

**Release Notes
ATLAS Compiler
Version 03.23.02 (20050609)
09 June 2005**

1 Overview

The following describes an overview of changes included within version 20050609 (3.23.2) of the following ATLAS compiler(s)

CASS / RT

and version 20050609 (3.23.2) of the following ATLAS support tools:

ATLAS Linker

1.1 Enhancements

1.1.1 REQUIRE 'BY' and 'ERRLMT' Fields

1.1.2 REQUIRE I/O in Modules

1.1.3 READ (DATE) DATE TIME

1.1.4 IPL

1.1.5 Unused REQUIRE's

1.2 Problem Reports

05-999

05-998

2.0 Detailed Description

2.1 Enhancements

2.1.1 REQUIRE 'BY' and 'ERRLMT' Fields

REQUIRE modifier BY and ERRLMT fields and MEASURE / VERIFY <MeasuredCharacteristic> ERRLMT fields may be ignored by specifying the -n option to the ATLAS Compiler, i.e. Options>>Build>>Atlas>>OtherOptions = n.

2.1.2 REQUIRE I/O in Modules

Previous releases of the CASS ATLAS compiler treated REQUIRE I/O statements in an ATLAS Module as implicitly EXTERNAL and in an ATLAS Program as implicitly GLOBAL. As a result if a REQUIRE I/O file was used in one or more ATLAS modules but not in the ATLSA Program it was necessary to

include the REQUIRE statement in the ATLAS Program or the ATLAS linker would consider the file resource as undefined and issue an ERROR message.

This release of the ATLAS compiler, combined with the ATLAS Linker, allows those REQUIRE I/O statements to appear only in the ATLAS module(s) where they are referenced.

2.1.3 READ (DATE) DATE TIME

This release of the CASS ATLAS compiler combined with a supplied Device Database causes the DATE string returned by a READ, (DATE), DATE TIME statement to be formatted in accordance with the CASS standard, i.e. YYMMDDhhmmss.

2.1.4 IPL

The following IPL commands are compiled into functionally equivalent AIL.

- PHV
- PPV
- CLT
- ELT
- CMP
- CNC
- WT

The following IPL invokes a Non-Atlas Module, 'EclCommandNam' to process ECL commands.

- E <Command>

The <Command> is handed to the Non-Atlas Module as a MSGCHAR argument. It is recommended that a COM-NAM be used to implement 'EclCommandNam'.

The following IPL is recognized but performs no action.

- CWT

This command is defined as "clearing the max time clock." Since the PAWS WRTS does not support the notion of a max time clock the command is ignored.

It is assumed that within a single LEAVE / RESUME ATLAS block that there be no net change in the number of items that are on the run-time arithmetic stack, thus all items that are pushed on the stack, usually as a result of a PHV command, must be popped either by serving as a parameter to another command or as a result of a PPV command prior to the RESUME ATLAS statement.

Examples:

Valid.

```
LEAVE ATLAS      $
PHV  X@P1
PHV  Y@P1
CNC
```

```
PPV  Z@P1
RESUME ATLAS  $
```

Invalid. The value of the CNC command is left on stack at RESUME ATLAS.

```
LEAVE ATLAS  $
PHV  X@P1
PHV  Y@P1
CNC
RESUME ATLAS  $
```

The CASS ATLAS Compiler will detect these conditions, issue a WARNING message and remove the excess stack items.

2.1.5 Unused REQUIREs

The CASS ATLAS Compiler at completion, i.e. TERMINATE statement, analyzes each REQUIRE resource to determine if it were referenced. When a REQUIRE resource that was not referenced is detected an INFORMATION message will be issued and the resource will be deleted from the signal description for that compiled unit.

2.2 Problem Reports

2.2.1 05-999 IDENTIFY <Event> 'Labels'

Examination of supplied CASS TPS's revealed instances where the same 'label' was used for an IDENTIFY <Event> and a DECLARE <Variable>. Previous versions of the CASS ATLAS compiler issued ERROR messages when such naming conflicts were encountered, with the exception that <Procedure> 'labels' could conflict with <Variable> 'labels'.

This release of the CASS ATLAS compiler has implemented a more general method of handling context sensitive names and allows <Variable>, <Procedure> and <Event> names to use identical 'labels'.

2.2.2 05-998 Unary Minus Operator (-)

Examination of supplied CASS TPS's revealed instances where the unary minus operator (-) was applied to BOOLEAN variables. Previous versions of the CASS ATLAS compiler issued an ERROR message when such usage was encountered.

This release of the CASS ATLAS compiler allows such usage by processing the unary minus as a NOT operator.