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1 Paws Developer's Studio

Version 1.39.3
Release date: April 21, 2011

1.1 Critical Items

1.2 Known Limitations

1.3 Enhancements

1.3.1 1641CLCEx.exe recognizes the Reset all TPL instruction (ChangeReqID 750)

The following 1641 carrier language code:

class ResetAll
{
    public void main()
    {
        <TPL>
        Reset all;
        </TPL>
    }
}

gets translated into:

DEFINE, 'ResetAllmain', PROCEDURE
RESULT
    ('_this_' IS 'ResetAll') $
REMOVE, ALL $
END, 'ResetAllmain' $

1.3.2 1641CLCEx.exe generates REQUIRE statements in the ATLAS code (TaskID 756)

When the resulting signals in the atlas code are very similar, and they need to be allocated to distinctive instrument whose capabilities are similar or identical, a need to identify the atlas signals from TPL rises.

This is done by the insertion of the REQUIRE statements.

In order to enable the REQUIRE statements, the Generate ATLAS code with REQUIRE statements in the Settings tab of the 1641 module has to be checked.
The following 1641 carrier language code

class A
{  
  public void main()
  {
    
    <TPL>
    Setup
    <Signal Out="tw1 tw2">
      <TwoWire name='tw1' hi='J1' lo='J2' channelWidth='1' In='c1'/>
      <Constant name='c1' amplitude='5 V' />
      <TwoWire name='tw2' hi='J3' lo='J4' channelWidth='1' In='c2'/>
      <Constant name='c2' amplitude='5 V' />
    </Signal>
    as s1;
    </TPL>
  }
}

gets translated into:

  REQUIRE, 's1_00', SOURCE, DC SIGNAL, CONTROL,  
  VOLTAGE 5 V,  
  CNX ATLAS-SGN-P-HI ATLAS-SGN-P-LO $

  REQUIRE, 's1_01', SOURCE, DC SIGNAL, CONTROL,  
  VOLTAGE 5 V,  
  CNX ATLAS-SGN-P-HI ATLAS-SGN-P-LO $
C The following 's1.c1' 1641 signal is source and its 'Constant' 1641 configuration type has been mapped to the 'DC SIGNAL' atlas noun. $  
SETUP, DC SIGNAL USING 's1_00',  
  VOLTAGE 5 V,  
  CNX ATLAS-SGN-P-HI J1 ATLAS-SGN-P-LO J2 $  

C The following 's1.c2' 1641 signal is source and its 'Constant' 1641 configuration type has been mapped to the 'DC SIGNAL' atlas noun. $  
SETUP, DC SIGNAL USING 's1_01',  
  VOLTAGE 5 V,  
  CNX ATLAS-SGN-P-HI J3 ATLAS-SGN-P-LO J4 $  

The name of the atlas signal is composed of the name of the 1641 signal (s1), followed by an underscore character and a two decimal digits field that identifies the order of the configured signal in the anonymous TSF model.

The name of the atlas signal becomes handy if the developer intends to allocate a specific instrument to it. This is done through an entry in a project included allocinp file that associates the name of the atlas signal as described above with a device name and a function number, the latter two identifying the specific instrument.

It is important to understand that the allocinp entries are needed if only the default signal allocation does not satisfy the developer’s expectations. Such a circumstance may occur when many identical configured signals need to be allocated to distinctive identical instruments.

The name of the atlas signal can also be controlled by an identifier inserted between the as keyword and the signal name, in the Setup TPL instruction.

The following TPL sequence uses ps2100 as a signal identifier.

```java
class A  
{  
  public void main()  
  {  
    <TPL>  
    Setup  
    <Signal Out="tw1 tw2">  
      <TwoWire name='tw1' hi='J1' lo='J2' channelWidth='1' In='c1'/>  
      <Constant name='c1' amplitude='5 V'/>  
      <TwoWire name='tw2' hi='J3' lo='J4' channelWidth='1' In='c2'/>  
      <Constant name='c2' amplitude='5 V'/>  
    </Signal>  
    as ps2100 s1;  
    </TPL>  
  }  
}  
```

Its atlas translation follows.

```plaintext
REQUIRE, 'ps2100_00', SOURCE, DC SIGNAL,  
  CONTROL,  
  VOLTAGE 5 V,  
  CNX ATLAS-SGN-P-HI ATLAS-SGN-P-LO $  
REQUIRE, 'ps2100_01', SOURCE, DC SIGNAL,  
  CONTROL,  
  VOLTAGE 5 V,  
  CNX ATLAS-SGN-P-HI ATLAS-SGN-P-LO $  
```

[...]
Unlike the previous case, the atlas signal names are ps2100_00 and ps2100_01, where the explicit identifier ps2100 replaced the signal name.

*This identifier must contain letters and digits only, the first character must be a letter, and its maximum length is 13.* The resulting atlas signal name must not exceed 16 characters.

### 1.4 Problem Reports

#### 1.4.1 PR 11003 Product Licensing Functionality

This feature has been provided starting with this version.
2 Run Time System

Version 1.39.3
Release date: April 21, 2011

2.1 Critical Items

2.2 Known Limitations

2.3 Enhancements

2.3.1 ATML Test Results Viewer present in <usr>/tyx/datalog

This viewer needs .NET Framework 2.0 to work. It shows the ATML test results grouped under test strategies.

The user navigates in the left panel to the folder that contains Paws Project. Once the Load button is clicked, the viewer identifies all the test results contained as leaves of the loaded project. If they were created as a result of running a SigBase test strategy, they are grouped as in the picture above.
When the user clicks an xml file in the right panel, that file is translated to an intermediate html file named ATMLPawsTestResults.htm through an XSLT defined in `<usr>\tyx\datalog\ATMLPawsTestResults.xsl`. The intermediate html file is always placed as sibling of the xml input file.

In Microsoft Internet Explorer, the intermediate file looks like below.
2.3.2 HTMLDlogGui.ini file info saved in registry
This file contained information about the default fields present in the <usr>\Tyx\Datalog\TPS_Open.htm and <usr>\Tyx\Datalog\TPS_Start.htm HTML datalogger input forms, as present in the pictures.

Starting with this release, this information is saved in registry in the HKEY_CURRENT_USER node. This way, even a user that is not an administrator has access to read or write this information.

2.3.3 HaspWriterHL application creates universally distributed license files
The standard HaspWriterHL application is able to read and write universally distributed license files for the MATE subset. These license files only work along with our Alternate License Manager.

This application has under Tools pull-down menu two new entries: Read License File and Write License File. These entries help with the management of the new universally distributed license files.

2.3.4 **TDGViewer does not report any messages at unregistering time (BugID 771)**

At unregistering time, the TDGViewer used to pop the following message box:

![Message Box](image.png)

This message is not shown anymore.

2.4 **Problem Reports**

2.4.1 **PR11019 PLI crashes when is retrieves tokens like “0.9E99” from an input file (BugID 741)**

This problem has been diagnosed as a latent memory leakage problem for all the previous PLI.EXEs that we have released. This problem was only noticeable a MATE subset. The fix corrects the memory leakage and indirectly resolves the crash.

2.4.2 **PR11026 TIME(0) ATLAS function does not return the correct time (BugID 762)**

This ATLAS function is intended to return the number of seconds elapsed since 1-st of January 1970. The RTS has now a 64 bit integer to hold this integer.