



# **UNIPLEX**

**Business Software  
Additional Peripheral Pack**

**Release Notes**

Version 9.00



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## Introduction

These Release Notes outline the capabilities of the individual devices of this **Additional Peripherals Pack (APP)** and describe the standards and conventions used in developing the drivers for these devices.

The Release Notes are divided into sections describing:

- Printer drivers
- Terminal drivers
- Specific devices supported by this APP
- An appendix containing SPS and STS Index and Summary sections, together with sample SPS and STS files.

## Printer Drivers

This section describes the conventions used in developing printer drivers for this APP and all subsequent printer driver configuration produced by Uniplex for its Version 7 product.

### New Conventions

New printer Pcap names have adopted the following naming convention:

`[L]modelsymset[/card/]`

Where:

<code>L/</code>	Indicates the Landscape name for the printer
<code>model</code>	Identifies the printer, for example hpIII for the HP III printer
<code>symset</code>	Indicates the symbol set that the printer uses
<code>/card/</code>	Indicates any font card or cartridge being used

Thus the Hewlett Packard IID printer with its supplied S2 cartridge would have a portrait name of `hpIIDecma/S2/` and a landscape name of `L/hpIIDecma/S2/`.

Where possible the same Pcap entry has been used for both the portrait and landscape orientation of a printer. The orientation is now selected by the INIT token within the Fcap paper definition for the printer. Where possible, this token sets up the printer margins so that they match the margins defined in the paper section. The paper sections define the largest possible printable area for the standard paper sizes.

Where possible the standard Uniplex typefaces are mapped to the closest printer typeface. Where there is no corresponding Uniplex typeface then the System Administrator should add the typefaces to the `#FONTS` section of the relevant `UAP/wp/uniplex.box` file. Thus the Uniplex Times typeface uses HP's CGTimes typeface and Canon's Dutch typeface. Typefaces such as Elite and Garland would need to be configured into Uniplex. For example, the standard Uniplex `#FONTS` section is as follows (the reply field here is split onto several lines for readability):

```
#FONTS = label = "Select Font", boxed 1;
A = label = "Typeface", column 0, type scroll, prompt="", \
reply = "Helvetica!Times!Courier!Symbol!AvantGarde!Bookman!
NewCenturySchlbk!HelveticaCondensed!Palatino!ZapfChancery!
ZapfDingbats";
B = label = "Effect", column 0, type scroll, prompt="", \
reply = "NORMAL!BOLD!ITALIC!BOLD ITALIC";
```

```
C = label = "Point Size", column 0, type decimal, \
prompt="Small=8, Normal=10, Large=14", \
decimals = 1, \
maximum 999 , minimum 1 , size 4 , default = "10" ;
*
```

To add the typefaces Elite and Garland the `reply` field could be altered to:

```
reply = "Helvetica!Times!Courier!Symbol!AvantGarde!Bookman!
NewCenturySchlbk!HelveticaCondensed!Palatino!ZapfChancery!
ZapfDingbats!Elite!Garland";
```

The naming of Fcap font name sections has been standardized to help cut down duplication of entries and keep the section naming line short. This makes the name more relevant to the printer, and more intelligible to anyone configuring a printer. An Fcap font name takes the form:

*MAN-SYMSET-tfaceEFFECT[-psize][/CART]*

Where:

*MAN* Indicates the manufacturer, for example HP for Hewlett Packard.

*SYMSET* Specifies the symbol set being used. For example, ROMAN8.

*tface* Is the Typeface name. For example, Times.

*EFFECT* Is the character effect of the font, one of NORMAL, BOLD, ITALIC, or BOLDITALIC.

*psize* Is the point size that the character widths have been entered at, if the font is not truly scalable by Uniplex. This should be the same value as defined by the POINTS token.

*/CART/* Denotes which font cartridge or card the font is on.

For example, the font name for the 11 point CG Times typeface of the HP Great Start font cartridge would be:

```
HP-ECMA-CGTimesNORMAL-11/GSTART/.
```

The Fcap and Gcap files in the APP contain *supersections*, which contain a group of sections that belong together. For instance, all the font definitions for a particular font cartridge are grouped together in one supersection. The supersections start with a *\*name* line and terminate with a *\*)* line. The format of the name is dependent upon the type of supersection.

The Gcap file supersection names are of the form:

*MAN.gcap*

Where *MAN* is an abbreviation of the printer manufacturer's name, For example, HP for Hewlett Packard, CN for Canon.

The Fcap file consists of three different supersections:

- a fixed pitch font supersection
- a printer paper definition supersection
- a proportional font definition supersection which can be either the internal fonts of a printer model or the fonts belonging to a particular font card or cartridge

The fixed pitch font supersection is named *fonts.fixd* and contains all the fixed pitch font variants configured to date. The font name for these fonts takes the form:

*pitchCPIpointsPT*

Where:

*pitch* is the characters per inch value of the font. For example, 16.66

**CPI** is the string **CPI**

*points* is the point size of the font, for example 8.5. This matches that defined in the *POINTS* token of the font definition

**PT** is the string **PT**

The paper supersection name takes the form:

*ptr.paper*

Where:

*ptr* Is the Pcap printer name

**.paper** is the string **.paper**

The proportional font supersection name takes the form:

*srce.symset.prop*

Where:

*srce* Is either the font cartridge/card name or the model/series name of the printer. For example, S2 for the HP S2 cartridge or hpIII for any of the HP series III printers

*symset* Is the symbol set name. For example, ecma

**.prop** is the string **.prop**

For example, the S2 cartridge supersection would be named S2.ecma.prop, the HPIII internal font supersection would be named hpIII.ecma.prop as all the series III HP printers have the same internal proportional typefaces.

Where a supersection is relevant to a number of different printer models each model is also included in a comment section within the supersection. Each entry takes the same format as the supersection name.

For example, the hpIII.ecma.prop supersection contains the following comment:

\* hpIIID.ecma.prop, hpIIIP.ecma.prop, hpIII.ecma.prop

**WARNING** Do **NOT** remove any of the supersection names or comments as these are used for checking whether entries exist or not before adding them to your existing files.

## Supported Printer Specifications

For each printer supported in the APP a **Supported Printer Specification (SPS)** is included in the on-line documentation section of the APP. The SPS is comprised of seven sections which detail the printer facilities supported by Uniplex and any non-standard ways of using the printer within the Uniplex applications. Below is a description of each section within an SPS.

### 1 Printer Details

This table appears at the start of each Supported Printer Specification and details the following:

- printer manufacturer
- printer model
- font options installed
- page orientation
- Pcap name(s) of the driver

### 2 General Facilities

This table details the availability of:

- input paper bin selection
- duplex printing
- high resolution graphics
- local copy facility
- the type of box graphics the fill method used
- any other general facilities available on the printer (for example, change bars)

When Yes or YES are allowed, the fully uppercase YES indicates that the option has been tested by Uniplex. The Yes indicates that the option does not normally exist for that printer but that the controls have been included in the driver as some part of them may be relevant.

For example, bin selections normally include a manual feed command. Not-Tested indicates that it was not possible to test the facility at all.

A brief explanation of the general facilities table follows.

**Bin Selection** can either be set up in a print style which is restricted to specifying that the first N pages of any print should come from an alternate bin, with the rest from the main bin or by use of Uniplex printer commands, for example, UPPER and LOWER. The configuration for this latter method may need modification for Uniplex version 7.00 and earlier. The setting Not-Tested indicates that Uniplex has been configured to use bin selection, but that this could not be tested since a multi-bin printer was not available.

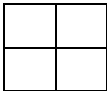
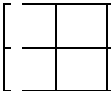
**Duplex Control** indicates whether Uniplex can switch the printer into duplex mode, printing both sides of each sheet of paper, in response to Uniplex printer commands such as DUPON and DUPOFF.

**High Resolution printing** (only available if Uniplex AGS is installed) shows whether printing of high quality graphics, for example, pie charts is possible. On some printers this is not possible in Landscape mode.

**Local copy** (if available) allows Uniplex to ask the printer to replicate pages, rather than having to send multiple copies of each page.

**Box Graphics** defines the ability to print line-drawing and boxing. If No, then lines and boxes can only be drawn using a combination of +, - and | characters. If Fixed-pitch-only, then the boxing may not all join up properly when printing in proportional fonts.

For example:

No:	Yes:	<i>Fixed-pitch-only with prop. font:</i>
<pre> +---+---+           +---+---+           +---+---+           +---+---+ </pre>		

**Fill method** defines the method Uniplex uses to print *fill patterns*; these are used to print graphics files when AGS is not installed, and for printing patterns, such as bar charts, generated in the Word Processor. Depending on the printer's capabilities, Uniplex uses characters, some form of fill pattern, or a mixture of the two. For example:

**Characters:** #####//&&&&  
 @ @ @ @ % % % % \*\*\*\*

**Patterns:**



**£ - Pound Sterling** specifies whether Uniplex can print the £ symbol (entered into documents as **ESC % #**). On some printers it can only be printed in a certain font, indicated as Fixed-Font which in a complex document might look out-of-place amongst text of a different font. For example, a pound sign in the middle of some small font text might appear as:

Regardless of currently selected font, can only print £ in normal font.

**Change Bars** specifies whether the set of Printer Commands (**.SNCN**, **.SNC2**, **.SNCS** and **.SNCE**) used to create change bars on the right hand side of a page are available. They place the following symbols on the right hand side of a page:

*Note: When A5 printing on a larger page, the bar may be well beyond the right hand text margin.*

<b>.SNCN</b> (one bar on next line; <b>Change Next</b> )	
<b>.SNC2</b> (one bar on next 2 lines; <b>Change next 2</b> )	
<b>.SNCS</b> (one <b>Change Start</b> mark on next line)	]
<b>.SNCE</b> (one <b>Change End</b> mark on next line)	]

### 3 Paper Sizes

Where relevant, separate tables for portrait and landscape paper sizes are included which detail the various paper sizes tested for the particular printer driver.

**Uniplex Name** is the name that appears in the Fcap file for a particular paper size.

**Manufacturers Name** is mainly for laser printers, where the specific paper tray usually bears the commonly used name for that paper.

**Lines per Page** column shows how many lines Uniplex can print using default font and line spacing, provided the document's page length (**.PL** command) is at least as long as the number in the column.

Many printers cannot print all the way to the edge of a page. Where this is the case, the Unprintable inches column indicates the areas that Uniplex can not print to.



Unless noted otherwise, prints using the following Uniplex paper sizes also work on each listed paper size (printing an appropriately small page image on the paper):

### **A5, 5x8, Wallet**

## **4 Fonts Supported**

This consists of three tables each detailing which fonts are defined and how they interact with effects and pre-defined fonts.

Uniplex provides three subtly different ways for users to select a font:

- a) **Pre-defined** - using the Set Font command to specify the name of a Uniplex pre-defined font. For example **.FN LARGE**.

The font named NORMAL from this set is also the default font used when printing in Quality style.

- b) **Dialog Box** - select the Select Font dialog box from the ring menu:

Layout  
Set\_Font  
Font\_start

This allows specification of the typeface, effect and point size. The use of this font selection mechanism is of most use with a printer that has scalable fonts. However, where the exact selection is not available, Uniplex always uses the closest available font, often selected from the pre-defined set.

- c) **Effect selected** - using Uniplex print effects to select from a subset of the pre-defined fonts.

This mechanism allows the selection of a font for a single character or word, as opposed to the other two methods which define the font for all following lines.

Since these effects do cause an actual font change, users need to be aware that effecting text beneath a Set Font command, overwrites the Set Font command. The text is printed in the selected effect.

## **5 Uniplex Extended Character Set**

This table identifies whether the full set of accented and other special characters (character values 161-255; X/Open - ISO 8859/1) as defined in the Uniplex Configuration Guide Volume 2, are available to print on the printer. Some printers can only print accented and special characters in a certain font.

## **6 Print Time Directives**

This table details the print time directives that have been defined for this entry, such as DUPON, which are used with the **.SN** dot command.

## **7 Printer Hardware Specification and Set-up**

This table details the configuration of the printer used to test the entry.

All the SPS files can be found in the *UAP/documents/APP/sps* directory, if the Install Documentation option is selected when installing the APP. The file *INDEX* in the SPS directory lists the printer driver name against the filename used to store the driver information. This index is also printed at the end of these Release Notes.

## Terminal Drivers

This section describes the conventions used in developing terminal drivers for this APP and all subsequent printer driver configuration produced by Uniplex for its Version 7 product.

The symbol set adopted by Uniplex is the X/OPEN symbol set. This provides the basis for transportable documents. Most printers can accept a document containing X/OPEN characters and print an acceptable representation of them. To edit a document requires all terminals to operate in the same manner. For single language organizations this does not pose much of a problem as they probably have the same terminal language across all their terminals. To cope with the ever increasing requirement to support mixed language environments a consistent approach to developing terminal drivers needs to be adopted.

*Note: In order to implement this, the structure of the file uniplex.cmd has been altered. Only entries conforming to the new standards are able to be compiled without restoring the old format. See the section Compiling Non-APP Standard Terminal Entries later in these Release Notes for details on how to compile old style entries.*

The following sections detail the approach Uniplex has adopted in consolidating terminal support so that it is consistent across Uniplex translations, terminal types, and terminal languages.

### Supersections

Following on from the supersections introduced for printer configuration, the terminal entries are collected together within supersections. This allows all the relevant details for a terminal to be kept together and treated as one entity within each of the configuration files.

A terminal supersection is started by a *{comment}*TERMNAME line and terminated by a *{comment})))*TERMNAME line.

Where:

*{comment}* is the relevant comment character for the file in question. All Uniplex configuration files use the asterisk (\*) character as a comment character. The UNIX files *terminfo* and *termcap* use the hash (#) character as a comment introducer.

A Uniplex file supersection for the Wyse 120 terminal would therefore appear as:

```
*WYSE120
...
*)WYSE120
```

A UNIX file supersection for the Wyse 120 terminal would appear as:

```
#WYSE120
...
#)WYSE120
```

The supersection name is always an uppercase derivative of one of the terminal's names that can be used for setting the UNIX environment variable TERM.

## Tcap

Although the entries in the Tcap file are capable of handling both input and output mapping of characters only the output mapping facility is utilized. Thus any new terminal entry should have all the required maps to output the X/OPEN symbol set.

## termset/termreset

Some terminals do not contain the necessary symbols in order to display the X/OPEN symbols. When the terminal has a font download capability then the required characters are downloaded using the files in the *UAP/termset* directory. The original fonts are reinstated by the files in the *UAP/termreset* directory after exiting Uniplex.

## uniplex.cmd

The *uniplex.cmd* file contains two sections, *#COMMANDS* and *#COMMANDS2-\$TERM*. The *#COMMANDS* section defines the command sequences required to invoke the various Uniplex functions which are dependent upon the translation installed. The *#COMMANDS2-\$TERM* section defines the character sequences sent by the keyboard. The Uniplex functions they invoke are basically independent from the product translation but dependent upon the terminal language and the type of keyboard used with the terminal.

In previously defined entries the *#COMMANDS* section contains some terminal based information. In order to support differing keyboard types and languages all the terminal based information has been removed from the

*#COMMANDS* section. Also, to improve readability and aid maintenance the *#COMMANDS* and *#COMMANDS2* sections are predominantly comprised of *include* statements selecting standard pre-defined sections. The *uniplex.cmd* file is structured as defined in the following subsections.

## #COMMANDS

This section is included in the supersection \*COMMANDS and is now comprised of four include statements:

```
#COMMANDS
include=#COMMANDS-STD
include=#COMMANDS-LANGUAGE
include=#COMMANDS-HARDCHARS
include=#COMMANDS-PSEUDO
))
```

Where:

*#COMMANDS-STD* are functions that do not have their invocation translated. For example Next Screen (**CTRL D**).

*#COMMANDS-LANGUAGE* are functions that can be translated. For example the Generic Find command *LANGUAGE* is replaced by the installed language to call the relevant section. For example, **#COMMANDS-FRENCH**.

*#COMMANDS-HARDCHARS* are functions that allow the input of hard characters. For example Hard Tab (**ESC TAB**).

*#COMMANDS-PSEUDO* are the pseudo commands that Uniplex define. For example, Escape to shell (**ESC ESC \$**).

Each of the above sections are defined within the \*COMMANDS supersection.

In addition, the \*COMMANDS supersection also contains standard definition sections for inclusion into *#COMMANDS2*. The following defines the fallback softkeys to use:

Fallback Softkey	Description
#SOFTKEYS-CONFIGURATION	Softkey to function key mapping.
#UNIPLEX-CONFIGURATION	Maps for generating common characters not found on all terminals, for example openbrace ({}).
#STD-MAPS	Standard input mapping sequences.
#XOPEN-MAPS	Prefixed by the X/OPEN lead-in

sequence

#DGI-MAPS

Mapping from Data General's  
International symbol set to X/OPEN.

In order to allow all terminals to display all the X/OPEN characters use the XOPEN-MAPS code in association with the appropriate lead-in sequence. Further sections have been defined to accommodate the lack of certain characters in the XOPEN-MAPS section. For example, on terminals that do not have the tilde ( ~ ) character, an alternative character is used (hyphen). The table below lists the section names, the character expected by XOPEN-MAPS, and the alternative character now allowed.

Section Name	X/OPEN Character	Alternate Character
#VERTICALBAR-MAPS	pipe	forward slash/
#CARET-MAPS	caret/circumflex ^	dollar \$
#GRAVE-MAPS	backquote `	plus +
#TILDE-MAPS	tilde ~	hyphen -
<i>XOPEN Character 175</i>	<i>tilde, tilde ~</i>	<i>hyphen, underscore -_</i>
#GUILLEMOT-MAPS	< and >	( and )

*Note: X/OPEN character code 175, within the TILDE-MAPS section would usually require tilde, tilde (~) to map to a hyphen (-). However, the sequence hyphen, hyphen (- -) results in mapping to a soft hyphen. The alternative is to use hyphen, underscore (-\_).*

## **#COMMANDS2-\$TERM**

A terminal's supersection contains all the sections required to support the terminal. As with the *#COMMANDS* section, these sections also contain *include* sections. The format can be seen below:

```
#COMMANDS2-TERM
include=#TERM-COMMANDS-LANGUAGE
include=#SOFTKEYS-CONFIGURATION
include=#TERM-FKEYS
include=#UNIPLEX-CONFIGURATION
include=#TERM-KEYBOARDTYPE
include=#TERM-KEYBOARD-MAPS
include=#OTHER-MAPS
include=#STD-MAPS
include=#XOPEN-MAPS
))
```

Where:

*#TERM-COMMANDS-LANGUAGE* is optional. It would be included where the terminal's control sequences clash with Uniplex sequences. For example, **ESC Q** being a cursor key. Being defined after the *COMMANDS* sections causes these sequences to take precedence. There would be a section for each language supported by the driver.

*#SOFTKEYS-CONFIGURATION* defines the fallback softkeys, for example, **ESC 1** for **F1**. This can be omitted should any of the terminal's keys send out conflicting sequences.

*#TERM-FKEYS* defines the sequences sent by the terminal for each of its function keys. Included here is the definition for K020 which is used for the X/OPEN lead-in sequence. If no specific key is assigned K020, is normally assigned to be **ESC ESC 0** (Escape, Escape, zero).

*#UNIPLEX-CONFIGURATION* defines the mapping between the terminal's function keys and Uniplex's softkeys. For example, **F1 = S1**.

*#TERM-KEYBOARDTYPE* contains definitions for keys specific to the keyboard type. Predominantly, these are the Edit Keypad, containing keys labelled **Insert**, **Home**, **End**. These are assigned the closest Uniplex function matching the key legend.

*#TERM-KEYBOARD-MAPS* contains the maps required to convert the terminal's character code to the correct X/OPEN code. For example, a French keyboard may send the code 123 for the key labelled **é**, this would



be output as a { as this is the ASCII representation for this code. The terminal's é code needs to be mapped to the correct X/OPEN value (233) so that it is output correctly.

*#OTHER-MAPS* contains a set of maps to convert from a specific symbol set to their X/OPEN equivalents. Currently, Data General terminals output character codes according to the International symbol set definition. For example, a French DG terminal sends the code 232 for an é, as above, the X/OPEN value should be 233, so it is mapped on input to its correct value.

*#STD-MAPS* contains shorter sequences to access some of the keys not available on all keyboards. For example, a French Wyse 120 terminal does not have keys for [ and ] so entering **ESC %**( or **ESC %**) generates the codes to produce these characters.

*#XOPEN-MAPS* contains the default sequences to enter after the X/OPEN lead-in sequence to generate X/OPEN characters that do not appear on the terminal being used.

The order in which the include sections are included is significant. This new mode of operation is dependent upon the order of definition of the Uniplex functions. Uniplex commands are prioritized in reverse order of definition.

For example, the *#COMMANDS-ENGLISH* section normally defines the Quit function (F062) as:

**F062=&-'Q'**

If a terminal sends **ESC Q** in response to depressing the Cursor Left key Uniplex would attempt **quit** whenever the left cursor key was depressed as the Quit command is defined as case insensitive and occurs after the **F012=L** definition of the cursor left function.

To resolve this conflict the *#TERM-COMMANDS-ENGLISH* section for the terminal in question would define the Quit function as **f062=&-'q'**, making the function case sensitive. Being defined last means that the definition takes precedence over any previously defined sequences. The result of redefining the function is that Uniplex attempts to quit upon receipt of the sequence **ESC q** but attempts a cursor left upon receipt of **ESC Q**, even if the user explicitly enters this sequence.

Character mapping definitions work the opposite way to command definitions. The first map sequence defined takes precedence. In the *#STD-MAPS* section the sequence to produce a sterling (£) symbol is defined as **M163=&-'%#'**.

A UK type keyboard has the sterling symbol where the hash symbol should be. Just depressing the sterling symbol key will normally send the code 35 which is treated as a hash symbol. In order to store the correct code the *#TERM-UKENGLISH* section contains the definitions **m35=&'%'-35 \* Hash Symbol**, and **m163=35 \* Sterling symbol**.

This causes the sterling code (163) to be stored when **SHIFT 3** is depressed and the hash code (35) to be stored when **ESC %£** is entered. One side effect of this set of mappings is that in order to invoke the Folios system a user has to enter the sequence for generating a hash symbol (**ESC %£**).

## Compiling Non-APP Standard Terminal Entries

When this APP installs, it saves the original configuration files *terminfo*, *termcap*, *uniplex.cmd*, *Tcap* and *Gcap* in the directory *APP.save* (generally as the filename suffixed with a *.0*) and remove all but the *Gcap* file. Subsequent installations of the APP causes the suffix number to increment. However, **0** should always be the pre-APP version.

The *Gcap* file is shared between terminal drivers and printer drivers and so must remain in the main area. However, should the APP installation process find a *Gcap* entry that it needs to replace it places a comment character at the start of each line within the entry and then append the APP entry to the file.

As described above the structure of the *uniplex.cmd* file has been altered along with a more common form of driver development. Installation of the APP only affects existing compiled terminal definitions if the terminal has been included for installation from the APP. Any non-APP entries are left as they are.

To compile a pre-APP terminal entry:

- 1 Save the existing configuration files in the main *UAP* directory. Either move them to a set of names you can remember or move them to a directory where they can not be accidentally deleted.
- 2 Copy the original non-APP configuration files back into the main *UAP* directory (***UAP/APP.save/\*0***).
- 3 Perform any configuration modifications you require.
- 4 Compile the *terminfo* entries as required.

*Note: Some versions of tic may object to certain keywords in the terminfo source and displays warnings to this effect. However, the terminal entry is still compiled.*

- 5 Compile the entries using *syscomp* as required.
- 6 If you modified the files you should copy them back to the *APP.save* directory.
- 7 Copy the APP configuration files back into the main *UAP* directory.

Please note, if you are reinstating a terminal driver (un-installing an APP driver) check the *termset* and *termreset* directories for shell scripts of the

terminal's name. The terminal's Supported Terminal Specification (STS) confirms whether files are used in these directories. If necessary delete, rename, or move the scripts so that they are not executed when a user runs Uniplex using the terminal.

## Supported Terminal Specifications

For each terminal supported in the APP a **Supported Terminal Specification (STS)** is included in the on-line documentation section of the APP. The STS is comprised of seven sections which detail the terminal facilities supported by Uniplex and any non-standard ways of using the printer within the Uniplex applications. Below is a description of each section within an STS.

### 1 Terminal Details

This table lists the terminal manufacturer, terminal model, installed options required, keyboard types and languages supported, and the Uniplex name(s) of the driver.

### 2 Capability Summary

This table lists the general capabilities of the terminal. It details whether the terminal is monochrome or color, if color how many colors are supported, whether mouse input is supported, what key is used as the escape key, and the number of columns supported by the driver.

### 3 Uniplex Print Time Effects

This table lists the Uniplex effects and the terminal screen effect used to represent it on the terminal's screen.

### 4 Uniplex Extended Character Set

This section defines whether the full Uniplex character set can be displayed, and if not which characters are unavailable.

### 5 `termset/termreset`

The driver can make use of shell scripts in the *UAP/termset* and *UAP/termreset* directories to set and reset the terminal before and after running Uniplex. If this is the case, this section explains what the scripts do.

### 6 Terminal Set-up Details

This section details how the terminal used for developing and testing the terminal driver is set up. Where the terminal has a specific keyboard, the set-up option is covered separately in the keyboard description.

### 7 Keyboard Details

For each keyboard type and language combination supported, there is a further set of tables detailing the driver's implementation.

a) Terminal Set-up Details

This details the set-up of the keyboard specific settings.

b) Additional Function Keys

This section lists any keyboard keys that are assigned specific Uniplex functions. Where the key label is a symbol a definition for the key label is given.

c) Input Maps/Functions

This table details what key sequences are required to enter the full Uniplex character set where these sequences differ from the standard sequences. As a minimum this table details the X/OPEN lead-in sequence to use for generating characters not on the keyboard.

All the STS files can be found in the *UAP/documents/APP/sts* directory, if the Install Documentation option is selected when installing the APP. The file *INDEX* in the STS directory lists the terminal driver name against the filename used to store the driver information. This index is also printed at the end of these Release Notes.