

Pico Computing Inc.



Operating the Pico Card in Standalone Mode

Version 5.0.0.3. Apr 16th, 2010.

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1 Overview

Other manuals in this help library can be located at [GuideToDocumentation.pdf](#)

NOTE: This link will access the pdf from the PicoComputing.com Website .

2 Version Compatibility

Versions are numbered with four decimal digits:

major.minor.release.counter

for example: **3.10.0.6**

All Pico software and firmware uses the version number to ensure compatibility and in some cases to allow nominally incompatible versions to interoperate. The version number can be obtained in several ways:

- From Windows Explorer: right click the file and select Properties/Version.
- From the Help/About menu item in PicoUtil.
- From Pico.dll using the function GetProgramVersion().

When PicoUtil starts it will access the Pico Card and display version information. The following message is typical:

```
PicoUtil.exe: V3.10.0.06. Jul 21 2005 08:32:59.  
Pico.dll: V3.10.0.06. Jul 21 2005 08:32:59.  
Pico.sys: V3.10.0.06 Debug: Jul 20 2005 16:36:41.  
Firmware: (FPGA) V3.10.0.6.  
PPC: Pico Monitor V3.10.0.6.
```

The fields of this message have the following meanings:

- **PicoUtil.exe:** V3.10.0.06. Jul 21 2006 08:32:59
This is the version and compilation date of PicoUtil.exe.
- **Pico.dll:** V3.10.0.06. Jul 21 2006 08:32:59.
This is the version number of Pico.dll.
- **Pico2K.sys:** V3.10.0.06 Debug: Jul 20 2006 16:36:41.
This is the version and compile date of the driver (Pico.sys).
- **Firmware:** (FPGA) V3.10.7.0.
This is the version of the current FPGA bit image
- **PPC:** Pico Monitor V3.10.1.0.
This is the version of the program running on the PPCb on the Pico Card. This version information may not always be present if the Pico Card is a LO version (logic only), or if the monitor program is not running.

The software will verify versions at startup and not operate if the versions are not compatible. Version numbers are managed according to the following rules:

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- Versions with a different major version number can be expected to be highly incompatible and will require changes to user application code.

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- Versions with the same major version numbers but different minor version numbers (eg. 3.9 to 3.10) should be compatible at the source code level. They may require the code to be recompiled.

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- Versions with the same major and minor version numbers but which differ in the release number will be compatible at the object code level - ie a version 3.10.0.x PicoUtil.exe should run with a version 3.10.1.x version of Pico.dll. Naturally, improvements in a later version number will not be present in the earlier code.

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- The counter is a number that is used to ensure that no two instances of different software or firmware are released with the same numbers. Code with different counters should be compatible across the board.

3 Product changes

Versions 4.x.x.x are a significant departure from earlier version 3.x.x.x. For this reason the major version number has been incremented from 3 to 4.

Major features in version 4 are:

- Support for the Pico E-15 and E-15 cards
- A significant problem with Dell laptops has been corrected.
- A makefile for building both the firmware and the software.
- Linux Support for clusters of E-16's. Under Linux up to 91 Pico E-16 cards may operate simultaneously in a single backplane.
-

3.1 Versions 4.0.0.x

3.1.1 Version 4.0.0.2

Released 2007-5-16

Corrected problem with many Dels and bus mastering

Changed to makefile for firmware and software build scripts

Support for Pico E-16 cards.

3.1.2 Version 4.0.1.2

Released 2007-8-31.

Reverted to allowing both CHM and PDF manuals
Added options to specify CHM or PDF file formats in PicoUtil.
Made pdf files on the web site access the web site

Added scripting language to Custom tools menu.

Facilities allow the word **.script** in the command box and a simple program in the arguments box.

Added context sensitive help throughout PicoUtil

3.2 Versions 4.0.1.x

3.2.1 Version 4.0.1.1

Released 2007-8-20.

Corrected problems with Pico.sys which caused blue screens

Added Load FPGA in cPicoChannel constructor

Added decriptive field to PICO_CONFIG

Changed ReadPorts and WritePorts to ReadPort and WritePort with changes to parameters

Tool processor in PicoUtil for read/write ports, memory, devices

Improved wizards functionality in PicoUtil

Added EDK_flow projects.

3.2.2 Version 4.0.1.3

Released 2007-11-1.

Chipper.exe

Release Chipper.exe for Blue Tooth, WPA, FileVault, and winzip

E15 support added

3.2.3 Version 4.0.1.4

Released 2007-11-1.

Samples changed

3.3 Versions 4.0.2.x

3.3.1 Version 4.0.2.0

Released 2007-11-1.

Linux, BSD, MacOS

Changes to support Linux host, BSD, and MacOS.

3.4 Versions 4.1.0.x

3.4.1 Version 4.1.0.1

Released 2007-11-1.

Support for E16 flash ROM
Release of Linux version

3.5 Version 4.2.1.x

3.5.1 Version 4.2.1.1

Released 2008-12-5.

3.6 Version 4.3.0.x

3.6.1 Version 4.3.0.0

Released 2008-12-18.

Supports remote access to E15Plus
Changes to PicoDll
Changes to PicoUtil
Change to PicoCommand

Added Pico_drv_remote
enhanced /i option to allow ip address
enhanced /i option to allow ip address