SoftMotion Drive Interface (SDI)

Policies for Plug-in Development and Support

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By: Zach Jones

# Approaching a Third Party to Develop a SDI Plug-in

## How to Qualify a SDI Partner

SDI partners should primarily be drive vendors that exhibit interest in collaboration to ensure hardware compatibility between their EtherCAT motor drives and the RIO architecture using SoftMotion. To be compatible with the SoftMotion Drive Interface, an EtherCAT drive must adhere to the [CiA DS 402: CANopen device profile for drives and motion control](http://www.can-cia.org/index.php?id=530) standard. A Plug-in for the third-party EtherCAT drive must be created to interface the drive to the SDI framework.

The NI EtherCAT software components adhere very strictly to the EtherCAT standards. Any deviation from these standards in the control firmware of a third-party EtherCAT drive will likely cause communication issues with a NI EtherCAT master controller.

### SDI Partner Arrangements

Ideally, SDI partners will agree to maintain SDI Plug-ins themselves and provide support for the SDI Plug-in when necessary. There are many cases where this may not be agreeable to the partner. In such cases, NI should recommend an Alliance Partner to assist with Plug-in development and maintenance.

Other agreements may be possible between NI and the SDI partner, but NI should avoid any responsibility for development and maintenance wherever possible.

## Development Effort and Expectations

* SDI Plug-ins should be developed by (in order of preference)
  + Drive Vendors if at all possible
  + Alliance Partners
  + NI
  + Customers
* Development will require
  + Approximately 1 man-month of development/testing effort
  + Interaction with NI support
  + Plug-in packaging using VI Package Manager
* Development may require
  + Drive firmware updates (DS 402 standard adherence)
  + Revisions to code based on NI code review/documentation standards
  + Revisions to documentation based on LabVIEW Tools Network recommendations

## Long-term SDI Plug-in Support Responsibility

* SDI Plug-ins should be supported and maintained by (in order of preference)
  + Drive Vendors if at all possible
  + Alliance Partners
  + Customers
* NI does not want to support SDI Plug-ins because
  + Working knowledge of the drive is outside our support scope
  + We may not have the hardware to test with
  + We will not have the resources to devote to testing/updates/bug fixes
  + There will be many SDI Plug-ins and we plan to be a governing entity, not a development entity
* Any bugs, revisions of the SDI Plug-in, or updates for new versions of LabVIEW should be the responsibility of the third party that maintains the plug-in
* NI will support the SDI Framework and troubleshooting LabVIEW project configuration
* NI may send notifications to SDI Plug-in maintainers when the plug-in is out of date and in need of an update. This will largely be the responsibility of the Plug-in maintainer.