

Matt Vaughn

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Angular Schematics

A Better
Developer
Workflow





I am Matt Vaughn

Developer, Speaker, Consultant, PodCaster, Musician, Owned by Lukka



@angularlicious



github.com/angularlicious



http://www.angularlicio.us **OR** www.angularlicious.com

Lukka THE Husky

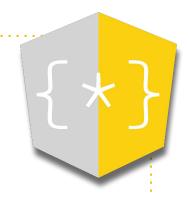
Profile:

- 4.5 years old
- 83 pounds
- Instagram: lukka_the_husky



Presentation Resources

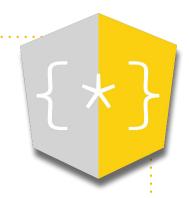
- Angularlicious :: Learn Schematics
 - Github Workspace
 - o <u>Adding Schematics to Angular Workspace</u>
 - How to Debug Schematics?
- Online
 - Building Schematics in a Sandbox
 - o <u>Introduction to Schematics by Hans</u>
 - Unit Testing Schematics
- Guides
 - How to Add Schematic Projects to the Angular Workspace (or Nx)
 - Getting Started with Schematic Options
 - o Add/Debug Schematic Projects in an Angular Workspace
- Book
 - Schematics: Generating Custom Angular Code with the CLI
- Videos
 - o ngAir #134: Angular Schematics with Mike Brocchi
 - Custom Schematics by Manfred Stayer
 - ngHouston: CLI Schematics with Hans Larsen



What really MATTERS?

At the end of day, what really matters...is value.

- Did we solve the problem?
- Is it a better experience?
- Is it more efficient?
- Did we reduce cost?
- Did it improve performance?
- Did it generate revenue or profit?
- Did it reduce risk?
- Did it improve someone's life or make them happy?
- Are you a happy developer?





Why workflow matters?

WHAT IS THE STATE OF DEVELOPER WORKFLOWS?

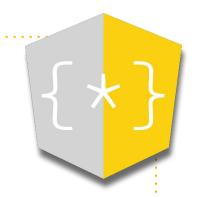
WHAT is the state of my WORKFLOW?



Many developers, teams, and companies are accelerating their workflow and delivery of high-quality solutions by taking advantage of mature:

- conventions and opinionated frameworks
- monorepos
- code generation and scaffolding
- packages, control suites, and tools
- accelerated processes
- language capabilities





Software development and technology in general is very **competitive**. If we are not **effective** as developers, teams, and companies - we will not last.



CODEgenerators

Code Generation...

Why generate code?

Use tools to automate the creation of code that is difficult, error prone, complex, or repetitive - with a goal or objective of providing consistency and easier maintenance.

- Automate creation of routine or mundane coding tasks.
 - Boilerplate code
- Follows a specific recipe/template
 - o Consistent
 - Maintainable
- Simplifies complex processes
- Less error prone reduces human error
- Enforce standards, convention, compliance, and styles



How do we get to a point where code generation is possible?



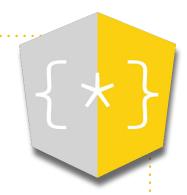
- Adoption of good programming practices and principles.
- Consistent, reliable, and conventional architecture using established patterns and practices
- Better frameworks
- Better tools with plug-in capabilities.
- Strongly-typed languages with Object-oriented capabilities.



DO I REALLY NEED SCHEMATICS?



Capabilities of Schematics



Project

- Scaffold new projects
- Configurable with options

Features

- Modules
- Components
 - Services
- Classes, Enums
- Pipes
- Directives
- Routing
- Data Store
- State Management

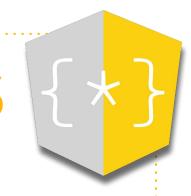
Tooling

- Code Formatting
- Testing
- Routing
- Package Updates
- Code Updates
- Configuration
- Execute internal and external schematics

Framework

- @angular/material
- angular
- angrx
- anrwl
- @akita
- etc..

How do SCHEMATICS work?



Input + (options) → Schematic Engine → PROCESS

• Applies rules, templates, filters, etc.

Output → folders and files

Adds files, updates files, removes files



Getting STARTED

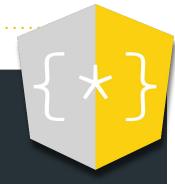
GETTING STARTED WITH SCHEMATICS IS EASY...HOW EASY IS IT?

Getting Started



Getting started demos:

- Environment and tools
- Building and testing
- Using options
- Templates
- Debugging
- Live execution
- Publishing





- 1 npm install -D @schematics/angular
- 2 npm install global @angular-devkit/schematics
- 3 npm install global @angular-devkit/schematics-cli
- 4 schematics --help
- 5 schematics --list-schematics



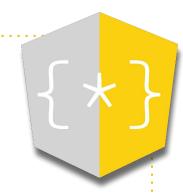
- 1 npm install -g @nrwl/schematics @nrwl/nx
- 2 create-nx-workspace learn-schematics --npm-scope=angularlicious

Final Thoughts

The future's so bright...

Final THOUGHTS

- Increases developer workflow capabilities
- More conventional and consistent
- Uses best practices and patterns
- Extensible





BE SO GOOD
THEY CANNOT
IGNORE
YOU.

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Any questions?

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- Email: <u>matt@angularlicio.us</u>
- Web: www.angularlicio.us
 - Web
 - Podcast
 - ebook