TIPC-Basic

Version: 1.0
User Manual

Description

TIPC-Basic or "Tipsy"-Basic is a library written for use with the computer programming language FreeBASIC. When installed it allows you to program in Freebasic by using a syntax that is extremely similar to the one of TI-Basic on the TI-84+ graphing calculator while still having access to all the commands of FreeBASIC.

Commands

Supported commands	Renamed commands	New commands
abs(	CircleTI(	BigScreen
checkTmr(	GetKeyTI(	Cursor(
ClrDraw	LineTI(	CursorX
ClrHome	OutputTI(	CursorY
Disp	subTI(	GetMouse(
fPart(		GraphScreen
inString(		HomeScreen
int(		inStringRev(
length(		NormalScreen
Pause		Str(
Prompt		Val(
PxlChange(		
PxlOff(		
PxlOn(		
PxlTest(		
rand		
randInt(		
startTmr		
Stop		
Text(		

Goal of TIPC-Basic

To create an user-friendly programming environment on the computer for people who are used to programming with TI-Basic. This is done by having a syntax that is similar to TI-Basic but also by adding new commands that enhance the user experience.

Installation instructions

First make sure that FreeBASIC is installed (http://freebasic.net/)
Also install an IDE of choice. I've used FBIDE.(found at the bottom of the downloads page)

The default directory for FreeBASIC is

```
C:\FreeBASIC
```

Place "TIPC-Basic.bi" in

```
C:\FreeBASIC\inc
```

Place "libTIPC-Basic.a" in

```
C:\FreeBASIC\lib\win32
```

Add the following line to the top of your source code in FBIDE

```
#include "TIPC-Basic.bi"
```

Now you can use the same commands as in TI-Basic.
For a complete rundown of the commands, check "commandlist.html".
To compile and run your program press F9 or go to run->compile&run.

Differences between TI-Basic and TIPC-Basic/FreeBASIC

FreeBASIC is not case sensitive. A is the same as a, CircleTI(is the same as CIRCLETI(etc.

You always have to close your brackets.

```
'TI-Basic
OutputTI(1,1,"Hello world
```

becomes

```
'TIPC-Basic
OutputTI(1,1,"Hello world")
```

Note that it's also possible to completely ignore brackets for single commands.
So the following is also acceptable.

```
'TIPC-Basic
OutputTI 1,1,"Hello world"
```

When combining multiple commands it is best to always write brackets.
The following gives an error.

```
'TIPC-Basic
Disp Pxlcheck 15,15 'gives an error
```

Here you must write brackets.

```
'TIPC-Basic
Disp Pxlcheck (15,15) 'doesn't give an error
```

Before you can use variables you have to declare them.

```
'TIPC-Basic
dim as integer A,B,C
dim as string str1,str2
dim as single D,E,F
```

Currently only the following types of variables are allowed: integer,string,single(stores decimal numbers).
You're not longer restricted to the name conventions for variables in TI-Basic.

```
'TIPC-Basic
dim as integer age, length, shoesize
dim as string myname, favoritefood, favoritebook
```

The way of storing variables is different too.

```
'TI-Basic
10->A
"abc"->str1
```

becomes

```
'TIPC-Basic
A=10
str1="abc"
```

Conditionals and loops have a different syntax.

```
'TI-Basic
if (condition)
then
(statement when condition is true)
else
(statement when condition is false)
end
```

becomes

```
'TIPC-Basic
if (condition) then
(statement when condition is true)
else
(statement when condition is false)
end if
```

Note that there is also support for elseif and select case.

Repeat/While loop:

```
'TI-Basic
Repeat/While (condition)
(statements)
end
```

becomes

```
'TIPC-Basic
Do
(statements)
loop until/while (condition)
```

For loop:

```
'TI-Basic
for(A,1,10)
(statements)
end
```

becomes

```
'TIPC-Basic
for A=1 to 10
(statements)
next A
```

Contact

Please mail requests for new commands, spelling mistakes, bugs, inconsistencies, suggestions, questions to coolsnake@fast-email.com.