

RPN

やっぱり計算機はRPNでしょ



Search developer.mbed.org...

Go

Hi, okano Logout

Users » okano



Tedd OKANO

日本 twitter



IIIIハット!

Hello! I'm tedd. I'm an engineer for chips. Let's enjoy mbed! IIIIIハット!

- Edit profile
- Account settings
- My teams

2255	Imports
37	Published programs
10	Published libraries
22	Notebook pages
Joined: 09 11月 2009	

Information

Your comments and pull requests for my published code are welcome!
公開コードに対するコメント、プルリクエスト大歓迎!

- Profile
- Activity
- Notebook
- Code

Tedd's activity

- uchiwa_tone wiki was updated 10 days ago, by Tedd OKANO
- Program updated: uchiwa_tone: OPERATION_AID option added 12 days ago, by Tedd OKANO
- Program updated: ika_shouyu_poppoyaki: fixed: compilation error when it build with mbed-lib rev.100. 21 days ago, by Tedd OKANO
- DirectoryList_Hello wiki was updated 22 days ago, by Tedd OKANO

Tedd's public repositories

- uchiwa_tone** Last updated: 12 days ago
A simple musical instrument application using pressure and distance measuring sensors 14 0
- ika_shouyu_poppoyaki** Last updated: 21 days ago
this transfers data (which is stored in "bin" file in mbed storage) into LPC1114, LPC81x and LPC82x internal flash memory through ISP In-System Programming ISP LPC1114 LPC810 50 393
- demo program 1 2
- StepperMotorUni** Last updated: 27 4月 2015
Unipolar stepper motor operation library 6 38

Tedd's platforms

- mbed LPC1768
- mbed LPC11U24
- mbed LPC1114FN28

https://developer.mbed.org/users/okano/



HPの電卓が好き！

RPN入力が好き

撮影協力： #悪いカバのヒト

- ・ HPの電卓を使いましょう
- ・ なれるとすごく便利です
- ・ RPNって？

- Reverse Polish Notation
- 逆ポーランド記法

• 「 12 + 34 」 ← algebraic notation

• 「 12 34 + 」 ← RPN

• ?

1 2

+

3 4

7

8

9

+

この部分はアニメーションで構成されています。

動画は次のURLでご覧いただけます。

<https://www.youtube.com/watch?v=BATG1Mwcj4Y>

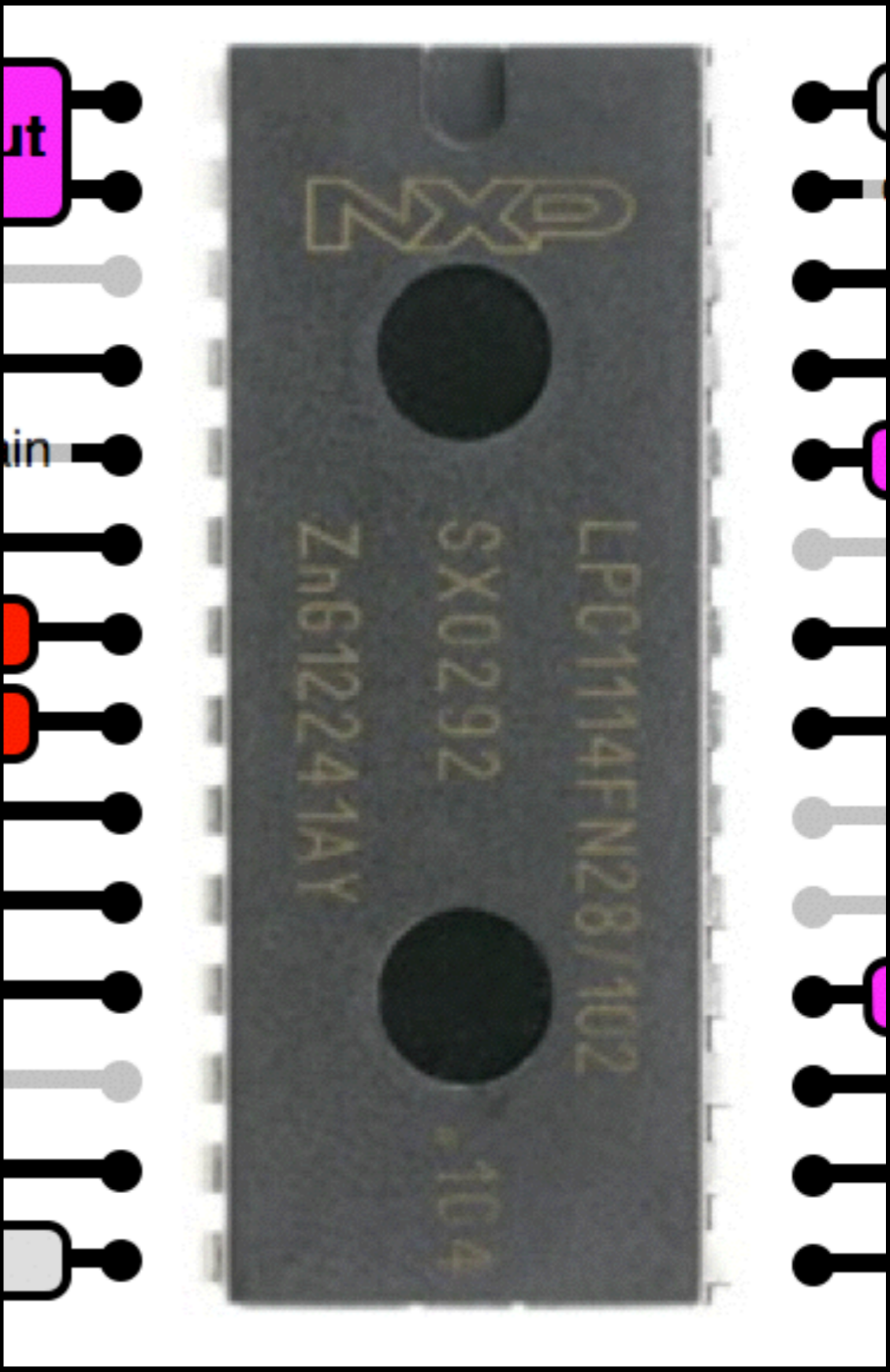
Enter

0

/

- ・ 一旦スタックに入れて、それを取り出して計算する
- ・ 「 $3 * (2 + 1)$ 」のような計算は
- ・ 「 $3 2 1 + *$ 」のように入力できる
- ・ 括弧を(対応を確認しながら)入力する手間が不要

- ・ でも買うとちょっと高い
- ・ RPNプログラムはとても簡単
- ・ K&Rにもサンプルがあるぐらい



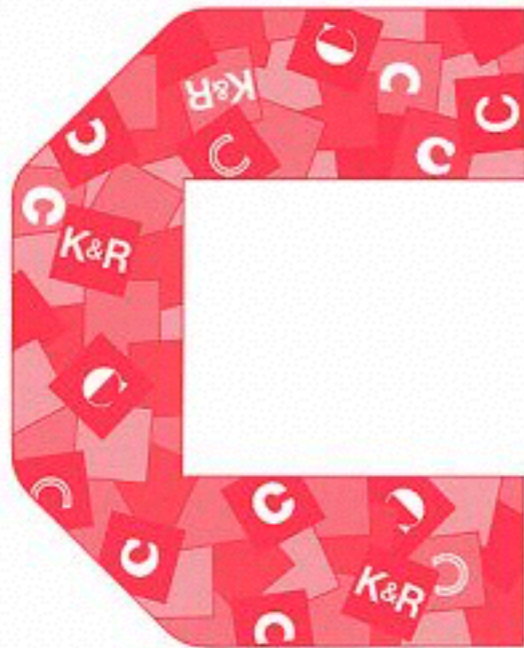
もどけ mbed
よる #0
でけ

プログラミング言語C

第2版

ANSI規格準拠

B.W.カーニハン/D.M.リッチー 著 石田晴久 訳



共立出版株式会社

SECOND EDITION

THE



PROGRAMMING
LANGUAGE

BRIAN W. KERNIGHAN
DENNIS M. RITCHIE

PRENTICE HALL SOFTWARE SERIES

- ・ 教科書通りのコードがそのまま動きます

Demo

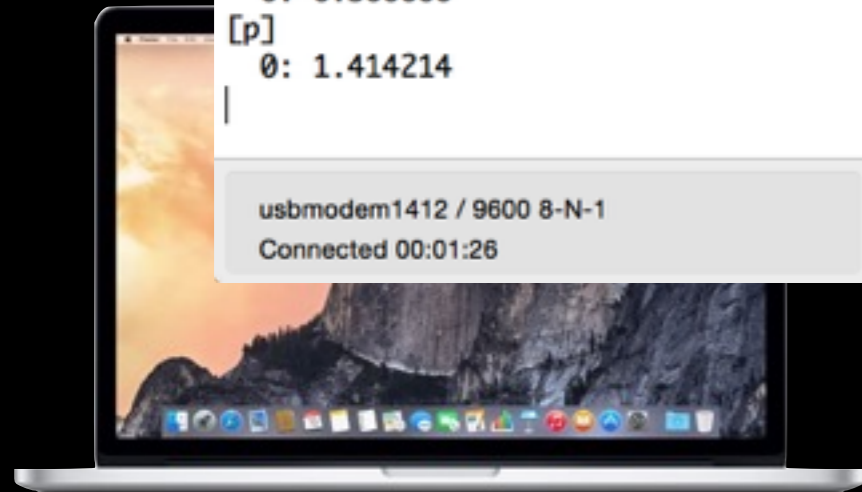
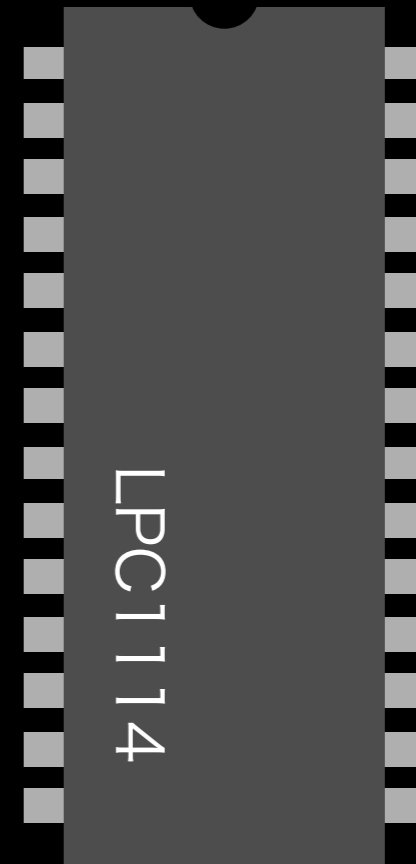
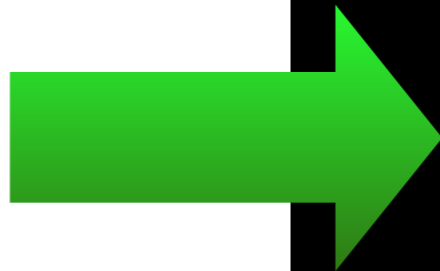
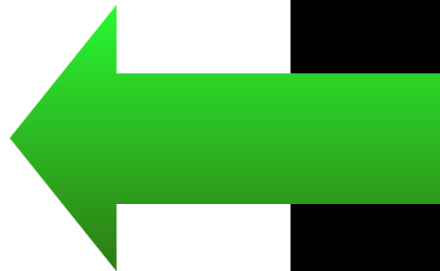
CoolTerm_0

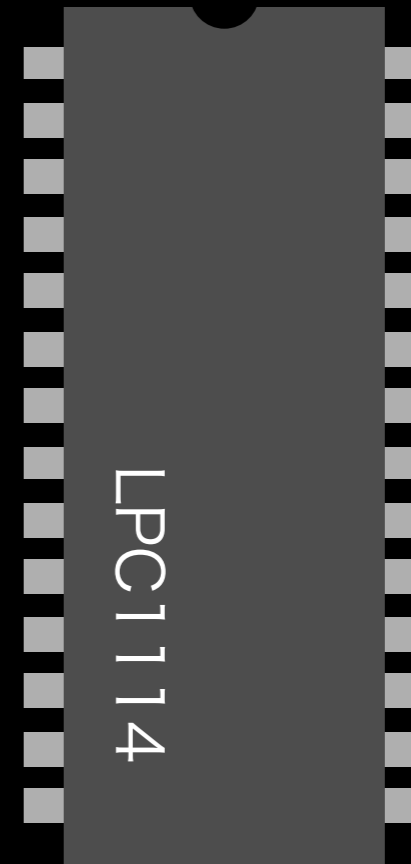
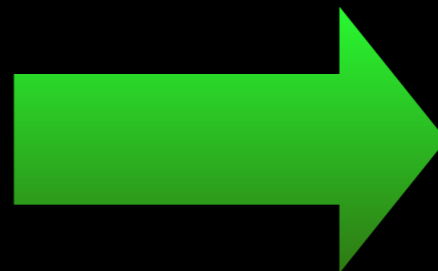
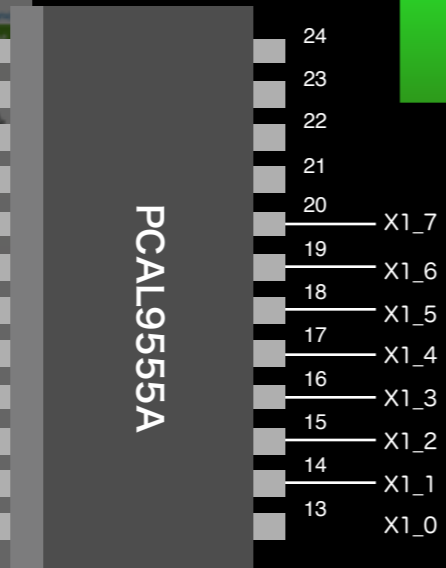
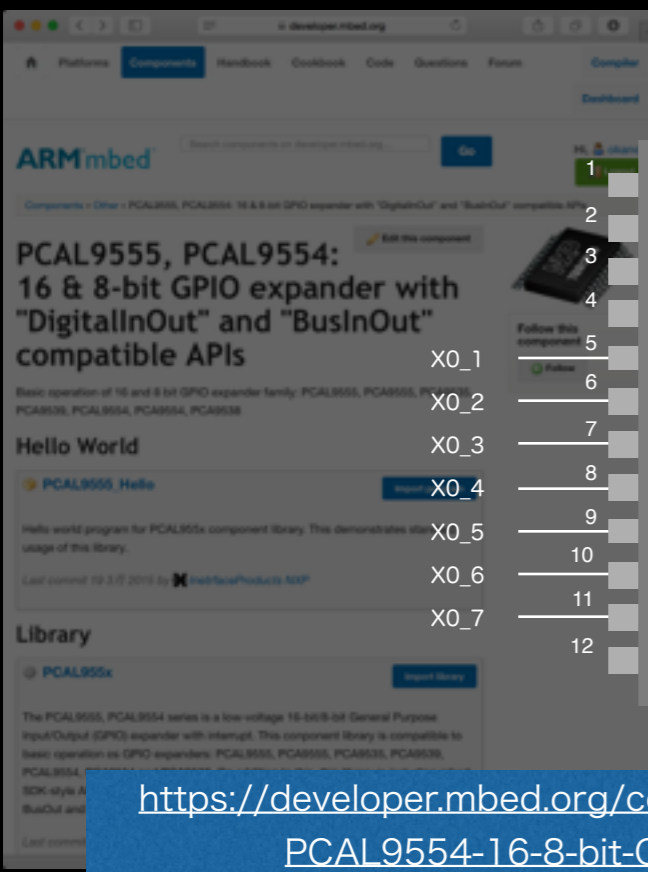
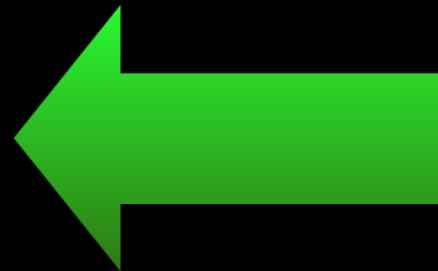
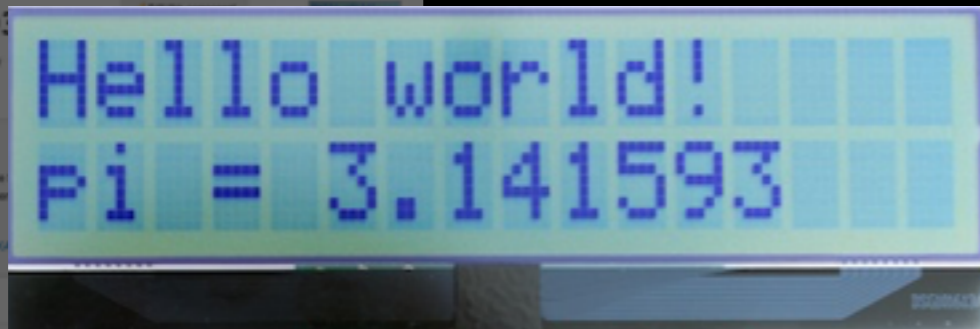
New Open Save Connect Disconnect Clear Data Options View Hex Help

```
[3]
0: 3.000000
[2]
1: 3.000000
0: 2.000000
[1]
2: 3.000000
1: 2.000000
0: 1.000000
[+]
1: 3.000000
0: 3.000000
[*]
0: 9.000000
[d]
[2]
0: 2.000000
[.]
[5]
1: 2.000000
0: 0.500000
[p]
0: 1.414214
```

usbmodem1412 / 9600 8-N-1
Connected 00:01:26

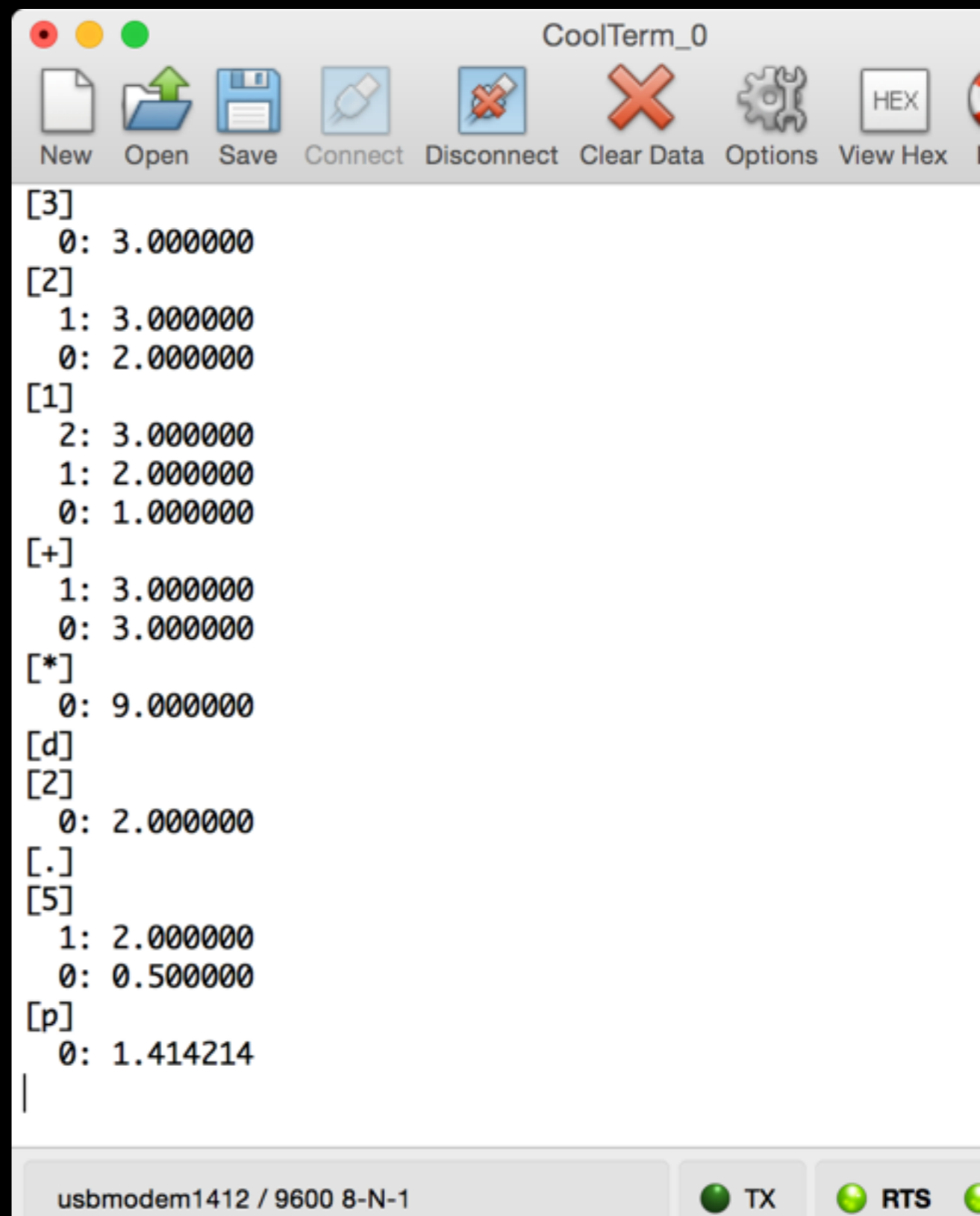
<input checked="" type="checkbox"/> TX	<input checked="" type="checkbox"/> RTS	<input checked="" type="checkbox"/> DTR	<input checked="" type="checkbox"/> DCD
<input checked="" type="checkbox"/> RX	<input checked="" type="checkbox"/> CTS	<input checked="" type="checkbox"/> DSR	<input checked="" type="checkbox"/> RI





まとめ

- ・ RPN万歳！
- ・ ANSI-Cのコードがそのまま動く
- ・ マイコンベースなので安上がり
- ・ Terminalですぐに実験
- ・ mbed-SDKなら浮動小数点も数学関数も使える
- ・ Componentsライブラリで入出力を変更
- ・ バッテリー駆動も可能



CoolTerm_0

New Open Save Connect Disconnect Clear Data Options View Hex

```
[3]
 0: 3.000000
[2]
 1: 3.000000
 0: 2.000000
[1]
 2: 3.000000
 1: 2.000000
 0: 1.000000
[+]
 1: 3.000000
 0: 3.000000
[*]
 0: 9.000000
[d]
[2]
 0: 2.000000
[.]
[5]
 1: 2.000000
 0: 0.500000
[p]
 0: 1.414214
|
```

usbmodem1412 / 9600 8-N-1 TX RTS

参考

developer.mbed.org

Platforms Components Handbook Cookbook Code Questions Forum Dashboard Compiler

ARM mbed

Search developer.mbed.org... Go

Hi, okano Logout

Users - okano - Code - RPN_calc_based_on_K_and_R

Tedd OKANO / RPN_calc_based_on_K_and_R

just a sample of what can be done

Dependencies: mbed

Home History Graph API Documentation Wiki Pull Requests Admin settings

PRN電卓プログラム

Download repository: zip gz

「プログラミング言語C (K&R本)」に出てくる例を元にした、RPN計算機です。



写真はイメージです

Edit repository homepage

Files at revision 5:3b9daee5f734

/ default tip

Name

[up]

calc.h 183 Revisions Annotate

https://developer.mbed.org/users/okano/code/RPN_calc_based_on_K_and_R/

developer.mbed.org

mbed Revision History

New Import Save Save All Compile Commit Revision Help

Program Workspace

- My Programs
 - 0005DFFileSystem_Hello
 - DIP8_Hello
 - DirectoryList_FileSystem
 - DirectoryList_Hello
 - DirectoryList_with_SDF
 - I2C_blinky
 - I2C_demo
 - I2C_FmPlus_Hello
 - I2C_response_checker
 - I2C_sample
 - I2C_signal_generator
 - I2C_status_checking
 - IAP_internal_flash_write
 - ika_shouyu_poppoyaki
 - ika_shouyu_poppoyaki_
 - life_support_system
 - LM75B_HelloWorld
 - LPC824_PwmOut
 - MARMEX_08_oled_Hel
 - MARMEX_V8_Hello
 - MARMEX_V8_test

Revisions of program "RPN_calc_based_on_K_and_R"

Showing revisions of program "RPN_calc_based_on_K_and_R" and public repository at okano/RPN_calc_based_on_K_and_R.

Commit Discard Changes Compare Switch Revert Merge

Graph	Revisior	When	Who	Comment
	5	20 hours, 20 minutes ago	okano	default tip functions "power" an
	4	20 hours, 20 minutes ago	okano	tweaked for better display
	3	1 day, 1 hour ago	okano	displaying stack by hitting [Enter] and
	2	1 day, 1 hour ago	okano	divided to multiple modules
	1	1 day, 1 hour ago	okano	fix for terminal code; keep shown vel.
	0	1 day, 1 hour ago	okano	initial version from K&R

Remote changes for okano/RPN_calc_based_on_K_and_R Incoming: 0 Outgoing: 0

Update Update From... Compare With... Publish Changes

Graph	Revisior	When	Who	Comment
-------	----------	------	-----	---------

Revision 5 (3b9daee5f734)

Comment functions "power" and "dr

When 20 hours, 20 minutes ago

Date 2015-06-27 02:29:21

Files changed 1

Lines changed 7

Revision log

All Changes

main.cpp

http://www.nxp-lpc.com

https://twitter.com/nxpfan

https://www.facebook.com/nxpfan

Interface 7月号 (5/25発売) 特集 オールソ

Versatility Redefined Introducing the LPC82X Family MCU's for IoT connectivity sensor gateways and more

