

**Release Notes
ATLAS Compiler
Version 3.23.34 (20070307)
7 March 2007**

1.0 Overview

The following describes an overview of changes included within version 20070307 (3.23.34) of the following ATLAS compiler(s)

CASS / RT
IEEE716.89 / PAWS

and version 20070307 (3.23.34) of the following ATLAS support tools.

Signal Resource Allocator
Signal Flow Analyzer

1.1 Enhancements

None

1.2 Problem Reports

06-107, 06-108, 06-110, 07-012 and 07-014

2.0 Detailed Description

2.1 Enhancements

2.2 Problem Reports

2.2.1 06-107 – IOResource with many characters (CASS)

String length for IO has been incremented in the compiler.

2.2.2 06-108 – Missing switch data (CASS)

Previous versions of the Signal Resource Allocator included in the 'verbose' allocation report showed, for each CNX, data that specified the switches used and the 'triplets' required to activate those switches. It had been reported that for SHORT 'signals' that were allocated to a Device Database entry no switch data was shown. Investigation revealed that was indeed the case and in addition the potential for data, that while valid, would not necessarily be that used at runtime.

This release of the Signal Resource Allocator will show, for all signals, the triplet data that is used at runtime.

2.2.3 06-110 – CALCULATE not working (CASS)

The IEEE716 C/ ATLAS and the CASS standard specify that the result of performing the division of an INTEGER by an INTEGER will be DECIMAL but do not specify the algorithm to use. There are two possible methods, as follows:

- 1) a) Perform INTEGER division, ignoring remainder.
 b) Convert result to DECIMAL.
 Example $5 / 2 = 2 = 2.0$

- 2) a) Convert both numerator and denominator to DECIMAL
 b) Perform DECIMAL division.
 Example $5 / 2 = 5.0 / 2.0 = 2.5$

Revisions of the CASS compiler prior to 3.21.14 (20040212) used method 1). Revision 3.21.14 (20040212) required a complete re-write of expression evaluation and used method 2).

All revisions since, through 3.23.31 (20070125) continued to use method 2). This release of the CASS ATLAS Compiler uses method 1).

2.2.4 07-012 – String Issue (IEEE716.89/PAWS)

Error message is now printed by the compiler when maximum string length is surpassed. The maximum length supported is 506 characters.

2.2.5 07-014 – Undefined data in Entry Point Table (CASS)

A change was made in the CASS/ RT ATLAS compiler to put a null string into the Entry Point Table in the absence of an Entry Point Message.