free42 Custom Unit Conversion Factors

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1 Metadata

The home for this HTML file is: $\verb|https://richmit.github.io/hp42/unit.html|$

A PDF version of this file may be found here: https://richmit.github.io/hp42/unit.pdf Files related to this document may be found on github: https://github.com/richmit/hp42 Directory contents:

src - The org-mode file that generated this HTML document
 src_42s - Ready to convert source listings for 42s code in this document

docs - This html document

bin - Importable RAW program files

2 Introduction

This application has a few unit conversions for temperatures; however, the focus is on a nice way to organize and recall various conversion factors I frequently use. That is to say, I don't really want to convert "in" to "cm", instead I want to push the conversion factor to the stack.

Aside from the TEMP menu, all of the menus have the same structure. The first menu key is the "base" unit for that page. Pressing any menu key will push a conversion factor for the given unit to the "base" unit to the stack. For example, if the left most menu is "mm" then pressing the "in" button will push 25.4 to the stack – the value you would multiply by to convert from inches to millimeters or divide by to convert from millimeters to inches.

Some constants are little programs. In some cases these are derived conversion factors, and the programs make that explicit. More importantly in cases when the base conversion factors are exact quantities, the programs insure we obtain machine accuracy -i.e. 1/2.54 is better than 0.3937.

3 Units

3.1 Conversion Factors

Type	Conversion	Description
Leng:mm	1.0	
Leng:Ang	1e-7	Angstrom
Leng:μm	0.001	Micron
Leng:mil	FUNC 01; 25.4; 1000; /	mil (1/1000 in)
Leng:cm	10	
Leng:in	25.4	Inch
Leng:cm	1	
Leng:in	2.54	Intl Inch
Leng:ft	FUNC 01; 2.54; 12; *	Intl Foot
Leng:m	100	
Leng:yd	FUNC 01; 2.54; 12; *; 3; *	Intl Yard
Leng:hand	FUNC 01; 2.54; 4; *	Intl hand

Continued on next page

Continued from	n previous page	
Type	Conversion	Description
Leng:km	1	
Leng:mi	FUNC 01; 2.54; 12; *; 5280; *; 1e5; /	Int Mile
Leng:us mi	1.60934721869	US Mile
Leng:nmi	1.852	Int Nautical mi
Leng:m	0.001	
Leng:ft	FUNC 01; 2.54; 12; *; 1e5; /	Intl Foot
Area:hector	1	hector
Area:acre	0.40468564224	Int Acre
Area:m^2	0.0001	
Area:yd^2	8.36127360001e-5	
Vol:l	1	
Vol:qt	0.946352946	US Lq Quart
Vol:gal	FUNC 01; 0.946352946; 4; *	US Lq Gal
Vol:cc	0.001	
Vol:butt	FUNC 01; 0.946352946; 4; *; 126; *	US Butt 126 US Gal
Vol:bbutt	FUNC 01; 4.54609; 108; *	UK Butt 108 UK Gal
Vol:tsp	1	Teaspoon
Vol:tbsp	3	Tablespoon
Vol:flOZ	6	fl oz
Vol:cup	48	Cup
Vol:pint	96	Pint
Vol:qt	192	Quart
Time:sec	1	
Time:min	60	
Time:hour	3600 86400	
Time:day	86400	
Time:week	604800	265 day
Time:year	31536000	365 day year
Time:day	$\frac{1}{365}$	Conentional
Time:year Time:acnt	360	Accounting
Time:acm Time:greg	365.2425	Mean Gregorian
Time:greg Time:julian	365.25	Mean Gregorian
Time:junan Time:astro	365.256363004	Astronomical
Mass:kg	1	Astronomical
Mass:lb	0.45359237	Pound Int
Mass:g	1e3	Tound The
Mass:ozWT	28e3	Ounce Food Weight
Mass:ozTr	31.1034768e3	Ounce Troy
Mass:stone	FUNC 01; 0.45359237; 14; ×	Int Stone
Mass:lb	1	
Mass:US ton	2000	US (short) Ton
Mass:UK ton	2240	UK (long) Ton
Force:N	1	() 6/
Force:kgf	9.80665	
Force:lbf	FUNC 01; 0.45359237; 9.80665; *	Int lbf
Sped:m/s	1	
Sped:mph	FUNC 01; 2.54; 12; *; 5280; *; 1e2; /; 3600; /	Int mph
Sped:kph	FUNC 01; 1000; 3600; /	· r
Sped:knot	FUNC 01; 1.852; 1000; *; 3600; /	Intl nmi
Pres:Pa	1	N/m^2
Pres:bar	100000	,
Pres:psi	FUNC 01; 1e4; 0.45359237; *; 9.80665; *; 2.54; X^2; /	
Pres:atm	101325	Standard
Pres:mmHg	133.322	
Pres:inHg	3.386389e3	Conventional
Powr:watt	1	
Powr: BTU/h	0.2930710702	International
Powr:hp	735.49875	Metric
Powr:kcal/h	1.163	
Temp:C→F	FUNC 11; 9; \times ; 5; \div ; 32; +	
$\text{Temp:} F {\rightarrow} C$	FUNC 11; 32; -; 5; \times ; 9; \div	
Temp:K→C	FUNC 11; 273.15; -	
$\operatorname{Temp:C} {\to} K$	FUNC 11; 273.15; +	
SIPFX	Run the SIPFX application	
_		

3.2 Code

(MJR-generate-42-menu-code "UNIT"

0

tbl

0

```
'stay ;; Change to 'exit to exit immediatly after a conversion factor is pushed to the stack
                          'up \;\;;; Change to 'exit to have the application exit when [EXIT] is pressed
                          (lambda (atrg row) (if (string-equal "SIPFX" atrg) (format "\"%s\"" atrg)))
                          ;;#'MJR-local-only-gen-lab
                          (lambda (atrg target row)
                            (cl-destructuring-bind (menu cfactor desc) row
                              (let ((print-desc 't))
                                                     ;; Set to NIL to not print description
                                (let* ((dlen (length desc))
                                      (dsc1 (if (> dlen 0)
                                                (substring desc 0 (min dlen 15))))
                                       (dsc2 (if (> dlen 14)
                                                (substring desc 15 (min dlen 22)))))
                                  (mapconcat #'string-trim-left
                                            (cl-remove nil (flatten-list
                                                            (list (split-string (message "%s" cfactor) ";")
                                                                  (and print-desc dsc1 (message "\"%s\"" dsc1))
                                                                  (and print-desc dsc2 (message "⊢\"%s\"" dsc2))
                                                                  (and print-desc (or dsc1 dsc2) "AVIEW"))))
                                            "\n"))))))
(UNIT)
@@@@ DSC: Auto-generated menu program
LBL "UNIT"
LBL 01
                 @@@@ Page 1 of menu UNIT
CLMENU
"Leng"
KEY 1 GTO 03
"Area"
KEY 2 GTO 04
"Vol"
KEY 3 GTO 05
"Time"
KEY 4 GTO 06
"Mass"
KEY 5 GTO 07
"Force"
KEY 6 GTO 08
KEY 7 GTO 02
KEY 8 GTO 02
KEY 9 GTO 00
MENU
STOP
GTO 01
LBL 02
                 @@@@ Page 2 of menu UNIT
CLMENU
"Sped"
KEY 1 GTO 09
"Pres"
KEY 2 GTO 10
"Powr"
KEY 3 GTO 11
"Temp"
KEY 4 GTO 12
"SIPFX"
KEY 6 XEQ "SIPFX"
KEY 7 GTO 01
KEY 8 GTO 01
KEY 9 GTO 00
MENU
STOP
GTO 02
LBL 03
                 0000 Page 1 of menu Leng
CLMENU
"mm"
KEY 1 XEQ 15
"Ang"
KEY 2 XEQ 16
"\mum"
KEY 3 XEQ 17
"mil"
KEY 4 XEQ 18
"cm"
KEY 5 XEQ 19
"in"
KEY 6 XEQ 20
```

```
KEY 7 GTO 14
KEY 8 GTO 13
KEY 9 GTO 01
MENU
STOP
GTO 03
LBL 13
                  @@@@ Page 2 of menu Leng
CLMENU
"cm"
KEY 1 XEQ 21
"in"
KEY 2 XEQ 22
"ft"
KEY 3 XEQ 23
"m"
KEY 4 XEQ 24
"yd"
KEY 5 XEQ 25
"hand"
KEY 6 XEQ 26
KEY 7 GTO 03
KEY 8 GTO 14
KEY 9 GTO 01
MENU
STOP
GTO 13
LBL 14
                  0000 Page 3 of menu Leng
CLMENU
"km"
KEY 1 XEQ 27
"mi"
KEY 2 XEQ 28
"us mi"
KEY 3 XEQ 29
"nmi"
KEY 4 XEQ 30
"m"
KEY 5 XEQ 31
"ft"
KEY 6 XEQ 32
KEY 7 GTO 13
KEY 8 GTO 03
KEY 9 GTO 01
MENU
STOP
GTO 14
LBL 04
                  0000 Page 1 of menu Area
CLMENU
"hector"
KEY 1 XEQ 33
"acre"
KEY 2 XEQ 34
"m^2"
KEY 3 XEQ 35
"yd^2"
KEY 4 XEQ 36
KEY 9 GTO 01
MENU
STOP
GTO 04
LBL 05
                  @@@@ Page 1 of menu Vol
CLMENU
"1"
KEY 1 XEQ 38
"qt"
KEY 2 XEQ 39
"gal"
KEY 3 XEQ 40
"cc"
KEY 4 XEQ 41
"butt"
KEY 5 XEQ 42
"bbutt"
KEY 6 XEQ 43
KEY 7 GTO 37
KEY 8 GTO 37
```

```
KEY 9 GTO 01
MENU
STOP
GTO 05
LBL 37
                  @@@@ Page 2 of menu Vol
CLMENU
"tsp"
KEY 1 XEQ 44
"tbsp"
KEY 2 XEQ 45
"f10Z"
KEY 3 XEQ 46
"cup"
KEY 4 XEQ 47
"pint"
KEY 5 XEQ 48
"qt"
KEY 6 XEQ 49
KEY 7 GTO 05
KEY 8 GTO 05
KEY 9 GTO 01
MENU
STOP
GTO 37
LBL 06
                  0000 Page 1 of menu Time
CLMENU
"sec"
KEY 1 XEQ 51
"min"
KEY 2 XEQ 52
"hour"
KEY 3 XEQ 53
"day"
KEY 4 XEQ 54
"week"
KEY 5 XEQ 55
"year"
KEY 6 XEQ 56
KEY 7 GTO 50
KEY 8 GTO 50
KEY 9 GTO 01
MENU
STOP
GTO 06
                  @@@@ Page 2 of menu Time
LBL 50
CLMENU
"day"
KEY 1 XEQ 57
"year"
KEY 2 XEQ 58
"acnt"
KEY 3 XEQ 59
"greg"
KEY 4 XEQ 60
"julian"
KEY 5 XEQ 61
"astro"
KEY 6 XEQ 62
KEY 7 GTO 06
KEY 8 GTO 06
KEY 9 GTO 01
MENU
STOP
GTO 50
LBL 07
                  0000 Page 1 of menu Mass
CLMENU
"kg"
KEY 1 XEQ 64
"lb"
KEY 2 XEQ 65
"g"
KEY 3 XEQ 66
"ozWT"
KEY 4 XEQ 67
"ozTr"
```

KEY 5 XEQ 68

```
"stone"
KEY 6 XEQ 69
KEY 7 GTO 63
KEY 8 GTO 63
KEY 9 GTO 01
MENU
STOP
GTO 07
LBL 63
                  0000 Page 2 of menu Mass
CLMENU
"lb"
KEY 1 XEQ 70
"US ton"
KEY 2 XEQ 71
"UK ton"
KEY 3 XEQ 72
KEY 7 GTO 07
KEY 8 GTO 07
KEY 9 GTO 01
MENU
STOP
GTO 63
LBL 08
                  0000 Page 1 of menu Force
CLMENU
"N"
KEY 1 XEQ 73
"kgf"
KEY 2 XEQ 74
"lbf"
KEY 3 XEQ 75
KEY 9 GTO 01
MENU
STOP
GTO 08
LBL 09
                  @@@@ Page 1 of menu Sped
CLMENU
"m/s"
KEY 1 XEQ 76
"mph"
KEY 2 XEQ 77
"kph"
KEY 3 XEQ 78
"knot"
KEY 4 XEQ 79
KEY 9 GTO 02
MENU
STOP
GTO 09
LBL 10
                  0000 Page 1 of menu Pres
CLMENU
"Pa"
KEY 1 XEQ 80
"bar"
KEY 2 XEQ 81
"psi"
KEY 3 XEQ 82
"atm"
KEY 4 XEQ 83
"mmHg"
KEY 5 XEQ 84
"inHg"
KEY 6 XEQ 85
KEY 9 GTO 02
MENU
STOP
GTO 10
LBL 11
                  0000 Page 1 of menu Powr
CLMENU
"watt"
KEY 1 XEQ 86
"BTU/h"
KEY 2 XEQ 87
"hp"
KEY 3 XEQ 88
"kcal/h"
```

KEY 4 XEQ 89

```
KEY 9 GTO 02
MENU
STOP
GTO 11
LBL 12
                  0000 Page 1 of menu Temp
CLMENU
"C→F"
KEY 1 XEQ 90
"F→C"
KEY 2 XEQ 91
"K→C"
KEY 3 XEQ 92
"C→K"
KEY 4 XEQ 93
KEY 9 GTO 02
MENU
STOP
GTO 12
LBL 00 @@@@ Application Exit
EXITALL
RTN
LBL 15
          @@@@ Action for menu key mm
1.0
RTN
LBL 16
          0000 Action for menu key Ang
1e-07
"Angstrom"
AVIEW
RTN
LBL 17
          0000 Action for menu key \mu \mathrm{m}
0.001
"Micron"
AVIEW
RTN
LBL 18
          0000 Action for menu key mil
FUNC 01
25.4
1000
"mil (1/1000 in)"
⊢""
AVIEW
RTN
LBL 19
          @@@@ Action for menu key cm
10
RTN
LBL 20
          0000 Action for menu key in
25.4
"Inch"
AVIEW
RTN
LBL 21
          0000 Action for menu key cm
1
RTN
LBL 22
          0000 Action for menu key in
2.54
"Intl Inch"
AVIEW
RTN
LBL 23
          0000 Action for menu key ft
FUNC 01
2.54
12
"Intl Foot"
AVIEW
RTN
LBL 24
          0000 Action for menu key m
100
RTN
LBL 25
          @@@@ Action for menu key yd
FUNC 01
2.54
12
3
```

```
"Intl Yard"
AVIEW
RTN
LBL 26
          0000 Action for menu key hand
FUNC 01
2.54
4
"Intl hand"
AVIEW
RTN
LBL 27
          0000 Action for menu key km
1
RTN
LBL 28
          0000 Action for menu key mi
FUNC 01
2.54
12
5280
1e5
"Int Mile"
AVIEW
RTN
LBL 29
          0000 Action for menu key us mi
1.60934721869
"US Mile"
AVIEW
RTN
LBL 30
          0000 Action for menu key nmi
1.852
"Int Nautical mi"
⊢""
AVIEW
RTN
LBL 31
          @@@@ Action for menu key m
0.001
RTN
LBL 32
          0000 Action for menu key ft
FUNC 01
2.54
12
1e5
"Intl Foot"
AVIEW
RTN
LBL 33
          0000 Action for menu key hector
1
"hector"
AVIEW
RTN
LBL 34
          0000 Action for menu key acre
0.40468564224
"Int Acre"
AVIEW
RTN
LBL 35
          0000 Action for menu key m^2
0.0001
RTN
LBL 36
          0000 Action for menu key yd^2
8.36127360001e-05
RTN
LBL 38
          0000 Action for menu key 1
RTN
LBL 39
          0000 Action for menu key qt
0.946352946
"US Lq Quart"
AVIEW
RTN
LBL 40
          0000 Action for menu key gal
```

```
FUNC 01
0.946352946
4
"US Lq Gal"
AVIEW
RTN
LBL 41
          0000 Action for menu key cc
0.001
RTN
LBL 42
          0000 Action for menu key butt
FUNC 01
0.946352946
4
126
"US Butt 126 US "
⊢"Gal"
AVIEW
RTN
LBL 43
          0000 Action for menu key bbutt
FUNC 01
4.54609
108
"UK Butt 108 UK "
⊢"Gal"
AVIEW
RTN
LBL 44
          0000 Action for menu key tsp
"Teaspoon"
AVIEW
RTN
LBL 45
          0000 Action for menu key tbsp
"Tablespoon"
AVIEW
RTN
LBL 46
          0000 Action for menu key f10Z
6
"fl oz"
AVIEW
RTN
LBL 47
          0000 Action for menu key cup
48
"Cup"
AVIEW
RTN
LBL 48
          0000 Action for menu key pint
96
"Pint"
AVIEW
RTN
LBL 49
          0000 Action for menu key qt
192
"Quart"
AVIEW
RTN
LBL 51
          0000 Action for menu key sec
1
RTN
LBL 52
          0000 Action for menu key min
60
RTN
          0000 Action for menu key hour
LBL 53
3600
RTN
LBL 54
          0000 Action for menu key day
86400
RTN
LBL 55
          0000 Action for menu key week
604800
RTN
LBL 56
          0000 Action for menu key year
```

```
31536000
"365 day year"
AVIEW
RTN
LBL 57
          0000 Action for menu key day
RTN
LBL 58
          0000 Action for menu key year
365
"Conentional"
AVIEW
RTN
LBL 59
          0000 Action for menu key acnt
360
"Accounting"
AVIEW
RTN
LBL 60
          0000 Action for menu key greg
365.2425
"Mean Gregorian"
AVIEW
RTN
LBL 61
          0000 Action for menu key julian
365.25
RTN
LBL 62
        @@@@ Action for menu key astro
365.256363004
"Astronomical"
AVIEW
RTN
LBL 64
          0000 Action for menu key kg
1
RTN
LBL 65
        0000 Action for menu key 1b
0.45359237
"Pound Int"
AVIEW
RTN
LBL 66
          0000 Action for menu key g
1000.0
RTN
LBL 67
          @@@@ Action for menu key ozWT
28000.0
"Ounce Food Weig"
⊢"ht"
AVIEW
RTN
LBL 68
        @@@@ Action for menu key ozTr
31103.4768
"Ounce Troy"
AVIEW
RTN
          0000 Action for menu key stone
LBL 69
FUNC 01
0.45359237
14
"Int Stone"
AVIEW
RTN
LBL 70
          @@@@ Action for menu key lb
1
RTN
LBL 71
          0000 Action for menu key US ton
2000
"US (short) Ton"
AVIEW
RTN
LBL 72
          @@@@ Action for menu key UK ton
2240
"UK (long) Ton"
AVIEW
RTN
LBL 73
          0000 Action for menu key N
1
RTN
```

```
@@@@ Action for menu key kgf
LBL 74
9.80665
RTN
LBL 75
          @@@@ Action for menu key lbf
FUNC 01
0.45359237
9.80665
"Int lbf"
AVIEW
RTN
LBL 76
          0000 Action for menu key m/s
RTN
LBL 77
          0000 Action for menu key mph
FUNC 01
2.54
12
5280
1e2
3600
"Int mph"
AVIEW
RTN
LBL 78
          0000 Action for menu key kph
FUNC 01
1000
3600
RTN
LBL 79
          0000 Action for menu key knot
FUNC 01
1.852
1000
3600
"Intl nmi"
AVIEW
RTN
LBL 80
          0000 Action for menu key Pa
"N/m^2"
AVIEW
RTN
LBL 81
          0000 Action for menu key bar
100000
LBL 82
          @@@@ Action for menu key psi
FUNC 01
1e4
0.45359237
9.80665
2.54
X^2
RTN
LBL 83
          0000 Action for menu key atm
101325
"Standard"
AVIEW
RTN
LBL 84
          0000 Action for menu key mmHg
133.322
RTN
          0000 Action for menu key inHg
LBL 85
3386.389
"Conventional"
AVIEW
RTN
```

```
LBL 86
          0000 Action for menu key watt
RTN
LBL 87
          0000 Action for menu key BTU/h
0.2930710702
"International"
AVIEW
RTN
LBL 88
          0000 Action for menu key hp
735.49875
"Metric"
AVIEW
RTN
LBL 89
          0000 Action for menu key kcal/h
1.163
RTN
LBL 90
          @@@@ Action for menu key C→F
FUNC 11
9
5
÷
32
RTN
LBL 91
          0000 Action for menu key F\rightarrow C
FUNC 11
32
5
×
9
RTN
LBL 92
          @@@@ Action for menu key K→C
FUNC 11
273.15
RTN
LBL 93
          @@@@ Action for menu key C→K
FUNC 11
273.15
RTN
0000 Free labels start at: 94
```

$\tt occosor oc$

4 SI Prefixes

4.1 Menu

Prefix	Sym	Val
centi	c	1e-2
milli	m	1e-3
micro	μ	1e-6
nano	n	1e-9
pico	p	1e-12
femto	f	1e-15
kilo	k	1e+3
mega	M	$1\mathrm{e}{+6}$
$_{ m giga}$	G	$1\mathrm{e}{+9}$
tera	${ m T}$	$1\mathrm{e}{+12}$
peta	P	$1\mathrm{e}{+15}$
exa	\mathbf{E}	$1\mathrm{e}{+18}$
kibi	Ki	1024
mebi	Mi	1048576
gibi	$_{ m Gi}$	1073741824
tebi	Ti	1099511627776
pebi	Pi	1125899906842624
exbi	Ei	1152921504606846976

Normally pressing the menu key will multiply the X value on the stack by the prefix multiplayer. If [SHIFT] is pressed befree the menu key, then X will be divided by the prefix multiplyer.

4.2 Menu Code

Note: This one will have an ${\tt END}$ generated to finish the ${\tt UNIT}$ application.

```
(MJR-generate-42-menu-code "SIPFX"
                         tbl
                         0
                         nil
                          'stay ;; Change to 'exit to exit immediatly after a conversion factor is pushed to the stack
                          'up \;\;;; Change to 'exit to have the application exit when [EXIT] is pressed
                          #'MJR-local-only-gen-lab
                          (lambda (atrg target row)
                           (cl-destructuring-bind (prefix-str sym-string mult) row
                             (mapconcat #'string-trim-left
                                       (list (format "%s" mult)
                                             (format "FS? 64")
                                             (format "÷")
                                             (format "FC? 64")
                                             (format "x")
                                             (format "\"%s (%s)\"" prefix-str sym-string)
                                             ;;(format "AVIEW")
                                             )
                                       "\n"))))
(SIPFX)
0000 DSC: Auto-generated menu program
LBL "SIPFX"
LBL 01
                 0000 Page 1 of menu SIPFX
CLMENU
"centi"
KEY 1 XEQ 04
"milli"
KEY 2 XEQ 05
"micro"
KEY 3 XEQ 06
"nano"
KEY 4 XEQ 07
"pico"
KEY 5 XEQ 08
"femto"
KEY 6 XEQ 09
KEY 7 GTO 03
KEY 8 GTO 02
KEY 9 GTO 00
MENU
STOP
GTO 01
LBL 02
                 @@@@ Page 2 of menu SIPFX
CLMENU
"kilo"
KEY 1 XEQ 10
"mega"
KEY 2 XEQ 11
"giga"
KEY 3 XEQ 12
"tera"
KEY 4 XEQ 13
"peta"
KEY 5 XEQ 14
"exa"
KEY 6 XEQ 15
KEY 7 GTO 01
KEY 8 GTO 03
KEY 9 GTO 00
MENU
STOP
GTO 02
LBL 03
                 0000 Page 3 of menu SIPFX
CLMENU
"kibi"
KEY 1 XEQ 16
"mebi"
KEY 2 XEQ 17
"gibi"
KEY 3 XEQ 18
"tebi"
```

```
KEY 4 XEQ 19
"pebi"
KEY 5 XEQ 20
"exbi"
KEY 6 XEQ 21
KEY 7 GTO 02
KEY 8 GTO 01
KEY 9 GTO 00
MENU
STOP
GTO 03
LBL 00 @@@@ Application Exit
EXITALL
RTN
          0000 Action for menu key centi
LBL 04
0.01
FS? 64
FC? 64
"centi (c)"
RTN
LBL 05
          @@@@ Action for menu key milli
0.001
FS? 64
FC? 64
"milli (m)"
RTN
LBL 06
          0000 Action for menu key micro
1e-06
FS? 64
FC? 64
"micro (\mu)"
RTN
LBL 07
          0000 Action for menu key nano
1e-09
FS? 64
FC? 64
"nano (n)"
RTN
LBL 08
          0000 Action for menu key pico
1e-12
FS? 64
FC? 64
"pico (p)"
RTN
LBL 09
          0000 Action for menu key femto
1e-15
FS? 64
FC? 64
"femto (f)"
RTN
LBL 10
          0000 Action for menu key kilo
1000.0
FS? 64
FC? 64
"kilo (k)"
RTN
LBL 11
          0000 Action for menu key mega
1000000.0
FS? 64
FC? 64
```

```
"mega (M)"
RTN
LBL 12
          0000 Action for menu key giga
100000000.0
FS? 64
FC? 64
"giga (G)"
RTN
          0000 Action for menu key tera
100000000000.0
FS? 64
FC? 64
"tera (T)"
RTN
LBL 14
          0000 Action for menu key peta
1e+15
FS? 64
FC? 64
"peta (P)"
RTN
LBL 15
          0000 Action for menu key exa
1e+18
FS? 64
FC? 64
"exa (E)"
RTN
LBL 16
          0000 Action for menu key kibi
1024
FS? 64
FC? 64
"kibi (Ki)"
RTN
LBL 17
          0000 Action for menu key mebi
1048576
FS? 64
FC? 64
"mebi (Mi)"
RTN
LBL 18
          0000 Action for menu key gibi
1073741824
FS? 64
FC? 64
"gibi (Gi)"
RTN
LBL 19
         0000 Action for menu key tebi
1099511627776
FS? 64
FC? 64
"tebi (Ti)"
LBL 20
          0000 Action for menu key pebi
1125899906842624
FS? 64
FC? 64
"pebi (Pi)"
RTN
LBL 21
          0000 Action for menu key exbi
1152921504606846976
```

```
FS? 64

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FC? 64

×

"exbi (Ei)"

RTN

@@@@ Free labels start at: 22

END
```

5 EOF