Welcome to Little-T v.1.0b - our trainer module.

Summary:
Little-T is a program that aims at training users abilities for word/picture recognition (association).

The program is particularly helpful during rehabilitation attempts of patients with brain injury, for instance suffering from aphasia or similar problems.

A patient once able to operate the program (via single switch click / or by mouse point and click), can train both at home and elsewhere in order to speed up recovery without straining medical personnel resources at the same time. The program keeps a record for every run that medical personnel can use to monitor and evaluate a particular patients/users status.

Little-T can also be used as a training partner in order to memorize specific images in the dictionary files and how it is possible to embed entire sentences into single images thus enabling quick responses to specific given situations etc. in T-Board the Virtual Keyboard - Find out more by reading the manuals.

The installation program is for win95/98 but the additional source is in XBasic which can be used in Linux as well, thus there is something to play around with if you wish to contribute to the project - A specific list of tasks will be put up in the volunteering section - however suggestions are always welcome.

WARNING do not make any submissions without signing our cooperation agreement, nor send us any ideas unless you both read and are willing to comply to the paragraph below and only if you are legally permitted to do so.

Any comments, suggestions or ideas sent to globability.org, The Project Group X-Tra or any other party affiliated to Fire Flower Cybernetics, whether it be regarding this software - any site belonging to those parties or any other matter relevant to those parties, becomes the property of Fire Flower Cybernetics and may be used without limitation. Received comments will not be treated as confidential.

Operating principles.

The program you are looking at is based on fairly the same principles as T-Board the Virtual Keyboard input wise as well as data wise.

The program is operated in quite a simple way.

To train word recognition and word meaning the user is presented with 3 pictures and one word that is read aloud to the user and at the same time it is represented within one of the pictures on the screen.

Hypothetical example:

If the user hears or reads the word "Sun" Little-T displays the picture associated with the word sun in the dictionary file at the same time the program displays the image of a car and a chair.

The cursor then starts scrolling (depends on the input device and method selected) through the pictures and it is up to the user to click when the cursor is in the corresponding picture. The cursor is indicated by a little led like light on the screen.

If the answer is correct then a smiley with a large grin appears on the screen indicating that the choice was right.

If the answer wrong... well then a grumpy looking smiley appears indicating the answer was incorrect.

Little-T monitors each session and stores the information it gathers during each session in a file so that doctors/nursing personnel or relatives can monitor if there is progress, regress or a status quo in the users word picture recognition skills etc.

This makes it possible to keep a detailed journal that can be used for research or assessment purposes.

The program interface is very simple, it is built like this:
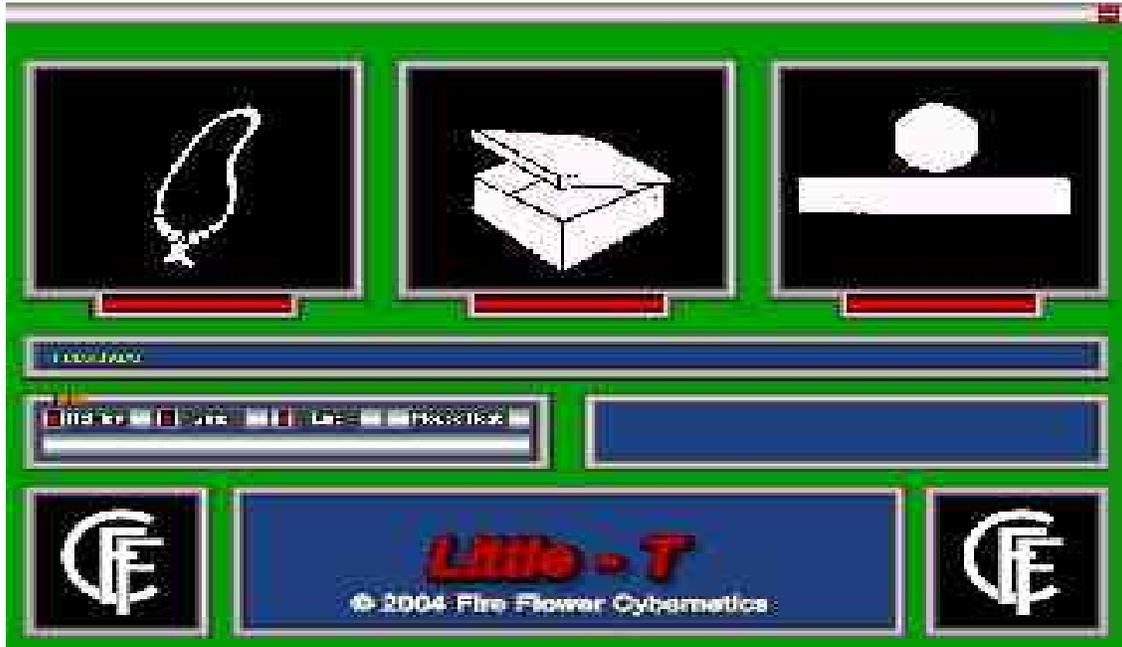
Picture box 1 - 3 display 3 random pictures representing either objects or a concept

Here we see 1) Necklace 2) Box 3) Above

The Dialogbox - Displays the word we wish the user to identify

Replay - Is chosen if you wish to hear the word in question again

Quiz - Is chosen to get back into the program if you go into the menu box in order to replay or exit.

Exit - Well… is chosen when you want to exit the program

MouseRest -is the place where the mouse cursor automatically jumps to when the program starts, if you for instance have an extra micro switch wired to the mouse so that both an instructor and a user could operate the program simultaneously this is where the instructor will put the mouse to rest when the user is ready and when that is done the cursor moves automatically (by lighting the LEDs) once a LED is lit clicking the micro switch either on the mouse or the separate wired switch will result in a keyboard tap action and you can thus use the program for users who are only able to activate a single switch, for instance by chewing, nodding etc. …well you get the picture!

The blank area is the monitoring field where you can actively follow the progress of the training session.

The other areas are for copyright information, announcements and potential sponsor information.

Dictionary, Images and Sound.

Before embarking on anything suggested in this chapter let us stress that it is most important that you understand how changing the contents of files etc. will affect Little-T's performance.

True the program has an easy to edit word/picture/sound relations file, but changing it could reek havoc with the way the program performs its task.

If you are unsure of what you are doing keep a backup of the file you are editing, heck even if you know what you are doing; creating backups is the clever thing to do.

After this minor shocker let us look at how we can customize all the words, or sentences and the relative images / sounds.

With a simple text editor you can change the contents of the dictionary file; inserting words, sentences and sounds, thus giving the trainer a touch of your own.

The file called Chp01.txt is a dictionary file that contains up to 7000 words/line insertions.

Something to keep in mind if you use both Little-T and T-Board the Virtual Keyboard in conjunction with each other.

Normal words consist of 8-10 characters, if you cross this limit in T-Board the Virtual Keyboard the first 8-10 letters of the word will appear on the screen with a small arrow attached to the end of it. Don't worry... the whole word or sentence will appear in the text display box if the word is selected.

The maximum length of words/sentences in the dictionary file is 76 characters. This should roughly give one full line of text on the screen, in the text display box.

Another thing to keep in mind is that T-Board the Virtual Keyboard in it's current form uses much smaller files for the dictionary called chapter files - The specifics on these files can be fond in the manual for T-Board.

Then we have the sound and picture names, which you can insert, but let us first explain a little about, the file and how it looks.

The dictionary file could for instance look something like this:

Hypothetical example:
on 1.pcx
other 2.pcx
again 3.pcx
active 4.pcx
I would like to go to the bathroom 5.pcx

As you can see all the pcx notations are attached at the end of the sentence with ONLY ONE space between the pcx name and the sentence the image represents.

This is because the program reads until it finds a file name connected to a file type name via a dot or simply more than one space.

In the case of a word connected to another via a dot, the program determines that the word is a file name (i.e. an image) and attempts to display the image whenever the selector moves past the word or sentence.

This means you have to be careful if you edit the file.

DO NOT place words and punctuation wrongly or you could be in TROUBLE.

EXAMPLE OF WRONG SYNTAX:
Hello my name is Herman.And I am seven years old. Herman.pcx

In this case the program would think Herman was a file name and that the And was the file type because it is directly connected to the word Herman via the dot and since it does not know the file type AND a processing ERROR would occur.

THE RIGHT WAY TO WRITE A SENTENCE LIKE THAT WOULD BE:

Hello my name is Herman. And I am seven years old. Herman.pcx

YOU SEE? Leaving ONE (1) Space between the characters fixed the problem... Yes yes, punctuation might be put in the wrong place grammatically speaking but is placed like that to illustrate the programs ability to ERR if you supply it with faulty information.

Whenever you want the program to display a picture as the selector moves past a word there are certain things you have to REMEMBER when you name a picture/image.

Only use up to 8 characters, only use the English letters a-z and the numbers 0-9. NO SPACES ARE ALLOWED! If in need of some kind of spacing use - (dash)my-file.pcx or _ (underscore) my_file.pcx. Then place a dot (the punctuation mark)and finally the file type (PCX)

A line in the dictionary file should look something like this:
xxxxxxx xxxx xx xxxxx filename.pcx

(where xxxxxxx xxxx xx xxxxx is a random sentence or single word)

If you have created a sample to playback and saved it into the "samples" directory with an identical name as the image it supplements, naturally with the exception of the file type ending, then automatically Little-T links the word to the picture and sound of your choosing - and you have safely connected, tied together a word and picture as well as a sound.

NEVER USE MORE THAN ONE SPACE BETWEEN THE WORDS IN YOUR SENTENCES and if you attach for instance a pcx file name just leave 1 space between the sentence and the picture name.

Also be sure that the editor you use is capable of handling Code Page 850 as it is in MS-DOS 6.0 and that the Code Page is set to 850.

Do Not use NOTEPAD in WINDOWS because Windows does not use the same characters as the program.

If you don't know which editor to use - Try EDIT.COM, which is the default editor for newer MS-DOS version. And is present in win 95/98 as well.

If we really lost you with all that talk about code page 850 or you just want to be able to edit the files under your windows, here is the easy way out, try to download Notetab 4.81. When you install this editor you will be given the choice of installing it as a freeware program, when you load/save files in it for use with Little-T or T-Board the Virtual Keyboard, simply be sure to select ASCII as the file type and all you troubles finding out what this code-page 850 is all about should be over.

This fine editor can be found at http://www.notetab.com/

And finally ONE LAST TIME - DO NOT PUT MORE THAN ONE SPACE BETWEEN WORDS or the program will understand that as a sentence end and process the information you have supplied it with thereafter. Now where to put em?

Sound files are to be saved in wav format in the directory called samples that is created during installation. Max. Wav file resolution should follow your Windows playback capabilities - Sound files must in this version be named the same as the image file with the exception of the file ending which must be wav.

Images are to be saved into the library file called image.Xrc that can be found in the graphics directory - currently the program only loads 256 col pcx'es but if you're running a high res system simply reduce the colours via your favourite photo editor (the Gimp is recommended and free) and save as a 256 colour pcx insert it into the library and it should work with several different palettes simultaneous on screen without any problems.

If you want to know how to copy files to and from the library you can consult the source.- The insertion extraction methods are discussed in the function misc.

For the non programmers there is a small utility called LibEdit.exe - It is not fancy and it takes things very literally which means no funny stuff when typing , pay strict attention to your file names and follow the 8by3 convention. Use English characters only and the - (dash) or _ (underscore) if you need spacing in the name - Read appendix II if you are interested in LibEdit.exe

Appendix I - For doctors and care personnel

As you are probably aware Little-T was created with you in mind, thus the program keeps a record for every program run.

Right now the record consists of a text file called:

Example: 00000-2004-1-13-22-53-59.jnl

It is a normal text file. This file contains all the information you will need to be able follow a users ability to use the program and create a report on the users status.

The file is built in the following way:

Question Asked:2004-1-7-22-25-33-880000000
*   Displayed Pictures:P419.SPR/P483.SPR/P073.SPR Selectedpic: 3*
Truepicture: 3
Question answered:2004-1-7-22-25-35-860000000

Question Asked:2004-1-7-22-25-40-690000000
*   Displayed Pictures:P742.SPR/P524.SPR/P250.SPR Selectedpic: 2*
Truepicture: 2
Question answered:2004-1-7-22-25-41-460000000

Question Asked:2004-1-7-22-25-46-290000000
*   Displayed Pictures:P200.SPR/P790.SPR/P241.SPR Selectedpic: 3*
Truepicture: 3
Question answered:2004-1-7-22-25-47-230000000

Question Asked:2004-1-7-22-25-52-0
*   Displayed Pictures:P073.SPR/P159.SPR/P653.SPR Selectedpic: 2*
Truepicture: 2
Question answered:2004-1-7-22-25-52-330000000

Etc.

Now let's look at a portion of the file line by line

Question Asked:2004-1-7-22-25-52-0
Here the file indicates when the question was asked in the following format.

Year-Month-Day-Hour-Minute-Second-Hundredth of a second

Displayed Pictures:P073.SPR/P159.SPR/P653.SPR Selectedpic: 2

The record here indicates that the three pictures displayed by the program are P073.SPR, P159.SPR and P653.SPR

Selectedpic: 2
The record indicates that the picture selected by the user was picture number 2

Truepicture: 2
Indicates that the correct solution for the particular question posed was indeed number 2 - So in this case the user has selected the correct picture.

The record then gives the following information.

Question answered:2004-1-7-22-25-52-330000000

Again it simply states when the question was answered in the following format.
Year-Month-Day-Hour-Minute-Second-Hundredth of a second.

From the information above it should be easy to create graphical plots, a score system for speed, accuracy etc. for each user thus giving the doctors and caretakers a relatively easy way to follow the individual capabilities of the user.

Appendix II

LibEdit.exe

Before you attempt to run the program you need to copy it into Little-T's main directory.

To start the program type select <Run> in the start menu, browse for the file. Type: LibEdit.exe <Enter> - or create a short cut so that you can click in order to run the file.

Once running the program commands are very simple.

First of all you're required to accept the license terms - i.e. to assume the full and sole responsibility for the consequences of running the utility. Once you've agreed to the terms by pressing y and Enter you're good to go.

The console window opens offering a range of possibilities. Before going further you must instruct the program about what library to edit.

To select the library you start by entering < L > then pressing Enter

You are then presented with the option to <V>iew <S>elect <C>reate

As this is the initial run you must select to either <S>elect a library or <C>reate a library.

By pressing <S> <Enter> you are presented with a file box

Click your way to the proper directory and select the file image.Xrc by double clicking on the file name.

Once that is done you have access to all the editing capabilities of the program, however let us first look at the other options you have once in the <L>ib menu

By pressing V <Enter> you choose to view all the files in the current image library. This can come in handy when you want to know which files are present in the library.

By pressing C <Enter> you choose to create a library

When choosing to create a library you are requested to type in the path and file name of the library.

Type the path and file name and press <Enter>

Example: c:\programs\globability_org\graphics\anyname.Xrc <Enter>

A file box then opens and you are required to select the initial file for your library. Once you have clicked your way to the correct file. Double click on the file and you're done.

While editing you may call the library anyname.Xrc within the 8by3 convention you have to use the ending Xrc though.

Once you have created your very own personal image library for use with Little-T you need to copy it into the directory called graphics, you will then need to rename or delete the old image library, replacing it with your newly created library. (A good tip is to simply rename the old library to oldimage.Xrc for example)

In this version of Little-T the working image library at any time must be named image.Xrc

Okay - Now to the other functions of the utility. Once you have selected the library which you want to edit you may do the following.

<E>xtract <A>dd <D>elete <L>ib <Q>quit

<E>xtract

Pressing E <Enter> will prompt you for a file to extract.

Type in the file name and press <Enter>

You will now be prompted for the name under which you wish to save the file.

Once you have written the name and pressed <Enter> the file will be copied from the library into the main directory of Little-T from where you can begin working on it.

<A>dd

Pressing A <Enter> will prompt you for a file to the library. In order to add you are presented with a file box. You click your way through the directory structure as you would in any other windows program and double click once you have the right file.

<D>elete

Pressing D <Enter> will prompt you for the name of the file you wish to delete from the library. (A good tip is to keep a meticulous record of the files you have in the library at any given time).

<L>ib

The effects of pressing L <Enter> has already been described above in detail so we'll skip that here.

<Q>uit

Pressing Q <Enter> will Quit the program.

Appendix III

Known Features n'Bugs

When the installer is done it may not create the directories, "samples" and "journal" in order for to Little-T to keep a journal or playback samples so you may need to create those directories manually.

The dictionary file
*"Kitchen P845.SPR" should read "kitchen utensils P845.SPR" **

"union P138.SPR" should be "onion P138.SPR" :o)

** SPR is a graphical format known as Standard Pixel Run.*

The continued development of Little-T and our other programs is endorsed by the Faroese Brain damage Association and the MBD organisation, as well as doctors and nursing personnel both in Denmark and the Faroe Islands who have seen our work when the project was in the initial stages and who are being kept up to date on a running basis.

They have all signed what can best be described as a universal declaration of support and acknowledgement, and the more people organisations and companies who choose to stand behind us the better we will be able to give aid and assistance to those who need it.

If anyone else would like to back the project, morally, by signing the universal declaration of support (available in our download area) or wish to offer us knowledge by offering your skills to us, or by making a donation, be it money or equipment - or simply by giving us user feedback - You are most welcome!

Thank you for taking the time to evaluate our free software and for participating in The Global Ability Initiative!

Best Regards

The Development Team