General 3.11

General Changes

This page describes general updates that were made to CGI Studio for version 3.11.

Documentation and Sample Updates

Newly added and reworked documentation about

- Axure RP Guide
- Multiple global State Machines tutorial
- New IVI sample & tutorial
- Updated Smart Importer best practices document
  - <CGI Studio root folder>\cgi_studio_docs\

MATLAB Connector (MLC) Improvements

Tool Improvements:

- Changed dialog windows to appear on the same screen as the main window.
- Changed generated code to use the MLC namespace.
- Changed HMI-Signal-Buffer to separate Output-Signal and Input-Signal processing to allow reduction of delays in specific use cases.
- Changed HMI-Signal-Buffer methods to be virtual to support custom modifications.
- Changed default compiler to Visual Studio 2017 (previously Visual Studio 2010)
- Added support for Toggle-Buttons to the Input-Panel.
- Added new “Generate Code” build option.
- Added build flags to configure MEX (MATLAB Executable) compiler settings.
- Added generation of additional meta-info for signals (Signal-Type, Data-Type) for enhanced logging capabilities.
- Fixed an issue where the port-type setting is being reset when the signal type is changed.
- Fixed Input-Panel build issues for 64-Bit systems.

Templates:

- Changed templates to support changes related to generated code.
- Added IPC integration. This allows the CGI-Application to run independently from the MATLAB state machine offering multiple benefits:

- Improved stability due to separated processes.
- Improved diagnostics as the console window of the CGI-Application is now visible.
- Easier debugging as the CGI-Application can now be debugged normally.
- Faster testing on target as target device can connect directly to MATLAB simulation.
- Easy to integrate additional features like recording and replaying of signal data.

Documentation:

- Added “MLC IPC” chapter.

Extended Hardware Support

Additional support has been added for the following hardware,

- Extended platform support for NXP iMX8 Nano
- Extended platform support for STMicroelectronics STM32MP1 series
- Multiple display support for DRM/KMS devices

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