefix. The length of the function prefix must be at least one but a maximum of six characters. For the function prefix no character should be used which is altered by the ISO substitution.

ISSET;<Character Set>

ISSET selects an international character set.

<Character Set>	0: U.S. ASCII,	1: GERMAN,	2: SWEDISH,
	3: DANISH,	4: NORWEGIAN,	5: FINNISH,
	6: ENGLISH,	7: DUTCH,	8: FRENCH,
	9: SPANISH,	10: ITALIAN,	11: TURKISH.

MULTILANG OFF

Selects the PC8 character set for the IGP - font. Code range >127d.

FORMLENGTH;<Length>

The default form length is specified in multiples of $\frac{1}{72}$ " (0,35 mm). This value is used for the form definition if no form length is specified there. For 12" the value is **864** ($864 / 72 = 12$).

AUTO-DOWNLOAD

Enables automatic download (ON). The default value is **OFF**.

FLASH-PROTECT

Disables erasing of the resident memory (**OFF**) or enables it (ON).

POWER-UP

Specifies whether the **PM IGP** is in the active state (**~LISTEN**) or in the passive state (-QUIET) when the printer is powered on.

INTERNAL-FONTS

Enables internal fonts of the printer (**ON**) or disables them (OFF).

FORM-INIT

Defines a sequence which is sent to the printer before printing any form. The emulation of the printer can be changed using this sequence. The length of the sequence <Initstring> enclosed in two equal characters (*D*) can have a maximum of eight characters. It must not contain the binary value **Null** (00H).

FORM-RESET

Defines a sequence which is sent to the printer after printing any form. The emulation of the printer can be changed using this sequence. The length of the sequence <Resetstring> enclosed in two equal characters (*D*) can have a maximum of eight characters. It must not contain the binary value **Null** (00H).

RESET-FUNC

This command defines the function of the RESET command:

- **IGNORE** The command is ignored.
- **INIT** The command deletes all defined forms and logos. The values for DENSITY, -LPI, and -EXPAND are reset to their default values.
- **BOOT** This command acts like a REBOOT command. It reinitializes the Device deletes all defined forms and logos. If characters are still present in the output buffer these are sent to the printer first. If the RESET command is followed by any characters in the input buffer these are deleted.

ZERO-STYLE

This command specifies the appearance of the character Zero (0).

- **SLASHED** A null is printed with a slash.
- **UNSLAHED** A null is printed without a slash.

DARK-MODE

The command specifies the dark printing of barcodes and scalable characters.

- **ALWAYS** Barcodes and scalable characters are always Printed dark.
- **WHEN SPECIFIED** Barcodes and scalable characters are printed dark When this is specified.
- **BARCODE ALWAYS** Barcodes are always printed dark and scalable Characters are printed dark when this is specified

SAVE

This command permanently stores the current configuration. The old settings become valid again after a -RESET/-REBOOT command or after powering off the printer if the new settings are not saved.

END

Terminates the configuration and returns to normal mode. A Reset (see also REBOOT) should be initiated straight away so the new settings become effective.

2.4 POWER ON AND PUSH BUTTON

To activate the new settings of the **PM IGP** it is necessary to power the printer off and on again. A **REBOOT** command following the **END** command can also be placed in the PRN file.

A printout of the current parameter settings is initiated by *momentarily* pressing the Push button at the rear of the **PM IGP**.

Power
Off/On



PP 80x



PP 404/5



PP 407/8

Push Button



2.5 DEFAULT (FACTORY) SETTINGS OF THE PM IGP

miniRIP/IGP - Matrix Printer Interface V3.xx.xx.xx –dd.mm.yy S/Nxxxxxxxxxxxxx

(C) 2004 PP2000 Business Integration AG

(C) 1992-2003 MIKODATA Computerperipherie GmbH

Architecture:	Hitachi 7020 20 MHz
Selected Printer:	PSI PP 40X (72*120 DPI/NLQ)
Input Interface:	Internal
Output Interface:	Internal
Graphics Buffer:	2880 Bytes
Form Buffer:	430 KBytes
Resident Form Buffer:	0 KBytes
Printer Fonts:	ON
Soft-Font:	BLOCK 5X7
Scalable Font:	Block 5x7
Reset Function:	INIT
Zero Style:	SLASHED
Decomp-Mode:	NEVER
Dark Mode:	BARCODE ALWAYS
Character Set:	GERMAN
EUR Char:	OFF
Use-Formlength:	OFF
Multilang:	OFF
BC-Scale-Laser:	OFF SUB-Area: ON
Power-Up Mode:	LISTEN
Default Formlength:	12.00"
Function Prefix (Hex):	7E

3 INTRODUCTION TO PROGRAMMING

3.1 COMMAND AND FUNCTION EXPANSIONS COMPARED TO PRINTRONIX IGP

The following list includes all expansions of the **PM IGP**. For compatibility to the Printronix IGP, only the values allowed for this device should be used. The expansions are marked in the descriptions of the commands and functions by **blue** or explanations.

Form names and logo names up to 16 characters
Form memory of max 430 KB
Logos and forms are only limited by the form memory available
Proportional font
Barcodes can be scaled down when printing horizontally

Logos can be enlarged using the resolution of the original or of the printer
Support.

The following separators are recognized:

- **Blank**
- **Comma**
- **Semi-colon**
- **Tabulator**

Key words, functions, form names and logo names can be written in blue capital letters or blue small letters.

- **FUNCTION PREFIX**

The function prefix precedes every command. It can have a length of **up to 6** characters and can be changed via the setup. By default and in this command overview the '~' (7EHX) character is used.

- **SEPARATORS**

Separators divide up the parameters of a command. **Blanks** (D), **commas** (,), **tabulators**_(TAB) and **semi-colons**_(.) can be used. In the following command overview the semi-colon is used as separator.

- **CAPITAL AND SMALL LETTERS**

All names of commands and forms can be written either by using **upper** or **lower** case letters.

- **COMMAND TERMINATOR**

Each command line must be terminated using a line feed (LF) or carriage return / line feed (CR / LF). A form feed (FF) can also be used as a command terminator.

- **FORM NAMES**

Form names can have a length of 1 up to 8 or **up to 16**_characters.

- **POSITION SPECIFICATION**

The position specification is related to the set scaling (see also the **SCALE** command). The upper left corner of the form is assigned the coordinates (1,1). In **CHAR** scaling the digits following the comma are not related to the character size but to the printer dots. This is horizontally $\frac{1}{60}$ " (0,42 mm) and vertically $\frac{1}{72}$ " (0,35 mm).

4 COMMANDS USED IN NORMAL MODE

~SETUP

The **~SETUP** command valid only for the **PM IGP** and initiates the configuration of the **PM IGP**. The definition is described in detail in section **configuring the PM IGP**.

~TEST

The **~TEST** command is valid only for the **PM IGP** and prints out the configuration of the **PM IGP**. A printout of the current configuration can also be initiated by *momentarily* pressing the button at rear of **PM IGP**. This button is located to the left of the input port.

~RESET

This command has several meanings depending on the configuration (see also the **SETUP** command):

- **IGNORE** The command is ignored.
- **INIT** The command deletes all defined forms and logos.
- **BOOT** This command acts like a **REBOOT** command.
-

~REBOOT

This command is valid only for the **PM IGP** and has the same effect as powering the printer off and on again. It re-initializes the device and deletes all defined forms and logos. If characters are still present in the buffer these are sent to the printer first. Any characters in the input buffer following the **~REBOOT** command are also deleted.

~DOWNLOAD;<Length>

<Data>

Using this command data is loaded into the resident memory of the **PM IGP** and can be transferred to the printer after every time the printer is powered on or after issuing a **~REBOOT** command. The parameter *<Length>* specifies the number of data bytes contained in the *<Data>* parameter which are directly transferred following each end of line! In the setup the automatic download of these data is enabled or disabled.

~UNIDIR

This command is valid only for the **PM IGP** and select the unidirectional printing mode. If 2 horizontal print lines are displaced against each other this mode should be selected.

~BIDIR

Selects the bidirectional printing mode. Usually, this mode is faster than unidirectional printing mode.

~HEXDUMP;ON|OFF

This command is valid only for the **PM IGP** and activates or inactivates the hex dump mode. All data sent by the **PM IGP** to the printer is printed as hexadecimal and as ASCII characters.

~SHUTUP!

This command is valid only for the **PM IGP** to the **QUIET** command but with the exception that the printer is kept in passive mode until it is powered off.

~QUIET

Switches the printer to passive mode. In this state only the **~LISTEN** is recognized. All other data is transmitted transparently to the printer. The **~LISTEN** command terminates this mode.

~LISTEN

Terminates the **~QUIET** mode.

~EXPAND;ve;he

Selects a character set which can be scaled in the vertical and horizontal directions in normal printing mode. The effective usable values for ve and he are in the range of 1 to 113 (multiplier for width and height).

~DENSITY;n

Selects a character spacing of 10, 12, 13, 15, or 17 characters/inch (cpi). OCR-A and OCR-B are selected using 10A and 10B respectively.

~LPI;n

Selects a line spacing of 6, 8, 9 or 10 lines/inch (lpi).

~NORMAL

Terminates the form print mode and activates the default settings for character size and line spacing.

~ISET;n

Selects a national character set. The following character sets are supported:

<n>character set	0: U.S. ASCII,	1: GERMAN,	2: SWEDISH,
	3: DANISH,	4: NORWEGIAN,	5: FINNISH,
	6: ENGLISH,	7: DUTCH,	8: FRENCH,
	9: SPANISH,	10: ITALIAN	11: TURKISH.

The selected character set determines how the data contained in IGP commands (e.g. ALPHA, BARCODE) are converted. Only data contained in IGP commands is converted. Selecting user defined character sets is not supported.

Only those national characters which are part of the expanded IBM character set are supported.

The IGP also supports characters sets which are not supported by the emulation.

- 12 - 23 Reserved
- 24 - 31 User Defined Sets
-

With the IGP all national special characters are present in the upper half of the character set (80H - FFH). In emulation mode the characters of the expanded IBM character set are present here.

~USET;<n>

This command is ignored and removed from the data stream. With the IGP the **~USET** command selects a user defined character set.

~LOGO;Logo_name

The **~LOGO** command starts the definition of a logo (bitmapped graphic). The definition is explained in detail in chapter **Defining logos**, starting at page 4-7.

~DELETE LOGO;Logo_name

Deletes the logo <Logo_name> from the directory of the **PM IGP**.

***ALL** deletes all logos.

~SAVE LOGO;Logo_name

Using this command which is valid for the **PM IGP** a defined logo is permanently stored in the non-volatile form memory. Later on it can be used like a normally defined logo.

~CREATE;Form_name

The **~CREATE** command starts a form definition. The definition is explained in detail in chapter **Defining logos**.

~EXECUTE;Form_name

The **~EXECUTE** command initiate printing of the form *<Form_name>*. The definition is explained in detail in chapter **6 Printing forms**.

~DELETE FORM;Form_name

Deletes the form *<Form_name>* from the directory of the **PM IGP**. ***ALL** deletes all logos.

~DIRECTORY

Outputs a list of all forms and logo currently stored. The names of the forms and logos stored in the **PM IGP** are output together with the used and remaining memory.

~IGON, ~IGOFF;

Using these commands data can be excluded from processing (data is ignored).

~EN-PI, ~DIS-PI, ~PION, ~PIOFF;

These commands are ignored. With the IGP they are used to set/reset the most significant data bit of the input data instead of using the control line PI (Paper Instruction) of the Dataproducts interface.

~SFON, ~SFOFF;

These commands are used to enable processing of the commands -LF, -CR, and -FF, while the control characters 00H - 0FH are ignored. These command and control characters are always processed.

4.1 DEFINING LOGOS

- LOGO;[/]<Logo_name>;<Height>;<Width>
- <Row;Dot;Dot1-Dot2>

END

The ~LOGO command starts the logo definition (bitmapped graphic). The definition is terminated by the END command.

<Logo_name>

Name of the logo which is used to store the logo in the directory. By specifying this name, the logo can later be selected in a form. The logo name can have a length of 1 up to 8 characters.

<Height>

Vertical height of the logo in points. The maximum height is determined by the buffer size.

<Width>

Horizontal width of the logo in points. The maximum width is determined by the buffer size.

<Row;Dot;Dot1-Dot2>

Here the logo data (the bit map) is specified. Each line in the definition must start with the line number (Row) in the logo. The line numbers must be in ascending order. Empty lines may be skipped. The columns of black points are thus specified for each line. Single points are specified directly (Dot), consecutive points can be specified together (Dot1-Dot2).

END

Terminates the logo definition.

4.2 DEFINING FORMS

- `CREATE;[/]<Form_name>[;<Length>]`
- `<Form elements>`

END

The **~CREATE** command starts the form definition. It is terminated by the **~END** command. Only the commands described in this section are allowed between **~CREATE** and **END**.

<Form_name>

Name of the form which is used to store the form in the directory. By specifying this name the form can later be selected. The form name can have a length of 1 up to 8 or up to a maximum of 16 characters.

If the `'` character precedes a form name all commands and parameters will also be printed. After exiting the definition the form is printed once. This can be used for documentation purposes and for supporting debugging.

<Length>

Form length in $\frac{1}{72}$ " (0,35 mm). If this parameter is omitted the form length defined in the setup will be assumed.

If a form length of 0 specified the IGP will terminate the form after the last element.

END

Terminates the form definition. A printout is automatically started if the form was created in Debug mode.

5 COMMANDS TO BE USED IN FORM DEFINITION MODE

The following list contains all possible form elements:

5.1 ALPHA

ALPHA

[R;][D;][E;][C<n>][AF<n>;</>][<Dir>;UC];<Row;Column>;<Height;Width>;<(D)Data(D)>
STOP

R

The text field is printed inverse.

D

Produces a darker barcode when used with certain printers, with others this parameter is ignored.

E

Selects double height for the text field. If this parameter is selected no vertical enlargement must be specified. Rotation is still possible.

C<n>

Prints the text field with <n>-cpi. This text field cannot be rotated! Printer internal fonts are supported. If this parameter is selected no vertical enlargement must be specified. Selecting 10, 12, 15, 17, 18, or 20 character/inch (**cpi**) is possible as far as the selected printer emulation is supported. Using 10A, OCR-A is selected and with 10B, OCR-B is selected respectively

AF<n>;</>

Defines the variable <n> with a length of </>. Data for this variable is passed on using the **~EXECUTE** command.

<Dir>;UC

Selects rotation of the specified text. Possible values for <Dir> are **CW**, **CCW**, and **INV**. (UC is ignored.)

<Row;Column>

Reference coordinates of the text field. The reference point of the text field is located at the left edge and 0.1" above the base line.

<Height;Width>

Vertical and horizontal enlargement factor of the text field. A unit equals 0.1".

<(D)Data(D)>

Definition of the data for the text field. The text must be enclosed by two identical arbitrary characters (*D*).

Stop

Terminates the definition of this element.

5.2 AUTO INCREMENT ALPHA ELEMENT

ALPHA

[R [D];] [E;] [C<n>;] I; [Dir;] SR;SC;VE;HE; [idir] STEPMASK; [RPT<nnn>;] [RST<nnn>;]
(D) STARTDATA (D)

STOP

I

Indicates an element with automatic increment.

Idir

Optional sign for increment (+) or decrement (-). If this optional sign is not used, the default is (+).

STEBMASK

Defines the value of the increment, the number of character positions, and the mind of increment.

RPT<nnn>;

Optional copy counter to define how often a field needs to be printed before its contents shall be increased or decreased. Default = 1.

RST<nnn>;

Optional copy counter to define how often a field needs to be printed before the basic value shall be restored again. Default = 1.

(D)STARTDATA(D)

Definition of the start data (basic value) for the field. The data must be enclosed by two identical arbitrary characters (*D*).

5.3 AUTO INCREMENT DYNAMIC ALPHA ELEMENT

ALPHA

[R[D]·[E·][C<n>·]IAFn;L·[Dir·]SR·SC·VE·HE

STOP

IAFn;L

Identifies an element with automatic increment with dynamic data. The variable number **n** is set to a value from 1 to 127.

L defines the length of the data field.

The parameter STEPMASK, RPT, RST, STARTDATA etc are defined in combination with the print data.

5.4 BARCODE

BARCODE

<Type>[;VSCAN][;X<Mag>][;H<n>][;BF<n>;<l>][;DARK];<Row;Column>;

[;C(ompensate)]

[<(D)Data(D)>]

[PDF[;A][;Font]]

STOP

<Type>

CODABAR | I-2/5 | I-2/5CD | C3/9 | C3/9CD | C128B | C128C | UPC-A | UPC-E | EAN8 | EAN13

The barcodes C128B and C128C are identical and can be selected with C128. The shortest form of representation is always selected, corresponding to the barcode specification.

VSCAN

Prints the barcode vertically.

X<Mag>

Specifies the scaling factor for the barcode. The default value is **1**. For **PM IGPX1.. X4** and values between **0.1 - 0.9** are also permissible here if supported by the selected

printer type.

The original IGP allows no values < 1.

H<n>

Specifies the height of the barcode in $\frac{\text{<n>}}{10}$ ".

BF<n>;<l>

Defines a variable <n> of length <l>. The relevant data must be passed on using the **~EXECUTE** command.

DARK

Produces a darker barcode when used with certain printers, with others this parameter is ignored.

<Row;Column>

Relative coordinates of the barcode.

C- Compensate

This optional parameter is only valid for **PM IGP** and reduces the thickness of the lines by one point to compensate for the 'ink spread'.

<(D)Data(D)>

Defines the barcode data, unless a field with variable data was defined. This text must be enclosed between two identical arbitrary characters (D).

PDF

Prints a block text line below the barcode. Internal printer fonts are used for the block text line if the printer driver supports their use.

A Above

Prints a block text line above the barcode. **PDF** must be specified!

Selects a character set for the block text line:

- **N**: Standard text
- **O**: OCR-A
- **X**: OCR-B
- **S**: No block text line.

STOP

Terminates the definition of this element.

5.5 AUTOINCREMENT BARCODE ELEMENT

BARCODE

```
<Type>[;VSCAN][;X<Mag>][;H<n>]I;[DARK;]SR;SC
[idir]STEPMASK;[RPT<nnn>][RST<nnn>];(D)STARTDATA(D)
[PDF;Above][;Font]]
STOP
```

I

Identifies an element with automatic increment.

idir

Optional sign for increment (+) or decrement (-). If this optional sign is not used, the default is (+).

STEPMASK

Defines the value of the increment, the number of character positions, and the mind of increment.

RPT<nnn>;

Optional copy counter to define how often a field needs to be printed before its contents shall be increased or decreased. Default = 1.

RST<nnn>;

Optional copy counter to define how often a field needs to be printed before the basic value shall be restored again. Default = 1.

(D)STARTDATA(D)

Definition of the start data (basic value) for the field. The data must be enclosed by two identical arbitrary characters (*D*).

5.6 AUTOINCREMENT DYNAMIC DATA BARCODE ELEMENT

BARCODE

<Type>;VSCAN][;X<Mag>][;H<n>][IBF<n>;L;SR;SC
[PDF[;Above][;Font]
STOP

IBF<n>;L

Identifies an element with automatic increment with dynamic data. The variable number *n* is set to a value from 1 to 127.

L defines the length of the data field.

The parameter STEPMASK, RPT, RST, STARTDATA etc are defined in combination with the print data.

BOX

BOX

<Thickness>;<Start_row;Start_column>;<End_row;End_column>
STOP

<Thickness>

Line thickness of the box in $\frac{1}{72}$ " or $\frac{1}{60}$ ".

<Start_row;Start_column>

Coordinates of the box's top left corner.

<End_row;End_column>

Coordinates of the box's bottom right corner.

STOP

Terminates the definition of this element.

5.7 CORNER

CORNER

<Thickness>;<Start_row;Start_column>;<End_row;End_column>;
 <Length;Width>
STOP

<Thickness>

Line thickness of the corner in $\frac{1}{72}$ " or $\frac{1}{60}$ ".

<Start_row;Start_column>

Coordinates of the corner's top left corner.

<End_row;End_column>

Coordinates of the corner's bottom right corner.

<Length;Width>

Vertical or horizontal length of the corner.

STOP

Terminates the definition of this element

5.8 **HORZ**

HORZ

<Thickness>;<Row>;<Start_column;End_column>**STOP**

<Thickness>

Line thickness in $\frac{1}{72}$ ".

<Row>

Vertical coordinate of the line.

<Start_column;End_column>

Horizontal coordinates of the line.

STOP

Terminates the definition of this element.

5.9 **VERT**

VERT

<Thickness>;<Column>;<Start_row;End_row>

STOP

<Thickness>

Line thickness in $\frac{1}{60}$ ".

<Column>

Horizontal coordinate of the line.

<Start_row;End_row>

Vertical coordinates of the line.

STOP

Terminates the definition of this element.

5.10 LOGO**LOGO**

<Row;Column>;<Logo_name>;<Height;Width>

STOP

<Row;Column>

Relative coordinates of the logo.

<Logo_name>

Name of the logo to be printed on the form. This logo must already be defined!

<Height;Width>

If these parameters are specified, the logo is enlarged by this factor. The current printer resolution is used for this setting. If these parameters are omitted or equal to zero, the logo is enlarged to a resolution of approximately 60 * 72 dpi.

STOP

Terminates the definition of this element.

5.11 REVERSE**REVERSE**

[DARK;]<Start_row;Start_column>;<End_row;End_column>
STOP

Inverts an area of the form.

DARK

Produces a darker barcode when used with certain printers, with others this parameter is ignored.

<Start_row;Start_column>

Start coordinates of the inverse field.

<End_row;End_column>

End coordinates of the inverse field.

STOP

Terminates the definition of this element.

5.12 HDUP

HDUP;<Count>;<Offset>

<Elements to be duplicated>

HDUP;OFF

<Count>

The following elements are printed <Count> times.

<Offset>

The spacing between two elements is specified with <Offset>.

5.13 VDUP

VDUP;<Count>;<Offset>

<Elements to be duplicated>

VDUP;OFF

<Count>

The following elements are printed <Count> times.

<Offset>

The spacing between two elements is specified with <Offset>.

5.14 LFORM6

LFORM6;<Length>

Sets the form length to *<Length>/6"*.

5.15 LFORM8

LFORM8;*<Length>*

Sets the form length to *<Length>/8"*.

5.16 PAGE

PAGE;*<Row;Column>*

Prints a consecutively numbered page number at the position given by *<Row/Column>*. A start value for the page number can be specified using the execute command.

5.17 SCALE

SCALE;DOT

SCALE;CHAR;*<|pi>;<cpi>*

SCALE;HIRES

SCALE;INCH

SCALE;MM

DOT

When this parameter is specified, the position specifications are interpreted using the resolution 60*72dpi.

CHAR;*<|pi>;<cpi>*

When this parameter is specified, the position specifications are interpreted using the character scale *<|pi>*, *<cpi>*.

Valid values for:

<|pi> are: 6*, 8, 9 and 10,

<cpi>: 10*, 13, 15 and 17.

HIRES

When this parameter is specified, the position specifications are interpreted using the printer resolution.

INCH

When this parameter is specified, the position specifications are interpreted in inches.

MM

When this parameter is specified, the position specifications are interpreted in millimeters.

The specification of line thicknesses is always based on the scale given by 'Dot'.

ISET

ISET;;<Char_set>

Selects the international character set <Char_set> for the data in IGP commands (e.g. ALPHA, BARCODE). The following character sets are supported:

Selecting user defined character sets is not supported.

<Char_set>	0: U.S. ASCII,	1: GERMAN,	2: SWEDISH,
	3: DANISH,	4: NORWEGIAN,	5: FINNISH,
	6: ENGLISH,	7: DUTCH,	8: FRENCH,
	9: SPANISH,	10: ITALIAN,	11: TURKISH.

END

END

Terminates the form definition. A printout is automatically started if the form was created in Debug mode

6 PRINTING FORMS

```

~EXECUTE;<Form_name>;[PAGE <n>]
    [<Count>]
~EXECUTE;<Form_name>
    [PAGE <n>]
    [-AF<n>;<(D)Alpha Data(D)>]
    [-BF<n>;<(D)Barcode Data(D)>]
    [<Overlay Data>]
~NORMAL

```

The **~EXECUTE** command is used to print the form *<Form_name>*. This form must either be previously defined or be stored in the non-volatile memory.

PAGE <n>

Assigns the value *<n>* to the page number of the first form. For every additional form the page number is incremented by one.

<Count>

This optional parameter specifies the number of forms to be printed. If this parameter is specified, the form is immediately printed *<Count>* times. Variable or overlay data cannot be specified. The **~NORMAL** command does not have to be specified at the end.

~AF<n>;<(D)Alpha Data(D)>

Defines variable Alpha data. The data for the variable *<n>* is defined. The text *<Alpha Data>* is assigned to the variable. This text must be enclosed between two identical arbitrary characters (*D*).

Example: ~AF10;"Hello"

~BF<n>;<(D)Barcode Data(D)>

Defines variable barcode data. The data for the variable *<n>* is defined. The value *<Barcode Data>* is allocated to the variable. This data must be enclosed between two identical arbitrary characters (*D*).

Example: ~BF10;"47110815"

-<Overlay Data>

Any text which is printed together with the form. The text can be placed in the desired position using space characters and line feeds. It is "superimposed" onto the form. Variable data must be specified before the overlay data. A form feed must be output if the next page is to be printed.

6.1. PRINTING FORMS WITH INCREMENT DATAFIELDS

```
~EXECUTE;<Form_name>;[PAGE <n>];ICNT<nnn>;[IRST<nnn>]
```

```
~EXECUTE;<Form_name>;[PAGE <n>]
[-IAF<n>;[idir]STEPMASK;[RPT<nnn>;][RST<nnn>;]<(D)Alpha Data(D)>]
[-IBF<n>;[idir]STEPMASK;[RPT<nnn>;][RST<nnn>;]<(D)Barcode Data(D)>]
[<Overlay Data>]
```

~NORMAL

The ~EXECUTE command is used to print the form <Form_name>. This form must either be previously defined or be stored in the non-volatile memory.

PAGE<n>

Assigns the value <n> to the page number of the first form. For every additional form the page number is incremented by one.

ICNT<nnn>

This optional parameter specifies the number of forms to be printed. If this parameter is specified, the form is immediately printed <nnn> times. Variable or overlay data cannot be specified. The ~NORMAL command does not have to be specified at the end.

ICNT<nnn>

This optional parameter specifies the number of forms to be printed until the auto increment values are reset to the start values.

<Overlay Data>

Any text which is printed together with the form. The text can be placed in the desired position using space characters and line feeds. It is "superimposed" onto the form. Variable data must be specified before the overlay data. A form feed must be output if the next page is to be printed.

The function of the parameter STEPMASK and STARTDATA is identical to when printing of auto increment fields with fixed data.

Appendix A MULTINATIONAL / NATIONAL CHARACTER SETS

IGP/PGL MULTINATIONAL Set

0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0		0	@	P	'	p	Ij			°	À	Ð	à	ð	
1	!	1	A	Q	a	q	ij			±	Á	Ñ	á	ñ	
2	"	2	B	R	b	r	Pt			£	Â	Ò	â	ò	
3	#	3	C	S	c	s	|			¢	Ã	Ó	ã	ó	
4	\$	4	D	T	d	t	Π			¤	Ä	Ô	ä	ô	
5	%	5	E	U	e	u	ı			¥	Å	Õ	å	õ	
6	&	6	F	V	f	v	Ğ			—	Æ	Ö	æ	ö	
7	'	7	G	W	g	w	Ş			§	Ç	×	ç	ø	
8	(	8	H	X	h	x	Ş			:	È	Ø	è	ø	
9	)	9	I	Y	i	y	ı			;	É	Ù	é	ù	
A	*	:	J	Z	j	z	ı			‘	Ê	Ú	ê	ú	
B	+	:	K	[	k	{	ı			’	Ë	Û	ë	û	
C	.	<	L	\	l	|	ı			“	İ	Ü	ï	ü	
D	-	=	M	]	m	}	ı			”	Í	Ý	í	ý	
E	.	>	N	^	n	~	ı			–	Î	Þ	î	þ	
F	/	?	O	_	o		ı			—	Ï	B	ï		

ASCII Set

0	1	2	3	4	5	6	7
0		0	@	P	'	p	
1	!	1	A	Q	a	q	
2	"	2	B	R	b	r	
3	#	3	C	S	c	s	
4	\$	4	D	T	d	t	
5	%	5	E	U	e	u	
6	&	6	F	V	f	v	
7	'	7	G	W	g	w	
8	(	8	H	X	h	x	
9	)	9	I	Y	i	y	
A	*	:	J	Z	j	z	
B	+	:	K	[	k	{	
C	.	<	L	\	l	|	
D	-	=	M	]	m	}	
E	.	>	N	^	n	~	
F	/	?	O	_	o		

GERMAN Set

0	1	2	3	4	5	6	7
0		0	\$	P	'	p	
1	!	1	A	Q	a	q	
2	"	2	B	R	b	r	
3	#	3	C	S	c	s	
4	\$	4	D	T	d	t	
5	%	5	E	U	e	u	
6	&	6	F	V	f	v	
7	'	7	G	W	g	w	
8	(	8	H	X	h	x	
9	)	9	I	Y	i	y	
A	*	:	J	Z	j	z	
B	+	:	K	Ä	k	ä	
C	.	<	L	Ö	l	ö	
D	-	=	M	Ü	m	ü	
E	.	>	N	^	n	B	
F	/	?	O	_	o		

SWEDISH Set

0	1	2	3	4	5	6	7
0		0	É	P	é	p	
1	!	1	A	Q	a	q	
2	"	2	B	R	b	r	
3	#	3	C	S	c	s	
4	¤	4	D	T	d	t	
5	%	5	E	U	e	u	
6	&	6	F	V	f	v	
7	'	7	G	W	g	w	
8	(	8	H	X	h	x	
9	)	9	I	Y	i	y	
A	*	:	J	Z	j	z	
B	+	;	K	Ä	k	ä	
C	.	<	L	Ö	l	ö	
D	-	=	M	Å	m	å	
E	.	>	N	Ü	n	ü	
F	/	?	O	_	o		

DANISH Set

0	1	2	3	4	5	6	7
0		0	@	P	°	p	
1	!	1	A	Q	a	q	
2	"	2	B	R	b	r	
3	#	3	C	S	c	s	
4	\$	4	D	T	d	t	
5	%	5	E	U	e	u	
6	&	6	F	V	f	v	
7	'	7	G	W	g	w	
8	(	8	H	X	h	x	
9	)	9	I	Y	i	y	
A	*	:	J	Z	j	z	
B	+	;	K	Æ	k	æ	
C	.	<	L	Ø	l	ø	
D	-	=	M	Å	m	å	
E	.	>	N	^	n	~	
F	/	?	O	_	o		

NORWEGIAN Set

0	1	2	3	4	5	6	7
0		0	É	P	é	p	
1	!	1	A	Q	a	q	
2	"	2	B	R	b	r	
3	#	3	C	S	c	s	
4	¤	4	D	T	d	t	
5	%	5	E	U	e	u	
6	&	6	F	V	f	v	
7	'	7	G	W	g	w	
8	(	8	H	X	h	x	
9	)	9	I	Y	i	y	
A	*	:	J	Z	j	z	
B	+	;	K	Æ	k	æ	
C	.	<	L	Ø	l	ø	
D	-	=	M	Å	m	å	
E	.	>	N	Ü	n	ü	
F	/	?	O	_	o		

FINNISH Set

0	1	2	3	4	5	6	7
0		0	@	P	'	p	
1	!	1	A	Q	a	q	
2	"	2	B	R	b	r	
3	#	3	C	S	c	s	
4	¤	4	D	T	d	t	
5	%	5	E	U	e	u	
6	&	6	F	V	f	v	
7	'	7	G	W	g	w	
8	(	8	H	X	h	x	
9	)	9	I	Y	i	y	
A	*	:	J	Z	j	z	
B	+	;	K	Ä	k	ä	
C	.	<	L	Ö	l	ö	
D	-	=	M	Å	m	å	
E	.	>	N	^	n	ü	
F	/	?	O	_	o		

ENGLISH Set

0	1	2	3	4	5	6	7
0		0	@	P	'	p	
1	!	1	A	Q	a	q	
2	"	2	B	R	b	r	
3	£	3	C	S	c	s	
4	\$	4	D	T	d	t	
5	%	5	E	U	e	u	
6	&	6	F	V	f	v	
7	'	7	G	W	g	w	
8	(8	H	X	h	x	
9)	9	I	Y	i	y	
A	*	:	J	Z	j	z	
B	+	:	K	[k	{	
C	.	<	L	\	l		
D	-	=	M]	m	}	
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DUTCH Set

0	1	2	3	4	5	6	7
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1	!	1	A	Q	a	q	
2	"	2	B	R	b	r	
3	£	3	C	S	c	s	
4	\$	4	D	T	d	t	
5	%	5	E	U	e	u	
6	&	6	F	V	f	v	
7	'	7	G	W	g	w	
8	(8	H	X	h	x	
9)	9	I	Y	i	y	
A	*	:	J	Z	j	z	
B	+	:	K	[k	{	
C	.	<	L	IJ	l	ij	
D	-	=	M]	m	}	
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FRENCH Set

0	1	2	3	4	5	6	7
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1	!	1	A	Q	a	q	
2	"	2	B	R	b	r	
3	#	3	C	S	c	s	
4	\$	4	D	T	d	t	
5	%	5	E	U	e	u	
6	&	6	F	V	f	v	
7	'	7	G	W	g	w	
8	(8	H	X	h	x	
9)	9	I	Y	i	y	
A	*	:	J	Z	j	z	
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SPANISH Set

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4	\$	4	D	T	d	t	
5	%	5	E	U	e	u	
6	&	6	F	V	f	v	
7	'	7	G	W	g	w	
8	(8	H	X	h	x	
9)	9	I	Y	i	y	
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ITALIAN Set

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3		#	3	C	S	c	s	
4		\$	4	D	T	d	t	
5		%	5	E	U	e	u	
6		&	6	F	V	f	v	
7		'	7	G	W	g	w	
8		(8	H	X	h	x	
9)	9	I	Y	i	y	
A		*	:	J	Z	j	z	
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TURKISH Set

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4		ı	4	D	T	d	t	
5		%	5	E	U	e	u	
6		&	6	F	V	f	v	
7		'	7	G	W	g	w	
8		(8	H	X	h	x	
9)	9	I	Y	i	y	
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OCR-A Set

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3		#	3	C	S	c	s	
4		\$	4	D	T	d	t	
5		%	5	E	U	e	u	
6		&	6	F	V	f	v	
7		'	7	G	W	g	w	
8		(8	H	X	h	x	
9)	9	I	Y	i	y	
A		*	:	J	Z	j	z	
B		+	;	K	⌈	k	⌊	
C		.	<	L	\	l		
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OCR-B Set

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3		#	3	C	S	c	s	
4		\$	4	D	T	d	t	
5		%	5	E	U	e	u	
6		&	6	F	V	f	v	
7		'	7	G	W	g	w	
8		(8	H	X	h	x	
9)	9	I	Y	i	y	
A		*	:	J	Z	j	z	
B		+	;	K	⌈	k	⌊	
C		.	<	L	\	l		
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PC 850

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1	SOH	DC1	!	1	A	Q	a	q	ü	æ	í	■	■	Ð	ß	±
2	STX	DC2	"	2	B	R	b	r	é	Æ	ó	■	■	Ê	Ö	—
3	ETX	DC3	#	3	C	S	c	s	â	ô	ú	■	■	Ë	Û	¾
4	EOT	DC4	\$	4	D	T	d	t	ä	ö	ñ	■	■	È	ø	¶
5	ENQ	NAK	%	5	E	U	e	u	à	ò	Ñ	A	+	ï	Ö	\$
6	ACK	SYN	&	6	F	V	f	v	å	û	ª	À	ã	í	µ	÷
7	BEL	ETB	'	7	G	W	g	w	ç	ù	º	Á	Ä	î	þ	,
8	BS	CAN	(	8	H	X	h	x	ê	ÿ	¿	©	■	ÿ	þ	°
9	HT	EM	)	9	I	Y	i	y	ë	Û	®	■	■	Ú	·	
A	LF	SUB	*	:	J	Z	j	z	è	Ü	¬	■	■	Û	·	
B	VT	ESC	+	;	K	[k	{	ï	ø	½	■	■	Ü	¹	
C	FF	FS	,	<	L	\	l		î	£	¼	■	■	Ý	²	
D	CR	GS	-	=	M]	m	}	í	Ø	¡	¢	=	ÿ	²	
E	SO	RS	.	>	N	^	n	~	Ä	×	«	¥	+	ÿ	²	
F	SI	US	/	?	O	_	o	DEL	Å	f	»	■	■	'		

ISO-Latin2 8859-2

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0	NUL	DLE	SP	0	@	P	`	p			NBSP	°	Ř	Đ	ř	đ
1	SOH	DC1	!	1	A	Q	a	q			À	á	Â	Ã	ä	å
2	STX	DC2	"	2	B	R	b	r			ˆ	ˆ	Ä	Å	ä	å
3	ETX	DC3	#	3	C	S	c	s			Ł	ł	Ă	Ą	ą	ą
4	EOT	DC4	\$	4	D	T	d	t			²	²	Ą	Ć	ć	ć
5	ENQ	NAK	%	5	E	U	e	u			Ł	ł	Ł	Ų	ų	ų
6	ACK	SYN	&	6	F	V	f	v			Ś	ś	Ć	Č	č	č
7	BEL	ETB	'	7	G	W	g	w			Š	š	Č	×	ç	÷
8	BS	CAN	(	8	H	X	h	x			ˆ	ˆ	Č	Ř	č	ř
9	HT	EM)	9	I	Y	i	y			Š	š	É	Ú	é	ú
A	LF	SUB	*	:	J	Z	j	z			Š	š	Ê	Û	ê	û
B	VT	ESC	+	;	K	[k	{			Ť	ť	Ê	Ü	ë	ü
C	FF	FS	,	<	L	\	l				Ž	ž	Ë	Ü	ë	ü
D	CR	GS	-	=	M]	m	}			·	·	Í	Ý	í	ý
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Code Page 852

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0	NUL	DLE	SP	0	@	P	`	p	Ç	É	á	█	┘	đ	Ó	
1	SOH	DC1	!	1	A	Q	a	q	ü	í	█	┘	Đ	ß	"	
2	STX	DC2	"	2	B	R	b	r	é	í	ó	█	┘	Đ	Ô	
3	ETX	DC3	#	3	C	S	c	s	â	ó	ú		┘	È	Ñ	~
4	EOT	DC4	\$	4	D	T	d	t	ä	ö	Å		┘	đ	ñ	˘
5	ENQ	NAK	%	5	E	U	e	u	Û	Ł	ą	Å	+	Ń	ń	§
6	ACK	SYN	&	6	F	V	f	v	ć	ł	Ż	Å	+	İ	ş	÷
7	BEL	ETB	'	7	G	W	g	w	ç	Ś	ż	È	+	ă	î	ş
8	BS	CAN	(8	H	X	h	x	ł	ś	Ę	Ś	┘	ë	Ŕ	°
9	HT	EM)	9	I	Y	i	y	ë	Ö	ę	┘	┘	Ů	˘	
A	LF	SUB	*	:	J	Z	j	z	Ö	Ü	┘	┘	┘	ŕ	˘	
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ISO-Latin 1 8859-1

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ISO-Latin 9 8859-9

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1	SOH	DC1	!	1	A	Q	a	q			¡	±	Á	Ñ	á	ñ
2	STX	DC2	"	2	B	R	b	r			¢	²	Â	Ô	â	ô
3	ETX	DC3	#	3	C	S	c	s			£	³	Ã	Õ	ã	ó
4	EOT	DC4	\$	4	D	T	d	t			¤	´	Ä	Ö	ä	ö
5	ENQ	NAK	%	5	E	U	e	u			¥	µ	Å	Ø	å	ø
6	ACK	SYN	&	6	F	V	f	v			¦	¶	Æ	Ö	æ	ö
7	BEL	ETB	'	7	G	W	g	w			§	·	Ç	×	ç	÷
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ISO Latin 1 8859-15

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2	STX	DC2	"	2	B	R	b	r			¢	²	Â	Ô	â	ô
3	ETX	DC3	#	3	C	S	c	s			£	³	Ã	Õ	ã	ó
4	EOT	DC4	\$	4	D	T	d	t			€	Ž	Ä	Ö	ä	ö
5	ENQ	NAK	%	5	E	U	e	u			¥	µ	Å	Ö	å	ö
6	ACK	SYN	&	6	F	V	f	v			Š	ŋ	Æ	Ö	æ	ö
7	BEL	ETB	'	7	G	W	g	w			§	·	Ç	×	ç	÷
8	BS	CAN	(8	H	X	h	x			š	ž	È	Ø	è	ø
9	HT	EM)	9	I	Y	i	y			©	¹	É	Ù	é	ù
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Appendix B PROGRAMMING EXAMPLES

B-1 Label with overlay and LOGO)

```

~LOGO;FISHIE;14;29
1;11-14
2;9-17
3;6-20;29
4;5-21;28-29
5;4-22;28-29
6;2-24;27-29
7;1-29
8;1-29
9;2-24;27-29
10;4-22;28-29
11;5-21;28-29
12;6-21;29
13;9-17
14;11-14
END
~CREATE;FISH;864
PAGE;33;30
BOX
2;34.6;30;36.6;70
3;5;5;52;75
2;48;60;50;70
STOP
HORZ
1;28;10;70
1;28.5;10;70
STOP
VERT
2;10;40;48
2;15;40;48
2;23;40;48
2;50;40;48
2;60;40;48
2;70;40;48
1;70;28;28.6
STOP

```

CORNER

5;10;10;24;36;4;6

STOP

ALPHA

16;14;5;5;"FISH"

21;14;4;2;"by the SEA"

13;44;4;2;"Our fish are"

22;41;4;2;"fresh every day"

E;33;14;0;0;"ORDER NUMBER"

E;35.5;14;0;0;"PICKED UP BY"

C15;39;12;0;0;"Item	Quantity	Description"
C15;39;53;0;0;"Unit price	Total"	
49;53;0;0;"TOTAL"		

STOP

LOGO

16;43;FISHIE

16;53;FISHIE

16;63;FISHIE

STOP

HDUP;15;4

VERT

1;10;28;28.6

1;10.3;27.9;28.9

1;11;27.6;29

1;11.3;27.3;29.3

1;12;27;29.6

1;12.3;27.3;29.3

1;13;27.6;29

1;13.3;27.9;28.9

STOP

HDUP;OFF

HORZ

1;40;10;70

STOP

VDUP;OFF

END

~EXECUTE;FISH;PAGE 9999

Note: The overlay text must be programmed starting after the EXECUTE command. Text positioning is achieved with line feed and blanks. The following page shows the overlay text. For reprogramming the text „Dave Pardee“ is on line 34. The overlay text is terminated and printed with the ~NORMAL command.

Dave Pardee

```

1  10    smoked barracuda    1.25   12.50
2   5     Maine Lobster      6.50   32.50
3  15    pickled herring     .25     3.75
4  35    codfish eyes        .10     3.50

```

52.25

~NORMAL

Print Sample:

<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;"> FISH </div> <div> Our fish are </div> </div>				
<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;"> by the SEA </div> <div> fresh every day </div> </div>				
ORDER NUMBER	9999			
PICKED UP BY	Dave Pardee			
Item	Quantity	Description	Unit price	Total
1	10	smoked barracuda	1.25	12.50
2	5	Maine Lobster	6.50	32.50
3	15	pickled herring	.25	3.75
4	35	codfish eyes	.10	3.50
TOTAL				52.25

B-2 VDA Label with BARCODE

~CREATE;PSIFORM;432

ISSET;1

BOX

3;2;1;26;65

2;9.2;1;26;65

2;9.2;1;15.8;38

2;15.8;1;26;38

2;20.5;1;26;38

2;15.8;1;26;65

STOP

ALPHA

C15;2.5;2;0;0;"PART NO."

C15;3.5;2;0;0;" (P)"

C15;9.7;2;0;0;"QUANTITY"

C15;10.7;2;0;0;" (Q)"

C15;15.13;2;0;0;"SUPPLIER"

C15;16.13;2;0;0;" (V)"

C15;20.10;2;0;0;"SERIAL"

C15;21.10;2;0;0;" (S)"

C15;9.7;39;0;0;"SPECIAL"

C15;10.7;39;0;0;" (C)"

C15;21;40;0;0;"Printer Systems international GmbH"

C15;22;40;0;0;"57080 Siegen-Eiserfeld"

C15;23;40;0;0;"Eiserfelder Strasse 316"

C15;24;40;0;0;"Telefon 0271 3597 0"

STOP

ALPHA

RD;28;18;1;1;" printed with mit IGP-Emulation "

STOP

BARCODE

C3/9;H6;DARK;6;6

"870724090108"

STOP

BARCODE

C3/9;H6;DARK;12.5;6

"Q00345"

STOP

BARCODE

C3/9;H6;DARK;12.5;44

"CV20"

STOP

BARCODE

C3/9;H6;DARK;17.3;6

"V1625681"

STOP

BARCODE

C3/9;H6;DARK;22.5;6

"S001038"

STOP

ALPHA

5;8;4;4;"8707 240 90108"

11.5;12;3;3;"00345"

11.5;50;3;3;"V20"

17;12;2;2;"DE-1265681"

21.8;12;2;2;"001038"





STOP

END

~EXECUTE;PSIFORM

~NORMAL

Print Sample:

PART NO. (P) 8707 240 90108 	
QUANTITY (Q) 00345 	SPECIAL (C) V20 
SUPPLIER (V) DE-1265681 	
SERIAL (S) 001038 	Printer Systems international GmbH 57080 Siegen-Eiserfeld Eiserfelder Strasse 316 Telefon 0271 3597 0

printed with mlc IGP Emulation

B-3 IGP form with dynamic data

~CREATE;LABEL;288

ISET;1

BOX

2;1;1;21;58

STOP

HORZ

2;4;1;58

2;8;1;58

1;11;1;58

2;18.5;1;58

STOP

VERT

1;29;4;11

1;29;18.5;21

STOP

ALPHA

C10;6;2;0;0;"KDNR :"

C10;6;30;0;0;"TOUR :"

C10;10;30;0;0;"TOR :"

C10;12;2;0;0;"NAME :"

C10;15;2;0;0;"STR :"

C10;17.5;2;0;0;"ORT :"

C10;20;3;0;0;"DATUM"

20;30;2;2;"PALETTEN:"

AF01;20;2.5;2;2;1

AF02;20;2.5;30;2;1

AF03;5;6;10;2;2

AF04;8;6;38;2;2

AF05;2;10;38;2;2

AF10;20;12;10;2;2

AF11;20;15;10;2;2

AF12;20;17.5;10;2;2

AF13;8;20;10;2;2

STOP

END

~EXECUTE;LABEL

~AF01;"DOMINO EG"

~AF02;"DUESSELDORF 1"

~AF03;"142.0"

```

~AF04;"11111111"
~AF05;"01"
~AF10;"KRUMMENASE   GmbH"
~AF11;"AM GROSSEN PLATZ  "
~AF12;"HANNOVER      "
~AF13;"04.06.91"
~NORMAL

```

```

~EXECUTE;LABEL
~AF01;"DOMINO       EG"
~AF02;"DUESSELDORF   1"
~AF03;"142.0"
~AF04;"22222222"
~AF05;"01"
~AF10;"KRUMMENASE   GmbH"
~AF11;"AM GROSSEN PLATZ  "
~AF12;"HANNOVER      "
~AF13;"04.06.91"
~NORMAL

```

```

~EXECUTE;LABEL
~AF01;"DOMINO       EG"
~AF02;"DUESSELDORF   1"
~AF03;"142.0"
~AF04;"33333333"
~AF05;"01"
~AF10;"KRUMMENASE   GmbH"
~AF11;"AM GROSSEN PLATZ  "
~AF12;"HANNOVER      "
~AF13;"04.06.91"
~NORMAL

```

Note: The form „LABEL“ is printed 3 times with dynamic data which are defined during EXECUTE.

Print Sample:

DOMINO		EG	DUESSELDORF
KDNR : 142. 0		TOUR : 11111111	
		TOR : 01	
NAME : KRUMMENASE		GmbH	
STR : AM GROSSEN PLATZ			
ORT : HANNOVER			
DATUM 04. 06. 91		PALETTEN:	

DOMINO	EG	DUESSELDORF
KDNR : 142. 0	TOUR : 22222222	
	TOR : 01	
NAME : KRUMMENASE		GmbH
STR : AM GROSSEN PLATZ		
ORT : HANNOVER		
DATUM 04. 06. 91	PALETTEN:	

DOMINO		EG	DUESSELDORF
KDNR : 142. 0		TOUR : 33333333	
		TOR : 01	
NAME : KRUMMENASE		GmbH	
STR : AM GROSSEN PLATZ			
ORT : HANNOVER			
DATUM 04. 06. 91		PALETTEN:	

B-4 IGP form with Incremental data

```

~CREATE;AUTOINCTST;288
VDUP;3;5
HDUP;2;18
ALPHA
I;5;40;3;3;X01;RPT2;RST6;"A01"
STOP
BARCODE
C3/9;H5;I;3;1
X01;RPT2;RST6;"A01"
PDF
STOP
HDUP;OFF
VDUP;OFF
END
~EXECUTE;AUTOINCTST;3

~NORMAL

```

Note: The form „AUTOINCTST“ is printed 3 times. The incremental data field „A01“ is printed 2 times before increment of the last character. After 6 times the field is reset to „A01“.

Print Sample:



A01

A01



A02

A02



A03

A03

B-5 IGP form with Incremental dynamic data

~CREATE;VALPHA1;288

ALPHA

3;1;2;2;"V-ALPHA AUTOINC.(3 PAGES)"

IAF1;30;5;1;0;0

IAF2;30;6;1;1;1

R;IAF3;30;8;1;2;2

E;IAF4;30;10;1;0;0

C10;IAF5;30;11;1;0;0

C13;IAF6;30;12;1;0;0

C15;IAF7;30;13;1;0;0

C17;IAF8;30;14;1;0;0

STOP

END

~EXECUTE;VALPHA1;ICNT3

~IAF1;XXXXXXXX00000000000001;"Printer Font 100"

~IAF2;XXXXXXXX00000000000001;"Dynamic Font 100"

~IAF3;XXXXXXXX00000000000001;"Reverse 2x2 100"

~IAF4;XXXXXXXX00000000000001;"Elongated 100"

~IAF5;XXXXXXXX00000000000001;"Compressed 10 100"

~IAF6;XXXXXXXX00000000000001;"Compressed 13 100"

~IAF7;XXXXXXXX00000000000001;"Compressed 15 100"

~IAF8;XXXXXXXX00000000000001;"Compressed 17 100"

~NORMAL

Note: The form „VALPHA1“ is printed 3 times.

The last character of the dynamic data fields (100) is incremented automatically.

Print Sample:

U-ALPHA AUTOINC. (3 PAGES)

Printer	Font	100
Dynamic	Font	100

Reverse	2x2	100
---------	-----	-----

Elongated		100
Compressed	10	100
Compressed	13	100
Compressed	15	100
Compressed	17	100

U-ALPHA AUTOINC. (3 PAGES)

Printer	Font	101
Dynamic	Font	101

Reverse	2x2	101
---------	-----	-----

Elongated		101
Compressed	10	101
Compressed	13	101
Compressed	15	101
Compressed	17	101

U-ALPHA AUTOINC. (3 PAGES)

Printer	Font	102
Dynamic	Font	102

Reverse	2x2	102
---------	-----	-----

Elongated		102
Compressed	10	102
Compressed	13	102
Compressed	15	102
Compressed	17	102