PEG Release Notes

PRODUCT:	PEG, Portable Embedded GUI
PRODUCT VERSION:	2.3.13
DESCRIPTION:	PEG Release Notes
RELEASE DATE:	Augst 31st, 2012

freescale™ semiconductor

Table of Contents

1 Read Me First

This file contains summary notes documenting changes in the PEG 2.3.13 release. This release offers support for several new platforms, which are detailed in the “What’s New” chapter later in the document.

With this release of PEG, a couple of major changes to the directory tree have been introduced. While the PEG source tree remained unmodified, changes have been made to examples and demos directories and build directories. Please refer to the “Release Content” chapter for a detailed description of changes in the PEG directory tree.

1.1 Requirements

1.1.1 Development Tools

PEG is available for a broad variety of development tools. For the new platforms officially supported in this release, please refer to the “What’s New” chapter. You will also find the supported IDEs/compliers for the platforms.

1.1.2 Tool Versions

Following are the tools and OS versions that have been used to build and test the newly added platforms:

- IAR Embedded Workbench for ARM Version 6.30.8
- CodeWarrior Development Studio for Microcontrollers Version 10.2 (MCU build 120126)
- CodeWarrior Development Studio for MobileGT Version 9.2 (Build 81027) with MPC5125
- ARM MDK - Keil uVision Version 4.50

- MQX – 3.8.1 (for some platforms pre-releases of MQX have been used which may not be available at the time of this release)

1.1.3 System Requirements

The system requirements are defined by the development tools requirements. There are no special host system requirements for PEG distribution itself.

Minimum PC configuration

As required by Development and Build Tools

Recommended PC configuration

2 GHz processor – 2 GB RAM - 2 GB free disk space.

Software requirements

OS: As required by Development and Build tools (Windows XP SP2 or later)

1.1.4 Target Requirements

PEG supports a wide range of platforms and CPUs, each having its particular requirements. It would go beyond the scope of this document to list requirements of each platform supported by PEG. For this reason please refer to the platform user manual for a list of requirements.

1.1.5 Equipment Requirements

No dedicated equipment is required.

1.2 Special Instructions

1.2.1 Installation Instructions

PEG may be installed under Windows as well as under Linux/X11. Following are installation instructions for the different platforms.

Windows

Run the self-extracting PEG installer application and proceed according to the on-screen instructions.

Linux

Extract the compressed archive to your preferred working directory and run the installer application following the on-screen instructions.

1.3 Upgrading From the Previous Release

PEG should be installed into a new directory. Since the Window Builder configuration file (*.wbx) will be installed by the PEG installer to a particular area, previous versions of Window Builder projects may need update of platform and driver parameters.

1.4 Problem Reporting Instructions

Limited support is provided to all customers evaluating the PEG graphics package.
We encourage you to ask questions during your evaluation process. Customers who have purchased PEG are supported per the license agreement. If you have any questions, please email them to support@swellsoftware.com or call our office directly.
For price and licensing options, you can also send email to sales@swellsoftware.com.

2 Release Content

This section details the release content.

DELIVERABLE	LOCATION	STATUS
PEG Core	<install_dir>/peg/source	Updated
	<install_dir>/peg/include	Updated
PEG Screen Driver	<install_dir>/peg/source/screendrv	Updated
	<install_dir>/ peg/include/screendrv	Updated
PEG Touch Driver	<install_dir>/ peg/source/touchdrv	Updated
	<install_dir>/ peg/include/ touchdrv	Updated
PEG RTOS Driver	<install_dir>/ peg/source/rtos	Updated
	<install_dir>/ peg/include/rtos	No Update
PEG Keyboard Driver	<install_dir>/ peg/source/keybddrv	No Update
	<install_dir>/ peg/include/keybddrv	No Update
PEG Mouse Driver	<install_dir>/ peg/source/mousedrv	No Update
	<install_dir>/ peg/include/mousedrv	No Update
PEG Examples	<install_dir>/ examples/<peg_flavor>	Updated
PEG Demos	<install_dir>/demos/<peg_flavor>	Updated
PEG Projects	<install_dir>/projects/<peg_flavor>	New
PEG Documentation	<install_dir>/docs	Updated
Stand Alone BSP	<install_dir>/os/sa	Bare Metal BSPs
Support libraries	<install_dir>/z160/libs	Support Libraries

Compared to the previous release, a new directory has been added to the directory tree called “projects”. The projects directory contains basic IDE example projects for a variety of platforms, IDEs and operating systems and is structured like the examples and demo directories.

To clarify the purpose of these three directories:

- examples: this directory contains basic PEG examples to help users create particular use cases.
- projects: this directory contains example IDE projects for distinct platforms, IDEs and operating systems. Only very basic PEG applications (hellopeg) are used for that purpose. Those projects shall help users to bring up development and build environment quickly.
- demos: this directory contains more complex PEG applications to show what can be accomplished with PEG.

All three directories contain the same identical sub structure, which is described in chapter 4.3 .

3 What's New

3.1 New Platforms

ARCHITECTURE	PLATFORM	IDE	OS
Freescale Kinetis	TWRK70N1M with TWR-LCD-RGB module	IAR, CW10	Bare Metal, MQX
Freescale PA	TWRPXD10/20	CW10	Bare Metal, MQX
IMX	IMX23 EVK	IAR	Bare Metal, ThreadX
	IMX25 PDK	IAR	Bare Metal, ThreadX
	IMX28 EVB	IAR	Bare Metal, MQX
	IMX35 PDK	IAR	Bare Metal, ThreadX
	IMX53 QSB	IAR	Bare Metal
Vybrid	TWR-VF600	IAR	Bare Metal, MQX

3.2 New Features

3.2.1 Window Builder

- Change of mouse pointer icon for improved user experience
- Improved access to PEG documentation through WB interface
- Zoom in/out feature of HMI workbench
- Improved copy/paste support for more efficient work flow
- Improved string ID editing and validation (unnamed and unassigned strings)
- Changed exit behavior of "Test Mode"
- Added "Generate All" option to create all generated source files
- First level of "Fragmented Frame Buffer" support (only for platforms supporting fragmented frame buffers through dedicated display controllers)
- Added parameter field in transition editor
- New "Vertical Scroll List" Object with support for "swipe feature"
- Automatic removal of unnamed and unassigned strings for resource size optimization
- Added object ID tags to Peg objects listed in a modules object selection tree for easier identification of an object intent

3.2.2 PEG

- Changed "IdleFunction" assignment for bare metal (without OS) setup
- OpenVG: supports multiple OpenVG widgets
- Enhanced support for "Fragmented Frame Buffer" as available on PXD10/20 and Vybrid (e.g. VF600) platforms

- Added PEG “Dragging” feature

3.3 Fixed Features

3.3.1 Window Builder

- Window Builder source code generator fixed missing marker for recognition of custom source code.
  NOTE: Due to this fix, the source code generator is not fully backward compatible to the previous version of Window Builder.
- Command line interface does not correctly generate user font resources
- WB crashes when module copied and deleted subsequently
- Change the Module Base Name (BaseName) to a non editable field
- Removed ability in WB to set multiple actions for a single OnMessage (forbidden)
- WB does not use the value in the Justification field for scrolling prompts
- Window builder does not remove the AddTitle source line properly
- Test mode doesn't automatically update the change language option
- Unable to select "FID_DEFAULT" in the Font selection
- Test mode may not operate the same as the generated for button action
- BIDI support option is not saved in WB project file
- WB Not generating set colour code to PegVScroll when requrested
- Window Builder does not generate Draw method
- WB generator inserts duplicate include file references
- Removing screen navigation from WB does not remove actual code
- PegTextBox doesn't remember its font in WB
- Position of PegWindow is changed when saving application in test mode
- PEG Window Builder doesn't assign PegRect in generated code for PegIcon with bitmap set to none
- Removed obsolete “PRESS” option in Configuration Tab
- When selecting a needle-bitmap the correct SetNeedleOffset value is generated in the cource code
- Remove duplicate setting of “Use UTF8 Encoding" in Configure Languages dialog. Settings for UTF8 and Unicode are mutually exclusive now.
- WB Plus Generates Code that is not defined in the WB project PLUS-PRO
- Add ability to not set multiple actions for a single OnMessage

3.3.2 PEG

- Support for OpenVG widgets
  Note: Usage of OpenVG widgets requires installation of OpenVG libraries for the targeted platform. Libraries are available in binary versions on request.
- Support for “Fragmented Frame Buffers” if supported by display controller

3.4 New Regressions

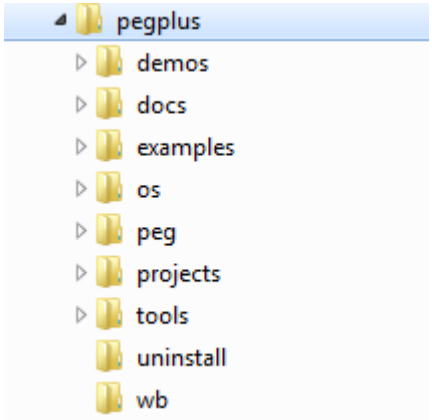
No new regressions added.

4 Release Description

This PEG+/Pro release has been issued by Freescale Semiconductor. PEG features support for a wide variety of platforms, operating systems, and combinations of these. With this release, support for a couple of Freescale platforms has been added to PEG as shown in the “New ” chapter.

4.1 PEG Top Level Directory Structure

Following figure shows the top level directory of a PEG Plus installation. A PEG Pro installation looks identical except for the top level directory name.



4.2 PEG Libraries

Prebuilt libraries are available for Windows and X11/Linux desktop in following location:

peg/lib/<peg_flavor>/build-<desk_type>

where <peg_flavor> may be “plus” or “pro” and <desk_type> may be “deskwin32” or “deskx11.” Related PEG library configuration head files (pconfig.hpp) are located in the same directory. Prebuilt libraries are for screen resolution 640 x 480 only.

Note: examples with smaller screen resolutions may be run with this library anyhow.

4.3 PEG Examples

The screen dump below depicts the directory structure (shown for the PEG+ distribution, PEG Pro is structured accordingly).

In general the examples (as well as demos and projects) tree has following structure:

<examples/projects/demos>/<peg_flavour>/<resolution>/<application>/<build-dir>/<ide_project>

- <peg_flavour>: this can be either *plus* or *pro* . Since one distribution (installed by an installer package) contains only either PEG+ or PEG Pro you will only see either *plus* or *pro*.
- <resolution>: this is the screen resolution of the applications contained in that folder.
- <application>: this folder contains the actual PEG application including
    - Window Builder project (*.wbx)

- Generated window builder sources (*.cpp and *.hpp files)
- Resources like images and fonts (in dedicated folders)

- <build-dir>: this folder is only present if an IDE project is included, e.g. usually only in the “projects” directory. It contains the project to build the application, either for the desktop (Windows or X11/Linux) or for the target platform. The naming convention for this folder is the following.

  For desktop build:

  - build-deskx11: contains an eclipse project in the “eclipse” sub-folder.
  - build-deskwin32: contains an MS Visual Studio project folder, for example *mvc10* (for Visual Studio 2010)

  For target build:

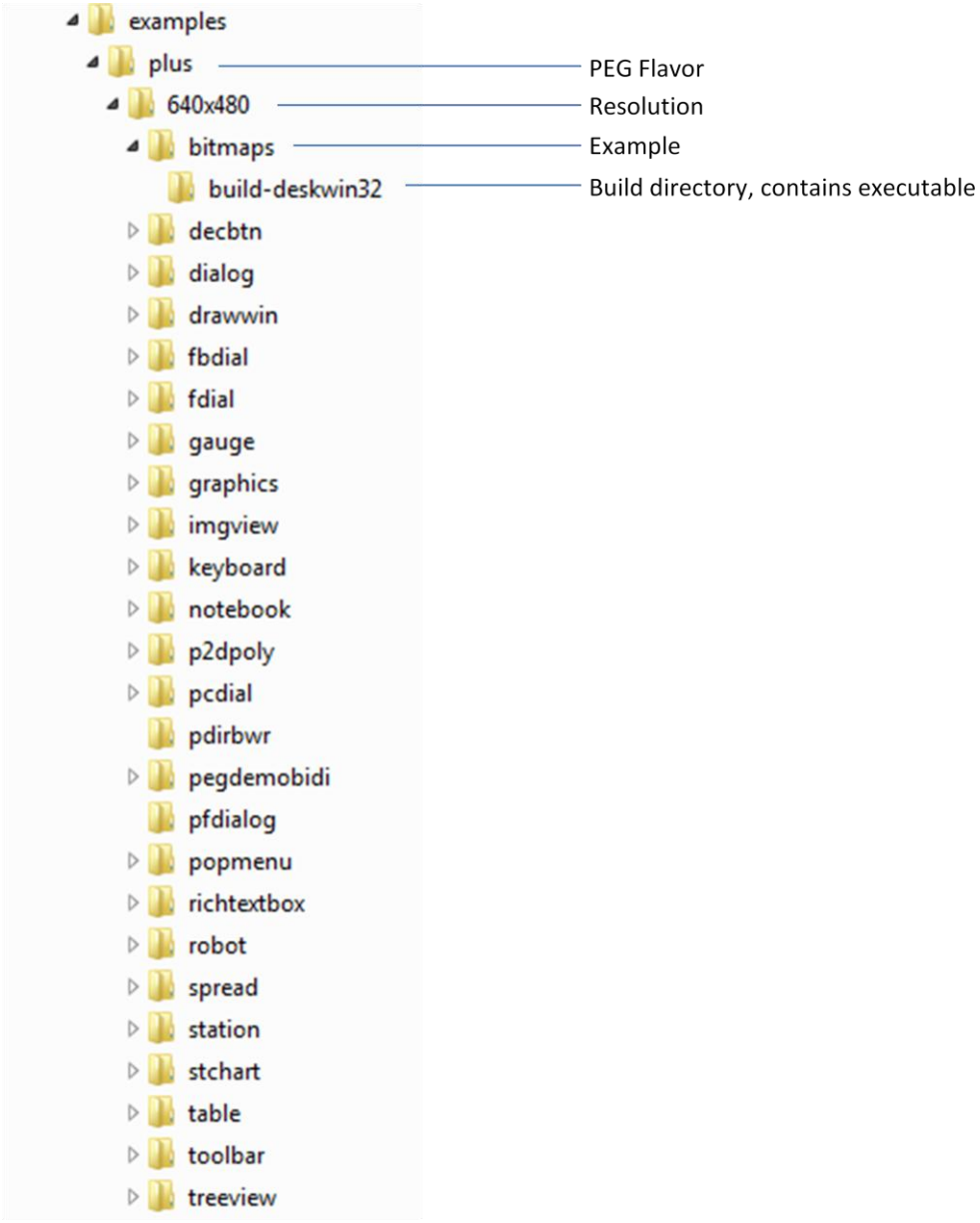
  - build-<platform>-<ide>-<os>-<flavor>
    - <platform>: the target platform, for instance twrk60n512
    - <ide>: the compiler/IDE used to build the application
    - <os>: the operating system PEG and the application will be built for
    - <flavor>: d for debug or p for production

- <ide_project>: following project folders can show up:
  - mvc10 - MS Visual Studio for C/C++
  - iar - IAR IDE
  - cw10 - Code Warrior 10.x IDE
  - cw9 - Code Warrior Classic 9.x
  - keil - Keil IDE

In general examples and demos folders contain for the most part executables for X11/Linux and Windows. Example projects for Linux and Windows (e.g. eclipse and MS Visual Studio project) are contained in

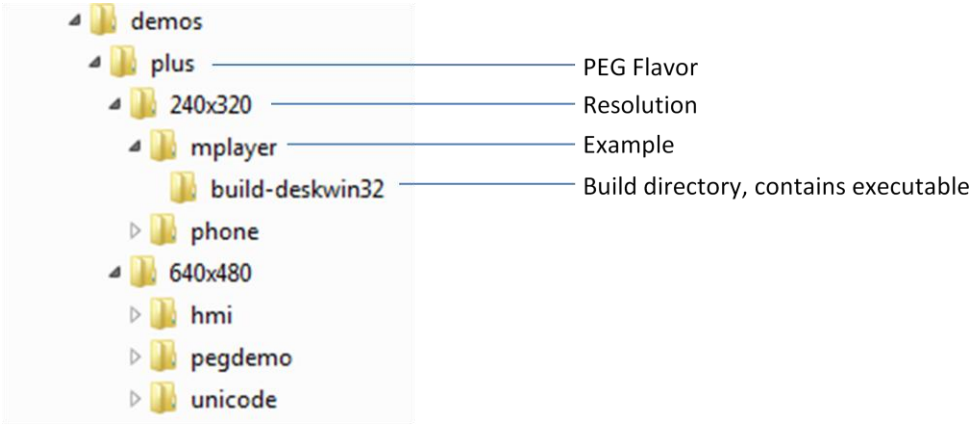
projects/<peg_flavor>/640x480/hellopeg/build-deskx11/eclipse and
projects/<peg_flavor>/640x480/hellopeg/build-deskwin32/mvc10

respectively. Those projects can be used as templates to create an IDE project for any other example.



4.4 PEG Demos

The demos folder is structured the same way as the examples folder described above. For that reason, only an overview of the tree is given without further description for each demo folder.

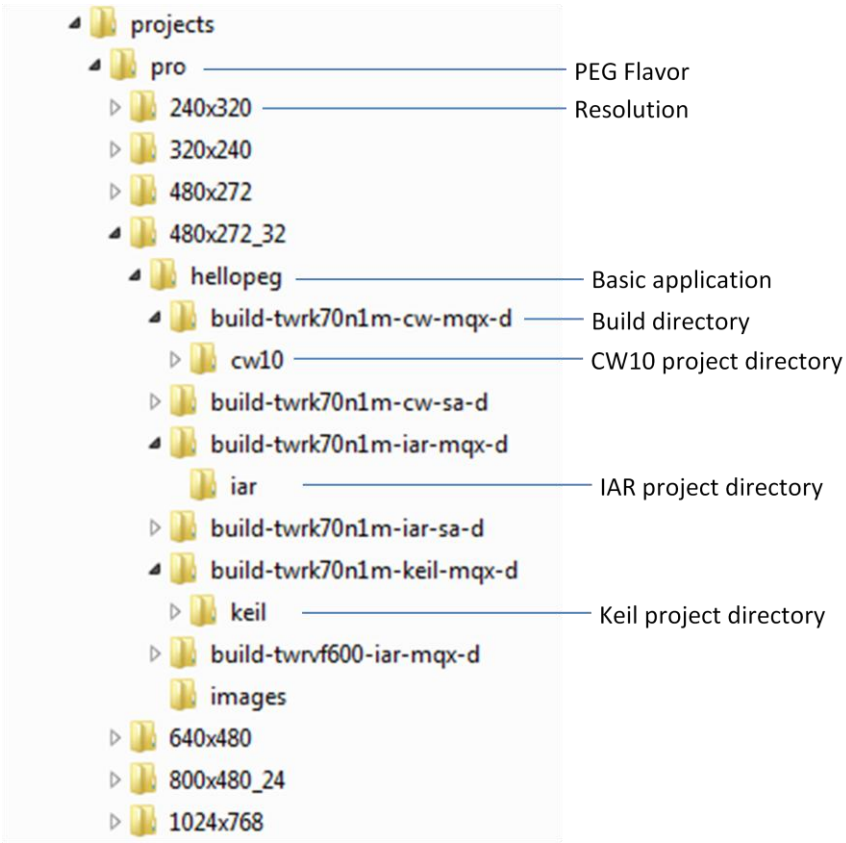


4.5 PEG Projects

The projects folder is structured the same way as the examples folder described above. The projects folder contains example IDE projects for distinct platforms, IDEs and operating systems. Those projects are targeted at helping users to bring up the build environment for a PEG application quickly.

4.5.1 General Directory Structure

Depending on the platform, different combinations of IDE and OS are available.



4.5.2 Where to Find a Project for a Distinct Platform

Since the directory structure is not very much in favor of finding a project for a particular platform, this chapter lists the platforms for which Out-Of-the-Box projects are provided in this release. In

case of a full source code installation of PEG all of the example projects of the related PEG flavor (Plus or Pro) will be available. In case of a demo installation for a particular platform, only the project for the one platform is available.

PEG Plus

PLATFORM	EXAMPLE PROJECT DIRECTORY	IDE	OS
Power Architecture			
TWRMPC5125	projects/plus/1024x768/hellopeg/build-twrmpc5125-cw9-mqx-d	CW	MQX
TWRPXD10	projects/plus/480x272/hellopeg/build-twrpxd10-cw-sa-d	CW	None
TWRPXD20	projects/plus/480x272/hellopeg/build-twrpxd20-cw-mqx-d	CW	MQX
	projects/plus/480x272/hellopeg/build-twrpxd20-cw-sa-d	CW	None
ColdFire			
MCF52277EVB	projects/plus/240x320/hellopeg/build-mcf52277evb-cw-mqx-d	CW	MQX
	projects/plus/240x320/hellopeg/build-mcf52277evb-cw-sa-d	CW	None
TWRMCF52259	projects/plus/320x240/hellopeg/build-twrmcf52259-cw-mqx-d	CW	MQX
	projects/plus/320x240/hellopeg/build-twrmcf52259-cw-sa-d	CW	None
Kinetis			
TWRK60N512	projects/plus/320x240/hellopeg/build-twrk60n512-cw-mqx-d	CW	MQX
	projects/plus/320x240/hellopeg/build-twrk60n512-cw-sa-d	CW	None
	projects/plus/320x240/hellopeg/build-twrk60n512-iar-mqx-d	IAR	MQX
	projects/plus/320x240/hellopeg/build-twrk60n512-iar-sa-d	IAR	None
IMX			
IMX23EVK	projects/plus/480x272_24/hellopeg/build-imx23evk-iar-sa-d	IAR	None
	projects/plus/480x272_24/hellopeg/build-imx23evk-iar-tdx-d	IAR	Tdx
IMX25PDK	projects/plus/640x480/hellopeg/build-imx25pdk-iar-sa-d	IAR	None
	projects/plus/640x480/hellopeg/build-imx25pdk-iar-tdx-d	IAR	Tdx
IMX28EVB	projects/plus/800x480_24/hellopeg/build-imx28evb-iar-mqx-d	IAR	MQX
	projects/plus/800x480_24/hellopeg/build-imx28evb-iar-sa-d	IAR	None
IMX53QSB	projects/plus/800x480_24/hellopeg/build-imx53qsb-iar-sa-d	IAR	None
PC			
WINDOWS	projects/plus/640x480/hellopeg/build-deskwin32	MVC	Win
LINUX	projects/plus/640x480/hellopeg/build-deskx11	Eclipse	Linux

PEG Pro

PLATFORM	EXAMPLE PROJECT DIRECTORY	IDE	OS
Power Architecture			
TWRMPC5125	projects/pro/1024x768/hellopeg/build-twrmpc5125-cw9-mqx-d	CW	MQX

TWRPXD20	projects/pro/480x272/hellopeg/build-twrpxd20-cw-mqx-d	CW	MQX
	projects/pro/480x272/hellopeg/build-twrpxd20-cw-sa-d	CW	None
	projects/pro/480x272/ovg_dcu/build-twrpxd20-cw-sa-d	CW	None
Coldfire			
MCF52277EVB	projects/pro/240x320/hellopeg/build-mcf52277evb-cw-mqx-d	CW	MQX
Kinetis			
TWRK60N512	projects/pro/320x240/hellopeg/build-twrk60n512-cw-mqx-d	CW	MQX
	projects/pro/320x240/hellopeg/build-twrk60n512-cw-sa-d	CW	None
	projects/pro/320x240/hellopeg/build-twrk60n512-iar-mqx-d	IAR	MQX
	projects/pro/320x240/hellopeg/build-twrk60n512-iar-sa-d	IAR	None
TWRK70N1M	projects/pro/480x272_32/hellopeg/build-twrk70n1m-cw-mqx-d	CW	MQX
	projects/pro/480x272_32/hellopeg/build-twrk70n1m-cw-sa-d	CW	None
	projects/pro/480x272_32/hellopeg/build-twrk70n1m-iar-mqx-d	IAR	MQX
	projects/pro/480x272_32/hellopeg/build-twrk70n1m-iar-sa-d	IAR	None
	projects/pro/480x272_32/hellopeg/build-twrk70n1m-keil-mqx-d	Keil	MQX
Vybrid			
TWRVF600	projects/pro/480x272_32/hellopeg/build-twrvf600-iar-mqx-d	IAR	MQX
	projects/pro/480x272_32/hellopeg/build-twrvf600-iar-sa-d	IAR	None
IMX			
IMX23EVK	projects/pro/480x272_32/hellopeg/build-imx23evk-iar-sa-d	IAR	None
	projects/pro/480x272_32/hellopeg/build-imx23evk-iar-tdx-d	IAR	Tdx
IMX25PDK	projects/pro/640x480_24/hellopeg/build-imx25pdk-iar-sa-d	IAR	None
	projects/pro/640x480_24/hellopeg/build-imx25pdk-iar-tdx-d	IAR	Tdx
IMX28EVB	projects/pro/800x480_24/hellopeg/build-imx28evb-iar-mqx-d	IAR	MQX
	pro/800x480_24/hellopeg/build-imx28evb-iar-sa-d	IAR	None
IMX35PDK	projects/pro/800x480_24/hellopeg/build-imx35pdk-iar-sa-d	IAR	None
	projects/pro/800x480_24/hellopeg/build-imx35pdk-iar-tdx-d	IAR	Tdx
IMX53QSB	projects/pro/800x480_24/hellopeg/build-imx53qsb-iar-sa-d	IAR	None
PC			
WINDOWS	projects/pro/640x480/hellopeg/build-deskwin32	MVC	Win
LINUX	projects/pro/640x480/hellopeg/build-deskx11	Eclipse	Linux

4.6 Building Example applications

Example applications may be modified and built with the example projects available in the projects folder of the installation. All applications available in the examples, projects and demos folders contain Window Builder project files which may be used to open and modify an application.

Example projects for Microsoft Visual Studio for Windows as well as eclipse projects for building under Linux are available here:

peg/<peg_flavor>/320x240/hellopeg/build-deskwin32/mvc10 and

peg/<peg_flavor>/320x240/hellopeg/build-deskx11/eclipse respectively. For MSC, version 10, for X11/Linux eclipse is required. In case projects shall be ported to other examples, the example project has to be cloned to the related application build directory.

The source code distribution of PEG also contains example projects for supported target platforms and IDEs. For the latest addition of platforms and how to get started on those, please refer to the Quick Start Guide.

4.7 Limitations

PEG screen drivers for TWRK60N512 and TWRMCF52259 are recommended for use with PEG Plus features only due to larger memory requirements for PEG Pro.

5 Release History

This section provides the PEG release history.

5.1 Release 2.3.11

- Restructured directory tree
- Added support for new platforms
    - TWRK60N512 with TWR-LCD module
    - TWRMCF52259
    - TWRMPC5125

5.2 Release 2.3.7

- Added check to DrawChildren function to eliminate crash condition when using conflicting DoShow flags
- Added check to Insert method of list class to remove zero return which caused error conditions
- Updated screen class to include initialization code which avoids a crash condition in viewport assignment when child windows are the same size as the parent
- Included check in bitmap button to avoid drawing condition which causes GPF when image is larger than button boundary
- Corrected BitmapSliderButton class to improve drawing result
- Bi-directional support was corrected to remove an incorrect pointer condition for certain languages
- Updated support for NXP LPC 2478 screen and touch drivers
- Updated support for PXA 320 screen and touch drivers

Window Builder Improvements

- Resource generation updated to remove the addition of a comma after arrays to eliminate warning condition generated by certain compilers
- Configuration generation corrected to remove incorrect CPU entry for ARM 9 selection
- Code generation fixed for PegIcon to include style flag selection (i.e. AF_TRANSPARENT)
- Configuration generation corrected to insert correct EOL characters to eliminate warning condition reported by certain compilers
- Resource generation fixed for binary big endian color reverse condition
- Added support to handle empty/blank directory selections in Directories panel
- Code generation corrected to include condition for missing or empty images in PegAnimation
- Code generation fixed to avoid crash when updating modules with an invalid scan pointer

- Added support to allow a single window acknowledgement for updating all modules versus individual windows for each module
- Configuration generation updated to include a check for the default palette settings and correct them if necessary
- Support added for long path name directory settings for importing files
- Configuration generation fixed for outline fonts to include correct #define
- Added method to assign disabled bitmaps to PegBitmapButton constructor source code
- Compressed binary resource generation corrected to fix an error in font table size calculation

Release 2.3.5

- Updated Epson S1D13513 driver to eliminate flickering issue
- Added command line parameter support to Linux rtos integration
- Added support to library for 4bpp 16 color template and windows development environment
- Corrected progress bar object to allow color selection
- Fixed bug in finite dial object to correctly handle transparency flag
- Corrected SJIS handling in windows rtos integration to determine if language is Japanese before applying SJIS function to convert to UNICODE
- Fixed bug to avoid heap corruption caused by overflow if brush width is too large
- DumpWindowsBitmap function updated to include support for BGR/RGB in 24bpp
- TheradX rtos mouse pointer support updated to set default and look for pointer type changes
- Updated 24bpp rotated template to correct image drawing
- Updated Blackfin BF548 driver files to include custom pixel compositor handling
- Added support for Renesas H8/H8-SX

Window Builder Improvements

- Added option for uncompressed binary resource generation to enable flexibility for resource files
- Fixed transparent bitmap button image handling in Linux WindowBuilder to match development environment
- Added support for custom widgets in menu and xml file to handle user widget library additions
- Fixed bug limiting length of strings to avoid WindowBuilder crash during merge
- Corrected drawing to fix issue when drawing anti alias font over transparent scroll prompt
- Included a check for font ID when importing modules to avoid crashing WindowBuilder
- Fixed bug for product image selection to correct addition and removal procedure
- Added support for comments in XLIFF string table export

5.3 Release 2.3.3

- Added 24bpp template to support rotated screen drivers

- Added support for BF 548 & BF 537 rotated screen drivers
- Updated support for SM501, Atmel 9263, PXA320 & OMAP 3x screen drivers
- Fixed 24bpp binary resource color handling
- Added missing PegBiDiEditField class to peg.hpp, project build files, and Makefiles
- Updated product skin functionality to include Linux desktop development environment
- Multiple surface functionality now includes checks for viewport addition and removal to ensure the same surface is used
- Added screen driver support for Altera NIOS II & NXP 3250
- Updated rtos integration for ETS, CMX, VDK, Nucleus, eCos Pro, uCos

Window Builder Improvements

- Fixed inverted 24bpp 90° & 270° image generation bug
- Added support for themes to use their own fonts
- Fixed bug in PegNotebook code generation to allow notebook destructor to handle removing the class
- Resource ID management has been fixed when importing modules from other projects
- Added support to the Font Capture utility in the Resource Manager to include MS Symbol encoded fonts
- Added support to the Font Capture utility in the Resource Manager to include 8-bit code pages 850, 852, 856, 857, & 866
- Modified the HotSpot selection screen to accommodate very large or small images
- Fixed 8bpp palette window to display a previously missing row in the user-defined region of Colors

5.4 Release 2.3.1

- Added support for UTF-8 string encoding
- Added support for BF 548/9 pixel compositor
- Added support for Renesas 7263
- Added support for PCL printer output
- Added integration for ETS-14
- Updated
- To increase class flexibility, a constructor that uses PEGCHAR pointer for title and message strings was added to PegMIMessageWindow
- To improve clarity and readability the following flags have been renamed:

  PEG_MULTILAYER_SCREEN_DRIVER replaced with PEG_MULT_HARD_SURFACES

  PEG_LAYERED_WINDOWS conditional replaced with PEG_MULT_SOFT_SURFACES

Window Builder Improvements

- Fixed properties area so Navigation button doesn't appear for child windows
- Added support for Reduce Font option
- Fixed binary resource generation and loading to work correctly on little-endian targets with different structure packing compiler settings
- Fixed font generation top / bottom clipping issue
- Added support for the password field to handle blank ID entry for correct parameter number
- Added case handling for Configure|Misc|User Defined option where line is not terminated with line feed character

5.5 Release 2.2.9

- Integration with OS20 RTOS
- Support for Bidirectional(Bidi) text in peg widgets and library
- Support for RichText file viewer
- Added keyboard support for PegFileDialog class
- Added support for dynamic bitmaps in PegIcon class
- Fixed SetFont in PegVirtualVList class to assign font to each prompt

Window Builder Improvements

- The new WindowBuilder now has modified configuration screens to read data from xml file and the user has to use a drop down menu to select the items
- Added touch calibration target bitmap to system bitmaps
- Fixed bug in WindowBuilder test mode so that it works correctly
- Release 2.2.7
- Integration with CMX-RTX, MQX, RTXC Quadros RTOS
- Added new screen driver for the Analog Devices BF527, BF537 dsp for 16 and 24bpp and MCF 52277 for 16bpp
- Changes to the profile mode template class to draw RLE images correctly
- Window Builder Improvements
- Changes to the WindowBuilder to not include mouse bitmaps or touch calibration target bitmaps in resource file when mouse support or touch calibration is turned off

5.6 Release 2.2.5

- A new naming convention for the library configuration #defines will be followed from this release onwards. The following table lists the old and new configuration flag name for those that have changed. Because of these changes you will need to re-generate the pconfig.hpp header file for your project(s) as follows:

- Open your window builder project file with the latest WindowBuilder(1770) that is in this distribution.
- Regenerate all modules, resource file and configuration header file(pconfig.hpp).
- Save your project and rebuild your application.
- Renamed Defines.
- Additional library modifications for this release include:
- Removed pbitmaps.cpp from the distribution. All the bitmaps that were in the pbitmaps.cpp file are now part of the application resource file, and added automatically by WindowBuilder.
- Integration with eCos, iTRON, ThreadX and VxWorks RTOS
- Changes to the PEG source and include files to conform to the new #define naming convention
- Removed the default color defines from pegtypes.hpp. The default color defines are now included in the pconfig.hpp header file, specific to your target color depth and format.
- Fixed keyboard focus drawing and renamed button color indexes
- Added a check in PegCircularDial class so as to not get caught in an endless loop
- Fixed SetCopyMode function in PegTextThingClass so that it works even if no text is set yet

Window Builder Improvements

- Added 8bpp support to WindowBuilder
- Fixed the screen messages in Font Aspect Dialog Ratio window
- Fixed resizing issue with regards to CheckBoxes, PegDecoratedButtons, PegScrollPrompts and PegBitmapButtons to resize the PEG objects correctly when fonts are changed
- Added additional options in the configuration panel for touch panels
- Fixed an issue with WindowBuilder not generating correct header file names

5.7 Release 2.2.3_update

- Fixed focus indicator of button and slider classes
- Release 2.2.3
- Added new Linux frame buffer device driver for 24bpp
- Fixed Pop function of SMX integration file so that it blocks after drawing
- Filled in some missing rotated functions that had been updated in the regular templates and fixed the RLE bitmap drawing to work if the drawing surface has a different size than the screen in profile mode screen driver for 16bpp
- Fixed GPIO assignments for AT91SAM926X series SoC driver, added ability to build for
- SMX and optimized screen copying functions
- Modified the Get Palette function in the 32bpp screen driver template to return an mPalette pointer instead of NULL

Window Builder Improvements

- Added transparency checkbox to Horizontal Scroll bar and Vertical Scroll bar objects
- Corrected a problem with setting of text in a Prompt from the string table

5.8 Release 2.2.1

- Added new screen driver for the TI OMAP 2430, i.mx31 board Soc, TI TMS320DM355, Da Vinci processor, and Renesas SH7263
- Support for Integrity RTOS in user space for the TI OMAP 2430 SoC
- Integration with Integrity, OSE and SMX RTOS
- Makefile changes to build in X Windows environment
- New color definitions for 8bpp and 16bpp BGR mode
- New data type PEGCT to define all non Unicode Characters gives ability to define whether a “char” will be signed, unsigned or default to compiler setting
- Made 555 format flag for bitmaps a unique bit position for RGB/BGR format
- Added support for freetype font rendering engine
- Changes to the image conversion classes to support ARGB and BGRA order correctly
- Added text justification to ScrollPrompt and BitmapPrompt class
- Support for drawing anti-aliased text to alpha channel bitmap for 16bpp and 24bpp
- Changed the height of the cursor in the EditBox for cursor drawing
- Modified the Draw function of the PegGroup class to use “real transparency” instead of “fake transparency”
- Support for underlined text
- Fixed a bug that causes divide by zero issue in ProgressBar class
- Fix for setting clip rectangle in DrawTextView function for multi-page font with different page heights in screen templates
- Fixed BitmapFill function in PegScreen class so that it clips correctly to the rectangle passed into it
- Fixed BoxLine in PegScreen class so that the math stays accurate at small sizes
- Removed check for (Brush.LineColor == Brush.FillColor) in Polygon function so that it will draw an anti-aliased border of the same color as the fill color
- Modified the Draw() function of ScrollBar class so that if there are no end buttons but the PBMI_SCROLL_UP or PBMI_SCROLL_DN bitmaps are filled in, those bitmaps get drawn as the top and bottom sections of the background image
- Fixed size of ScrollBar in spreadsheet class
- Changes to ScollPrompt class to create alpha-channel surface if using anti-aliased font
- Fixed GetLineStart function in textbox class so it doesn't crash on a boundary condition

- Fixed a bug where some objects might not get resized correctly when a scrollbar is added in
- WSM_AUTOVSCROLL mode in PegVirtualVList class
- Fixed PegPopMessage in integrity integration file to lock the queue semaphore before unlocking it instead of just unlocking it
- Modified text drawing in linear driver for 16bpp and 24bpp to take into account the real height of each character so that we don't draw garbage
- Corrected problem with 24bpp screen driver to resize the screen for swap buffer
- Changes to the examples to reflect changes in window builder

Window Builder Improvements

- Sorted list of modules in WindowBuilder alphabetically
- Modified color depth config dialog to immediately reprocess images when color format is changed
- Added Free Type font support to WindowBuilder configuration
- Added MinOffset and MaxOffset fields to the configuration of horizontal and vertical scroll bars
- PEGCT changes to add "char" selections to the string configuration dialog
- Fixed size of scrollbar in font view window
- General fixes for running on X11/Linux
- Fixed code that was setting BMF_RGB flag even if it wasn't set before in function WriteBitmap. This caused weird bitmap appearance after generating a resource file
- Added Default Colors buttons option to window builder
- Added code to allow bitmap prompts to set an offset for the text
- Added text justification offset to PegScrollPrompt
- Fixed bugs in relative path handling for Linux/Windows
- Added PEG_TIMER_TICK_COUNT adjustments in the RTOS configuration screen

6 Evaluation Request

To obtain an evaluation release of PEG+ or PEGPRO for the Windows or Linux/X11 development platforms, please fill out the form found here

http://www.swellsoftware.com/evalForm.php

7 Known Issues

List of known issues will be published on the PEG website (http://swellsoftware.com/).

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