pICE User Guide

1. Introduction

This is the user guide for pICE. It will contain all neccessary information on how to compile, install and configure pICE as well as using it. Since I'm not the original author of pICE a lot of this information I will have to dig out of the sourcecode, so it will not be always up to date and maybe sometimes wrong. Of course I can always use help there, so if you have some info which should be in this manual, then send me a note at sparhawk@gmx.at[1].

2. What is pICE?

pICE was written originally by Klaus Gerlicher in 2000. Several months later he abandoned the project because he had not enough time to spend on pICE and the project was vacant. In Summer 2003 I noticed this project on sourceforge because I was looking for a decent debugger on linux to use for Wine[2] development. I immediately liked the concept and saw it as a challenge, so I tried to contact Klaus Gerlicher, but to no avail. After that I contacted sourceforge and became the new owner of the project. I also have not that much time to work on pICE, but I already did some coding on it and I hope to get it up again. Also I'm always available vi my email adress, so in case I can't continue, I still can provide access to the project or other information.

3. How does pICE work?

pICE is an interactive kernel debugger similar to SoftICE on MS Windows(tm). It is a normal kernel module and because of this, when pICE is activated and presents it's user interface, the whole system is stopped and you can examine your systems state. pICE will provide source level debugging and also works with multiple CPUs. Currently it doesn't work with X reliable though this depends on the graphics driver mostly. A new design is on its way to make it easier to write pICE drivers for different graphics cards.

4. Installation

You can either download a release file or via CVS. Please look in the download section for the neccessary information on how to do this. Once downloaded you should go to the module directory and execute make. After this is finished you will have a pice.o in the directory which is the kernel module. Before you can insert pICE into the kernel, you must create the configuration file /etc/pice.conf. When you have finished creating the config file you can insmod pice.o. If you have no configfile, as mentioned above, you will get a „bad adress" at this point because pICE always requires its config file.

The new configuration format is in MS Windows INI style format, so it is easy to read and easy to extend for future versions.

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The current configuration looks as follows:
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[1] mailto:sparhawk@gmx.at

[2] http://www.winehq.com

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/etc/pice.conf ------------------------
[Display]
VideoDriver=vga

[Init]
SystemMap=/boot/System.map

/etc/pice.conf ------------------------
```

pICE can also be used under VMWare, since I use VMWare myself for developing pICE, compatibility is ensured.