

Opticon SpeedGen application generator for OPL9728

PC Version EGF28703 OPL9728 Version LFB28703 Click to start

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Contents of the SpeedGen help file

This SpeedGen help file describes how to create, load and use SpeedGen application generator.

All data collector applications consist of a few steps, Data input(scanning and keyboard input), data processing (searching and storage) and data output (Transmit the processed data).

The speedGen application generator helps to make these steps without the need of any programming knowledge

Below a list of the main topics that are described in this help file is shown. *(Click on the name of the chapter to jump directly to that chapter)*

1. Installation of the SpeedGen application generator

The installation of the SpeedGen application generator are described on this Installation-page.

2. OPL9728

This section describes the OPL9728 handheld terminal.

3. Properties

The property pages below control the application that is loaded into the OPL9728. Each property page has it's own description.

3.1. Startup

3.2. Barcode

3.2.1. Barcode options EAN / UPC, Code 39

3.2.2. Barcode options code 2 of 5, MSI, Telepen and Plessey

3.2.3. Barcode options Codabar, Code 128 and IATA

3.2.3. Barcode options Code 11, Korean post, RSS and PDF417

- 3.3 Lookup
- 3.4. Form
- 3.5. Menu
- 3.6. Data
- 3.7. Language

4. SpeedGen Interpreter

Description of the SpeedGen interpreter application.

5. NetO32

Explains howto setup NetO32 application to work with the OPL9728 SpeedGen Interpreter.

6. Examples

3 very simple step by step examples, that show howto use the SpeedGen application generator.

Installation of OPL9728 OS, SpeedGen interpreter, application



1. Requirements

To load something into the OPL9728 a PC with the SpeedGen PC application and a CRD-9723 communication cradle is needed.

Connect RS232 cradle to PC

- Set DIP switch. Turn switch 6 ON automatic baudrate.
- Connect the RS232 cable between PC and cradle
- Connect the power supply.
- Put the OPL9728 into the cradle.

Connect USB cradle to PC

- Download the USB driver from the www.opticon.com web site.
- Unpack the contents of the file.
- Connect the power supply to the cradle.
- Connect the USB cable between PC and cradle.
- Add new hardware message appears. Now install the downloaded software.
- Check at properties for the COMport: ('USB Serial Port (COMn)'). This serial port number is later needed.
- Put the OPL9728 into the cradle.

After connecting the cradle to the PC the serial port where the cradle is connected to needsw to be set. This is done by right clicking the OPL9728 on the display. Select the COM port menu item and select the serial port.

2. Start the installation of the OS or SpeedGen Interpreter for the OPL9728

Right click the SpeedGen application and select from the right click menu 'Transmit build application to OPL9728'.

Change the file filter from 'SpeedGen files (*.S3I)' to 'OS, Interpreter files (*.S32)'.

To load an OS select the LBDVxxxx.S32 file.

To load the interpreter select the LFBxxxxx.S32 file.

A popup message should appear on the PC showing the progress of the transfer.

Right click the SpeedGen application and select from the right click menu 'Transmit build application to OPL9728'.

Change the file filter to 'SpeedGen files (*.S3I)'.

To load an build application select the S3I file.

A popup message should appear on the PC showing the progress of the transfer.

OPL9728 Terminal



UP key

The UP key or the UP key together with the shift key (LEFT key) is a navigation key. In a menu with the UP key the selected line goes 1 item up. When using the UP key in one of the created forms returns to the previous input line of the current form. This will clear the previous entered data.

TRIGGER key

The TRIGGER key is used for selecting and scanning a barcode.

DOWN key

The DOWN key or the DOWN key together with the shift key (RIGHT key) is a navigation key. In a menu the DOWN key will set the selected line one line down. When using the DOWN key in one of the created form will acknowledge the inputted data on that line and continue with the next line. When keeping the Shift key pressed the extended functionallity of the keypad keys can be used.

BS key

The BS key is the backspace key. This key is for removing a character that was entered by the OPL9728 keypad.

CLR key

The CLR key is a clear or escape key. When this key is pressed a return from menus or input is possible. When this key is pressed from the Main menu the Version of the Interpreter application and the file version of the build application is shown.

1 key

The 1 key can be used in a menu as a shortcut to the matching menu number. In the input form the 1 key can also be used with the shift to get the extended characters from the 1 key.

2 key

The 2 key can be used in a menu as a shortcut to the matching menu number. In the input form the 2 key can also be used with the shift to get the extended characters from the 2 key.

3 key

The 3 key can be used in a menu as a shortcut to the matching menu number. In the input form the 3 key can also be used with the shift to get the extended characters from the 3 key.

4 key

The 4 key can be used in a menu as a shortcut to the matching menu number. In the input form the 4 key can also be used with the shift to get the extended characters from the 4 key.

5 key

The 5 key can be used in a menu as a shortcut to the matching menu number. In the input form the 5 key can also be used with the shift to get the extended characters from the 5 key.

6 key

The 6 key can be used in a menu as a shortcut to the matching menu number. In the input form the 6 key can also be used with the shift to get the extended characters from the 6 key.

7 key

The 7 key can be used in a menu as a shortcut to the matching menu number. In the input form

8 key

The 8 key can be used in a menu as a shortcut to the matching menu number. In the input form the 8 key can also be used with the shift to get the extended characters from the 8 key.

9 key

The 9 key can be used in a menu as a shortcut to the matching menu number. In the input form the 9 key can also be used with the shift to get the extended characters from the 9 key.

* key

When using the Shift key together with the * key a dot (.) or a space sign are used as input.

0 key

The 0 key can be used in a menu as a shortcut to the matching menu number. In the input form the 0 key can also be used with the shift to get the extended - or + sign.

ENT key

The ENT key is used as an acknowledge or a submit key.

Description

The SpeedGen application generator has several property pages. These pages together control the OPL9728.

Available pages	Page	Description
	Startup	Specify the where to start the application from (Form 1 or Menu 1). Change some default settings of the OPL9728. Enable or disable security options.
	Barcode	Enable or disable barcode symbolgies and with the submenu's configure their parameters.
	Barcode options EAN / UPC, Code 39	Set some of the parameters for EAN / UPC and Code 39 symbologies.
	Barcode options code 2 of 5, MSI, Telepen and Plessey	Set some of the parameters for Interleaved and Industrial 2 of 5, MSI Plessey, Telepen and UK Plessey symbologies.
	Barcode options Codabar, Code 128 and IATA	Set some of the parameters for Codabar / NW7, Code 128 and IATA symbologies.
	Barcode options Code 11 Korean post, RSS and PDF417	, Set some of the parameters for Code 11, Korean post, RSS and PDF417 symbolgies.
	Lookup	When the data of a form needs to refer to a lookup file, the data format of the lookup file needs to be specified in the Lookup property page.
	Form	Forms are used to show information and allow the user to do data input.
	Menu	The specified menus in the Menu property page are used as sub-menus under the main menu to provide multi-level options.
	Data	The inputted data is stored in a data file. the formatting and settings of the records and fields are specified in the Data property page.
	Language	The language property page allows the application builder to change the default strings and messages.

Startup properties field

Speed Application G	operate	ar.					
Speed Application G				_			
⊟-Barcode		Startup					
Options for EAN	I/UPC a	Program starts from:	Form 1	~	Security		
- Options for Cod	labar, (Backlight:	AUTO V AUTO V	Utilities menu			
Lookup Form	Fl	Flipscreen:		~	Lock utitilities menu by password Password:	password	
Menu Data		Delete data:					
Language		Terminal ID:	123456				
	8						
						ОК	Cancel Help
	Selec menu Two y	t from where th J. values are defir	ne progr ned for t	ram sho o start	ould start when sel from:	ecting "1. Ir	put" from the main
Program starts from	Form1 The first input form (see form for more information).						
	Men	u1 The fi	rst seleo	ction m	enu (see form for ı	more inform	ation).
Backlight	Sets Three	how the backlig e values are def	ht shou ined for	lld worl the ba	< in the OPL9728. acklight:		
	OFF	The backli	ght is a	lways c	off.		
	ON	The backli	ght is o	n when	the OPL9728 is or	1.	

AUTO The backlight is on when a key is pressed. The backlight goes off when there is no user input for 10 seconds.

	Set how the information on the LCD display should be shown. Two values are defined for the flipscreen property:				
	NO No fli		pping of the display.		
Flipscreen	Turns AUTO place of the		s the information on the display upside down when the OPL9728 is d in the cradle. The display is restored when the OPL9728 is taken out e cradle.		
	This prop from the Three va	perty e main alues a	can remove the data file from the ramdisk when selecting "1. Input" menu. The data file to delete is defined in the data property screen. are defined for the Delete data:		
Delete data	NO		Data file is not deleted.		
	MANUA	L	A message screen askes the user if the data needs to be deleted.		
	AUTO		The data is deleted directly without user confirmation.		
Terminal ID	A six digit terminal ID that can be used for communicating with the PC with the NetO protocol. For more information see communication NetO.				
Lock OS system menu	m Checking this option prevents the user to be able to get into the (3 keys, UP key, TRIGGER key and DOWN key) system menu.				
Lock utilities menu	Checking this options prevents the user to get direct access to the "3 Utilities" menu, before entering a password dialog is shown.				
Password	The password the user needs to enter to get into the "3 Utilities" menu. This field is only available when the Lock utilities menu is checked.				

Barcode properties field

Speed Application General	tor					
Startup	Barcode					
Options for EAN/UPC a Options for 2 of 5, MSI Options for Codebar. (Reader settings Read mode: Single					
Code 11, Korean post, Lookup	Barcodes					
- Menu	Types	Derault		Derault		
Data	EAN / OPC	ON	MDI/Plessey	ON		
Language		ON		ON		
	Codabar / NW/	ON	UK/Plessey	ON		
	Industrial 2 of 5	ON	Tri-Optic	OFF		
	Interleaved 2 of 5	ON	Chinese post	OFF		
	SCode	ON	RSS	OFF		
	Matrix 2 of 5	ON	DF417	OFF		
		ON	Code 11	OFF		
	Code 93	ON	Korean post	OFF		
	Code 128 / EAN128	ON				
	System settings]			
<						
				ОК	Cancel Help	

Description

The barcode property page lists all the barcode types that are supported by the OPL9728. The need to scan only some or all of the barcode symbologies are application dependent. Enabling or disabling a barcode type has effect in all the input Forms. It is not possible to set a specific barcode symbology for only one input Form. Very specific items can be set by using the system settings.

Read mode Change the way how the laser module inside the OPL9728 should react.

Three values are defined for the Read mode

Single The laser module is switched on when the user presses a trigger key. The laser module stays powered regardless of the state of the trigger key, and is only switched off when 6 seconds has elapsed, or when a successful read has been made by OPL9728.

Almost the same as SINGLE, however the laser module is not switched off after a successful read has been made by the OPL9728, allowing the user to Multiple read another barcode. The same barcode can only be read though when the laser beam has been moved away from the label first. The scan time of 6 seconds is reset after a successful read.

The laser beam is only on when the trigger key is pressed. The laser beam is switched off after a succesful read has been made by the OPI9728 or when the trigger key has been released.

Enable or disable the barcode symbologies the OPL9728 should be able to read. Some specific barcode symbology settings settings can be done from the sub menus. These are the available barcode symbologies.

- EAN / UPC
- Code 39
- Codabar / NW7
- Industrial 2 of 5
- Interleaved 2 of 5
- SCode

Barcodes

- IATACode 93
- Code 128 / EAN128
- MSI / Plessey

• Matrix 2 of 5

- Telepen
- Tri-Optic
- Chinese post
- RSS
- PDF417
- Code 11
- Korean post

With a systemsetting some specific properties of the OPL9728 can be set. The maximum amount of 2 digit systemsetting that can be set are 20. The maximum amount of 3 digit systemsetting are 10 this is because a 3 digit systemsetting needs a prefix [chracter. 2 and 3 digit systemsettings can be mixed.

Systemsetting

Systemsettings properties can be found in the Universal Menu Book (UMB) or by using opticonfigure.

For specific questions about systemsettings please contact the Opticon support department support@opticon.com.

EAN / UPC, Code 39 Barcode properties field

Speed Application Generate	г		X
Startup	Options for EAN/UPC and Code 39		
 Barcode Options for EAN/UPC = Options for 2 of 5, MSI Options for Codabar, (Code 11, Korean post, Lookup Form Menu Data Language 	EAN / UPC options Enable EAN / UPC addon 2 Enable EAN / UPC addon 5 UPC-A include leading zero in string UPC-A include check digit in string UPC-E include check digit in string UPC-E include check digit in string Convert UPC-E to UPC-A format EAN-13 include check digit in string Convert EAN-13 to ISBN format Convert EAN-13 to ISSN format Code 39 options Code 39 Italian Pharmaceutical only Code 39 Italian Pharmaceutical if possible Code 39 include check digit in string Code 39 include check digit	Default OFF OFF OFF ON OFF ON OFF OFF OFF OFF O	
<	Code 39 include leading A Italian Pharmaceutical	OFF OK Cancel	Help

Description

The common properties for EAN / UPC and Code 39 can be set from this page. Some of the properties do not match with other properties displayed on the form. When this is the case the other items are grayed out.

	Enable EAN / UPC addon 2	When this options is enabled the OPL9728 within the 0.5 sec. for a valid 2 digit addon code. If a valid 2 digit addon code is found, the OPL9728 transmits the data immediately. If nothing is found behind the code, the OPL9728 will transmit the data without addon. If something is found behind the code, the OPL9728 ignored the code in case it is not a valid 2 digit addon.
	Enable EAN / UPC addon 5	When this options is enabled the OPL9728 within the 0.5 sec. for a valid 5 digit addon code. If a valid 5 digit addon code is found, the OPL9728 transmits the data immediately. If nothing is found behind the code, the OPL9728 will transmit the data without addon. If something is found behind the code, the OPL9728 ignored the code in case it is not a valid 5 digit addon.
	UPC-A include leading zero in string	Enabled a scanned UPC-A label is shown with a leading zero.
	UPC-A include check digit in string	This options enables the transmission of the check digit together witht the data characters.
EAN / UPC Options	UPC-E include leading zero in string	Enabled a scanned UPC-E label is shown with a leading zero.
	UPC-E include check digit in string	This options enables the transmission of the check digit together witht the data characters.
	Convert UPC-E to UPC-A format	If this optin is enabled, a UPC-E label is transmitted in the UPC-A format.
	EAN-13 include check digit in string	This options enables the transmission of the check digit together with the data characters.
	EAN-8 include check digit in string	This options enables the transmission of the check digit together with the data characters.
	Convert EAN-13 to ISBN format	If this option is enabled, an EAN-13 label is verified for the correct format and transmitted as a 10 digit ISBN number.
	Convert EAN-13 to ISSN format	If this option is enabled, an EAN-13 label is verified for the correct format and transmitted as a 8 digit ISSN number.

	Code 39 Enable Full ASCII conversion	In this mode the decoded data characters are translated to full ASCII Code 39.
Code 39 Options	Code 39 Italian Pharmaceutical only.	In this mode the decoded data characters are translated to the Italian Pharmaceutical format. If the data does not comply with the Italian Pharmaceutical format, the label is rejected.
	Code 39 Italian Pharmaceutical if possible.	In this mode the decoded data characters are translated to the Italian Pharmaceutical format. If the data does not comply with the Italian Pharmaceutical format, then the data is transmitted as Normal or full ASCII Code 39.
	Code 39 calculate check digit.	This option enables the check digit calculation. If the calculated check digit does not correspond to the check digit in the barcode, the barcode is ignored. The use of a check digit greatly improves the security of a barcode.
	Code 39 include check digit in string	This options enables the transmission of the check digit together with the data characters.
	Code 39 include start/stop character in string	This options enables the transmission of the check digit together witht the data characters.
	Code 39 include leading A Italian Pharmaceutical	Enabled a scanned Italian Pharmaceutical label is shown with a leading A character.

Code 2 Of 5, MSI, Telepen, Plessey Barcode properties field

tartup arcode	Options for 2 of 5, MSI, Telepen and Plessey		
Options for EAN/UPC a	Code 2 of 5 options (Interleaved and Industrial)	Default	
Options for 2 of 5, MSI Options for Codabar, (Code 11, Korean post	☐ Code 2 of 5 calculate check digit ✔ Code 2 of 5 include check digit in string	OFF ON	
ookup	MSI Plessey options		
orm	MSI calculate 1 check digit MOD10	ON	
nenu Data	MSI calculate 2 check digit MOD10 / MOD10	OFF	
anguage	MSI calculate 2 check digit MOD10 / MOD11	OFF	
100.000.000	MSI calculate 2 check digit MOD11 / MOD10	OFF	
	MSI include first check digit in string	ON	
	MSI include both check digits in string	OFF	
	Telepen options		
	Enable Full ASCII mode	ON	
	UK Plessey options		
	UK Plessey include check digit in string	ON	

Description

The common properties for Code 2 Of 5, MSI, Telepen and Plessey can be set from this page. Some of the properties do not match with other properties displayed on the form. When this is the case the other items are grayed out.

Code 2 of 5 options	Code 2 of 5 calculate check digit.	check digit does not correspond to the check digit in the barcode, the barcode is ignored. The use of a check digit greatly improves the security of a barcode.
(Interleaved and Industrial)	Code 2 of 5 include check digit in string	This options enables the transmission of the check digit together with the data characters.

	MSI calculate 1 check digit MOD10.	This option enables the check digit calculation. The checksum is calculated as the sum modulo 10 of the data characters. If the calculated check digit does not correspond to the check digit in the barcode, the barcode is ignored. The use of a check digit greatly improves the security of a barcode.
	MSI calculate 2 check digits MOD10/MOD1 0.	This option enables the check digit calculation. The first checksum is calculated as the sum modulo 10 of the data characters, the second checksum is calculated as the sum modulo 10 of the data characters and the first check digit. If the calculated check digit does not correspond to the check digit in the barcode, the barcode is ignored. The use of a check digit greatly improves the security of a barcode.
MSI Plessey Options	MSI calculate 2 check digits MOD10/MOD1 1.	This option enables the check digit calculation. The first checksum is calculated as the sum modulo 10 of the data characters, the second checksum is calculated as the sum modulo 11 of the data characters and the first check digit. If the calculated check digit does not correspond to the check digit in the barcode, the barcode is ignored. The use of a check digit greatly improves the security of a barcode.
	MSI calculate 2 check digits MOD11/MOD1 0.	This option enables the check digit calculation. The first checksum is calculated as the sum modulo 11 of the data characters, the second checksum is calculated as the sum modulo 10 of the data characters and the first check digit. If the calculated check digit does not correspond to the check digit in the barcode, the barcode is ignored. The use of a check digit greatly improves the security of a barcode.
	MSI include first check digit in string.	This options enables the transmission of the first check digit together with the data characters.
	MSI include both check digits in string.	This options enables the transmission of both check digits together with the data characters.
Telepen option	Enable Full / mode.	ASCII In this mode the decoded data characters are translated to full ASCII.
UK Plessey option	UK Plessey inc digit in s	lude check This options enables the transmission of the check digit together with the data characters.

Codabar / NW7, Code128 / EAN128, IATA Barcode properties field

Speed Application Generator

Startup	Options for Codabar, Code 128 and IATA		
🖻 Barcode		2.9.2	
Options for EAN/UPC a	Codabar / NW7 options	Derault	
Options for 2 of 5, MSJ	Only Codabar ABC code	OFF	
Code 11 Kerean post	Only Codabar CX code	OFF	
Lookup	Codabar ABC and CX code	OFF	
Form	Codabar calculate check digit	OFF	
Menu	Codabar include check digit in string	ON	
Data	Codabar include start/stop char as ABCD/ABCD	OFF	
Language	Codabar include start/stop char as abcd/abcd	OFF	
	Codabar include start/stop char as ABCD/TN*E	OFF	
	Codabar include start/stop char as abcd/tn*e	OFF	
	Enable intercharacter gap check	ON	
	Code 128 / EAN128 options		
	EAN128 conversion only	OFF	
	EAN128 conversion if possible	OFF	
	IATA options		
	IATA check serial number only	OFF	
	IATA check coupon and serial numbers	OFF	
	IATA check coupon, airline and serial numbers	OFF	
	☑ IATA include check digit in string	ON	
		OK Cancel Help	

Description

The common properties for Codabar / NW7, Code128 / EAN128 and IATA can be set from this page. Some of the properties do not match with other properties displayed on the form. When this is the case the other items are grayed out.

	Only Codabar ABC cod	e. From the Codabar options only allow Codabar ABC code.
	Only Codabar CX code	e. From the Codabar options only allow Codabar CX code.
	Codabar ABC and CX code.	From the Codabar options Codabar ABC and CX code are allowed.
	Codabar calculate che digit	This option enables the check digit calculation. If the ck calculated check digit does not correspond to the check digit in the barcode, the barcode is ignored. The use of a check digit greatly improves the security of a barcode.
	Codabar include chec digit in string.	k This options enables the transmission of the check digit together with the data characters.
Codabar	Codabar include start/stop characters as ABCD/ABCD.	This options enables the translation and transmission of the start and stop characters in the string. The start character is converted to A,B,C or D and the stop character is converted to A,B,C or D.
	Codabar include start/stop characters as abcd/abcd.	This options enables the translation and transmission of the start and stop characters in the string. The start character is converted to a,b,c or d and the stop character is converted to a,b,c or d.
	Codabar include start/stop characters as ABCD/TN*E	This options enables the translation and transmission of the start and stop characters in the string. The start character is converted to A,B,C or D and the stop character is converted to T,N,* or E.
	Codabar include start/stop characters as abcd/tn*e	This options enables the translation and transmission of the start and stop characters in the string. The start character is converted to a,b,c or d and the stop character is converted to t,n,* or e.
	Enable intercharacte gap check.	 This option enables the reading of Codabar labels with a large or irregular gap between characters.
Code 128 /	EAN128 conversion EA only. fo	this mode the decoded data characters are translated to the AN 128 format. If the data does not comply with the EAN 128 rmat, then the label is rejected.
EAN128 options	EAN128 conversion EAN128 conversion EAN128 fo	this mode the decoded data characters are translated to the AN 128 format. If the data does not comply with the EAN 128 rmat, then the label is transmitted as Code 128.

	IATA check serial number only.	This option enables the check digit calculation. The checksum is calculated as the modulo of the form code and the serial number. If the calculated check digit does not correspond to the check digit in the barcode, the barcode is ignored. The use of a check digit greatly improves the security of a barcode.
IATA option	IATA check coupon and serial number.	This option enables the check digit calculation. The checksum is calculated as the modulo of the coupon, form code and the serial number. If the calculated check digit does not correspond to the check digit in the barcode, the barcode is ignored. The use of a check digit greatly improves the security of a barcode.
·	IATA check coupon airline and serial number.	This option enables the check digit calculation. The checksum is calculated as the modulo of the coupon, airline, form code and the serial number. If the calculated check digit does not correspond to the check digit in the barcode, the barcode is ignored. The use of a check digit greatly improves the security of a barcode.
	IATA include check digit in	This options enables the transmission of the check digit together with the data characters

string.

igit toge with the data characters.

Code 11, Korean post, RSS and PDF417 Barcode properties field

Speed Application General	tor			X
Speed Application General Startup Barcode Options for EAN/UPC a Options for 2 of 5, MSI Options for Codabar, (Code 11, Korean post, Form Menu Data Language	Code 11, Korean post, RSS and PDF417 Code 11 options Code 11 option Code 10 option C	Default ON OFF OFF OFF OFF ON ON ON ON ON OFF OFF		
		C	OK Cancel He	elp

Description

The common properties for Code 11, Korean post, RSS and PDF417 can be set from this page. Some of the properties do not match with other properties displayed on the form. When this is the case the other items are grayed out.

	Check auto 1 or 2.	Enables the automatic checking for 1 or 2 check digits depending of the number of data characaters.
	Check 2 check digits.	Enables the checking for 2 check digits.
Code 11 options	Check 1 check digit.	Enables the checking for 1 check digits.
	Include check digit in string.	This options enables the transmission of the check digit together with the data characters.

	Include check digit in string.	This options together with	enables the transmission of the check digit n the data characters.
Korean post options	Include dash in string.	This options between the	enables the inclusion of the dash character (-) 3rd and 4th digit.
	Include check digit in string.	This options together wit	enables the transmission of the check digit h the data characters.
RSS options	Include application identifier.	This option i	ncludes the application identifier in the string.
	MicroPDF include num columns in str	iber of data ing.	Enables the MicroPDF line numbering of the datacolumns in the string.
PDF417 options	RSS include link flag	ı in string.	This option includes the RSS link flag in the string.
	EAN128 include link fl	ag in string.	This option includes the EAN128 link flag in the string.

Lookup properties field

Speed Application Generat	or				[×
Startup	Lookup					
Generation Barcode → Options for EAN/UPC a	Lookup file: Lookup 1	Record	d fields			
- Options for 2 of 5, MSI		Field	Offset	Length	Key field	
Code 11, Korean post,	Use lookup file	#1	0	13	•	
Lookup	Filename: Lookup1.txt	#2	13	6	0	
Menu	~ Record options	#3	0	1] 0 [
Language	Record size including <cr><lf></lf></cr>	#4	0	1] 0 [
	21	#5	0	1] 0	
	Number of fields:	#6	0	1] 0	
	2	#7	0	1	0	
	Specific actions when	#8	0	1	0	
	Format of record is wrong	#9	0	1	0	
	Continue	#10	0	1	0	
	Input data has no match	L				
	Continue Main					
	Lookup file not available					
	Goto main					
				ОК	Cancel Help	

Description

A lookup file is a flat fixed length database file that is created for information reference. The lookup file needs to be sorted to find the wanted record.

LookupDescribes the current Lookup file. The number of available lookup files are from Lookupfile1..Lookup 3.

Use Enabling this option makes the application check if a lookup file is present want input is lookup file started from the main menu.

Lookup filename The name of the lookup file that is loaded into the OPL9728 or is placed in the RAM_DISK folder of the SpeedGen application. The lookup file format needs to be in the 8.3 DOS format.

Record Options	Record size including <cr><lf>.</lf></cr>		The total size of one record in the database. The application checks the lookup file matches this record size. The end of the record should always have a <cr><lf> (carriage return and Linefeed) character. The maximum size of one record is 350 characters including the <cr><lf>.</lf></cr></lf></cr>
	Number	of fields.	The number of fields that are needed in the application. The maximum amount of field are 8.
Record fields	Field.	The field numb	er in the lookup file.
	Offset.	The position of file. The first po	where the field should start in the record of the lookup osition in a record is position 0.
	Length.	The length of the characters.	ne field. The length must between the 1 and 40
	Key field.	The key field m	arks the field on what the database is sorted.
	Example 1:		
	Lookup1.txt		

000000000001 10.95<CR><LF>

Lookup1.txt

Field	Offset	Length	Key field	Description	Item
#1	0	13	Yes	Barcode	000000000001
#2	13	6		Price	10.95

Example 2:

Lookup2.txt

000000000001, 10.95<CR><LF>

Lookup2.txt

	Field	Offset	Length	Key field	Description	I	tem
	#1	0	13	Yes	Barcode	0000000	000001
	#2	14	6		Price	10.95	
Specific action	• For	mat of red	cord is wro	ng			
when		Contir	nue				Ignore the lookup file format error, just continue.
		Show	error & de	lete loo	kup		Show an error message and remove the lookup file from the ramdisk.
		Show	error & Go	oto mair	n menu		Show an error message and return to the main menu.
	• Inp	ut data ha	as not mat	ch			
		Contir	nue Em sel	tpy lool ected n	kup variables fro umber of fields.	om look1 t	o lookx. Lookx is the
		Show warnii	Sho ng ma em fiel	ow a wa tch the ptied fr ds.	arning message t item in the key om look1 to look	that the it field. The <x. lookx<="" td=""><td>em to search for does not lookup variables are is the selected number of</td></x.>	em to search for does not lookup variables are is the selected number of
		Goto	Jur sea	np to a arch iter	specific Form, M n is not found.	lenu or m	ain page when the lookup
		Goto 8 Warni	& Sho ng ma into	ow a wa tch the erpreter	arning message t item in the key jumps to the se	that the it field. Afte elected Fo	em to search for does not r this warning message the rm, Menu or Main page.

• Lookup file not available

Goto main	Directly return to the main menu, no error message is displayed on the OPI9728.
Show error & continue	Shows an error message that the lookup file is not available on the ramdisk. The application can continue with the wanted input.
Show error & goto main	Shows an error message that the lookup file is not available on the ramdisk. The application returns back to the main menu.

Form properties field

ont:	Lar	ge	Next:	Form 1	*							
Displa Line	ay & Input Data type		Prompt	Input		Min	Max	Variable		Lookup		Properties
#1	Text	*	Barcode:	Both	*	1	13	Var 1	•	Nil	*	More
#2	Integer	*	Quantity:	Keypad	*	1	6	Var 2	•	Nil	*	More
#3	Real	*	Price:	Keypad	~	1	8	Var 3	•	Nil	~	More
#4	Counter	*	Records	Both	V	0	40	Nil	v	Nil	~	More
#5	Nil	V		Both	V	0	40	Nil	v	Nil	V	More
#6	Nil	~		Both	V	0	40	Nil	v	Nil	~	More
#7	Nil	~		Both	~	0	40	Nil	v	Nil	~	More
#8	Nil	~		Both	~	0	40	Nil	~	Nil	~	More
#9	Nil	~		Both	~	0	40	Nil		Nil	V	More
#10	Nil	~		Both	V	0	40	Nil		Nil	~	More
	Displaine Line #1 [#2] #3] #4] #5] #6] #7] #8] #9] #10	ntt: Lar Display & Input ine Data type #1 Text #2 Integer #3 Real #4 Counter #5 Nil #6 Nil #7 Nil #8 Nil #8 Nil #9 Nil #10 Nil	Image Display & Input ine Data type #1 Text #2 Integer #3 Real #4 Counter #5 Nil #6 Nil #7 Nil #8 Nil #9 Nil #10	nnt: Large Y mext. Display & Input ine Data type Prompt #1 Text Y Barcode: #2 Integer Y Quantity: #3 Real Y Price: #4 Counter Y Records #5 Nil Y #6 Nil Y #7 Nil Y #8 Nil Y #9 Nil Y #10 Nil Y	Int: Large Display & Input nine Data type Prompt Input #1 Text Barcode: Both #2 Integer Quantity: Keypad #3 Real Price: Keypad #4 Counter Records Both #5 Nil #6 Nil #7 Nil #8 Nil #9 Nil #10 Nil	Inf: Large Display & Input ine Data type Prompt Input #1 Text Barcode: Both #2 Integer Quantity: Keypad #3 Real Price: Keypad #4 Counter Records Both #5 Nil #6 Nil #7 Nil #8 Nil #9 Nil #10 Nil	Int: Large Display & Input ine Data type Prompt Input #1 Text Barcode: Both #1 Text Barcode: Both #1 Text Barcode: Both #2 Integer Quantity: Keypad 1 #3 Real Price: Keypad 1 #4 Counter Records Both 0 #5 Nil 8 8 8 9 Nil 8 8 8 9 8 8	Int: Large Display & Input nine Data type Prompt Input Min Max #1 Text Barcode: Both #1 Text Barcode: Both #1 1 13 #2 Integer Quantity: Keypad 1 6 #3 Real Price: Keypad 1 8 Mit Records Both 0 40 #5 Nil Mit Both 0 40 #7 Nil Mit Both 0 40 #7 Nil Mit Both 0 40	Display & Input Line Data type Prompt Input Min Max Variable #1 Text Barcode: Both #1 1 1 1 </td <td>Int: Large Display & Input nine Data type Prompt Input Min Max Variable #1 Text Barcode: Both #1 1 1 1 1<!--</td--><td>Int: Large Display & Input Line Data type Input Min Max Variable Lookup #1 Text Barcode: Both #1 Text Barcode: Both #1 Text Barcode: Both #2 Integer Quantity: Keypad 1 6 Var 2 Nil #3 Real Price: Keypad 1 8 Nil #4 Counter Records Both 0 40 Nil #5 Nil #6 Nil #7 Nil #8 Nil #9 Nil #10 Nil #10 Nil Nil <!--</td--><td>Int: Large Display & Input Ine Data type Prompt Input Min Max Variable Lookup #1 Text Barcode: Both #1 Text Barcode: Both #1 Text Barcode: Both #2 Integer Quantity: Keypad 1 6 Var 2 Nil #3 Real Price: Keypad 1 8 Var 3 Nil #4 Counter Records Both 0 40 Nil Nil Wil #6 Nil #7 Nil #8 Nil #8 Nil #9 Nil #10 Nil #10 Nil Price: Keypad 1 8 Nil 8 Nil<!--</td--></td></td></td>	Int: Large Display & Input nine Data type Prompt Input Min Max Variable #1 Text Barcode: Both #1 1 1 1 1 </td <td>Int: Large Display & Input Line Data type Input Min Max Variable Lookup #1 Text Barcode: Both #1 Text Barcode: Both #1 Text Barcode: Both #2 Integer Quantity: Keypad 1 6 Var 2 Nil #3 Real Price: Keypad 1 8 Nil #4 Counter Records Both 0 40 Nil #5 Nil #6 Nil #7 Nil #8 Nil #9 Nil #10 Nil #10 Nil Nil <!--</td--><td>Int: Large Display & Input Ine Data type Prompt Input Min Max Variable Lookup #1 Text Barcode: Both #1 Text Barcode: Both #1 Text Barcode: Both #2 Integer Quantity: Keypad 1 6 Var 2 Nil #3 Real Price: Keypad 1 8 Var 3 Nil #4 Counter Records Both 0 40 Nil Nil Wil #6 Nil #7 Nil #8 Nil #8 Nil #9 Nil #10 Nil #10 Nil Price: Keypad 1 8 Nil 8 Nil<!--</td--></td></td>	Int: Large Display & Input Line Data type Input Min Max Variable Lookup #1 Text Barcode: Both #1 Text Barcode: Both #1 Text Barcode: Both #2 Integer Quantity: Keypad 1 6 Var 2 Nil #3 Real Price: Keypad 1 8 Nil #4 Counter Records Both 0 40 Nil #5 Nil #6 Nil #7 Nil #8 Nil #9 Nil #10 Nil #10 Nil Nil </td <td>Int: Large Display & Input Ine Data type Prompt Input Min Max Variable Lookup #1 Text Barcode: Both #1 Text Barcode: Both #1 Text Barcode: Both #2 Integer Quantity: Keypad 1 6 Var 2 Nil #3 Real Price: Keypad 1 8 Var 3 Nil #4 Counter Records Both 0 40 Nil Nil Wil #6 Nil #7 Nil #8 Nil #8 Nil #9 Nil #10 Nil #10 Nil Price: Keypad 1 8 Nil 8 Nil<!--</td--></td>	Int: Large Display & Input Ine Data type Prompt Input Min Max Variable Lookup #1 Text Barcode: Both #1 Text Barcode: Both #1 Text Barcode: Both #2 Integer Quantity: Keypad 1 6 Var 2 Nil #3 Real Price: Keypad 1 8 Var 3 Nil #4 Counter Records Both 0 40 Nil Nil Wil #6 Nil #7 Nil #8 Nil #8 Nil #9 Nil #10 Nil #10 Nil Price: Keypad 1 8 Nil 8 Nil </td

Description

The form properties control the input from the user, show data from the lookup and the data file. Some of the input options that are found on the form properties page have more properties that can be displayed in this form. For these properties click the more button.

Name Describes the current form. The number of available forms are from Form 1..Form 8.

Font The OPL9728 has 4 fonts available inside.

Large	14 characters wide	4 lines high
Medium	18 characters wide	5 lines high
Small	14 characters wide	8 lines high
Tiny	18 characters wide	10 lines high

The jump position when the CLR key is pressed on the OPL9728.

- CLR
- Main menuForm 1..Form 8
- Menu 1...Menu 8

Specify which Form or Menu to be shown after last line has been completed on the current form.

Next

- Main menu
- Form 1..Form 8
- Menu 1..Menu 8

Line. The line number of the display.

Data type. Controls what kind of Data type is used for this line. For more information click Data type.

Prompt Specify the prompt string for each input data type field, if necessary.

Display & Input

The input source from where the data is collected.

Input.

- Reader
 - Keypad
 - Both
- Save on Next Save the data when the last line of Display & Input has been handled. The number of data files to select from are from Data 1..Data 3. For more information on data look at the data property field.

Display & Input lines

ine läähpe			ht		h h hite			196		łąsis		
R ist	Y	lace:	it	ł		1	iel ,	١	Y	102.		

Description

Each line represents one line on the OPL9728. Changing these properties will change the way the application input works. Input is done by reading a barcode or by entering data by the keypad. When using the keypad data is submitted by pressing the ENT or DOWN key. To get back to the previous input line press the UP key. More information on keys of the OPL9728 is available here

Line. Describes the current line number. The amount of available lines are set by changing the Font property.

Data type Data type describes what the current line should do.

Data type	Prompt on display	Expect inpu	t Data length	Store in Var	Lookup field
Nil	No	No	No	No	No
Text	Yes	Yes	Yes	Yes	Yes
Integer	Yes	Yes	Yes	Yes	Yes
Real	Yes	Yes	Yes	Yes	Yes
Alpha	Yes	Yes	Yes	Yes	Yes
AlphaNum	Yes	Yes	Yes	Yes	Yes
Boolean	Yes	Yes	No	Yes	Yes
Lookup	Yes	No	No	No	Yes
Counter	Yes	No	No	No	No
Fixed	Yes	No	No	No	No
Pause	Yes	Yes	No	No	No
Extension	No	No	No	No	No

Data type

Description

- **Nil** This is the do nothing data type. When Nil is selected the whole line is empty. The application will directly proceed with the next line number.
- TextAccept input of any character
Example: !AaZz #\$=-

Numeric input is accepted. Negative input is possible by the More...Integerproperties dialog.Example: 123

Accept input of Real value with one or two decimals. The number of Decimals and possitive and nagative input is set by the More... properties dialog.Example: 123.12

- Alpha Accept uppercase and lowercase letters Example: AaZz
- AlphaNum Accept uppercase and lowercase letters and Numeric input Example: Aa123Zz
- Boolean Accepts just a 1 and a 0

Lookup Search the Data file or lookup file with as searchkey the variable described in the Var field. The field from the data file or lookup file that needs to be shown on the display is set from the More... properties dialog.

- **Counter** Shows the amount of records that are available in the data file.
 - **Fixed** Shows a text entered in the prompt field or show the contents of one of the selectable variables.
- **Pause** Shows the prompt and wait for the user to press a key to proceed to the next line.

Extension This line is used as an "Extension" of the previous line. This way displaying data that exceeds one line, is continued to display it content one the Extension line.

- Prompt Display some text information, user input is directly placed behind the prompt.
 - **Reader** Input is done by reading a barcode. The laser is emitted by pressing the trigger key. See OPL9728 to find the trigger key.

Input **Keypad** Data input is entered by pressing the the keys on the keypad of the OPL9728. The input data is submitted by pressing the ENT key or by the DOWN key.

Both Data input is done by either Reader or Keypad.

Min	Specify the minimum length of data input that is considered acceptable. When the data entered is to too short a error message appear on the display.
Мах	Set the maximum amount of characters that is considered acceptable the maximum length can be 40 characters at most.
Max	When the Show input mark is selected from the More properties dialog the set character for as input marker has the same length as the set maximum length.
Variable	All the fields that need an input source can store the inputted data in one of the variable fields. The lookup and data fields can also be used for data storage, the disadvantage is only that during a lookup these fields will be overwritten.
	If the Data type is Lookup the variable field holds the search key.
Lookup	Find a record in the data file or lookup file. The field that needs to be displayed is selected from the More properties dialog.
Properties	By clicking the More properties dialog button additional options can be set for the input line.

More properties dialog

More properties		
More properties Field & line Form #1 Line #1 Field data Alignment & padding Left aligned padded with spac Initial value or text Variable Value or text 1 Variable Value or text 1 Variable Value or text	Lookup On match display field: Nil Nil Numeric or Real Allow negative Counter Show: Data 1	
Var 1 Add prefix Add suffix Show input mark Decimal places; 1	OK	Cancel

Description

The more properties dialog can set some specific properties for Data type form properties.

Field & Shows the current Form and line number the user is editing some of the properties.

Field data

Alignment & Padding

The data input that is stored in a variable is set to a fixed length set by the Max length property. To set the data into the wanted format alignment and padding is used.

Alignment examples

	Max	Settings	Data input	Formatted data
13		Left aligned padded with space	1234567890	1234567890
13		Right aligned filled with space	1234567890	1234567890
13		Left aligned padded with 0	1234567890	1234567890000
13		Right aligned filled with 0	1234567890	0001234567890

Initial value or text

Show a default value or text for the data input.

None	No initial value or text as default value
Value or text	Use an default value for input
Variable	Use an default value from one of the selectable variable fields. When the variable field is empty the value or text from the edit box is used.

Add prefix

When this option is checked the value or text entered in the edit box is placed before the input data.

Add prefix

When this option is checked the value or text entered in the edit box is placed after the input data.

Show input mark

Check box to show the input marks, such as underline (_) or asterix (*), which is to be replaced by the data input.

The number of input marks shown on the display is based on the maximum length set from the Form properties dialog.

Decimal places:

The number of decimals that can be enetered for the Real data type.

Lookup **On match display field:**

Display one of the lookup or data fields when the searchkey matched the key field.

Numeric or **Allow negative** Real

When this checkbox is marked negative value input is allowed for Integer and Real.

Counter Show:

Displays the number of records of this particular data file, When no data file is available then the result 0 will be displayed.

Menu properties field

	enu			
Barcode Options for EAN/UPC a N Options for 2 of 5, MSJ Options for Codabar, (F Code 11, Korean post, Lookup Form Menu Data Language	Vame: Menu 1 font: Large CLR: Main Menu Header Vuse Menu header Main Data Store Header Var 1 Store Menu item Var 1 Storage Storage Save on Next Data 1 Var 1 Main Storage Storage Save on Next Data 1 Main Storage Save on Next Data 1 Main Storage Save on Next Data 1 Main Storage Save on Next Data 1 Main Main Storage Save on Next Data 1 Main Main Main Storage Save on Next Data 1 Main	Menu Item Item No. #1 #2 #3 #4 #5 #6 #7 #8 #8 #9 #10	s Item Name menu item 1 menu item 2 menu item 3 menu item 4	Next: Main v Main v Main v Main v Main v Main v Main v Main v Main v

Description

The menu properties field display a menu on the OPL9728. The items are displayed until the first empty Item name. The menu is controlled by the UP and DOWN key and an item is selected by using the TRIGGER or ENT key. Click here more information on the OPL9728 keypad keys. Name. Describes the current Menu. The number of available menus are from Menu 1..Menu 8.

Font The OPL9728 has 4 fonts available inside.

Large	14 characters wide	4 lines high
Medium	18 characters wide	5 lines high
Small	14 characters wide	8 lines high
Tiny	18 characters wide	10 lines high

The jump position when the CLR key is pressed on the OPL9728.

- CLR
- Main menuForm 1..Form 8
- Menu 1...Menu 8

Menu Header **Use menu header**

When the use menu header is checked On top of the menu a header text is displayed.

Store Header

Store the header text in a variable when a menu item is selected.

Data

Store Menu item

Store the menu item text in a variable when a menu item is selected.

Item No.

The menu item number.

Menu Item Item name

The text that is shown for the menu item.

Next

The jump position when the item name is selected.

Save on Save the data when the a menu item is selected. The number of data files to select from are from Data 1..Data 3. For more information on data look at the data property field.

Data properties field

Speed Application Generator

	Data								
Options for EAN/UPC a Options for 2 of 5, MS1	Data file: 🛛 Data 1 🛛 👻	-Data Fields	a record - s Variable	e 1 V	ariable 2	String	Field si:	ze Key	Alignment & padding
Code 11, Korean post,	Filename: Example1.txt	#1	Var 1	+	Nil		13	0	Right al. filled with 0 🗸
Form	Record options	#2	Var 2	_ +	Nil	v 🗆	/ .	0	Right al. filled with spar
<mark>Menu</mark> Data	Record size: 43	#3	Nil	+	Nil	•	0	0	Left al. padded with sp 🗸
Language	Number of Fields: 2	#4	Nil	+	Nil	v v	0	0	Left al. padded with sp 😪
		#5	Nil	+	Nil	v 🗸	0	0	Left al. padded with sp 😽
	Date format: YYYY/MM/DD	#6	Nil	+	Nil	•	0	0	Left al. padded with sp 💉
	Vear 4 digits (YYYY) V Month	#7	Nil	+	Nil	•	0	0	Left al. padded with sp 😒
	🗹 Day	#8	Nil	+	Nil	•	0	0	Left al. padded with sp 😽
	Format: Year/Month/Day 🗸	#9	Nil	+	Nil	•	0	0	Left al. padded with sp 🗸
	Time format: HH:MM:SS	#10	Nil	+	Nil	•	0	0	Left al. padded with sp 🗸
	Hour Minute Second		Add date						
	Data storage		<pre> </pre>						
							ОК		Cancel Help

Description

This Data properties form describes the way a data file needs to be formatted. The data file is of a type flat fixed length database. To be able to search through this data file the data needs to be sorted on the key field.

Data file Describes the current Data file. The number of available Data files are from Data 1..Data 3.

Filename Filename of the data file that is received from the OPL9728 or is fetched from the RAM_DISK folder of the SpeedGen application. The data file format needs to be in the 8.3 DOS format. A data file can also be loaded in the OPL9728 or copied into the RAM_DISK folder of the SpeedGen application.

Record

Options Record size

Shows the calculated record size including the <CR><LF>.

Use field separator

When checked the record fields are separated by a (,).

Number of fields

The total number of fields in a record without the date and time.

Data **Field.** The field number in the data file.

Record fields

- **Variable 1.** The first item to be placed into the variable field of the data file. This item can be added with Variable 2.
- **Variable 2.** The second item to be placed into the variable field of the data file. This item can be added to with Variable 1.
 - **String** When this string checkbox is marked the Variable 1 and Variable 2 are appended after each other. When the string checkbox is not marked the OPL9728 tries to add Variable 1 to Variable 2 if possible.
- **Field size.** The length of the current data field. The length must be between 1 and 40 characters.
 - **Key** The key field is only used when the **Data storage** is set to *Update record* (*sorted*). The field number that has the key field marked is the sorting key.
- **Allignment** The Variable 1 and Variable 2 that are added together are finally stored into a fixed length data field. To set the data into the wanted format alignment and padding is used.
- Add date Add a date field to the record, the format of the date field is set by the **Date format** field.
- Add time Add a time field to the record, the format of the date field is set by the **Time format** field.

Adding and Alignment examples

Variable 1	Variable 2	String	Size	padding & alignment	Formatted data
ABCDEF	XYZ	Yes	13	Left aligned padded with space	ABCDEFXYZ
ABCDEF	XYZ	Yes	13	Right aligned filled with space	ABCDEFXYZ
ABCDEF	XYZ	Yes	13	Left aligned padded with 0	ABCDEFXYZ0000
ABCDEF	XYZ	Yes	13	Right aligned filled with 0	0000ABCDEFXYZ
123456	222	Yes	13	Right aligned filled with 0	0000123456222
123456	222	No	7	Left aligned padded with space	123678
123456	222	No	7	Right aligned filled with space	123678
123456	222	No	7	Right aligned padded with 0	0123678
123456	ABCDEF	No	7	Left aligned padded with space	123456A

Formats the date field.

Year Use year in the date formatting

Year digits Use year as a 2 digit value or as a 4 digit value.

Month Use month in date formatiing.

Date format. **Day** Use day in day formatiing.

Select the way the Year, month and day need to be placed into the date field.

Format

- Year/Month/Day
- Month/Day/Year
- Day/Month/Year

Formats the time field.

	Hour	Use hour in the time formatting.
Time format.	Minute	Use minute in time formatiing.
	Second	Use seconds int time formatiing.

Language properties field

Startup	anguage		
Barcode Ontions for FAN/UPC a	Convert strings		
- Options for 2 of 5, MSI	Original strings	Translated strings	~
- Options for Codabar, (Sunday		
Code II, Korean post,	Monday		
Form	Tuesday		
Menu	Wednesday		
Data	Thursday		
Language	Friday		~
	Data file already open!		
	Original messages	Translated messages	~
	Cappot open data file		
	Cannot create data file		
	Data file does not exist!		
	Data file not open!		
	Data file is empty!		
	Data file has wrong format!		
	Failed reading data file!		
	Failed writing data file!		
	Data file memory problem!		
	Data file database errori		~
) Data nie uatabase en ori		

Description

The language properties page is an optional page. If all strings are left empty then no translation item will be used and the default language settings will be kept. When an empty is left empty then also the default value will be used for the string or message.

Converted Small strings up to 18 characters are possible. It is possible to enter longer strings, but those will not be stored in a build application.

Converted messages Errors, warning and information messages can be translated here. The maximum size that can be use is 54 characters. Converted messages that exceed the 54 characters are not stored in the build application.

	-		
1 Input 2 Send data 3 Utilities Tue 05/11/08 11:09	<mark>Send data</mark> Data.txt CLR = Exit	<mark>1 Rev lookup</mark> 2 Browse data 3 Delete data 4 Delete lookup 5 Set time/date	<mark>5 Set time/date</mark> 6 Power & Memory 7 Browse disk 8 Format disk 9 Erase language

Main Menu

Internreter

To navigate through the menu the UP, DOWN, LEFT, RIGHT keys can be used for scrolling. A highlighted option is submitted by using the TRIGGER or ENT key. The numbers on the keypad can also be used as shortcut key to start the wanted menu number item.

From the main menu the build application can be started by selecting "1 Input". Menu option "2 Send data" starts the transfer of the data file. With menu option "3 Utitilities" special file and terminal options for the OPL9728 can be set.

- Input
- Send data
- Uitilities

The PC SpeedGen application and the Interpreter on the OPL9728 work almost the same. The biggest difference is that the PC application does not support communicating with the NetO protocol. The transfer of data is done by copying the data to the RAM_DISK folder.

😂 C:\Program Files\SpeedGen\	RAM_DISK		
File Edit View Favorites Tool	ls Help		
🕝 Back 🔹 🕥 - 🎓 🔎	Search 😥 Folders]-	
Address 🛅 C:\Program Files\SpeedGe	en\RAM_DISK		💌 🄁 Go
Folders	K Name 🔺	Size Type	Date Modified
E Cocal Disk (C:) <pe (c:)<="" cocal="" disk="" p=""> <pe (c:)<="" cocal="" disk="" p=""> <pe (c:)<="" cocal="" disk="" p<="" td=""><td>Data.txt article.txt</td><td>1 KB Text Document 1 KB Text Document</td><td>11/7/2005 11:10 AM 11/2/2005 5:02 PM</td></pe></pe></pe>	Data.txt article.txt	1 KB Text Document 1 KB Text Document	11/7/2005 11:10 AM 11/2/2005 5:02 PM
< >	<	.III	>
2 objects (Disk free space: 21.9 GB)		624 bytes 🛛 🚼 My	Computer

With notepad or any other text editor the contents of the files in the RAM_DISK folder can be checked if it matches the wanted format. The format of the files that are created on the PC have the same format as the files created on the OPL9728.

The start of the application.

Send Data		
∡Select file 1 Data.txt	Send data Data.txt	
	CLR = Exit	
Send data star	rts the file selection t	o transfer one or more data files. The protocol for transmitting the

send data starts the file selection to transfer one or more data files. The protocol for transmitting the data file to the PC is the standard Opticon Neto protocol. To receive the file on the PC an application is needed. The NetO protocol application can be downloaded from the www.opticon.com web site.

To setup the NetO Protocol on the PC click here.

The Send data option does not work on the PC interpreter, to look at the data input file goto the RAM_DISK folder.

Utilities

The Utilities menu show some additional options for the OPL9728. This menu can be locked by changing security property in the Startup properties page.

The Utilities menu consists of these options:

- 1 Rcv lookup
- 2 Browse data
- 3 Delete data
- 4 Delete lookup
- 5 Set time/date
- 6 Power & memory
- 7 Browse disk
- 8 Format disk
- 9 Erase language

1 Rcv lookup

Put the OPL9728 in receive file(s) mode. The protocol used for receiving the file(s) is the NetO protocol. The baudrate used for the transfer 115200, the other parameters are No Parity, 1 stopbit and 8 databits. For the cradle the NetO32 application also needs to set an IrDA adapter. The IrDA adapter needed for the CRD-9723 RS232 cradle is the Litelink compatible adpater.

2 Browse data



With browse data option it is possible to look through the records and fields of the data file. First the data file to browse needs to be selected. Only one of the data fields is shown on the display at the time. The two number on the top left of the display show the amount of fields that are in the data file. The two number on the top right show the amount of records in the data file. By pressing the CLR key the user return to the Utilities menu.

To navigate between the data fields of a record it is possible to use the LEFT and RIGHT keys or a direct record field can be selected by pressing one of the numeric keys on the keypad.

Navigating between the different records is done by pressing the UP and DOWN keys on the keypad.

By pressing the TRIGGER key a whole record can be removed from the data file.

3 Delete data

The delete data option can delete the data file if that is available on the RAM disk. A warning message is shown before the user can delete the data file.

4 Delete lookup

The delete lookup option can delete the lookup file if that is available on the RAM disk. A warning message is shown before the user can delete the lookup file.

5 Set time/date



Change the time and date. The changed time and date is stored when the CLR key is pressed. This options only works on the OPL9728 and not on the PC.

Navigating is done by the LEFT, RIGHT, UP and DOWN keys. Changing the values can be done by pressing the TRIGGER key or by the numeric keys on the keypad.

The PC date and time is transferred to the OPL9728 when loading an OS, Interpreter or a SpeedGen build application.

6 Power & memory

The Power & memory options shows the current battery voltage in the OPL9728 and the available memory on the RAM disk. The PC interpreter has a fixed voltage and a fixed amount for the available memory.

7 Browse disk



Browses the contents of the RAM disk. With the CLR key the interpreter returns to the Utilities menu. with the 1 key the file can be deleted. With the 2 key the OPL9728 continues to the next file, after the last file the OPL9728 returns to the Utilities menu.

8 Format disk

Formats the whole RAM disk, all the contents of the RAM disk is lost. Before doing the format a warning message appear to ask if the user is really sure to clear the whole RAM disk.

The PC interpreter shows the warning message but does not format the RAM_DISK folder.

9 Erase language

With the erase language the build application returns to the default language settings.

NetO32 communication application

Net0 32 - Untitled	
File Protocol Tools Language Help	
POLLING ID: File progress:	
Total progress: Status log:	
Ready	//

Description

The NetO32 application handles the transfer of the data and the lookup file from and to the OPL9728. To make the NetO32 application work with the OPL9728 some settings need to be done. This section describes what settings are needed to start the communication. The NetO32 application can be downloaded from the www.opticon.com web site.

Remarks:

- When creating an application by the SpeedGen application generator, sending a build file to the OPL9728 cannot be done at the same time as sending or receiving a data or lookup file.
- More information can be found in the help file that is distributed by the NetO32 application installation.



To get the RS232 property dialog click **Tools** from the menu and then click **Options**. Here the user can set the needed RS232 parameters. Select the serial port (COM port) to where the CRD-9723 is connected to. The other settings need to match the settings in the image.

Step 2.	Preferences			×
	RS232 Protocol Download Lupload Polling and Timing Miscellaneous Appearance Log	Pownload Receiving directory: C:\Downloads Oownloaded files Append Overwrite Overwrite Ourique		
			OK Cancel Apply	

From the download property page the place where the received data file from the OPL9728 is stored. By clicking the small folder icon, a folder popup dialog appears. from this dialog select the folder where the received data files need to be stored.

Under Download files the way the data file(s) are stored can be set, use append to append the

new data file to the end of an existing data file. The Overwrite option will overwrite the existing data file with the newly downloaded data. The Unique option dowloads the data file and looks if the same file already exist in the download folder. If this is the case the extension is changed to 001 until 999.

Protocol Download Upload Polling and Timing Miscellaneous Appearance Log	
Add Clear Rem	iove

This step is only needed when a lookup file is used by the build application. From the upload property page select the the file that is going to be used as lookup file. Make sure that the name of the lookup file that is transmitted into the OPL9728 matches the filename that is set in the Lookup properties page.

Select the OK button of the Preferences page. Click from the menu **Protocol** and then **Start** to Step start the NetO protocol. The transfer of the data and the lookup file is done automatically when

4. the wanted menu item for Send data or Rcv Lookup is selected and the OPL9278 is placed into

the cradle.

Example applications

3 simple example applications are described step by step to see the power of the SpeedGen application generator. Select one of the examples below to get a full description on howto create the application.

The samples that are explained are also available in the Example sub folder of the SpeedGen installation folder.

1. Scan, quantity, append example.

Scan or type a barcode. Add a quantity. Append the input into the data file.

2. Scan, quantity, update example.

Scan or type a barcode. Check data file if barcode has been scanned previously. Add a quantity. Add previous quantity with new quantity. Update the user input into the data file.

3. Scan, lookup, quantity, update example.

Scan or type a barcode. Check if barcode description exists. Check data file if barcode has been scanned previously. Add a quantity. Add previous quantity with new quantity. Update the user input into the data file.

Example 1.

- Scan or type a barcode.Add a quantity.
- Append the input to the data file.

1	Edit
	Ч ² New application
	Load build application
	Build application
Step	Transmit build application to OPL9728
L.	COM port
	Help
	Exit

Right click the OPL9728 on the PC and select Edit.

Select the Form property page and make sure that Name is "Form 1". The font is set to "LARGE", CLR is "Main menu" and Next is "Form 1".

2.	#1	Fixed 🗸	Barcode:	Both	V 0	40	Nil	Nil	More	
2. #1 Fixe Change #2 Tex Change Step 3. Change Alignmen Right ali Now ch ✓ Show i Step 4. Change Change Alignment Right aliq Change	nge Line 1	to the above sett	inas.			· · · · ·				
	#2	Text 💌		Both	✓ 1	13	/ar 1 💊	Nil	More	
	Cha	nge Line 2	to the above sett	ings. and	l click the	e "More	." button	for son	ne additional	options.
Cton	Cha	nge the alig	gnment to Right a	ligned fil	led with	0.				
Step 3	Alig	nment & padding	g							
5.	Rig	ht aligned filled	with 0 💌							
	Now	check the	use of an input n	hark and	set as sid	an ().				
	🗹 SI	how input mark	-							
Step	#4	Integer 🗸	Quant:	Keypad	✓ 1	6	/ar 2 💊	Nil	More	
4.	Cha	nge Line 4	to the above sett	ings. and	l click the	"More	." button	for son	ne additional	options.
	Cha	nge the alig	gnment to Right a	ligned fil	led with	space.				
	Align	ment & padding	Í.							
	Righ	nt aligned filled v	with space 🐱							
	Sot	a default v	alue for the quan	tity						
	Init	ial value or text		LIC y						
	Val	ue/Text	~							
	Valu	ue or text								
	1									

Now check the use of an input mark and set as sign (_).

Show input mark	_
-----------------	---

Check the "Save on Next" checkbox and make sure that "Data 1" is selected. Now when returning to the Barcode input the data is saved in the Data 1 file.

э.	🗹 Save on Next	Data 1	~

Goto the Data property page. And change the filename of Data 1 to "Example1.txt".

Step	Data file:	Data 1	~	
6.				
	Filename:	Example1.txt		

Store the barcode that was stored into Variable 1 in Field1 of the data file. Change the settings in Step the SpeedGen application.

7. #1 Var 1 🗸 + Nil 🗸 🗹	13 😴 💿 Right al. filled with 0 🔤	1
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Store the entered quantity that was stored into Variable 2 in Field2 of the data file. Change the Step settings in the SpeedGen application.

8.	#2	Var 2	v +	Nil		6	*	0	Right al. filled with spar 🔽
----	----	-------	------------	-----	--	---	---	---	------------------------------

The record options should look like this.

Record options					
Record size: 42					
🔽 Use field separa	ator				
Number of Fields:	2	~			
	Record size: 42 Use field separation of Fields:	Record size: 42 Use field separator Number of Fields: 2			

Make sure that the data storage is set to "Append new data".

Step 10.	Data storage				
	Append new data	~			

Now click the "OK" button to return to the OPL9728 on the PC.

Step To test the application on the PC click key 1 on the keypad or highlight "1 Input" and press the

11. ENT key.

The display schould look like this.

(NODITGO
	Barcode:
Read barco	de 🛛 🔀
Enter bar	Cancel OK
	1 2 2ABC 3 DEF 4 GHN 5 JKL 6 MKO 7 PORS 8 TUV 9 MKRZ 0- ENT

Enter scanned barcode data in the Read barcode dialog. Or Click cancel and use the keypad. Enter 2 for barcode.

Barcode: 2_____

Step Quant:1_

12. Click the ENT key to keep the default value. Enter for the new barcode now 1 and for quantity 21. Click the "Cancel" button in the Read barcode dialog and click the CLR key to return to the Main menu.

The Example1.txt data file looks like this.

Step

Build the application by right clicking the OPL9728 on the PC display and select "Build application". Name the application Example1.S3I.

Step 14. Place the OPL9728 with the interpreter loaded into the cradle. Right click the OPL9728 on the PC display and select "Transmit build application to OPL9728". Select the Example1.S3I file, the file is transferred automatically. The OPL9728 is now ready to be used with the Example1 application. Example 2.

- Scan or type a barcode.
- Check data file if barcode has been scanned previously.
- Add a quantity.
- Add previous quantity with new quantity.
- Update the user input into the data file.

	Edit				
	Ч ⁷ New application				
	Load build application				
	Build application				
Step	Transmit build application to OPL9728				
1.	COM port				
	Help				
	Exit				

Right click the OPL9728 on the PC and select Edit.

Select the Form property page and make sure that Name is "Form 1". The font is set to "LARGE", Step CLR is "Main menu" and Next is "Form 1".

Step	
2.	#1 Fixed V Barcode: Both V 0 40 Nil V More
	Change Line 1 to the above settings.
	#2 Text 🗸 Both 🗸 1 13 Var 1 🗸 Data 1 🗸 More
	Change Line 2 to the above settings. and click the "More" button for some additional options.
Step 3.	Change the alignment to Right aligned filled with 0. Alignment & padding Right aligned filled with 0
	Now check the use of an input mark and set as sign (_).
	Show input mark
Sten	#3 Fixed V Quant: Both V 0 40 Data 1-2 V Nil V More
4.	Change Line 3 to the above settings. The "Data file 1 data field 2" should show a quantity if the
	scanned or typed barcode was found in the data file.
	#4 Integer V Add: Keypad V 1 6 Var 2 Nil V More
	Change Line 4 to the above settings, and click the "More" button for some additional options.
Step 5.	Change the alignment to Right aligned filled with space.
	Right aligned filled with space 🗸

Set a default value for the quantity

Value/Text	~
Value or text	

Now check the use of an input mark and set as sign (_).

🗹 Show input mark	_
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Check the "Save on Next" checkbox. Now when returning to the Barcode input the data is saved in the data file._____

6.	🗹 Save on Next	Data 1	*
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Goto the Data property page. And change the filename of Data 1 to "Example2.txt".

Step	Data file:	Data 1	*
7.			
	Filename:	Example2.txt	

Store the barcode that was stored into Variable 1 in Field1 of the data file 1. Change the settings in the SpeedGen application.

8. #1	Var 1	+	Nil		13 🛟	0	Right al. filled with 0	~	
		· · · ·		-			-		

Store the entered quantity that was stored into Variable 2 in Field2 of the data file 1. If a matching barcode found in the data file the quantity was stored into "data 2". Check if the settings in the data field 2 matches the settings below.

#2	Var 2	+	Data 1-2		6 🛟	0	Right al. filled with spar 🗸	-
----	-------	---	----------	--	-----	---	------------------------------	---

The record options should look like this.

Step 10.	Record size: 42	ator	
	Number of Fields:	2	*

Make sure that the data storage is set to "Update record (sorted)".

Chan	Data storage	
Step	Update record (sorted)	~

Now click the "OK" button to return to the OPL9728 on the PC.

Step To test the application on the PC click key 1 on the keypad or highlight "1 Input" and press the

12. ENT key.

The display schould look like this.

NODILGO
Barcode:
Read barcode
Enter barcode:
Cancel OK
1 2ABC 3DEF
4 GHH 5 JKG 6 MKC
TROPS 8TUN 9W07

Enter scanned barcode data in the Read barcode dialog. Or Click cancel and use the keypad. Enter 2 for barcode.

Barcode: 2	
Quant:	
Add : <u>1</u>	_

Click the ENT key to keep the default value. Enter for the new barcode now 1 and for quantity 21. Enter for the new barcode now 2

Step	Enter for th
13	Barcode:
15.	2
	Quant:
	Add:1

and for quantity 21.

1

Click the "Cancel" button in the Read barcode dialog and click the CLR key to return to the Main menu.

The Example2.txt data file looks like this.

Step

14.000000000001,
00000000002,21,2005/11/10,15:26:05
22,2005/11/10,15:28:47

Step Build the application by right clicking the OPL9728 on the PC display and select "Build

application". Name the application Example2.S3I.

15. Place the OPL9728 with the interpreter loaded into the cradle. Right click the OPL9728 on the PC display and select "Transmit build application to OPL9728". Select the Example2.S3I file, the file is transferred automatically. The OPL9728 is now ready to be used with the Example2 application.

Example 3.

- Scan or type a barcode.
- Check if barcode description exists.
- Check data file if barcode has been scanned previously.
- Add a quantity.

- Add previous quantity with new quantity.
- Update the user input into the data file.

	Edit
	พ New application
	Load build application
	Build application
Step	Transmit build application to OPL9728
L.	COM port
	Help
	Exit

Right click the OPL9728 on the PC and select Edit.

Select the Form property page and make sure that Name is "Form 1". The font is set to "MEDIUM", CLR is "Main menu" and Next is "Form 1". Step

2.	#1 Fixed 🗸 Barcode:	Both	v 0	40	Nil 😺	Nil 🗸	More	
	Change Line 1 to the above set	tings.						
	#2 Text 💌	Both	✓ 1	13	Var 1 😺	Lookup 1 🔽	More	
	Change Line 2 to the above set	tings. and	d click the	e "Mor	e" buttor	n for some a	ditional of	ptions.
Step 3.	Change the alignment to Right Alignment & padding Right aligned filled with 0	aligned fil	lled with	0.				
	Show input mark _	indik anu	Set as si	gn (_)				
Step	#3 Fixed 💌	Both	v 0	40	Look 1-2 🥃	Lookup 1 🗸	More	
4.	Change Line 3 to the above set	tings.						
<u></u>								
Step 5.	#4 Lookup 🖌 Quant:	Both	✓ 0	40	Var 1 👽	Data 1 🗸 🗸	More	
	Change Line 4 to the above set	tings. and	the the	e "Mor	e" buttor	to set the c	lisplay field	d of the

е data file. Now a quantity is shown when the the scanned or typed barcode was found in the data file.

Set the display field to "Data 1 field 3".

	On match display field: Data 1-3
	#5 Integer Add: Keypad 1 6 Var 2 Nil More Change Line 5 to the above settings. and click the "More" button for some additional options. Change the alignment to Right aligned filled with space.
	Alignment & padding Right aligned filled with space
Step 6.	Set a default value for the quantity Initial value or text Value/Text Value or text 1
	Now check the use of an input mark and set as sign (_).
Step 7.	Check the "Save on Next" checkbox. Now when returning to the Barcode input the data is saved in the data file.
Step 8.	Goto the lookup property page for setting up the lookup file properties. Select lookup 1. Check the "Use lookup file" checkbox.
Step 9.	Set the lookup filename to "Lookup1.txt". The lookup filename can be found in the Examples sub folder of the Speedgen folder. Filename: Lookup1.txt
	Set the lookup file record options, match the settings below.
Step 10.	Record size including <cr><lf> 33 Number of fields:</lf></cr>

The barcode field is field number 1 and is the key field. Step #1 0 13

Set the lookup fields for the lookup file.

¥

2

۲ 11. The Description field is field number 2 and should look like this. #2 13 18 0

Step Set the lookup file check and security options



Goto the Data property page. Change the filename of Data 1 to "Example3.txt".

Step	Data file:	Data 1	~
13.			
	Filename:	Example3.txt	

Set the number of fields to 3 and set the field seperator check.

Step	🔽 Use field separa	ator	
14.	Number of Fields:	3	*

Store the barcode that was stored into Var1 in Field1 of the data file. Change the settings in the Step SpeedGen application.

15.	#1	Var 1	+	Nil	v	13 😂	\odot	Right al. filled with 0	~
	#1	var I	+	INIT	v	10 💌	\odot	Right al. Tiled With 0	×.

Store the description from the lookup file 1 in Field2 of the data file. Change the settings in the Step SpeedGen application.

.6. #2 Look 1-2 🗸 + 🛛 Nil 🔍 🗹	18 🛟 🔿	Left al. padded with sp 🗸
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Store the entered quantity that was stored into Variable 2 in Field 3 of the data file 1. If a matching barcode found in the data file the quantity was stored into "Data file 1 Field 3". Check if the settings in the data file 1 field 3 matches the settings below.

#3	Une 2		Data 1.2	6	0	Right all filled with spar
#3	Var 2	▼ +	Data 1-3 👽	•	0	Right al. Hileu with spar

Step 18. Add a date and stamp by setting the Add date and Add time check boxes.

The record options should look like this.						
Record size: 61						
Number of Fields:	3	*				
	The record options Record options Record size: 61 Use field separa Number of Fields:	The record options sl Record options Record size: 61 Use field separator Number of Fields: 3	The record options should lo Record options Record size: 61 Use field separator Number of Fields: 3			

Make sure that the data storage is set to "Update record (sorted)".

 Step
 Data storage

 20.
 Update record (sorted)

Now click the "OK" button to return to the OPL9728 on the PC.

To test the application on the PC copy the "Lookup1.txt" file from the Examples folder to the RAM_DISK folder, see Interpreter. Click key 1 on the keypad or highlight "1 Input" and press the ENT key.

The display schould look like this.

Step 21.	Read barcode Enter barcode: Cancel OK
	1 2 ABC 3 DEF 4 GHN 5.M. 6 MND 7 PORS 8 TUV 9 MKTZ * 0- ENT

Enter scanned barcode data in the Read barcode dialog. Or Click cancel and use the keypad. Enter 2 for barcode.



Step

Click the ENT key to keep the default value. 22.

Enter for the new barcode now 1 and for quantity 21. Enter for the new barcode now 6 and for quantity 3. Click the "Cancel" button in the Read barcode dialog and click the CLR key to return to the Main menu.

The Example3.txt data file looks like this.

Step

23	0000000000001,Barcode	1	,	21,2005/11/10,16:57:47
25.	0000000000002,Barcode	2	,	1,2005/11/10,16:57:16
	000000000006,Barcode	6	,	3,2005/11/10,16:57:32

- Step Build the application by right clicking the OPL9728 on the PC display and select "Build
- application". Name the application Example3.S3I. 24.

Place the OPL9728 with the interpreter loaded into the cradle. Right click the OPL9728 on the PC display and select "Transmit build application to OPL9728". Select the Example2.S3I file, the file is transferred automatically.

On the OPL9723 select "3 Utilities" from the main menu and then select "1 Rcv lookup". Place the OPL9728 in the cradle and start the NetO32 application protocol with as upload file the lookup1.txt file. After the transfer of the lookup1.txt file, the OPL9728 is ready to be used with the example3 application.