Effective Team-Based Collaboration with Simulink Projects

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How “complex” are the projects you work on?
Complex projects have Hundreds of files

Models, libraries, data, scripts, C/C++ code, documents, images, …
Too complex for one person to understand it all
Team Challenges

How to:
1. Begin to work
2. Understand the files
3. Review the changes
You need a development environment that supports team-based collaboration.
Simulink addresses these challenges with Simulink Projects
Three Challenges

How to:

1. Begin to work
2. Understand the files
3. Review the changes
Configure the team environment
Leave MATLAB just how you found it
Configure the team environment

**Run at Shutdown**
- `clean_up_project.m`  
- `$\text{utilities\/project\_scripts}$

**Run at Startup**
- `configure_paths.m`  
  - `$\text{utilities\/project\_scripts}$
- `set_up_project.m`  
  - `$\text{utilities\/project\_scripts}$
- `load_data.m`  
  - `$\text{utilities\/load\_data}$`
VerCompanyUtils = ver('utilities');
if isempty(VerCompanyUtils) || ~strcmp(VerCompanyUtils.Version, '1.3.1')
    % Warn in this example, (but you may want to
    % throw an error and stop loading the project):
    warndlg('This project requires version 1.3.1 of company_utilities')
    % Perhaps show how to fix this:
    % web('http://www.myExampleCompany.com/how_to_install_utilities')
end
Where do I start?

Begin

Understand

Review

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Discoverable Entry Points for the team

Table of Contents

1. Model Version ......................................................... 1
2. Root System ......................................................... 2
   1. Description ....................................................... 3
3. Subsystems .......................................................... 4
   2. Assumption Blocks .............................................. 5
   3. Discrete Integrator (forward Euler) ......................... 6
   4. Discrete Integrator (backward Euler) ...................... 7
   5. Encoder Calibration ............................................ 8
   6. Visual Inspection ............................................... 9
   7. Move_Foward .................................................. 10
   8. Move_Backward ................................................ 11
   9. T1_1 Description ............................................... 12
   10. T2_INTERFACE ................................................. 13
   11. No Saturation .................................................. 16
   12. E1.Interface .................................................... 17
   13. Rate .............................................................. 18
   14. Rate Limiter ..................................................... 19
   15. Up Saturation ................................................... 22
   16. Up Saturation ................................................... 23
   17. Down Saturation ............................................... 26
   18. Down Saturation ............................................... 27
4. System Design Variables ......................................... 30
5. Glossary ............................................................ 31
6. About this Report .................................................. 32
   1. Report Overview ............................................... 33
   2. Root System Descriptions ..................................... 34
   3. Subsystems Descriptions ...................................... 35
   4. State Chart Descriptions ...................................... 36
Three Challenges

How to:

1. Begin to work
2. Understand the files
3. Review the changes
File labels
Sorting and grouping by file labels
File dependencies
File dependencies and labels
Three Challenges

How to:

1. Begin to work
2. Understand the files
3. Review the changes
What’s changed?
What’s changed in my data files?

File Comparison - NXTWayCtrl_Rev_3.mat vs. NXTWayCtrl.mat

Left file: C:\Users\jghidelli\AppData\Local\Temp\Matlab\51491\d1234\NXTWayCtrl.mat
Right file: C:\work\demo\ETRobocon\data\design_data\NXTWayCtrl.mat

Click on a column header to sort the table

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Change Summary: modified

Merge (no undo): 

SVN Integration Status: 

Changes and Release Locks:

Review Design Jason

Begin Understand Review
What’s changed in my MATLAB code?
What’s changed in my Simulink models

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Simulink Projects

1. Shortcuts – Begin to work
2. Labels & dependencies – Understand the files
3. File Comparisons – Review the changes
Next Steps

- Simulink Projects is part of Simulink
- Try it out today
- Start managing the complexity of your projects