

c.generator

COLLABORATORS

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Chapter 1

c.generator

1.1 C.generator Help

c.generator v1.0

User's Manual

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- FreeWare -

Introduction...

[Requirements](#)

[Usage](#)

Using c.generator...

[Preferences](#)

[Source code](#)

Other topics...

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[Author](#)

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1.2 Usage

Usage

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To generate source code you must have selected in GadToolsBox preferences window c.generator and then Project/Save Source As...

C.generator can also be run from CLI, GadToolsBox must be running and have loaded resource file:

FILE=<filename> - base file name to generate source

SEMAPHORE=<semaphore> - public GadToolsBox semaphore name

SETPREFS - only open preferences window

1.3 Requirements

Requirements

=====

C.Generator requires to run:

OS:

AmigaOS 3.0+

Processor:

MC680x0

Software:

GadToolsBox must be running!

1.4 Preferences

Preferences

=====

Gadgets:

Template

Tells generator to create <basename>_temp.c file with templates of called functions.

Screen

Source code will have SetupScreen() function and all other screen related functions.

GUI Functions

Source code will have all gui creation routines like CreateGadgetEx().

Localize

Source code will be localized. <basename>.cd file will be created.

1.5 Source code

Source code

=====

Variables

Functions

1.6 Functions

Functions

=====

<basename>.c/ [AdaptX](#)

<basename>.c/ [AdaptY](#)

<basename>.c/ CalcAdaptivity
<basename>.c/ CalcLeftTop
<basename>.c/ CalcRightBottom
<basename>.c/ CloseDownScreen
<basename>.c/ CloseWindow_#?
<basename>.c/ CloseWindowEx
<basename>.c/ CreateGadgetExA
<basename>.c/DeleteGadgetExA
<basename>.c/ FixGadgetTags
<basename>.c/ FixMenus
<basename>.c/ FixWindowTags
<basename>.c/ FreeApplication
<basename>.c/ GetCatString
<basename>.c/ HandleIDCMP_#?
<basename>.c/ InitApplication
<basename>.c/ OpenWindow_#?
<basename>.c/ OpenWindowTagsEx
<basename>.c/ Render_#?
<basename>.c/ SetupScreen

1.7 Variables

Variables

=====

<basename>.c/ #?Gadgets
<basename>.c/ #?GTags
<basename>.c/ #?Menus
<basename>.c/ #?Msg
<basename>.c/ #?NewMenu
<basename>.c/ #?WApp
<basename>.c/ #?Wnd
<basename>.c/ #?WTags
<basename>.c/ DrawInfo
<basename>.c/ Scr
<basename>.c/ ScrDepth
<basename>.c/ ScrDisplayID
<basename>.c/ ScrHeight
<basename>.c/ ScrPubName
<basename>.c/ ScrTitle
<basename>.c/ ScrWidth

1.8 Copyrights

Copyrights

=====

C.generator

C.generator is Copyright (C) 1996-98 by Tomasz Muszynski.

This program is FREEWARE. Generator can be freely distributed but only in original archive.

1.9 Disclaimer

Disclaimer

=====

C.GENERATOR IS A FREEWARE PRODUCT. USE IT AT YOUR OWN RISK. THERE IS NO WARRANTY FOR RELIABLE FUNCTIONING OF THIS PROGRAM.

1.10 History

History

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27.5.98 - v1.0

- initial release.

1.11 How to contact

Author

=====

This program was developed and tested on my Amiga 4000/040/28MHz/16MB and SAS/C v6.58.

If you have new ideas, bug reports, catalog translations or something other - write to me:

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1.12 AdaptX

NAME

AdaptX -- Calculate new horizontal dimension.

SYNOPSIS

x = AdaptX(value);

UWORD AdaptX(UWORD);

FUNCTION

Converts horizontal value in internal dimensions to new dimensions based on current font size.

Before this function you must call [CalcAdativity\(\)](#) .

INPUTS

value - value to convert

RESULT

x - new horizontal value

BUGS

This function has problems with proportional fonts.

SEE ALSO

[AdaptY\(\)](#) , [CalcAdaptivity\(\)](#)

1.13 AdaptY

NAME

AdaptY -- Calculate new vertical dimension.

SYNOPSIS

x = AdaptY(value);

UWORD AdaptY(UWORD);

FUNCTION

Converts vertical value in internal dimensions to new dimensions based on current font size.

Before this function you must call [CalcAdativity\(\)](#) .

INPUTS

value - value to convert

RESULT

x - new vertical value

BUGS

This function has problems with proportional fonts.

SEE ALSO

[AdaptX\(\)](#) , [CalcAdaptivity\(\)](#)

1.14 CalcAdaptivity

NAME

CalcAdaptivity -- Calculate new dimensions and select proper font.

SYNOPSIS

```
CalcAdaptivity(width,height);  
void CalcAdaptivity(UWORD,UWORD);
```

FUNCTION

This function checks passed width and height to fit on screen. If new dimensions will be to big, topaz.font/8 will be used instead of screen font.

INPUTS

width - max width (usually width of window)
height - max height (usually height of window)

RESULT

Global variable Font will be set to new font.

SEE ALSO

[AdaptX\(\)](#) , [AdaptY\(\)](#)

1.15 CalcLeftTop

NAME

CalcLeftTop -- Calculate left and top window border.

SYNOPSIS

```
CalcLeftTop(offx, offy, tags);  
void ClacLeftTop(UWORD *,UWORD *,struct TagItem *);
```

FUNCTION

Calculates left and top border of closed window basing on tags.

INPUTS

offx - pointer to store new value in
offy - pointer to store new value in
tags - window tags

RESULT

offx - left border of window
offy - top border of window

SEE ALSO

[CalcRightBottom\(\)](#)

1.16 CalcRightBottom

NAME

CalcRightBottom -- Calculate right and bottom window border.

SYNOPSIS

```
CalcRightBottom(offx, offy, tags);  
void CalcRightBottom(UWORD *,UWORD *,struct TagItem *);
```

FUNCTION

Calculates right and bottom border of closed window basing on tags.

INPUTS

offx - pointer to store new value in

offy - pointer to store new value in

tags - window tags

RESULT

offx - right border of window

offy - bottom border of window

SEE ALSO

[CalcLeftTop\(\)](#)

1.17 CloseDownScreen

NAME

CloseDownScreen -- close opened screen.

SYNOPSIS

```
CloseDownScreen();  
void CloseDownScreen(void);
```

FUNCTION

Closes screen opened by SetupScreen().

SEE ALSO

[SetupScreen\(\)](#)

1.18 CloseWindow_#?

NAME

CloseWindow_#? -- close opened window.

SYNOPSIS

```
CloseWindow_#?();  
void CloseWindow_#?(void);
```

FUNCTION

Close window opened by [OpenWindow_#?\(\)](#) .

SEE ALSO

[OpenWindow_#?\(\)](#)

1.19 CloseWindowEx

NAME

CloseWindowEx -- close opened window.

SYNOPSIS

```
CloseWindowEx(window);
```

```
void CloseWindowEx(struct Window *);
```

FUNCTION

Closes window opened by [OpenWindowTagsEx\(\)](#) .

INPUTS

window - pointer to opened window

SEE ALSO

[OpenWindowTagsEx\(\)](#)

1.20 CreateGadgetExA

NAME

CreateGadgetExA -- Create gadtools or BOOPSI gadget.

SYNOPSIS

```
gad = CreateGadgetExA(offx,offy,offr,offb,prev,tags);
```

```
struct Gadget *CreateGadgetExA(UWORD,UWORD,UWORD,UWORD,  
struct Gadget *, struct TagItem *);
```

FUNCTION

Create gadget, calculate it's position using offx, offy, offr and offb.

INPUTS

offx - left border returned by [CalcLeftTop\(\)](#)

offy - top border returned by [CalcLeftTop\(\)](#)

offr - right border returned by [CalcRightBottom\(\)](#)

offb - bottom border returned by [CalcRightBottom\(\)](#)

prev - pointer to previous gadget

tags - pointer to tagitems. First tag is KIND of gadget and first data is gadtools placement.

RESULT

gad - pointer to created gadget

SEE ALSO

[DeleteGadgetEx\(\)](#)

1.21 DeleteGadgetEx

NAME

DeleteGadgetEx -- delete gadget

SYNOPSIS

```
DeleteGadgetEx(gad);
```

```
void DeleteGadgetEx(struct Gadget *);
```

FUNCTION

Delete gadget created by [CreateGadgetExA\(\)](#) .

INPUTS

gad - pointer to gadget

SEE ALSO

[CreateGadgetExA\(\)](#)

1.22 FixGadgetTags

NAME

FixGadgetTags -- fixes all gadgets to use locale.

SYNOPSIS

```
FixGadgetTags(tags);
```

```
void FixGadgetTags(struct TagItem *);
```

FUNCTION

Finds all strings in tagitems and localizes them.

INPUTS

tags - pointer to tags to fix

SEE ALSO

1.23 FixMenus

NAME

FixMenus -- fixes menu to use locale.

SYNOPSIS

```
FixMenus(menu);
```

```
void FixMenus(struct NewMenu *);
```

FUNCTION

Finds all strings in menu and localizes them.

INPUTS

menu - pointer to menu to fix

SEE ALSO

1.24 FixWindowTags

NAME

FixWindowTags -- fixes window to use locale.

SYNOPSIS

```
FixWindowTags(tags);
```

```
void FixWindowTags(struct TagItem *);
```

FUNCTION

Finds all strings in tagitems and localizes them.

INPUTS

tags - pointer to tags to fix

SEE ALSO

1.25 FreeApplication

NAME

FreeApplication -- frees all opened libraries.

SYNOPSIS

```
FreeApplication();
```

```
void FreeApplication(void);
```

FUNCTION

Closes all libraries opened by [InitApplication\(\)](#) .

SEE ALSO

[InitApplication\(\)](#)

1.26 GetCatString

NAME

GetCatString -- gets localized string from catalog.

SYNOPSIS

```
str = GetCatString(id);
```

```
STRPTR GetCatString(APTR);
```

FUNCTION

Gets localized string from catalog table. This function also works

if source code is not localized.

INPUTS

id - id of string to get

RESULT

str - pointer to localized string

SEE ALSO

1.27 HandleIDCMP_#?

NAME

HandleIDCMP_#? -- handles idcmp messages of given window.

SYNOPSIS

```
retval = HandleIDCMP_#?();
```

```
int HandleIDCMP_#?(void);
```

FUNCTION

Handles all IDCMP messages of given window. When IDCMP is handled it calls a callback function and returns value returned by callback. When 0 was returned program wants to quit and close all windows at the end of program. When 1 was returned program continues normally. When higher values are returned it means that IDCMP window was closed and HandleIDCMP_#?() shouldn't get next messages from list.

RESULT

retval - value returned by callback function

SEE ALSO

1.28 InitApplication

NAME

InitApplication -- initializes new application.

SYNOPSIS

locale version

```
error = InitApplication(language);
```

```
UWORD InitApplication(STRPTR);
```

non-locale version

```
error = InitApplication();
```

```
UWORD InitApplication(void);
```

FUNCTION

Opens all libraries required by GUI.

INPUTS

language - language to use

RESULT

error - error. See <basename>.h/GTBERR_#? defines to see what goes wrong.

SEE ALSO

[FreeApplication\(\)](#)

1.29 OpenWindow_#?

NAME

OpenWindow_#? -- open defined window.

SYNOPSIS

```
error = OpenWindow_#?();
```

```
UWORD OpenWindow_#?(void);
```

FUNCTION

Creates all gadgets, menus and opens window.

RESULT

error - error. See <basename>.h/GTBERR_#? defines to see what goes wrong.

SEE ALSO

[CloseWindow_#?\(\)](#)

1.30 OpenWindowTagsEx

NAME

OpenWindowTagsEx -- open window.

SYNOPSIS

```
window = OpenWindowTagsEx(tags, ...);
```

```
UWORD OpenWindowTagsEx(ULONG, ...);
```

FUNCTION

Open window with given tags. This window has expanded features to old intuition.library/OpenWindowTags(). You can create appwindow, make new dragbars, open it at special dimensions (eg. centered), etc.

INPUTS

tags - a list of tags

RESULT

window - pointer to opened window

SEE ALSO

[CloseWindowEx\(\)](#)

1.31 Render_#?

NAME

Render_#? -- make all window renderings

SYNOPSIS

```
Render_#?();
```

```
void Render_#?(void);
```

FUNCTION

Do all renderings on window.

SEE ALSO

1.32 SetupScreen

NAME

SetupScreen -- open and setup screen

SYNOPSIS

```
error = SetupScreen(num);
```

```
UWORD SetupScreen(UBYTE);
```

FUNCTION

Opens screen and initializes GUI (eg. creates image objects, menus, etc).

INPUTS

num - number of screen to open. This number will be used for all ports that this program uses (eg. Arexx port, public screen name). Also screen title can contain that number.

RESULT

error - error. See <basename>.h/GTBERR_#? defines to see what goes wrong.

SEE ALSO

[CloseDownScreen\(\)](#)

1.33 #?Gadgets

NAME

#?Gadgets -- table of created gadgets

SYNOPSIS

```
struct Gadget *#?Gadgets[];
```

DESCRIPTION

This is table of initialized gadgets. It's only valid between

[OpenWindow_#?\(\)](#) and [CloseWindow_#?\(\)](#) .

Use GD_#? defines to access to this table.

SEE ALSO

1.34 #?GTags

NAME

#?GTags -- tags of gadgets

SYNOPSIS

```
ULONG #?GTags[];
```

DESCRIPTION

This is table of tags for gadgets.

SEE ALSO

1.35 #?Menus

NAME

#?Menus -- created menu

SYNOPSIS

```
struct Menu *#?Menus;
```

DESCRIPTION

This is initialized menu. It's only valid between

[OpenWindow_#?\(\)](#) and [CloseWindow_#?\(\)](#) .

SEE ALSO

1.36 #?Msg

NAME

#?Msg -- messages structure

SYNOPSIS

```
struct IntuiMessage #?Msg;
```

DESCRIPTION

This is IntuiMessage structure returned by `exec.library/GetMsg()`.

This is copy of original message, so verify messages will not work.

It's only valid after [HandleIDCMP_#?\(\)](#) .

SEE ALSO

1.37 #?NewMenu

NAME

#?NewMenu -- table of menu defines

SYNOPSIS

```
struct NewMenu #?NewMenu[];
```

DESCRIPTION

Table of menu defines to create menu.

SEE ALSO

1.38 #?WApp

NAME

#?WApp -- appwindow data

SYNOPSIS

```
APTR #?WApp;
```

DESCRIPTION

Data returned by `workbench.library/AddAppWindow()`.

SEE ALSO

1.39 #?Wnd

NAME

#?Wnd -- pointer to opened window

SYNOPSIS

```
struct Window *#?Wnd;
```

DESCRIPTION

This is window structure. It's only valid between

[OpenWindow_#?\(\)](#) and [CloseWindow_#?\(\)](#) .

SEE ALSO

1.40 #?WTags

NAME

#?WTags -- tags of window

SYNOPSIS

```
ULONG #?WTags[];
```

DESCRIPTION

This is table of tags for window.

SEE ALSO

1.41 DrawInfo

NAME

DrawInfo -- draw information

SYNOPSIS

```
struct DrawInfo *DrawInfo;
```

DESCRIPTION

This is drawinfo structure. It's only valid between

[SetupScreen\(\)](#) and [CloseDownScreen\(\)](#) .

SEE ALSO

1.42 Scr

NAME

Scr -- screen structure

SYNOPSIS

```
struct Screen *Scr;
```

DESCRIPTION

This is screen structure. It's only valid between

[SetupScreen\(\)](#) and [CloseDownScreen\(\)](#) .

SEE ALSO

1.43 ScrDepth

NAME

ScrDepth -- screen depth to open

SYNOPSIS

UBYTE ScrDepth;

DESCRIPTION

Depth of screen to open.

SEE ALSO

1.44 ScrDisplayID

NAME

ScrDisplayID -- screen displayid to open

SYNOPSIS

UBYTE ScrDisplayID;

DESCRIPTION

DisplayID of screen to open.

SEE ALSO

1.45 ScrHeight

NAME

ScrHeight -- screen height to open

SYNOPSIS

UWORD ScrHeight;

DESCRIPTION

Height of screen to open.

SEE ALSO

1.46 ScrPubName

NAME

ScrPubName -- screen public name to open

SYNOPSIS

UBYTE ScrPubName[30];

DESCRIPTION

Name of public screen to create. If %d exists in that string it will be filled with screen number (name of public screen should look eg: EXAMLE.1).

All public ports should be also created with that string.

SEE ALSO

1.47 ScrTitle

NAME

ScrTitle -- screen title to open

SYNOPSIS

UBYTE ScrTitle[256];

DESCRIPTION

Name of public screen to create. If %d exists in that string it will be filled with screen number (name of public screen should look eg: EXAMLE.1).

All public ports should be also created with that string.

SEE ALSO

1.48 ScrWidth

NAME

ScrWidth -- screen width to open

SYNOPSIS

UWORD ScrWidth;

DESCRIPTION

Width of screen to open.

SEE ALSO