



NORTH AMERICA

EADS North America Test and Services

---

# PAWS Studio Release Notes

Version 1.40.0

May 24, 2013

# Table of contents

<b>1</b>	<b>Paws Developer's Studio</b>	<b>3</b>
<b>1.1</b>	<b>Critical Items</b>	<b>3</b>
1.1.1	Paws Studio and RTS Package Built in Visual Studio 2012, Configured With v100 Platform Toolset	3
<b>1.2</b>	<b>Known Limitations</b>	<b>4</b>
<b>1.3</b>	<b>Enhancements</b>	<b>4</b>
1.3.1	PawsEnv.ini Information Moved to Registry (TaskID 1159)	4
1.3.2	Option to Use Visual Studio 2012 Compilers When Building CEM Modules (Task ID 1157)	4
<b>1.4</b>	<b>Problem Reports</b>	<b>6</b>
1.4.1	Unable to Select the Compiler Output in Output Window for a Resource File (Bug ID 1158)	6
<b>2</b>	<b>Run Time System</b>	<b>7</b>
<b>2.1</b>	<b>Critical Items</b>	<b>7</b>
<b>2.2</b>	<b>Known Limitations</b>	<b>7</b>
<b>2.3</b>	<b>Enhancements</b>	<b>7</b>
2.3.1	Record Oriented File Resource Implements SYSCAL Files (ChangeID 1187)	7
<b>2.4</b>	<b>Problem Reports</b>	<b>8</b>
2.4.1	Record Oriented File Resource Implements One Based Record Index (Change ID 1161)	8
2.4.2	Abnormal Memory Consumption When Project EHF Is Big (Bug ID 1205)	8
2.4.3	Empty Project EHF File When RTS Is Installed In a Non-Default Location (Bug ID 1189)	8
2.4.4	Source Code of RTS Resources are Updated for Translation Into a Foreign Language (Bug ID 1208)	9
2.4.5	RTS Error Reporting Enhanced to Identify the Root of "Not Enough Storage" Error (Bug ID 1188)	9
2.4.6	RTS Adapters Do Not Expose .MEASUREMENT as Alias of MEASUREMENT (Change ID 1202)	10
2.4.7	Unable to Open a Closed Resource Error Fixed (Bug ID 1153)	10
<b>3</b>	<b>Compiler Changes Overview</b>	<b>11</b>
<b>3.1</b>	<b>Enhancements / Changes affecting all dialects.</b>	<b>11</b>
3.1.1	None.	11
<b>3.2</b>	<b>Enhancements / Changes affecting CASS/PC.</b>	<b>11</b>
3.2.1	Record File I-O	11
3.2.2	Require Statements	11
3.2.3	SYNC SWING	11
3.2.4	BOOLEAN FILL	11
3.2.5	CNX field warning with Identify statement.	11
3.2.6	Display Boolean as Integer	11
3.2.7	Large value (1e38) of over range condition, skip scaling. PR-LM-130320	11
3.2.8	.MEASUREMENT	11
3.2.9	Corrupted DAT file	12
3.2.10	Warnings During Build	12
3.2.11	DISABLE, EVENT ALL	12
3.2.12	NAM Parameter size and passing	12
3.2.13	Maximum Digital Bit Size	12
3.2.14	Connection Variables	12

# 1 Paws Developer's Studio



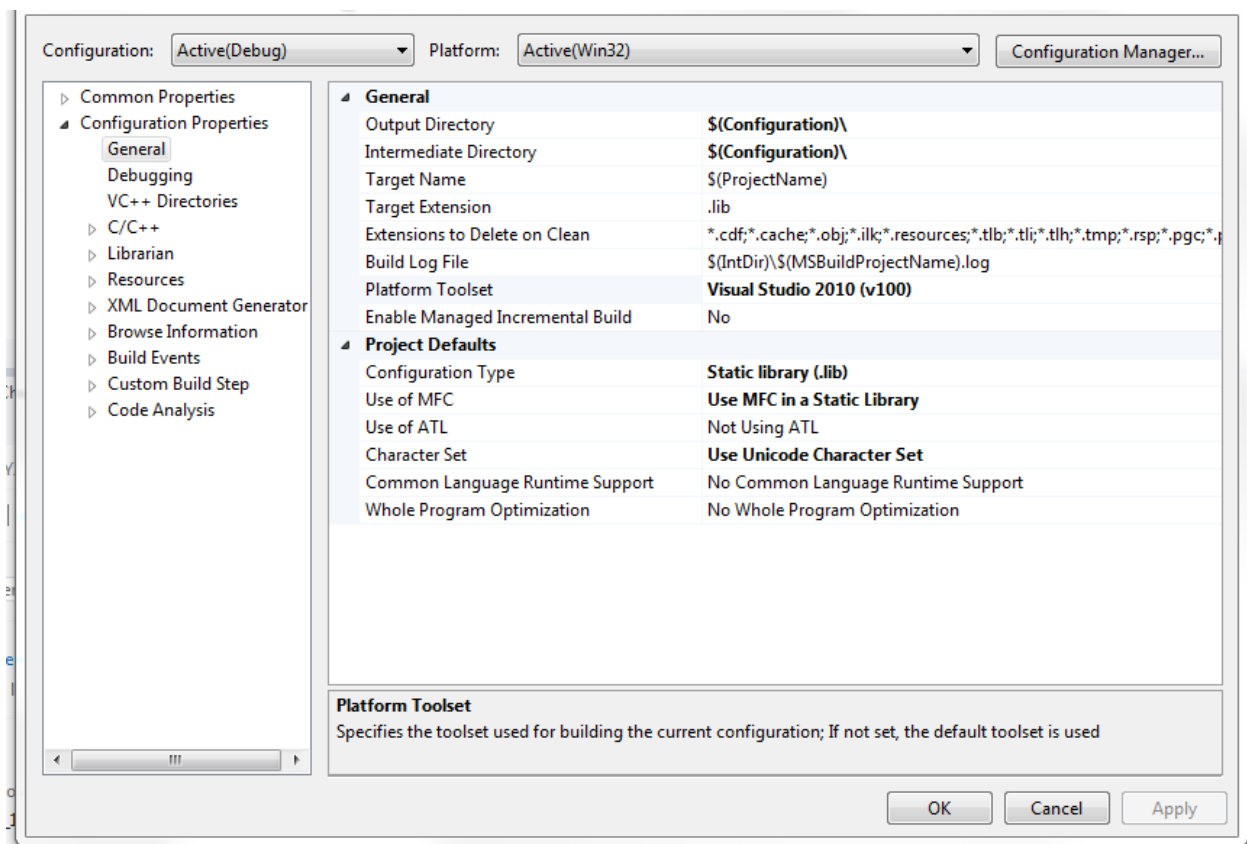
Version 1.40.0

Release date: May 9, 2013

## 1.1 Critical Items

### 1.1.1 Paws Studio and RTS Package Built in Visual Studio 2012, Configured With v100 Platform Toolset

Choosing Visual Studio 2010 compilers for all our binary files assures their portability on Windows XP Operating Systems.



However, the code has been adjusted to successfully resolve the incompatibilities between Visual Studio 2008 compilers (the compilers that built our software up to version 1.39.14) and those belonging to Visual Studio 2010.

All our .NET Portable Executable (including our Interop Assemblies) are built to use .NET Framework 2.0, like our 1.39.x branch.

*Our customers are encouraged to report any difference of behavior of new software (1.40.0 or newer) versus old software (1.39.14 or older).*

## 1.2 Known Limitations

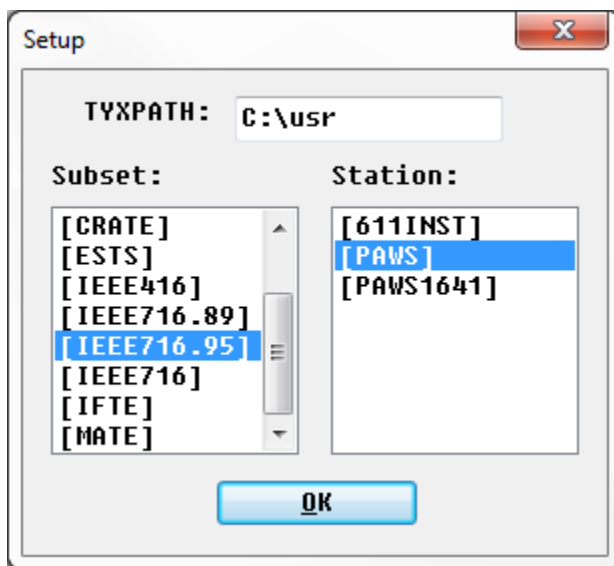
## 1.3 Enhancements

### 1.3.1 PawsEnv.ini Information Moved to Registry (TaskID 1159)

Both Paws Studio and RTS are able to read at startup the content of c:\Windows\PawsEnv.ini and save its content in registry. Once PawsEnv information is present in registry, C:\Windows\PawsEnv.ini file is ignored.

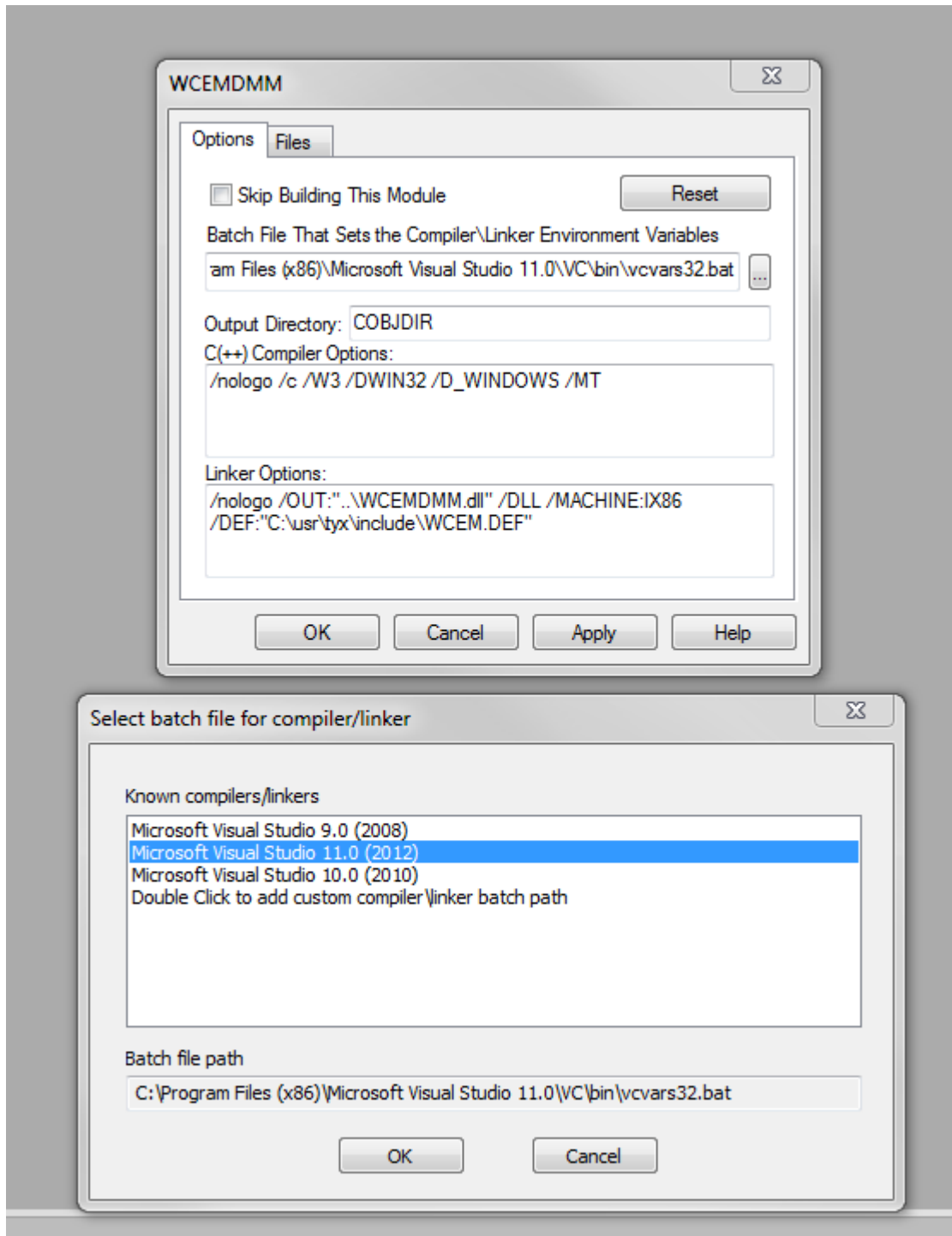
C:\usr\tyx\bin\ConfigureRegistry.exe reads/writes from/to registry or XML file all the information that used to stay in PawsEnv.ini, in the same fashion like the other configuration information that used to stay in Paws.ini and Wrts.ini.

When Paws Studio or RTS applications do not find the pawsenv.ini information in registry, and there is no c:\Windows\PawsEnv.ini file present, the user is prompted to select the current subset and station with the following dialog:



### 1.3.2 Option to Use Visual Studio 2012 Compilers When Building CEM Modules (Task ID 1157)

Assuming that the Microsoft Visual Studio 2012 has been installed in its default place, Paws Studio is able to find the batch file that sets the environment variables for the compiler and linker of Visual Studio 2012. This is done by selecting a CEM Module in Paws Project Tree Tab, right click and select Settings from the context menu, then click the Browse button at the right side of the edit control that holds the Compiler\Linker Environment Variables Batch file. Select Microsoft Visual Studio 11.0 (2012) for the latest compilers:



Node: the list in *Select batch file for compiler/linker* dialog contains only the versions of Visual Studio Packages that are installed on the current machine.

## 1.4 Problem Reports

### 1.4.1 Unable to Select the Compiler Output in Output Window for a Resource File (Bug ID 1158)

Paws Studio needs to keep track of the output line numbers when it builds a project. Based on the correct understanding of line numbers, it identifies an error location in the source file when the user double clicks a compiling error in Output Window.

The resource compiler of Microsoft Visual Studio 2008 is reporting the compiling output through text whose lines are not terminated with Carriage Return + Line Feed (0x0D + 0x0A). Instead, its lines are terminated by successions of Carriage Return characters. This symptom confuses the line detection code in Paws Studio. The first sideeffect is that a User is unable to select the output of the .rc file compiler in Paws Studio.

As a solution to this problem, Paws Studio now filters the output of all Microsoft compilers, and inserts the missing Line Feed characters when needed.

## 2 Run Time System



Version 1.40.0

Release date: May 9, 2013

### 2.1 Critical Items

### 2.2 Known Limitations

### 2.3 Enhancements

#### 2.3.1 Record Oriented File Resource Implements SYSCAL Files (ChangID 1187)

Our Record Oriented File Resource implements a reading mechanism for SYSCAL files, although they do not contain records. No writing to a SYSCAL file is allowed. A SYSCAL file is expected to contain the ***\_SYSCAL*** string in its atlas name, like in the test case below. This is the only way to identify a SYSCAL file.

```
000001 BEGIN, ATLAS PROGRAM 'SYSCAL' $
      70 REQUIRE, '834482A_SYSCAL', I-O FILE,
          CAPABILITY,
          FILE-ORGANIZATION SEQUENTIAL,
          FILE-FORM FORMATTED,
          RECORD-TYPE FIXED,
          RECORD-LENGTH 48 BYTE $
      75 DECLARE, MSGCHAR, STORE, 'SERNO', 48 CHAR $
E      $
200050 ENABLE, FILE, OLD '834482A_SYSCAL', FILE-ACCESS DIRECT $
      55 INPUT, USING '834482A_SYSCAL', RECORD-NUMBER 1, 'SERNO' $
      60 DISABLE, FILE, '834482A_SYSCAL' $
          OUTPUT, ('SERNO') $
999999 TERMINATE, ATLAS PROGRAM 'SYSCAL' $
```

## 2.4 Problem Reports

### 2.4.1 Record Oriented File Resource Implements One Based Record Index (Change ID 1161)

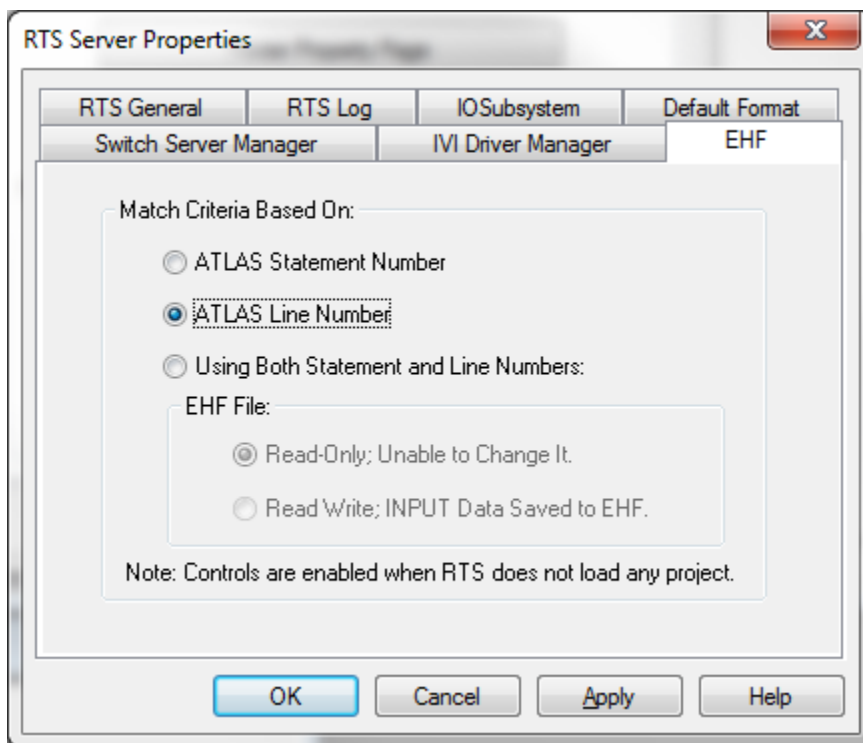
Our Record Oriented File Resource used to implement a zero based index algorithm for identifying its records. At this time, the code has been changed to calculate record positions as one based indexes, through a C++ preprocessor definition. A reversal to the original zero based indexes can be done by deleting the preprocessor definition in source compile line.

### 2.4.2 Abnormal Memory Consumption When Project EHF Is Big (Bug ID 1205)

Unexpected memory consumption has been observed when RTS handled big size EHF files. This module has been redesigned and all known problems related to the history file were resolved. Please see 2.4.3 for more information.

### 2.4.3 Empty Project EHF File When RTS Is Installed In a Non-Default Location (Bug ID 1189)

When Paws Studio and RTS Package was installed at a location different than c:\usr, RTS was unable to access the XML information in an EHF file. Moreover, the file content had been deleted upon any write attempt to it. This module has been redesigned and all known problems related to the history file were resolved. In order to implement a clean architecture, the RTS Property Page of the EHF file restricts the configuration settings. Unlike before, the EHF file can only be open in read-only mode, if the user selects either Atlas Line Number or Atals Statement Number as match criteria.

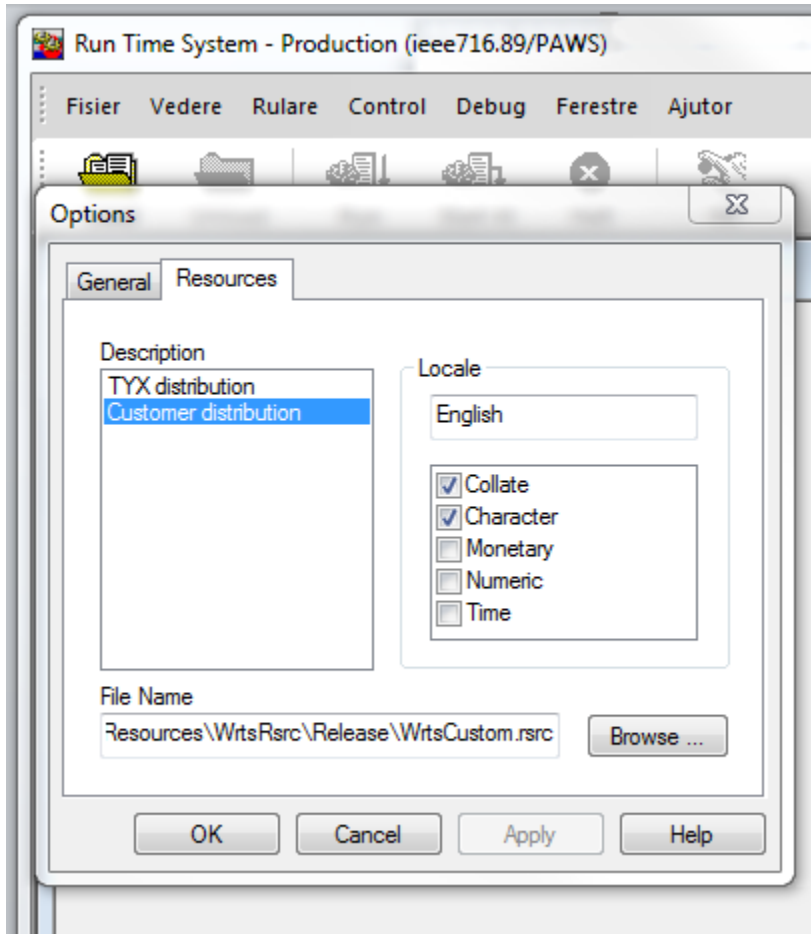


In order to allow RTS to populate the EHF file, the Match criteria must be *Using Both Statement and Line Number* in the page tab above.



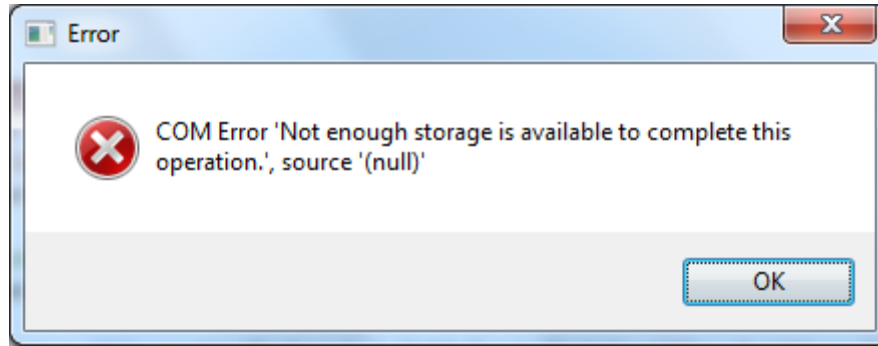
#### 2.4.4 Source Code of RTS Resources are Updated for Translation Into a Foreign Language (Bug ID 1208)

This Paws Studio and RTS package contains an updated Visual Studio solution at C:\Usr\Tyx\Resources\WrtsRsrc\WrtsRsrc.sln that builds the resources of RTS application. The output of the project that this solution contains is a Wrts.rsrc. A customer may translate the menus pertinent to the RTS in a foreign language, and configure the RTS to load the foreign Wrts.rsrc, like in the picture below.



#### 2.4.5 RTS Error Reporting Enhanced to Identify the Root of “Not Enough Storage” Error (Bug ID 1188)

Under unknown circumstances, RTS reports the following error at start up:



The only known solution to this problem is a reset of its configuration. This version of software implements enhanced error messages that we hope will identify the origin of this problem.

#### 2.4.6 RTS Adapters Do Not Expose .MEASUREMENT as Alias of MEASUREMENT (Change ID 1202)

.MEASUREMENT (DotMEASUREMENT) is not made available anymore as an alias of MEASUREMENT through the COM interfaces exposed by RTS Adapters implemented in c:\usr\tyx\con\RtsAx.dll.

#### 2.4.7 Unable to Open a Closed Resource Error Fixed (Bug ID 1153)

In the CASS context, RTS issued the “Unable to write to a closed resource” warning on the PRINTER resource, when it ran the following atlas program a second time, without going through an Unload/Load Project sequence in between runs.

```
000001 BEGIN, ATLAS PROGRAM 'MT_TEST' $
E Test number 1 $
    OUTPUT, USING 'PRINTER', test2 $
    OUTPUT, USING 'CRT', test1 $
999990 FINISH $
999999 TERMINATE, ATLAS PROGRAM 'MT_TEST' $
```

This issue has been fixed.

### 3 Compiler Changes Overview

The following list describes an overview of changes included within version 2013-04-30(1.40.00) of all ATLAS based compilers and Lex files. All dialects and all PAWS software are built with the same version nomenclature (e.g. 1.40.00) for this release.

#### 3.1 Enhancements / Changes affecting all dialects.

3.1.1 None.

#### 3.2 Enhancements / Changes affecting CASS/PC.

3.2.1 Record File I-O

The Record FILE I-O does not issue a seek command before a read or write. PR-LM-130305

3.2.2 Require Statements

Require Statements missing first character of the name in allocation. PR-LM-130306

3.2.3 SYNC SWING

Video Processing of SYNC SWING is treated differently than VIDEO SWING. PR-LM-130308

3.2.4 BOOLEAN FILL

Allow FILL of a integer value with TRUE or FALSE. PR-LM-130309

3.2.5 CNX field warning with Identify statement.

Warning on an identify statement without a CNX field. PR-LM-130310

3.2.6 Display Boolean as Integer

Allow Boolean display as Integer. PR-LM-130318

3.2.7 Large value (1e38) of over range condition, skip scaling. PR-LM-130320

3.2.8 .MEASUREMENT

.MEASUREMENT variable defined by T00K should be removed by direction. Use standard MEASUREMENT instead. PR-LM-130403

### 3.2.9 Corrupted DAT file

When a program is compiled with the `-it` option the `programname.DAT` file is corrupted at address 0265 (octal address). PR-LM-130404

### 3.2.10 Warnings During Build

Compiler Warnings during build of eCASS ATLAS Compiler. PR-LM-130405

### 3.2.11 DISABLE, EVENT ALL

Compiler fails to generate a SET EVVR for a DISABLE, EVENT ALL. PR-LM-130411

### 3.2.12 NAM Parameter size and passing

The call to a Non Atlas Module (NAM) passes the size of the each data item as a parameter. These sizes are incorrect in that they are the size that the procedure defined them to be not the actual size of the data item. PR-LM-130415

### 3.2.13 Maximum Digital Bit Size

Some of the eCASS programs have the digital bit size set to 432. The max digital bits currently allowed are 256 bits. Increase to 432 bits. PR-LM-130418

### 3.2.14 Connection Variables

When connection variables are passed into a procedure then used in an APPLY SHORT the connections fail to close the relays. PR-LM-130509