

NGU Rapport 92.304

*IMPRINT*  
A Print-Driver Program

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Sammendrag: IMPRINT is a print-driver program which can handle plot-files generated with the IMP system. Almost any graphical output device can be used due to the implementation of the HALO Graphics Kernel System. This report is a user-description of the system.				
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## 1. INTRODUCTION & SYSTEM REQUIREMENTS

IMPRINT is a print-driver program which handles plot-files generated from the IMP (Interactive Modelling of Potential field data) or GMAP/IAPD systems. Almost any graphical output device can be used due to the implementation of the HALO<sup>#</sup> Graphics Kernel System (Copyright 1983-1992 Media Cybernetics, Inc. All rights reserved).

### **System requirement:**

- IBM AT or compatible (80286/386/486) computer
- Mathematical co-processor (80287/387/487)
- EGA (colour) or VGA (colour) graphics card
- Hard-disk

### **Graphical Output Devices:**

- Almost any output device (HALO Drivers)

<sup>#</sup>HALO is a registered trademark of Media Cybernetics, Inc.

## 2. IMPRINT FILE TYPES

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IMPRINT.BAT	- Main 'program'
IMPPRINT.EXE	- Plotting program
IMPPRINT.SYS	- System file
HALORTB.EXE	- HALO driver program
*.INT/BLU/RED/GRN	- Plot file names
HALOIBME.DEV	- HALO EGA device driver
HALOIBMV.DEV	- HALO VGA device driver
HALO****.PRN	- HALO printer driver

### 3. INSTALLATION OF IMPRINT

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- Create a sub-directory named `IMPLOT` on the hard-disk (drive c) by typing:

```
C:>md IMPLOT
```

- Copy all programs and data-files from the supplied `IMPRINT` disk to the hard-disk by typing:

```
C:>copy a:*. * c:\IMPLOT
```

- Add `IMPLOT` directory in the `AUTOEXEC.BAT` file by typing  
`PATH C:\IMPLOT`

#### **IMPORTANT NOTICE:**

Always create a sub-directory `IMPLOT` and copy all programs/files to this directory.

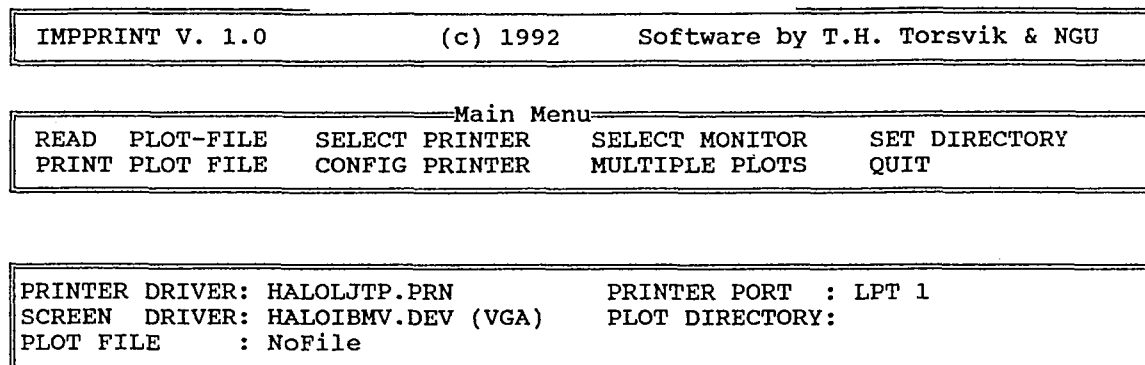
#### 4. DESCRIPTION OF IMPRINT

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Type IMPRINT at the system prompt. This is a batch-file program which loads the HALO driver system (HALORTB.EXE loaded as memory resident) and the main printer program (IMPPRINT.EXE) is then executed. The latter program immediately searches for a system file named IMPPRINT.SYS. This file contains information on the default screen device driver (4.5) and the print device driver and its configuration (4.3 & 4.4).

After start-up the main menu is displayed (Fig. 1). An option in the menu may be selected through the use of the arrow keys, and executed by pressing <ENTER>.

FIGURE 1 Main menu IMPRINT



The main menu has the following options:

OPTION	EFFECT
READ PLOT-FILE PRINT PLOT-FILE SELECT PRINTER CONFIG PRINTER SELECT MONITOR MULTIPLE PLOTS SET DIRECTORY QUIT	LOAD/DISPLAY A PLOT-FILE PRINTS PLOT FILE TO OUTPUT DEVICE SELECT DEFAULT OUTPUT DEVICE CONFIGURE OUTPUT DEVICE SWITCHES BETWEEN VGA OR EGA SUPPORT SELECT SEVERAL PLOT-FILES FOR OUTPUT SELECT PLOT-FILE DIRECTORY QUIT/EXIT TO DOS/UNLOAD HALO DRIVER

Below the main menu the following information is displayed:

- Current printer driver
- Current screen driver
- Name of Plot File or the message 'MULTIPLE PLOTS' and number of plots to print
- Printer port
- Name of plot-file Directory



#### 4.1 READ PLOT FILE

---

Upon entering this option the current plot-directory (selected via option 'SET DIRECTORY'; 4.7) is sorted and data-files (file-extensions \*.INT) are displayed (Fig. 2). Use cursor arrows to select the appropriate profile file followed by <ENTER>. Use <ESC> to leave this option without selecting a file.

After selecting a PLOT-FILE the plot-file is automatically displayed on the screen. Hit any key to return to the main menu. The PLOT-FILE can later be plotted using option 'PRINT PLOT FILE' (4.2).

FIGURE 2 Sorted list of plot-files using option 'READ PLOT FILES'

```
IMP.INT      LOFOTEN.INT  MAGER.INT    PR770.INT    SNORGE.INT
VMAGER7.INT

C:\MAGMOD\*.INT ( 7 files) THT91

<ESC> Quit <ENTER> Load <D> Delete <C> Copy <V> View <ARROWS> Select
```

#### 4.2 PRINT PLOT FILE

---

This option reads plot-files selected under option 'READ PLOT FILE' (4.1) or 'MULTIPLE PLOTS' (4.6) and subsequently prints them to the selected output device, set under option 'SELECT PRINTER' (4.3).

#### 4.3 SELECT PRINTER

---

With this option a sorted list of output device-drivers with file-extension \*.PRN (on directory \IMPLOT) are displayed. Use cursor arrows to select the appropriate device driver (Cf. HALO manual) followed by <ENTER>. Use <ESC> to leave this option without selecting a file.

#### 4.4 CONFIG PRINTER

---

This option permits the adjustment of parameters which control the printer output. Use cursor arrows (Up & Down) to locate the appropriate parameter to be changed or QUIT/EXIT option by pressing <ESC>. The configuration file IMPPRINT.SYS contains names of the variables which are adjusted using 'CONFIG PRINTER'. Whenever a parameter is changed, the file IMPPRINT.SYS is updated, thus recording the adjustment even after IMPRINT is terminated.

The configuration parameters or Printer Attribute Table varies dependent on the currently defined device drivers (Cf. HALO printer support manual), and a total of 17 attributes (PATTR) can be set (0-16). An example of PATTR setting is shown in Figure 3 (printer driver HALOLJTP.PRN which can be used for the HP DESKJET). Note that the maximum number of output width dots (PATTR 0), dependent on dots pr. inc (PATTR 7) and the maximum number of output height dots (PATTR 1; if supported) is indicated in the right text box. Attributes not supported are always marked with -1 and also written as 'NO SUP' in the right text box.

FIGURE 3 Example of option 'CONFIG PRINTER'

C O N F I G U R E - S Y S T E M				
PATTR 0	Output width in dots (-1 normal)	: 1200	U	2400
1	Output height in dots (-1 normal)	: 750	=	3148
2	Image orientation (0 normal 1 landscape)	: 0	=	
3	Black/White reversal (0 reversal 1 norm)	: 0	=	
4	Dither Flag (0 dithering 1 no dithering)	: 0	=	
5	Form Feed Flag (0 formfeed 1 no form feed)	: 0	=	
6	BIS/DOS flag (0 use BIOS 1 use DOS)	: 0	=	
7	Dots pr inch (0,1,2,3)	: 2	=	0 - 3
8	Number of copies (0 no copy)	: 0	=	
9	Centering (0 centering 1 no centering)	: 0	=	
10	X offset in dots (0 no offset)	: 0	=	
11	Y offset in dots (0 no offset)	: 0	=	
12	Printer ID	:-1	=	NO SUP
13	COM port	:-1	=	NO SUP
14	Process ID for EMS	:-1	=	NO SUP
15	Bold printing	:-1	=	NO SUP
16	Parallel port (0 LPT1, 1 LPT2, 2 LPT3)	:0	=	

#### 4.5 SELECT MONITOR

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Switches between the VGA and EGA graphic device driver.

#### 4.6 MULTIPLE PLOTS

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This option is used to select several plot-files for automatic printing. Upon entering this option the current plot-directory (selected via option 'SET DIRECTORY'; 4.7) is sorted and data-files (file-extensions \*.INT) are displayed (Fig. 2).

- (1) Use cursor arrows to select the appropriate profile file followed by <ENTER>.
- (2) Repeat point 1 until you have 'tagged' all the plot-files you wish to print
- (3) Press <ESC> to end selection of files

After selecting PLOT-FILES, these files can be printed using option 'PRINT PLOT-FILE' (4.2).

#### 4.7 SET DIRECTORY

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This option sets the current directory for plot files (used in options 4.1, 4.2 & 4.6). Screen & printer device drivers and system software should always be located to directory \IMPLOT (see 3). Directory example : c:\magmod

#### 4.8 QUIT

---

This option updates the IMPPRINT.SYS file (if changed), unload the memory resident HALO88 driver and stops the program (Exit to DOS).