



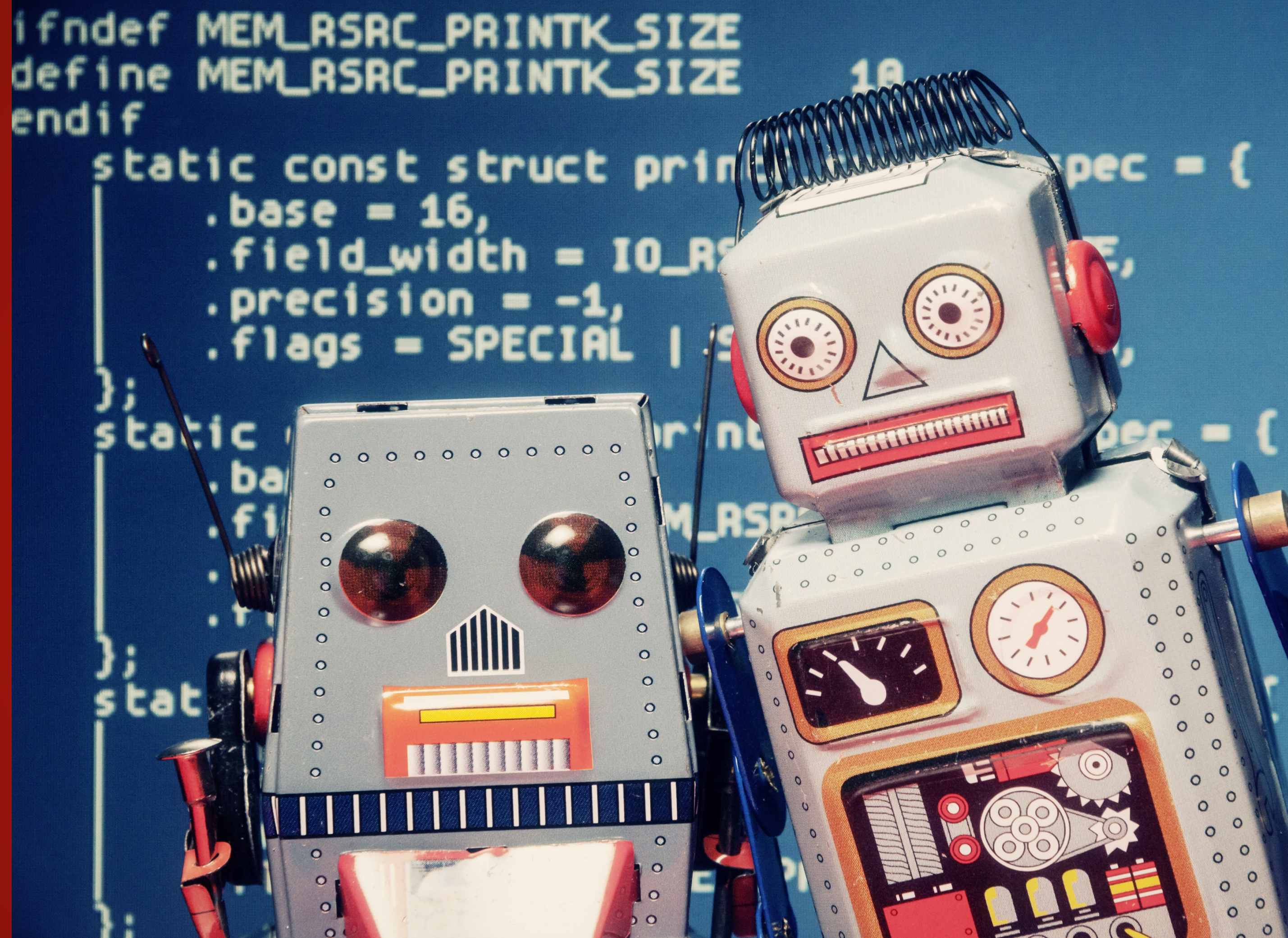
Code Generation Tools

Pros, Cons, and Where To Find Them

Agenda

- Introduction
- Code Generators Defined
- Strengths and Pros
- Weaknesses and Cons
- Frameworks and a Middle Ground
- A Brief Tour of Options

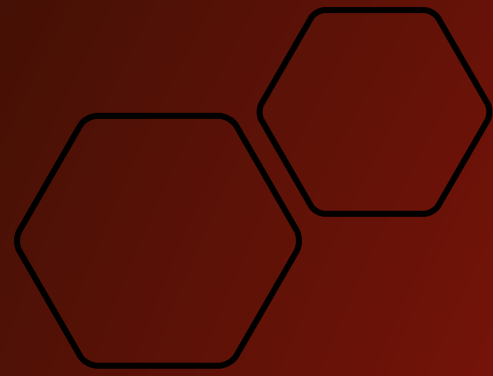
Introduction



What Is a Code Generator?

- Provides Fully functioning code blocks
- Can be in general languages or a specialty one
- May use drag-and-drop or xml to define apps
- Different from low-code and no-code tools





THEY HAVE BEEN
AROUND FOR
DECADES



SOMETIMES REFERRED
TO AS CASE TOOLS



COMPUTER-AIDED
SOFTWARE ENGINEERING



EBB AND FLOW LIKE AI
AND FAT VS. THIN
CLIENTS

Positives and Strengths



Fast To Market



Reduce Team Size and Resources



Limits Human Error



Less Decisions To Consider



High Quality and Limited Testing Cycle

Negatives and Weaknesses



ON-GOING COST
IN MANY CASES



SOME LEVEL OF
VENDOR LOCK-IN



LESS GRANULAR
SOLUTIONS ARE
LIMITED



HARDER TO
CUSTOMIZE AND
EXTEND



GENERALLY SLOWER,
HIGHER RESOURCE
NEEDS



Summary Pros and Cons

- Code Generators can be great for standard projects like CRUD, CRM, and General Billing
- Customization can be difficult, expensive, or impossible
- The overall application is likely to be quick to build but overall performance may be lacking
- Never a silver bullet





Slower to deploy
than generators,
close to code
speed



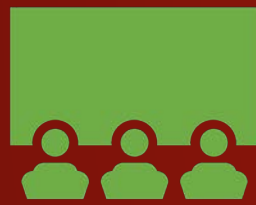
Powerful once
you understand
how to use



Can lead to
shorter
deployment
cycles



Quality is often
good where the
framework lives



Easier to
customize and
extend (they are
built for it)



Resources are
often easier to
find (more
common and
popular).



Lower cost than
generators and
good open
source options.

Frameworks for a middle ground



Some Popular Options

- ❖ Django Material <http://demo.viewflow.io/>
- ❖ Laravel <https://laravel.com/docs/5.1/quickstart>
- ❖ ROR <https://www.javatpoint.com/ruby-on-rails-crud>
- ❖ Java - Spring
Boot <https://www.javahelps.com/2017/11/restful-crud-with-java-and-mysql-in.html>
- ❖ PHP Runner <https://xlinesoft.com/phprunner/>



More Popular Options

- ❖ VFront <http://www.vfront.org/>
- ❖ JHipster <https://www.jhipster.tech/>
- ❖ Spring Roo <https://projects.spring.io/spring-roo/>
- ❖ Openxava <https://www.openxava.org/>
- ❖ Cuba Platform <https://www.cuba-platform.com/>



What We Learned

- There are numerous options to quickly generate an application
- Generators have a cost (pay now or pay later)
- Frameworks can provide a middle ground
- More automation equals less customization





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Questions and Comments?



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Thank You!

I appreciate your time and would love to discuss any of this further. You can send questions, comments and suggestions through any of these methods.

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