



FLEXTRONICS

Agilent 3070

**Migration to Windows
What really takes to do it !!!**

Manuel Ruiz
Flextronics – Austin Texas

Agenda

1. **Why did we move to Windows ?**
2. **Domain or Workgroup ?**
3. **Ctool v.s. Mtool**
4. **Backwards compatibility**
5. **Expect pushback from senior TEs**
6. ***Frequently Asked Questions***

Why did we move to Windows ?

- ✓ End of Support for all Unix controllers
- ✓ No more enhancements of software for Unix
- ✓ Reducing development and debug time
 - Windows is 4 to 6 times faster than Unix controllers
 - It takes 6 days to compile a 12,000+ nets board on Unix
 - It takes only 1 day on Windows
- ✓ Reducing downtime due to the controller
 - Worst case in Unix could be up to a week to get parts in
 - Worst case in Windows is 30 minutes to replace the defective PC
 - Unix up to **7 Days** vs. Windows **30 min**



Why did we move to Windows ?

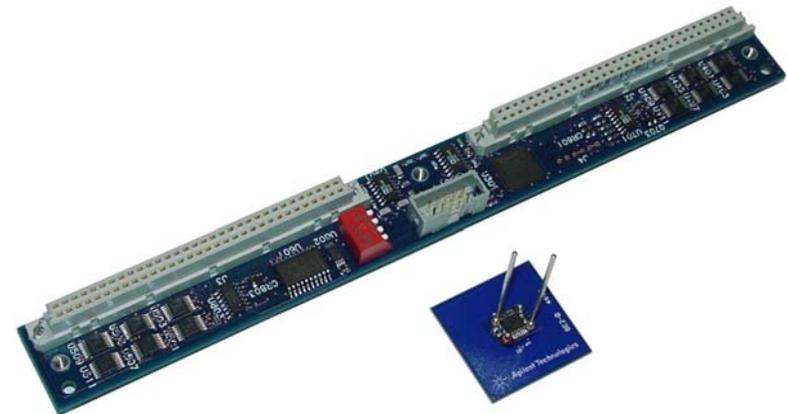
✓ New software release available only on Windows

- Enhancements to TestJet test: VTEP, iVTEP
NPM (Network Parameter Measurement)
- Boundary Scan: 1149.6, enhanced debug tools.
- Enhanced operator screen (OIL) rev 7.0 +

✓ Test algorithm enhancements

✓ Time-To-Manufacturing improvements

- Auto Optimizer Tool
- Auto Debug Tool
- Minimization of Phantom Shorts
- Interactive Pin Locator Tool



Domain or Workgroup ?

Workgroup

A workgroup is best understood as a peer-to-peer network. That is, each computer is sustainable on its own. It has its own user list, it's own access control and its own resources. In order for a user to access resources on another workgroup computer, that exact user must be setup on the other computer.

In addition, workgroups offer little security outside of basic access control. Windows “**share permissions**” are very basic and do not offer any kind of granularity for “who” can access “what”, etc.

Workgroups are more than adequate, though, for most small business and home use.

Domain

A domain is a trusted group of computers that share security, access control and have data passed down from a centralized domain controller server or servers. Domain Controllers handle all aspects of granting **users permission to login**. They are the gatekeeper. In addition, most modern domains use Active Directory which allows and even more centralized point for software distribution, user management and computer controls.

Domain or Workgroup ?

Workgroup:

- HPUX works on a Workgroup environment.
- Agilent Software on Windows has no problems working on a Workgroup.

Domain:

- Expect many issues due to “Share Permissions” running on a Domain in a mix environment (Unix and Windows).
- Use a NFS software to match the “permissions” from the old Unix systems to your Domain.
- Work close to IT to restrict access to your files/programs on the network.
- TEs use their own NT login (Domain) while debugging.
 - (One less job for the System Admin).
- Need to create an new Operator user account on your domain to grant it the right permissions to the server.
- For maintenance and calibrations keep using the standard logins from Agilent
 - These accounts are local to the machines.

CTool v.s. MTool.

The CTool (Conversions tool) is part of the supported Agilent software.
The MTool is a home grown software developed by Flextronics.

CTool takes 3 to 4 days to convert a complex programs (7K+ nodes).
MTool takes only few hours.

CTool takes around 8 Engineering hours for the complex board.
MTool takes around 1 hour for the same complex board.

CTool always comes with unknown surprises and there is not guaranteed that will work at the first time.

MTool has been proven on more than 450+ programs and they all work at the first time.

CTool come with the Agilent package.

MTool is not for sale 😞 .

Backwards compatibility

- **Working on a mixed environment is recommended to upgrade your Unix controllers to 5.30pd**
- **5.42 is backwards compatible with 5.30pd (Except VTEP).**
- **All software/programs stored on a Server can be access and executed from multiple machines on a mix environment at the same time with no issues.**
- **BT-Basic takes care of the issues of the extra characters left from Windows. (Carriage return).**

Expect pushback from senior TEs

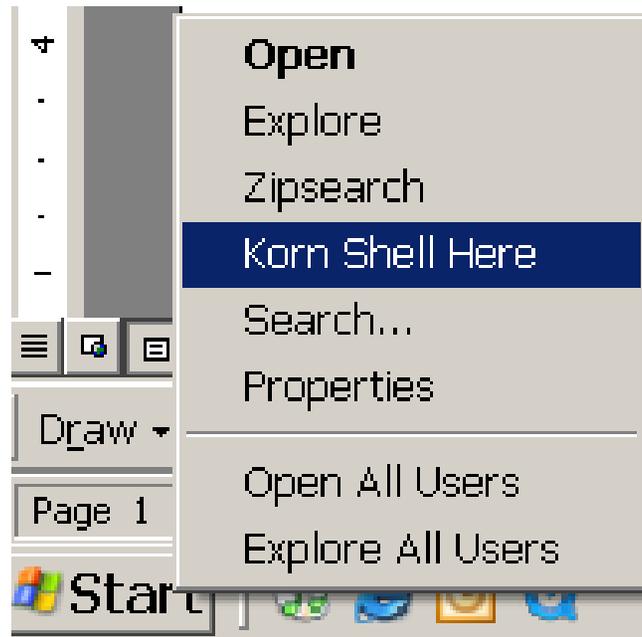
- **Expect a lots of comments and memories from the old good times working on Unix ☹️**
 - **“Unix is more stable”**
 - **“Unix never crashes”**
 - **“I never got a virus on a Unix Controller”**
 - **“Many users can login”**
 - **“I never see this issue in Unix”**
 - **“Unix takes a lot more time but works”**

Frequently Asked Questions

1. Why the “ll” (long list) command doesn’t work on the new shell?

When you launch a shell window from a BT-Basic window, the shell windows will not run the local profile to allow “ll” to work, you can use “ls -l” command instead or launch the shell window from the start button as shown below.

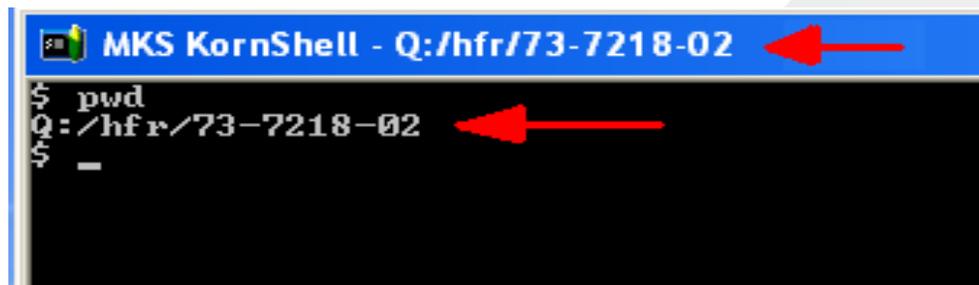
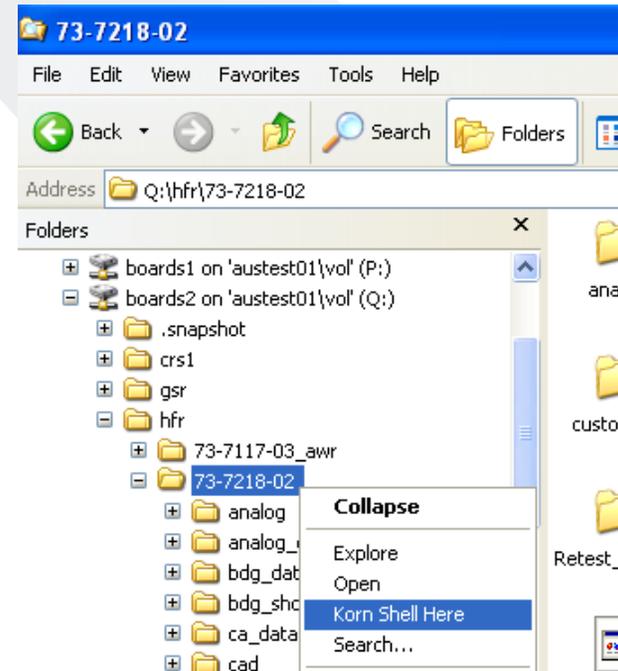
Right click on the START bottom and select “Korn Shell Here”



Frequently Asked Questions

Another way to execute the shell window is to open the windows Explore and go the directory you want to work on, select the directory, right click to it and select “Korn Shell Here”

When the shell window is launch from either the START button or form the windows explore, the current location will be shown on the top of the window.



Frequently Asked Questions

2. **Can I execute UNIX commands on the new shell windows?**
 - ✓ Yes, most of the common UNIX commands are available on the new 3070-Winodws software, like: `grep`, `sed`, `sort`, `tail`, etc. even the “man” command works on windows.
3. **Can I debug a board from my computer?**
 - ✓ Yes, you can, using a VNC (Virtual Network Connection) program you can connect to the desire machine and take control of it as you where there.
4. **Can I lock and unlock the fixture from my desk.**
 - ❖ No, This is a safety feature from Agilent
5. **I’m working on a Unix environment and the file contains ^M at the end of every line, How can I remove those?**
 - ✓ ^M tells you that this text file has been saved or re-saved on a Windows environment,
These characters are not visible on BT-Basic, but if you are working on a Unix-shell and you don’t want to see them, the safest way to remove these characters at the end of every line is to load the file on a BT-Basic (Unix mode) and re-save it.

Enjoy the Windows experience

Good Luck !!

