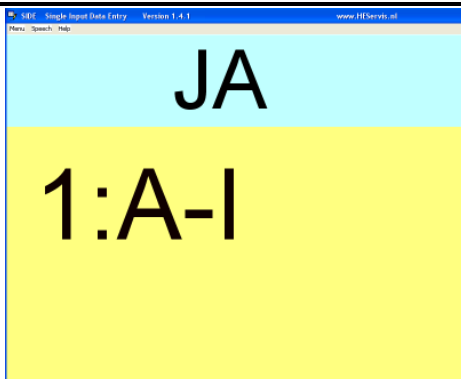


SIDE Manual

Single Input Data Entry

SIDE Version 2.0 Manual



Remark:

This manual is preliminary. Adapted for SIDE V2.2 and up.

april 2008

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1. INTRODUCTION

This user manual describes the use and the functioning of the SIDE program. This program has been developed especially for people with the Locked in syndrome. Using this program it is possible to enter texts, make them visible on the display and store them in files, using only one input switch.

This switch can be linked to:

- the space key of the keyboard
- the left mouse switch
- the Joystick A key
- the parallel port.

Other input possibilities are available on request.

By pressing the switch, the character, or menu item in the lower part of the display is selected. Words partially typed can be finished using a build in word list available in several languages.

Several selection methods are available:

- ABC method- All characters are displayed one after the other.
- Priority alphabet- The most used characters come first.
- Morse input –
- Pictograms can be used to quickly make long sentences.

For starting users a Yes No selection is available.

A scrolling text in the upper part of the display reproduces the composed text. By means of speech export it is possible to make the composed text audible through the PC speakers.

Also it is possible to select the stored texts or E-mails and make them visible in the scrollbar line by line. At the same time the computer can pronounce the text.

With the E-mail option E-mails can be sent and received using your standard e-mail program.

The program also has several file managing commands such as stepping through the directory structure to copy select, delete and merge files.

2. INPUT

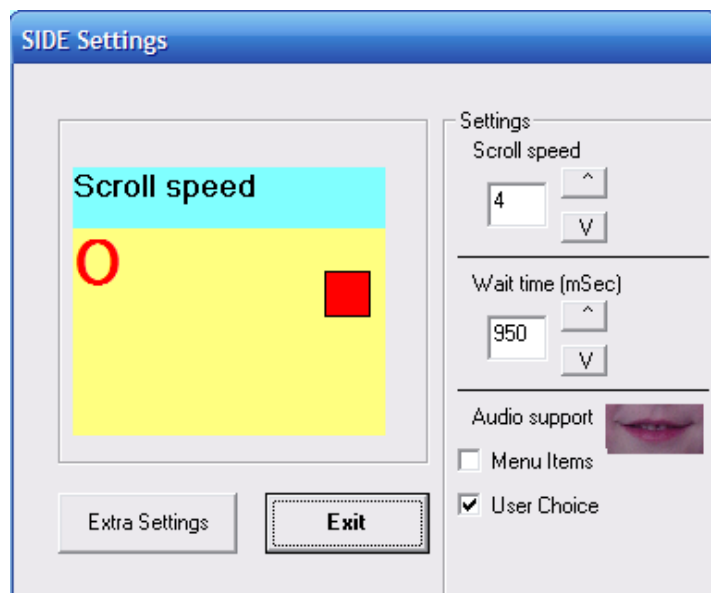
Entering data is done by pressing the switch at the correct moment. The character or function item selected will be presented. Entry can be done by using the spacebar or with the external switch installed by HEServis or your local reseller.

2.1 Settings

The speeds for refreshing the characters and walking through the menu's and the scrollbar-speed are established by means of the mouse in the main menu, option Settings:

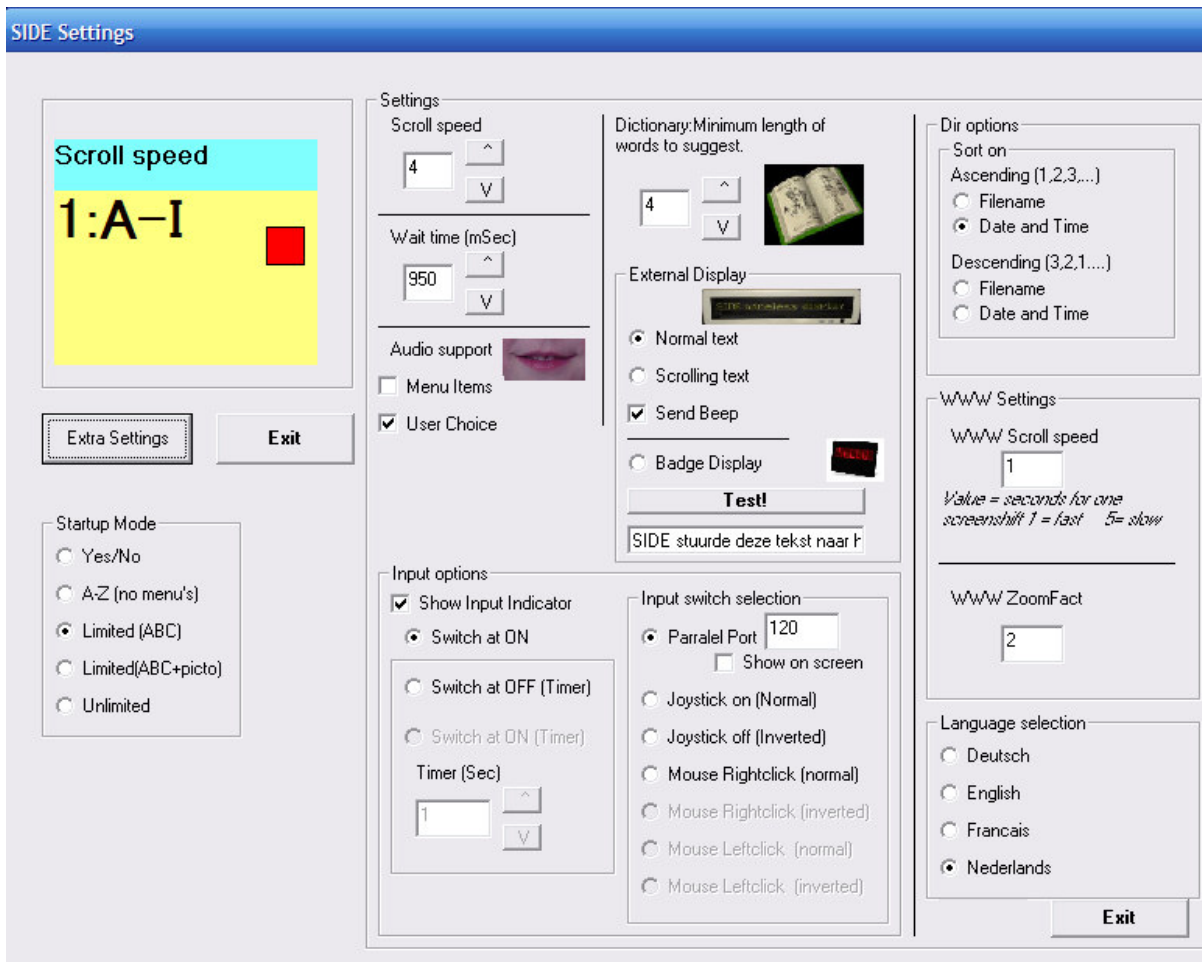


The following menu becomes visible:



- With "**scroll speed**" the speed of the scrolling line in the blue area is regulated.
- "**Wait time**" is the waiting time in milliseconds between the different menu items or character in the yellow area. (1000 = 1 second)
- "**Audio support**" text spoken through the pc's speaker:
 - Menu Items: all menu items shown on the screen.
 - User Choice: only the chosen items are spoken..
 - Remark : Long sentences are spoken until the new menu-item is presented.

When the button EXTRA SETTINGS is pressed more items become available:



- **“Input options”** setting for the input switch.
 - **Show input indicator** When selected the input switch is visualised at the main screen by means of a rectangle coloured red or green.
 - It is possible to change the moment of selection from pressing the button, or at releasing the button. There are three possibilities:
 - Switch at ON: Select when button pressed.
 - Switch at OFF (Timer): Select when button released. When the switch is pressed longer than time () no action is taken.
 - *Switch at ON (Timer): Future function.*
- **“Minimum word length of words to suggest”** Only words longer than this setting are presented in the word prediction list.
- **‘External Display’** settings for optional external text displays.

Send Beep. Gives a sound on the external display when a new text is presented.

Remark: The SIDE option READ sends a text to the display selected.

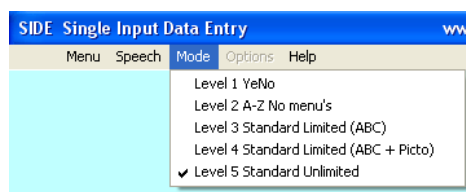
2.2 Starting SIDE

The programme starts up in the menu SWITCH (see appendix A) From that menu an import function or file or mail - menu can be chosen.

When one wants start with new file, the current file will be saved and closed, and a new file will be opened with the option "new". A name for the next file is then immediately generated, what is visible in the blue scroll area.

2.3 Input levels

Several input levels can be selected. Each has its individual presentation method

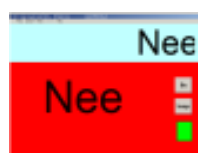
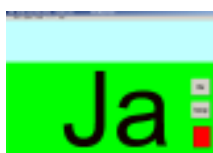


and possibilities.

The startup mode can be selected in the settings menu.

2.3.1 Level 1 YENO

Starting users can use this to see if they can actually make a selection with the switch. Care takers can evaluate if the user can respond to a question:



User can restart by pressing the input key.

2.3.2 Text input.

2.3.2.1 A-Z (No Menu's)

This option presents all characters A-Z in one line. Only limited options for Erasing are available. This option is used for new users to get used to the selection system.

2.3.2.2 ABC

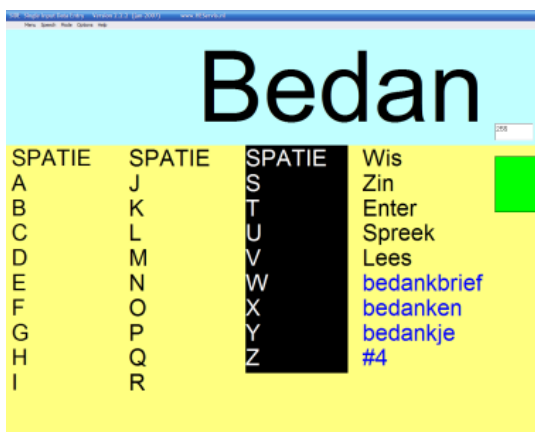
The characters appear in the order of the alphabet in three groups, to choose from A to I, J to R and S to Z. As in the ETAOIN menu, selecting the red marker (O) skips to the options menu. Limited functions are available:

In the options menu you can find following items.

- "Erase" Erases the last character
- "Sentence" *Starts a new sentence y placing a dot, a space and starts with a Capital character.*
- "Enter" Like sentence but skips to the next line.
- "Speak" The text presented in the scrollbar is spoken by the PC,s speaker.

2.3.2.3 ABC in columns

This option is for people who can see just enough to see these characters or who



use a big screen. The advantage is that predicted words are immediately visible (blue words) see Ch 2.5)











Two column modes are available. The most extended has a dir function to use DIR and email functions.

2.3.2.4 ABC with Pictograms


This option is similar to the previous option but now Pictograms are available:

2.4 Input functions (Extended mode)

2.4.1 ETAOIN(English), ENARD (Dutch)

The characters appear in the order of the English priorities alphabet in four blocks: SPACE, E, T, A, O, I, N, , , S, R, H, L, D, C, U, M, , , F, G, W, P, Y, B, , , V, K, X, J, Q, Z, , . Using the red marker () one can skip immediately to the options menu. With the blue marker () the last range is repeated.

2.4.2 ABC

The characters appear in the order of the alphabet in three groups, to choose from A to I, J to R and S to Z. As in the ETAOIN menu, selecting the red marker () skips to the options menu.

2.4.3 MORSE

The characters can be entered with this option following the Morse-code system. Short and long activating the import switch can enter a character. Signals shorter than a half second are considered as a point, a signal of approximately a second is considered being a 'long' or line. After a rest of two seconds the character is composed. Giving a signal longer than 2.5 seconds the Morse will be left returning to the Switch menu.

>>> AFORESAID TIMES ARE NOT ADJUSTABLE <<<<<

Some special characters are available:

Space	..... (6x short)
Backspace	---- (4x long)
Sentence	..... (7x short)
Enter	.....(8x short)

Standard Morse characters are presented in Appendix B.

2.4.4 PICTOGRAMS

With the menu choice Functions->Switch->Picto. Pictograms are presented like programmed with the menubuilder program See appendix 7

Special options can be programmed using following table:

Meaning	Command (NL)	Command (EN)	Example
Erase last character	WIS	DEL	Cmd:deleteline , DEL
Erase last word.	WISWRD	DELWRD	Cmd:eraseword , DELWRD
Start new sentence on new line	ZIN	NEWLINE	Cmd:newline, NEWLINE
Start new sentence on same line.	ENTER		Cmd:enter, ENTER
Start new line and keep one empty line.	ENTER2		Cmd:entertwolines, ENTER2
Start new file.	NIEUW	NEW	Cmd:newfile, NEW
Speak current line.	SPREEK	TALK	Cmd:pronounce, SPEAK
Send line to text external textdisplay	LEES	READ	Cmd:to display, READ

Table. Commando's in the pictogram menu.

It is also possible to use characters in stead of pictograms:

Meaning	Presented token.	Text	Example
I like to	!	I like to	txt:!, I like to
Can I have	?	Can I have a	txt:?, Can I have a
Can you help me to	HELP	Can you help me to	txt:HELP, Can you help me to
Alright	OK	Alright.	txt:OK, Alright.

Table. Text presented in the pictogram menu.

2.5 Wordcompletion

When one has composed a part of a word, this word can be completed by leaving the menu with the red marker, and choose '*'.

In the scrollbar successively the words appear from the word list which starts with the characters until then entered.

The words come in order of ' priority ' of the user. For that purpose the number of times that becomes a word has been used, is stored in a priority list.

Words, which have been used most, will come in the upper part of the list.

Afterwards the less used words come in alphabetic order. A maximum of 50 words is presented.

One can go through the list with a short and long click with the input switch like at reading a file. (See chapter 3)

Short signal (< 0.5 sec): next line.

Long touching (> 1 sec): previous line.

Longer touching (> 2.5 sec): back to the menu selecting the word.

Example:

One types the word SI, leaves the menu and select * .
After clicks successively the words appear:

(first part many used words) like

since
simple
Single
singles

(Second part with words on alphabet)

Siberian
Siberia
Sicily
sink, etc

The list is always finished with [empty]. Also before the first word the option [empty] is placed. When selecting this one leaves the menu without changing the characters entered until then.

There are presently three lists with words:

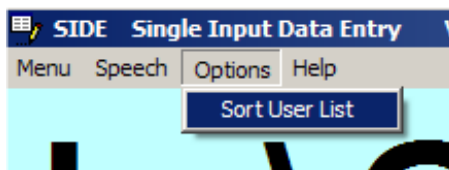
- EN.DIC the standard provided word list in the English language with 45000 words.

This list is not modifiable.

- USER.TXT. The word list in text format,. This list can be modified by the user.

Entered words, which are not in the standard list, are added automatically to this list. It deserves the recommendation to check this list regularly for wrong spelled words.

- PRIO.TXT. All used words and the number of times that these are used. This list is updated automatically. Manually adapting this list is not necessary.



Files can be found at the following locations:

C:\DATA\SIDE\SETUP\DICTIONARY\PRIO.TXT
C:\DATA\SIDE\SETUP\DICTIONARY\USER.TXT

3. READING FILES

With the option DIR it possible to select files on the hard disk and present them line by line in the scrollbar. The programme opens files from the directory "C:\DATA\SIDE \" the standard directory. All.txt files from these and underlying directory's can be selected.

With the options END and START is it possible to rapidly go to the beginning or end of the list of directory to navigate. With PREV and NEXT one goes step by step. The function "OPEN" has two possibilities:

1. When it concerns a directory it is selected.
2. When it concerns (".." = previous directory) the previous directory in the tree is selected (further back then C:\DATA\SIDE) has been blocked.
3. When it is a filename this file is opened and the lines can be read in the scrollbar and pronounced by means of the speech option (if installed).

At the reproduction, line for line, following rules apply:

Short signal (< 0.5 sec): next line.

Long touching (> 1 sec): previous line.

Longer touching (> 2.5 sec): back to the menu.

In the Dir menu the option EDIT can be found. Below the menu with the following options.

- open
- New
- Select
- Copy
- Paste
- Mailto
- Delete
- Append

Possible sequences are the following:

To remove a file:

[go to directory]->SELECT->DELETE->ERASE

To copy a file:

[go to directory]->SELECT->COPY->PASTE

or

[go to new directory]->SELECT->COPY [go to new directory] ->PASTE

The copied file gets an extra suffix of _ nnn.txt. Where nnn stand for a number of three figures starting with 001.

To merge files:

[go to directory]->SELECT->SELECT->APPEND->YES [go to new directory] ->SELECT->[go to new directory] SELECT->APPEND->YES

To e-mail a file [go to new directory]->SELECT->MAILTO (see further)

4. MAIL FUNCTIES

With the option MAIL from the Switch menu it is possible to send files to the e-mail program. Outgoing mail is placed in the directory:

C:\Data\SIDE\EMAIL\OUT New received mail is placed in the directory:
C:\Data\SIDE\EMAIL\IN

Sent emails are placed in the directory:
C:\Data\SIDE\EMAIL\SENT

The status of the last Update action is visible in the file:
C:\Data\SIDE\EMAIL\mailinfo.

Receiving and sending mail goes by selecting the Update option in the menu
SWITCH->MAIL->UPDATE

For sending mail the follow next steps:

1. Select file with SELECT option from the DIR menu.
2. Place the file in the OUT directory with the option DIR->EDIT->MAILTO. Select an address from the list and select the option SEND to confirm this or CANCEL to cancel the action.

The mail message is ready now to be sent, with the UPDATE option.

PLEASE NOTE: The first 15 signs of the first line of the file becomes if title of the message used.

Effective sending occurs just when the option SWITCH->MAIL->UPDATE has been given.

This option places new received messages in the "IN" directory.

These can be read by opening the file from the DIR menu, and selecting the files from the E-MAIL directory.

The list of addresses has been placed in the directory:

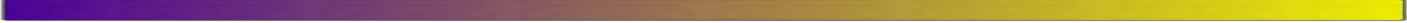
C:\DATA\SIDE\SERVICE\EMAIL\OUT\addressbook.txt

InfoHeservis;info@heservis.nl
Testaddress;hello@test.nl

Keeping up the list of addresses is not foreseen from SIDE. The list must be edited with external editor (notepad for example).

This file must be stored in TXT format, the first part until the point comma gives the name of the person. After the point comma the e-mail address is placed.

In the same directory also an example address book is placed, which can be used when the address book has lost.



Please note: It can be that the e-mail program gives the next message: "another program tries to sent a message with me as sender" When this occurs the following outlook option must be modified:

Change in Outlook: Extra->Options->security here a checkbox is placed for:

Warn if another application tries to send a message with me as sender. This option must be unchecked.

5. PRESENTING INTERNET PAGES **TO BE MODIFIED**

Internet pages are available in the menu Switch WWW. Select a page by using SEL (select) from the favourites. You can open the page by selecting open. The page is magnified and scrolls from right to left. You can navigate by:

Short click : rotate again current part of the line

Long click: rotate next line.

Longest click: Back to the menu.

From the menu you can navigate to:

- Link-list current page (with pictures)
- PGDN scroll current WebPage down and rotate again. (for when a page is bigger than the screen)
- <<< last page (Backspace-key) and rotate again
- <<< Next page and rotate again.
- ?? (future options)
-

A magnified page can look like this:



The on screen menu



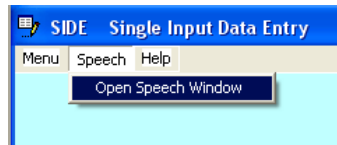
Stepping through the list with links



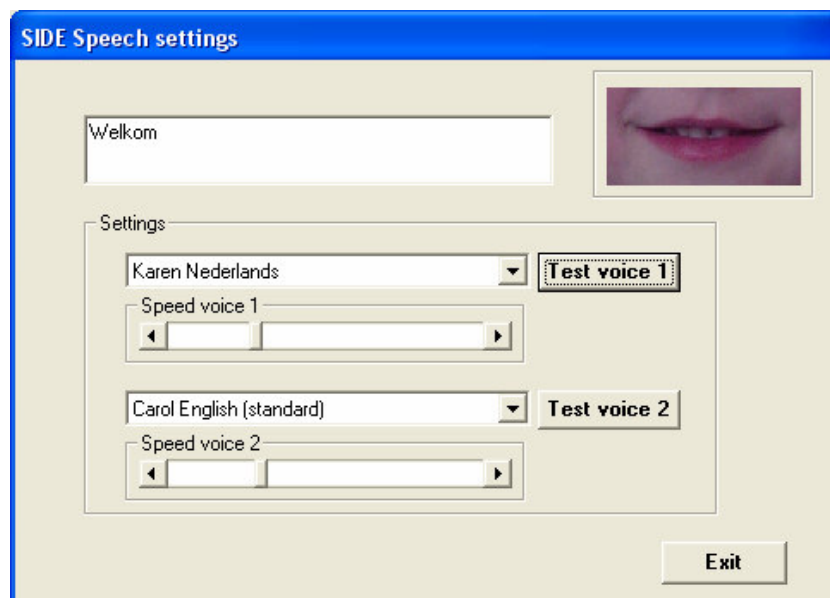
Choose the options > ,< , 'begin' and 'end' to step through the linklist. Choosing OPEN does opening a link.

6. MAKING A TEXT AUDIBLE

The SIDE program has the possibility of making the texts audible through the PC speaker.



Here two desired voices can be selected. By selecting two voices with a different language one can easily change between different languages. With the button "tests Voice" the selected voice can be tested. The speed of each voice can be regulated with the bar..



In the menu "options" it is possible speak the current line entered. In the menu functions an item "voice" has been incorporated, with which the voice to use can be established. One chooses there for voice1 or voice2.

7. FILE LOCATIONS

7.1 Program files

The programme files can be found in the directory "C:\SIDE". Here all files are stored for the implementation of the program. In contrast to other programs all used library and configuration files are placed in one directory. This Simplifies the installation and de-installation.

Naam	Grootte	Type
log		Bestandsmap
ASYCFILT.DLL	118 kB	Toepassingsuitbreiding
COMCAT.DLL	22 kB	Toepassingsuitbreiding
comctl32.dll	545 kB	Toepassingsuitbreiding
CTL3D32.DLL	27 kB	Toepassingsuitbreiding
inpout32.dll	32 kB	Toepassingsuitbreiding
JOY.ocx	104 kB	ActiveX-besturingselement
mailse.bat	1 kB	MS-DOS-batchbestand
MailSeRe.exe	68 kB	Toepassing
MorseCodes.txt	1 kB	Tekstdocument
MSMAPI32.OCX	131 kB	ActiveX-besturingselement
msvbvm50.dll	1.324 kB	Toepassingsuitbreiding
msvbvm60.dll	1.356 kB	Toepassingsuitbreiding
OLEAUT32.DLL	481 kB	Toepassingsuitbreiding
OLEPRO32.DLL	32 kB	Toepassingsuitbreiding
Scroll.ocx	268 kB	ActiveX-besturingselement
side.exe	209 kB	Toepassing
SIDE.ini	1 kB	Configuratie-instellingen
SIDE.inw	1 kB	INW-bestand
SIDE.reg	1 kB	Registervermeldingen
sidespeak.dll	180 kB	Toepassingsuitbreiding
STDOLE2.TLB	17 kB	Type Library

7.2 Data files

At starting up the programme a file name is generated automatically for the new file with in this the date and the serial number and as follows:

```
Directory of C:\Data\SIDE
20020607_001.txt
20020607_002.txt
```

With the option DIR another directory can be selected. A new file will then be placed in this directory.

Consult the files in these directories to copy data to for example e-mail or Word documents.

SIDE is not capable for creating or removing directories.

This must be done with an external program such as the Explorer.

In the current version no data can be added to a file already existing. New the entered data are linked automatically to the new generated file.

Data can be put at behind of an existing file using the Append command.

7.2.1 The support directory

```
Contents of C:\Data\SIDE\SETUP\DICT
```

```
17-05-2003 13:47 582.611 en.dic
17-05-2003 13:47 582.611 fr.dic
17-05-2003 13:47 582.611 nl.dic
17-05-2003 13:04 20.593 prio.txt
17-05-2003 13:05 10.921 user.txt
```

The documents PRIO.TXT en USER.TXT are updated continuously when the user words with the program. It is advisable to backup these files once a month. On USB stick or CD-RW.

APPENDIX A MENUSTRUCTURE

Bij Versie 1.5.0																				
Table	Main	Leesteken	Overige	Cijfers	Funcities	Opties	Dir	Switch	ABC	A	J	S	WWW	Edit						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
"SPATIE"	Funcities	.	#	0	Wis	Zin	EXIT	ABC	1:A-I	Spatie	Spatie	Spatie	Open	Open	Update	Annule	Annule	Uit	Yes	*
"E"	Opties	,	/	1	Switch	Enter	Open	ENARD	2:J-R	A	J	S	Back	New	----	Wis	Zend	Stem1	No	
"N"	Leestekens	:	\	2	Stem	Enter2	Next	Morse	3:S-Z	B	K	T	Links	Select	EXIT	Annule	Annule	Stem2	EXIT	
"A"	Cijfers	-	?	3	DIR	Nieuw	Prev	Dir	O	C	L	U	Hist	Copy				EXIT		
"R"		(	!	4	DOC	Spreek	Begin	Mail		D	M	V	EXIT	Paste						
"D"		)		5	Wis	Lees	End			E	N	W		Mailto						
O		'	%	6	Switch	Wis	Edit			F	O	X		----						
O		"	+	7	Stem	-----				G	P	Y		Delete						
"I"		Overigen	@	8	DIR	WisWrd				H	Q	Z		----						
"T"			1/2	9	DOC					I	R			Append						
"G"			1/4											EXIT						
"S"			3/4																	
"O"			€																	
"L"			\$																	
"H"			...																	
"V"																				
"U"																				
"K"																				
"B"																				
"W"																				
O																				
O																				
"J"																				
"M"																				
"C"																				
"Z"																				
"P"																				
"F"																				
"Y"																				
"Q"																				
"X"																				
O																				
O																				

With Exit the menu can be leaved and one goes back to the previous menu.
 The red marker makes one to skip to the menu * and then to the menu functions.
 The purple items are identical to previous, but indicate that the same options are repeated once..

APPENDIX B MORSE CODES

SIDE Teken	Morse code
Space	..... (6x)
Backspace	----
Zin	..... (7x)
Enter	.....(8x)
!	
,	
#	
\$	
%	
&	
'	.----.
(-.-..
)	-.-.-
*	
+	
,	--..--
-	-....-
.	-.--..
/	
0	-----
1	.-----
2	..---
3	...--
4-
5	.....
6	-....
7	--...
8	---..
9	----.
:	.-.-.-
;	
<	
=	
>	
?	..-.-.
@	
A	.-
B	-...-
C	-.-.-
D	-.-..
E	.
F	..-.-
G	--.
H	....
I	..

J	.---
K	-.-
L	.-..
M	--
N	-.
O	---
P	.-.-
Q	-.-.
R	.-.
S	...
T	-
U	..-
V	...-
W	.-.-
X	-.-.
Y	-.-.
Z	-.-.
[
\	
]	
^	
_	
`	

APPENDIX C THE SIDE.INI FILE

The side 'ini' file contains the standard settings, which are used to configure the program. The user does not have to change this file.

Ini file:

Registration. Contains the registration number as can be seen in the about menu:

```
[REGISTRATION]
REGNO = BAG12061AEP
```

System settings to be changed in the menu:

```
[SYSTEM]
SCROLLSPEED = 5
DELAY = 1250
VIEWINPUT = 0
NUM_CHARS = 5
Settings for speech
```

```
[VOICE]
CURRVOICE = 2
VOICE1 = 0
VOICE2 = 2
VOICESPEED1 = 114
VOICESPEED2 = 180
```

Input options

```
[COMMUNICATION]
'JOY 0 = OFF/ PARPORT IS ON THAN 1=ACTIVE AS TRUE 2=ACTIVE AS FALSE
INI_JOY = 1
```

Parallel port usage:

-1 = no port

Other value = base value.

' PARPORT VALUE WHEN NO KEY PRESSED CAN BE SEEN IN DEMO MODE

```
INI_PORT_REST = -1
```

Test option for testing the parallel port. Put this value to 1 for testing. The presented value can be set at option

```
INI_PORT_REST.
```

```
INI_DEMO = 0
```

```
INI_PORT_REST.
```

```
INI_DEMO = 0
```

```
' TIMER OPTIONS:
```

```
'           INPUT TIMER ACTS AS FILTER FOR SPASMS IN SECONDS
'           INPUT MODE  0=NORMAL ( ACTS WHEN PRESSING SWITCH)
'           INPUT      1= OFF   ( ACTS WHEN RELEASING SWITCH
'                               WITHIN TIMER VALUE)
' FUTURE:   INPUT      2= ON    ( ACTS WHEN RELEASING SWITCH FOR VALUE
'                               WHEN THE SWITCH WAS PRESSED
'                               WITHIN TIMER VALUE)
```

```
INI_INPUTTIMER = 6
```

```
INI_INPUTMODE = 0
```

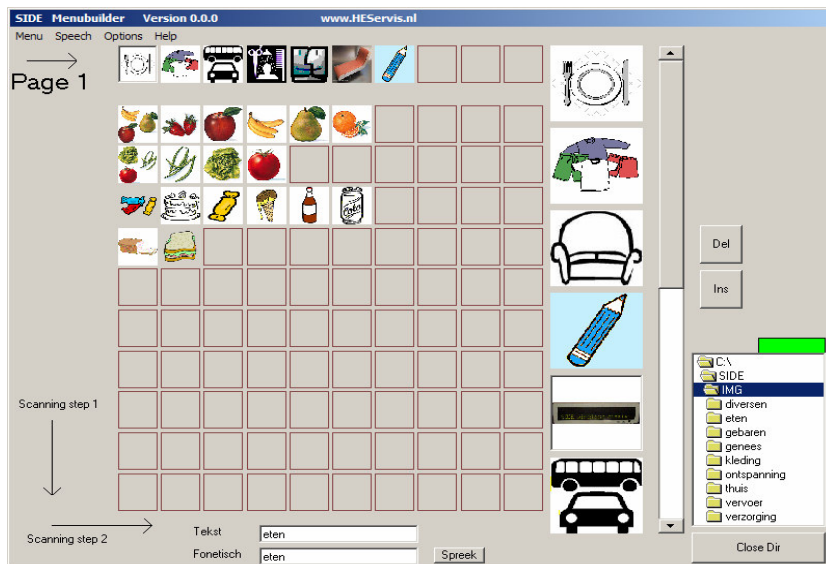
```
'LIMIT USER TO CERTAIN MENU'S:
```

```
'           0= LEVEL 5 UNLIMITED (ALL MENU'S)
'           1= LEVEL 3 STANDARD LIMITED: ABC ONLY (NO MENU'S)
'           2= LEVEL 4 STANDARD LIMITED: ABC + PICTO
```

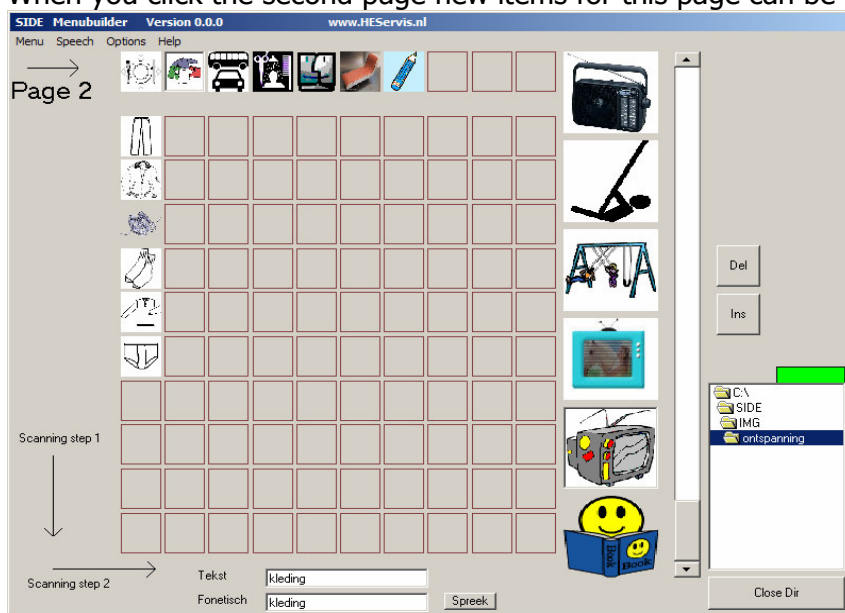
```
INI_LIMITEDOPTION = 1
```

APPENDIX E SIDE MENUBUILDER

With the SIDE menubuilder the picto menu can be programmed. Select pictos in the bar at the right side of the screen and place them by using the mouse. Up to 10 pages can be programmed.



SIDE scans the picto's in the upper part from left to right. When you click the second page new items for this page can be programmed.



In the lower part of the screen the typed text and the phonetic text can be entered and tested.