

**Release Notes
ATLAS Compiler
Version 3.23.21 (20060406)
09 May 2006**

1 Overview

The following describes an overview of changes included within version 20060406 (3.23.21) of the following ATLAS compiler(s)

CASS / RT
ESTS / PAWS
IFTE / PAWS

1.1 Enhancements

1.2 Problem Reports

06-006

2.0 Detailed Description

2.1 Enhancements

None

2.2 Problem Reports

2.2.1 06-006 - Too many Structures - IF, FOR etc

All IEEE716 / 1985 based compilers, including CASS / RT, use the general *workspace* file for the following three purposes, as follows:

- ATLAS Symbols ('Labels')
- Program Structure Tree
- Statement Number Table

That data is organized into two pools, as follows

- ATLAS Symbols + Program Structure Tree
- Statement Number Table

The first pool, i.e. ATLAS Symbols + Program Structure, as a result of the addressing architecture, is limited in size to 131KByte. The Program Structure Tree requires an entry for each ATLAS *procedure*, IF statement, FOR statement, WHILE statement, MEASURE / VERIFY TIME INTERVAL

statement and BEGIN, ATLAS statement. ATLAS Programs that included a large number of those statements, usually IF / FOR / WHILE could result in the overflow of that pool.

The pool containing the Statement Number Table has a size limit of 64MByte.

This release of the CASS / RT compiler has separated the ATLAS Symbols and Program Structure elements into two separate pools, each having a limit of 131KByte. The result is that ATLAS programs with a far larger number of IF / FOR / WHILE statements can now be processed. It is intended that similar changes will be implemented into all IEEE716 / 1985 compilers at the next major release.