TYX CORPORATION

Productivity Enhancement Systems

PAWS Studio
Release Notes

Version 1.39.9
May 10, 2012

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Version 1.39.9

Release date: May 10, 2012

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1.3.1   1641 Carrier Language and TPL: TSF Model Enhanced Exploration

The TSF Model exploration during 1641 carrier language and TPL translation into atlas has been enhanced. Before this release, the XML string attributes in the TSF Model definition area had to contain curly braces to identify as values the TSF Model input parameters. Now, the translator checks if the string attributes in the TSF Model definition area are potentially names of TSF Model input parameters, before they are declared string constants. The usage of the curly brackets became optional.

1.3.2   1641 Carrier Language and TPL: New "digitalString" Type

This new type has been recognized as an individual type in TPL. It derives from "string", and it accepts as characters: 'H', 'L', 'X', 'Z', 'h', 'l', 'x', 'z', space, and comma.

1.3.3   Control C:\Usr\Tyx\Bin\Paws.exe Through Windows Messages

Starting with this version, we provide a capability of controlling the Paws Studio application through windows messages.

The following code shows how Paws Studio can load and rebuild a Paws Project whose location is set in the registry:

```
#define WM_USER_EXTERNALLOADPROJECT WM_USER + 907
#define IDM_REBUILD_ALL 33102
 […]
HWND hWnd = ::FindWindow(_T("PAWS"), NULL);
if (!hWnd)
      // no Paws.exe main frame has been detected
      return;

// identify the software key
HKEYManager hSoftKey;
```

```cpp
if (ERROR_SUCCESS !=
::RegOpenKeyEx(HKEY_CURRENT_USER,_T("Software"),0,KEY_WRITE|KEY_READ,hSoftKey
))
        return;

// open|create the TYX Corporation key
HKEYManager hTYXCorpKey;
DWORD dw;
if (ERROR_SUCCESS != ::RegCreateKeyEx(hSoftKey,_T("TYX
Corporation"),0,REG_NONE,REG_OPTION_NON_VOLATILE,KEY_WRITE|KEY_READ,NULL,hTYX
CorpKey,&dw))
        return;

// open|create the MakePaw key
HKEYManager hMakePaw;
if (ERROR_SUCCESS !=
::RegCreateKeyEx(hTYXCorpKey,_T("MakePaw"),0,REG_NONE,REG_OPTION_NON_VOLATILE
,KEY_WRITE|KEY_READ,NULL,hMakePaw,&dw))
        return;

// write the project name at the MakePaw location
LPCTSTR sPawFileName = _T("C:\\usr\\Paws\\MyProject.paw");
if (ERROR_SUCCESS != ::RegSetValue(hMakePaw,
_T("Project"),REG_SZ,sPawFileName, (DWORD)_tcslen(sPawFileName)*sizeof(_T('
'))))
        return;

// use the current Paws.exe to load this project
::PostMessage(hWnd, WM_USER_EXTERNALLOADPROJECT, 0, 0);

// perform Rebuild All after the project is loaded
::PostMessage(hWnd, WM_COMMAND, IDM_REBUILD_ALL, 0);
```

1.3.4   The .ACL File Extension Is a Paws Studio Native File Extension

An .ACL file is generated each time the "Interlace listing" tool is invoked, from Paws Developer's Studio Tools Tab. Having the .ACL file extension recognized as a native type helps with the loading the file for view, without going through the identifying type steps a user would normally go for an unknown file extension.

1.4   Problem Reports

2   Run Time System

Version 1.39.9

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2.1   Critical Items

2.1.1   WRTS Crash Noticed When the Measurement or Station Display Windows Are Minimized

This release resolves the issue described below, without the need of a workaround:

We confirm a software bug that has as result the crash of the WRTS.exe in the following context:

- *Open WRTS version 1.39.8 or older.*

- *Minimize the Measurement or StationDisplay windows.*

- *Close the WRTS.*

- *Open the WRTS with crash.*

This behavior is noticed on Windows XP only. It goes unnoticed on Windows Vista and Windows 7.

As a work around of this problem the following command

C:\usr\tyx\bin\ConfigureRegistry.exe –appRTS –clean

cleans the registry and resolves this problem.

2.2   Known Limitations

2.3   Enhancements

2.4   Problem Reports

2.4.1   PR12004 (BugID 4) Unchecked Interrupts While RTS Executes an INPUT Statement

This problem report underlines that the previous RTS had not checked for interrupts while it executed an INPUT statement. The present RTS has been modified to check every 10 seconds whether an interrupt has been issued, while it waits for the user to complete an INPUT statement, in an 85 based ATLAS flavor. This approach has been implemented for all dedicated INPUT resources that TYX provide (including Java Graphics Viewer). However, this mechanism cannot work for customized Single Threaded Apartment COM input resources that do not implement a wait for user while serving the message pump of the current thread.

2.4.2 PR12009 (BugID 9) RTS Performs Implicit Cast Between INTEGER And BOOLEAN ATLAS Types

As a result of this change, the RTS is able to adjust the input values when in need to copy INTEGERs to BOOLEAN locations or BOOLEANs to INTEGERs location.

An INTEGER is cast to a TRUE BOOLEAN value when different from zero, and to a FALSE BOOLEAN value when equal with zero.

The BOOLEAN TRUE is cast to the INTEGER 1. The BOOLEAN FALSE is cast to the INTEGER 0.

The ATLAS compiler uses this feature for some of our ATLAS flavors.