"TouchScreen" project

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Test document V0.1
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This documentation contains the tests (bug list and test cases) made or noticed on the project "TouchScreen TI6"

V0.1	2006-27-13	Initial Release

Powered by LaTeX
generated at 9:18 on November 27, 2006

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1 Tests and Bugs

This section contains a bug list (solved or open), and test cases, it means, what has been tested and what still has to be tested.

1.1 The debugger

There was a problem while trying to implement the current debugger headers and classes into the clown programm running on the ARM. It doesn't worked well : the effect was that after entering in the debug mode and clocking the ER from the ARM, the ARM programm blocked at the end of a loop. But it seems that this effect only the clown programm. It's because the debugger and the draw panel programm use the same data bus on the ER board. This has not been solved yet. It means that the debugger can be implemented in any ARM programm, except by the clown one.

1.2 The Touchscreen

Concerning the touchscreen, just a pressure on the first column will lead to a change of resistance on the concerned contact pins. This was measured with a multimetre : only the first column (lines 1,2,3) is also recognized by the ER.
The polling is already working. However, only in column 1 because the resistance in the other columns doesn't change. Otherwise, it would also function for the other columns.

1.3 The VHDL

The copy in the RAM (for the "ERburn") is not tested yet, because the VHDL model for that is still lacking.
We do not have to copy too often VHDL on FPGA, otherwise it heats a lot (fumes emitted possible).

1.4 The ERDE Application

Programmed in C#, the ERDE Application uses the "Syntax Highligting Control" from the Scintilla *.NET Control*.
At the moment there is one bug, which is not easy to be fixed. The Scintilla Control used is programed in C++. As our programm Application is written in C#, we used the Scintilla *.NET Control*. The *.NET Control* is at the moment a ALPHA release, that is not really finished. But for our features it is ok. The *.NET Control* is only an unfinished wrapper control for the original C++ Control that is distributed as a DLL.
The bug is, that when we have the cursor in the control and we are pressing CTRL+F or F10 or even ALT+F, messages not are sended to the main application. So for example we can't use F10 to trigger the debugger if the Scintilla control has the focus. For using keyboard commands we have to unfocus the control, and all is then working.

There is also one small problem : if the ERDE is in a repertory, whose name contains a blank, the assembler will not work.

1.5 The Assembler

All new functions have been tested with several ASM codes. Not any bug was noticed. It means, the ASM programm accepts only one argument (the .er1 file), the ASM code can contain small letters or big letters, the .hex is good generated (the code that contains only the raw machine code), and it is shown on which line there is a syntax problem.
Concerning the "AND #0 Bug", it has been fixed. The different cases were not all thought, and for the value "0" following a "#", the code was running at a wrong place. We can here notice, that for the Assembler, the Scanner part was before programmed by the other teams in Java. Depending on its functioning, all type of syntax error are listed and programmed, in order to be recognized. It would have been easier to programm this part in JavaCC, and furthermore it would have avoid this bug. But it would have also imply to reprogram a too big part of code.

1.6 The Board

There must be a problem in the wire connections under the Board. One or more cable is disconnected. This wire may concern the JTAG[1] feature.

[1] JTAG is a test access ports used for testing printed circuits boards using boundqry scan