

Driver Tools Release Notes

Driver Tools version: 3.0.66
Design Center version: 2.2.23
Controller Firmware: 2.2.37
DCN 2.1

Summary

Driver Tools 3.0.66 features the ability to save a Template Design Center Project with a driver in order to quickly see how that driver is utilized and to test its functionality. We've also added the ability to include URL's or links to manufacturers' sites for technical data such as protocol documentation or device manuals. Additionally, this version of Driver Tools has added checklists to a driver as a way to verify the progression and status of a driver as well as a "Notes" section to add helpful details regarding the driver and its implementation.

System Requirements

- Microsoft Windows XP or Windows Vista 32 bit with Administrator rights
- 1.4GHz processor (2.0GHz or faster dual core processor recommended)
- USB and / or Ethernet port
- 1GB of RAM (2GB or more recommended)
- 300 MB of available hard disk space
- 1024 x 768 display resolution or higher

Features

Administrator Rights Required

The Driver Designer must be run with Administrator rights. We now enforce this constraint.

Template and Design Center Projects

We have added the ability to save a Template Design Center project with a driver. A Template project is meant to be a starting point for a Test Design Center project. You can find this functionality and a more detailed explanation in the Details Designer. The Template project provides a simplified way of sharing a Design Center project file that can be used to quickly test a driver.

Driver Links

Driver Links are URLs that will be included in the Driver Help file. Driver Links are a way of pulling together all the URLs related to a device. We envision the following types of URLs to be somewhat common: the manufacturer home page, the device home page, device protocol documentation, device manuals/brochures. In addition, any other URLs deemed relevant/helpful can also be included.

Driver Checklists

Added driver checklists as a way to communicate the state of each driver.

Submitted Drivers

Submitted drivers now show in the quick tip and in the driver help whether or not they've been reviewed. If a Submitted driver has not been reviewed it will show as Submitted (Pending Review) and if it has been reviewed it will show as Submitted (Reviewed).

Checklist Progress Bar

Checklists show a progress bar based on how many checklist items have been completed.

Notes

We now have the ability to add notes to a driver to help document any issues or helpful usage/implementation details. The help comments will show up as a part of the auto generated Driver Help.

Child Object Naming

Previously Child Objects used the combination of the Manufacturer and the Model number to get the default object name in Design Center. Now the default object name in Design Center is based on Design Center's own naming semantics.

Right Click Add

Codes can now be added with a right click on the Unassigned Codes node.

Undo / Redo

More improvements to Undo/Redo.

Splash Screen and About Dialog

The Splash Screen and the About Dialog now clearly show when a beta, internal or development version of the Driver Designer is being used.

Unused Instance Names

Unused child Instance Names in the Child Objects designer now show in a different color.

Events 1

Most events can now be extended by implementing an appropriately named On{EventName}NG method where {EventName} is the name of the event you want to handle.

Events 2

You can now extend handling of the Event_User in the NG file by implementing the OnUserNG method.

Default Val Interfaces

Added the default Val interfaces. These interfaces (ValBoolean, ValNumber, ValFixed and ValString) provide a generic way for a driver to extend the possible feedback that can be handled. These interfaces are available now in the Driver Tools but will not be available in Design Center until the next Interfaces update.

Automatic Method Stubbing

There are a number of methods that when present can override or extend the automatically generated functionality in the driver. These Override/Extend methods can now be easily stubbed out into the NG File by clicking the Function combo box at the top of the Code Designer while editing an NG File.

Hardware Getter Methods

HW Getters (Hardware Getter Methods) can now be associated with related other method calls. For example, pressing Play can now automatically call GetPlayStateHW causing both the Play command and the GetPlayStateHW commands to be sent.

Feedback Codes - Generate Property

A Generate property is now available with Feedback Codes to determine whether or not any specific Feedback Code should be generated.

Override Feedback Match??? Methods

You can now override the automatically generated Match??? method for a Feedback Code with a Match???NG method in the NG File.

Connectionless

Added support for connectionless interaction with a TCPClientPort.

Port Drivers Minimum Delay

Port Drivers now have a minimum Between Codes Delay of 1ms. Drivers that have not previously used a Between Codes Delay will now default to a 200ms delay.

Data Event

You can now override the default handling of the Data event with an appropriate OnDataNG function.

Disconnect Event

You can now override the Disconnect event with an appropriate OnDisconnectNG function.

Driver Naming

Added text to the New dialog and the Details Designer to emphasize the need for accurate manufacturer and model information. Drivers Submitted by dealers to the Online Driver Library with inaccurate manufacturer and model information will be returned to the In Progress state.

NG File Control Codes Synchronization

Added the ability to synchronize Control Codes that are implemented in the NG File with the Control Codes that exist in the Project. These Control Codes get added with the Generate property set to false. This allows the Control Codes designer to quickly see what has been implemented. It also allows each Control Code to be documented using the notes feature.

Driver Tools Bug Fixes

Driver Designer Locking Issue

In some situations the Driver Designer could lock up and stop responding. This issue is now resolved.

Incoming Data Queue

The incoming data queue is now setup correctly based on the usage of a Feedback Delimiter rather than on the usage of the Control delimiter.

Feedback

Array based feedback variables were incorrectly having values set to the wrong index. This is now fixed.

Variable Size Feedback Captures

Variable Size feedback captures are now working correctly. Previously they only worked correctly if the capture was at the end of the incoming feedback string.

Mixed Generate on Same Binding

We now allow codes with the same Design Center Procedure method binding and different method parameters to have mixed Generate property settings.

Code Designer Current Line Number

The Code Designer now shows the current line number in a status bar.

Recursive Child Objects

We now disallow adding Child drivers to a Child driver that would cause recursion problems. In other words, a driver cannot have itself as a child or descendant.

Regular Expressions and Feedback

We are now using the PCRE (Perl Compatible Regular Expressions) library for all of our regular expression processing within a driver. Regular expressions are used primarily for processing feedback. Using this more feature rich library fixes a number of bugs and in general expands what we can do with regular expressions.

Save In Offline Mode

We fixed a bug that could cause the build icons to remain disabled when in Offline Mode.

Ctrl-Backspace

Fixed a bug that caused Ctrl-Backspace to not delete the previous word.

Driver Template and Driver Test Project

Clicking Driver Template or Driver Test Project from the Solution Explorer context menu (right click) now correctly creates the appropriate file and then launches Design Center.

Intermittent Delay

While working in the Driver Designer there was an intermittent delay that would cause the UI to temporarily freeze. This issue is now fixed.

Keyboard Tree Navigation

Navigating the Control Codes and Feedback Codes using the keyboard has now been fixed.