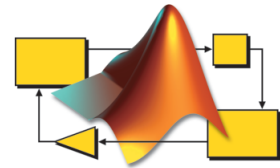


# SPiiPlus Library for MATLAB®

The SPiiPlus Library for MATLAB lets MATLAB users develop their application directly with ACS control systems.

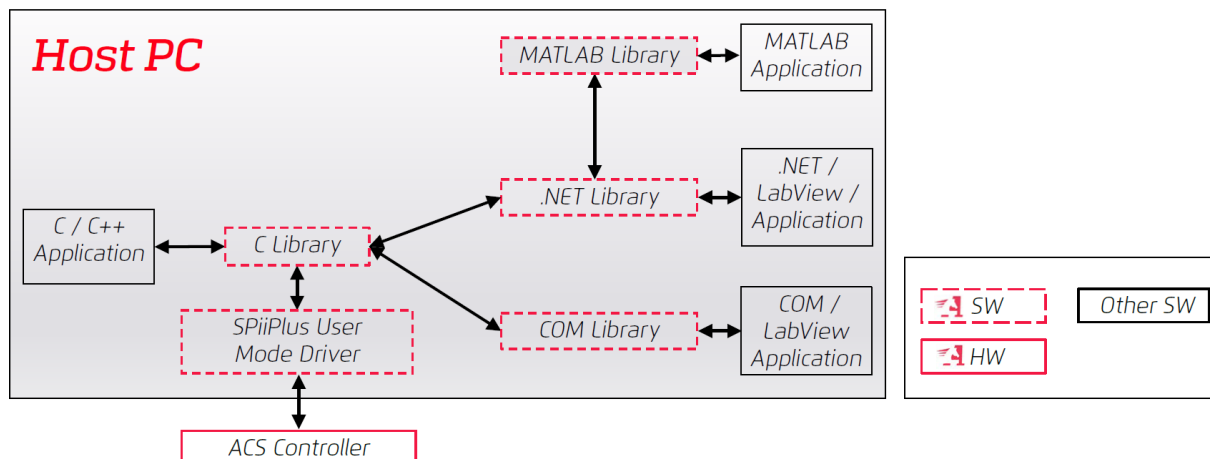
Developers can use the powerful capabilities of MATLAB to easily develop applications and reduce time to market

**MATLAB®  
Enabled**



MathWorks Partner

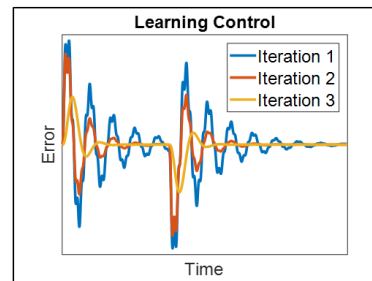
- > Compatible with Microsoft Windows operating system Windows 7 and later
- > Compatible with MathWorks® MATLAB R2011a (v.7.12) and later
- > Communicates with ACS controllers
  - > Ethernet TCP, Serial
  - > Simulator
- > Data transfer between controller and host
  - > Write/read variables, scalar, or arrays
  - > Load and execute buffer programs
  - > Send ACSPL+ commands: axis state handling, motion execution, etc.
- > Controller interrupts monitoring
  - > Motor or motion state changes
  - > Error logging and handling
  - > User-defined interrupts
- > Supports the same functionality as SPiiPlus .NET library



## Examples

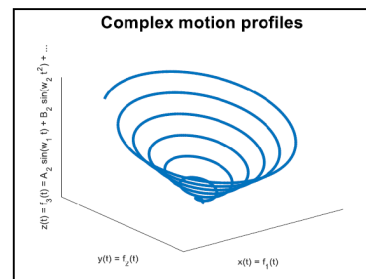
### Learning control application

- > Collect data from a controller
- > Use the data offline to generate a servo correction
- > Load the servo correction to controller
- > Test the system (and repeat if necessary)
- > Uses the MATLAB built-in functions for servo algorithm calculation



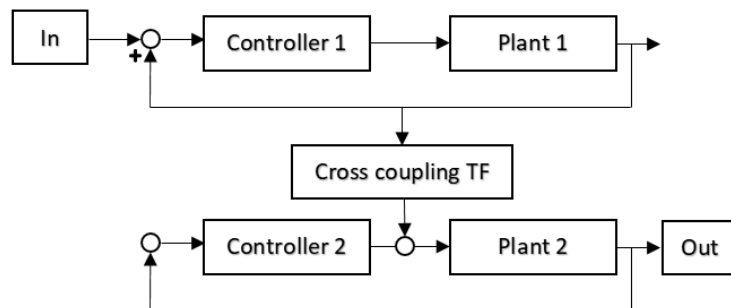
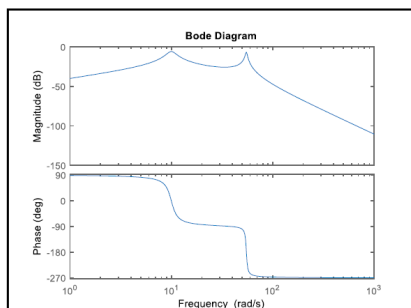
### Custom motion profiles

- > Design a sophisticated motion profile
- > Apply the calculated profile with the ACSPL+ PATH command
- > Uses the user-defined algorithms written in MATLAB



### Custom FRF measurement : axes cross coupling

- > Load a user-defined excitation signal to the controller
- > Collect system response
- > Calculate the transfer function between input and output.
- > Uses the MATLAB built-in functions for transfer function calculation and coherence function to verify the precision of the measurement



Part Number: SP+LIB+NYNNN-NNNNN

Licenses are Hardware Protected  
Contact ACS about Evaluation License Options

Ordering Options	Field	Example User Selection	Values
MATLAB Library	SP	SP	SP
FRF Library	LIB	LIB	LIB
Reserved for future use	3-10	N	N