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ATMEL-CUPL/WinCUPL Bugs that are FIXED.

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The following is a list of bugs which have been fixed in the ATMEL-CUPL 5.302 and previous releases. The following Notes will allow users to determine if a new release will help them

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Bug #1

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ATV2500B Bug:

Symptoms: Cupl general incorrect equations using the Clock enable (.ce) product term even though JEDEC file only use .CK suffix. Equations are generated incorrect in .DOC file with compiling source file with state machine syntax.

10-5-95 This bug was fixed on ATMEL-CUPL V4.5c

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Bug #2

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ATV2500B bug:

Symptoms: CE simulation failed. The .CE equations and configurations are generated properly (JEDEC fuse OK) but CSIM failed. JEDSIM would pass with the vectors (JEDEC vectors have to be modified because CSIM overrides with the simulation vectors).

Work-around: Do not simulate.

7-22-95 This bug is fixed with Atmel-CUPL version 4.5c.

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Bug #3

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(7-11-95)

Symptoms: CUPL produces incorrect PLA file for equation:  
out = !(a & b). PLA equation is out = !a & b.  
when it should be: out = a # b.

Workaround: Write the equation as !out = !a # b.  
It will reduce correctly on the PLA file.

10-5-95 Fixed ATMEL-CUPL V4.5c

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Bug #4

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ATV2500 Bug

Symptoms: CUPL generates incorrect values of S1 and S5 bits for macrocell configured for a combinatorial output, and two Buried registered nodes Q1 and Q2. PT's for Q1 are inadvertently combined with the output logic PT's.

9-15-95 FIXED ATMEL CUPL V4.5c

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Bug #5  
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ATV750B Bug: (8-29-95)

Symptoms: When more resources are used than available in the part, CUPL gives no errors and compiles file. Same file on ATV750 generates "Output Mutually Excluded < > output name(s)" error and terminates, which is the correct response.

9-15-95 Fixed. ATMEL CUPL V4.5c

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Bug #6  
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ATV2500B Bug: (9-19-95)

Symptoms: Configuration bit S5 set incorrectly to "1" instead of "0" for Combinatorial output, Buried Q1 node, Buried Combinatorial node.

9-27-95 Fixed ATMEL CUPL V4.5c

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Bug #7  
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ATV2500B Bug: (10-10-95)

Symptoms: When using \$REPEAT statement with State Machine Syntax and % (modulus operator) CUPL generates incorrect equations. Correct equations are generated for the ATV2500 device, however.

11-2-95 Fixed ATMEL CUPL V4.5c

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Bug #8  
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ATF1500 Bug: (6-14-95)

Symptoms: This is general bug with applies to all devices since simulation for CUPL's virtual device simulator. This bug is a problem with the simulator reading the .ABS file which generates incorrect result for registered outputs. The same test vectors when run on programmer will pass.

Fixed Atmel-CUPL V4.7a

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Bug #9  
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ATF1500 Bug:

Symptoms: CUPL produces simulation error when there are no pin or node assignments in the PLD file. VSIM should be able

to simulate the equations without assignments. This bug is specific for F1500.

Workaround: Assign pin and node assignments to all pins and nodes in source file.

Fixed Atmel-CUPL V4.7a

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Bug #10

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ATV750/B and ATV2500/B Bug: (9-5-95)

Symptoms: Buried latch representation of combinatorial output feature available in the device not supported by CUPL.  
.DFB extension compiles okay in V4.4c, generates error on V4.5b.  
Device feature should be supported by using .DFB suffix option.

Workaround: For up to 4 PT's use PINNODE with same logic as combinatorial output.

Fixed Atmel-CUPL V4.7a

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Bug #11

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ATV750B Bug: (9-19-95)

Symptoms: Using "De-morganize" option in CUPL result in equation that are mapped in CUPLC as being inverted. (i.e S2 bit is set incorrectly)

Workaround: Don't use the options, or try minimization option instead to reduce product term count.  
Or write logic directly in De-morganized form.  
De-morganize option only works with virtual devices.

1-3-96 Fixed Atmel-CUPL V4.7a

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Bug #12

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ATV2500B Bug: (10-11-95)

Symptoms: When macrocell configured as a combinatorial output plus a Q2 registered node using T type flip-flops, S5 bit is being set to a '0' [thus using D type flips-flops] instead of '1'

1-19-96 Fixed Atmel-CUPL V4.7a

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Bug # 13

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ATV2500B Bug: (1-9-96)

Symptoms: CUPL configures Q2 registered node as T flip-flops when using the NODE keyword. When PINNODE keyword and node number is used these nodes are configured correctly as D flip-flops.

Workaround: Define all nodes used in the design with the PINNODE keyword and node number. Do not use the NODE keyword.

2-21-96 Fixed Atmel-CUPL V4.7a

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Bug # 14

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CUPL Bug: 12-20-96

WINCUPL V4.7b

Symptom: CUPL incorrectly compiles an equation

D0.AR = RST # ![X0..X1];

Logic is reduced to D0.AR = RST # !X0;

The extra term X1 is being dropped.

Workaround: Define equation as D0.AR = rst # !x0 & !x1;

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Bug # 15

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FIT1500 Bug: 6-16-97 (FIT1500 V2.32)

Fixed in Wincupl5.1x : (FIT1500 V2.41) is included in build

Symptom: Fitter failed to fit design.

Problem:

EQ = (1); becomes

EQ = A # !A; after Espresso.

Logically, both equations are valid. But the second equation uses 2 product terms.. which may cause the fitter failed to fit the design

Workaround:

Run FIT1500 from the DOS command: FIT1500 filename.TT2

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Bug # 16

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WINCUPL (V4.8a) Bug: 11-05-97

CSIMA Bug:

Symptom: Select the "display results" options under

"Simulator Options" to view a successful simulation as a waveform

generates an error: "Could not find program wcsim"

Workaround: Make sure the WINCUPL executables directory in the DOS path specified in the AUTOEXEC.bat file on your PC.

This problem is fixed in Wincupl 5.1x or later

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Bug # 17

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WINCUPL (4.8a) Bug: 12-24-97

FIND1500/FIND1508 Bug:

Fixed in 5.1x release

Symptom: WinCUPL generates "Fatal Fitter Error During Processing"

when compiling 1500 and/or 1508 file.

Workaround: This error can occur if the fitter is unable to fit your design. First check to see if you have a <filename>.fit file in your project directory. Read it (if it exists) to find out why the design didn't fit. If this file doesn't exist then you can manually run the fitter. Follow the steps below to do this:

Copy fitter executable in the same directory as the project sub-directory. Re-Compile the design.

- 1) Open the COMPILE OPTIONS.. submenu under the OUTPUT FILE menu.
- 2) Select PLA file, De-select JEDEC file output
- 3) Re-compile design in the Main menu  
The fitter will generate an output file with the (<filename>.tt2) extension.
- 4) Open the DOS Prompt in the UTILITIES menu.
- 5) Copy the fit1508.exe/fit1500.exe into the project Directory
- 6) Type fit1500 <filename[.tt2]> Press <return>
- 7) The fitter will attempt to fit your design. All the output files generated by the fitter will reside in the project directory.

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Bug # 18
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WinCUPL (4.8a) Bug: 5-19-99
Fixed in Wincupl 5.134
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Cannot print from within the WINCUPL program.

Workaround:

Copy the file into another Editor such as Notepad and then Print

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Bug # 19
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WinCUPL (4.8a) Simulator Bug: 7/28/99
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Adding .io extension to ORDER statement for a Field Variable in \*.SI file even though supported on \*.PLD file cause GPF fault when attempting to run simulator. This bug could be generalized to any output extension available in CUPL.

For example,

```
Order:Rset,!Ale,Aux,!Rd,!Wd,%2,DatBus.io,
      %2,AdrLat,%2,InpBuf,%2,OutLat;
```

Creates GPF fault.

Workaround:

```
Order:Rset,!Ale,Aux,!Rd,!Wd,%2,DatBus,
      %2,AdrLat,%2,InpBuf,%2,OutLat;
```

Is OKAY. Where DatBus, AdrLat, InpBuf, OutLat are FIELD variable specified in the \*.pld source file.

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Bug #20
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WinCUPL (V4.8a) Simulator Bug: 7/29/99
Fixed in Wincupl 5.1x
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When running the simulator with an old \*.so file open. WinCUPL should prompt the user to overwrite it after a new simulation is completed. This will prevent the user from having to re-open the file after every simulation to view the updated results.

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Bug #21
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WincuplV5.126 Compiler/FInd1500 Bug: 8/31/99
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When trying to load a file from A:\, specifically targetting the 1500a device, the file compiles OK and then the find1500 window opens with a message: [007xl] could not change to specified directory.

Seems like the find1500 program is unable to find the fit1500 program ?

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Fixed in Wincupl5.134
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Bug #22
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Wincupl5.126
The file fails to compile for f1508isptqfp100 device type. problem is
with a valid I/O pin number 45 not being recognized as a valid I/O.
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Fixed in Wincupl 5.134 (atmel.dl was modified)
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Bug #23
*****
Wincupl5.126
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Symptom:  
After starting WinCUPL, following message is shown on screen:  
Runtime error 5.Invalid procedure call or argument.  
Similar problem occurs on WINNT4.0 { European version of WINDOWS }

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Fixed in Wincupl5.137
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Bug #24
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Wincupl 5.126
Date: 11/19/99
Symptom:
The project navigator does not update the Files list if a given .PLD
file is recompiled by choosing a different device type
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Fixed in Wincupl 5.134
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Bug #25
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WinCupl version 5.126
Date : 12-15-99
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Status: Fixed in 5.134

Symptom:

After downloading WinCUPL(SETUPEX.EXE file) from ATMEL website and on compiling a Sample .PLD file for the first time, the Compiler complains that version is EXPIRED. "Time Limit" shows "-693141 Days Remaining".

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Bug #26

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WinCUPL Version 5.134

Date: 03-23-00

Status: Fixed in 5.143

Filename: Any example targetting the ATf1508AS device

Symptom:

If you compile an example file on Win NT4.0:, an error comes up in the message box:

```
Run EXE: Incorrect function.0
[0010ck] fitter could not fit design
Fatal cupl errors:.....program aborted
```

The example however compiled correctly on the Win98 platform.

Workaround: Copy the fit1508.exe program into your project directory and execute command: fit1508 filename.tt2 -device pl1508c84 (for 84-pin Plcc)

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Bug #27

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WinCUPL Version 5.141

Date: 03-28-00

Device:ATF20V8B (PLCC) -Device menmonic g20v8alcc

Symptom:

If you compile a file on Win NT4.0 machine with service pack 5, the Compiler crashes. Error message on the screen : An application Error has occurred. Same file compiles fine on Win95/98 machine.

Fixed: in Version 5.144

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Bug #28

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WinCUPL Version 5.141

Date: 06-14-00

Device: g22v10

Fixed: Rev 5.144

Symptom:

On trying to compile a file on Win NT 4.x sytem I get a runtime error: Runtime Error (80010108)  
Automation Error: The object invoked has disconnected from its client.

The same file compiles fine on WIN95/98 platform

Workaround:

Reinstall the SETUPEX.EXE file dated July2000 from Atmel website.  
(version 5.144)

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Bug #29

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WinCUPL Version 5.143

Date: 09-11-00

Device: v2500bc

Fixed: Rev 5.144

Symptom:

Inconsistent compilation of files would result in the wrong Checksum depending on the Sequence in which one or more files were compiled. Inconsistency is caused only from unused I/O.

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Bug #30

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WinCUPL Version 5.143

Date: 09-12-00

Device: Any example tragetting the 1500AS family

Fixed: in Wincupl 5.144

Symptom:

If you compile an example file on Win NT4.0:, an error comes up in the message box:

Run EXE: Incorrect function.0

[0010ck] fitter could not fit design

Fatal cupl errors:.....program aborted

In some example:

Message on Screen:

The instruction at "0x77e78bf4" referenced memory at "0x00000013".

The memory could not be read.

Click on OK to terminate the application

Click on Cancel to Debug

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Bug #31

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Date: 07-18-01

Device: ATF1504AS-T100-ISP or device menmonic f1504isptqfp100

Status: Fixed in 5.216 Build on July 18, 2001 with an updated atmel.dl

Symptom:

Wincupl generates a Fitter Report file with incorrect device type. If you check the Fitter command in the first line it reference -dev p1504t1lj instead of p1504t100

Workaround:

Manually run the Fitter from the DOS prompt. The Non-ISP device type works fine. This Bug has since been fixed on the Build released on 07\_18\_2001 with an updated atmel.dl file.

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