

<https://layout-wizard.in-toto.io>

Secure your software with in-toto

Securing your software with in-toto is easy. Just tell us about how you do things and we will do the rest...

Let's get started

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8%

Where does your code live?

What version control system do you use?

54 x 37git

54 x 37svn

54 x 37hg

54 x 37cvs

54 x 37other

54 x 37none

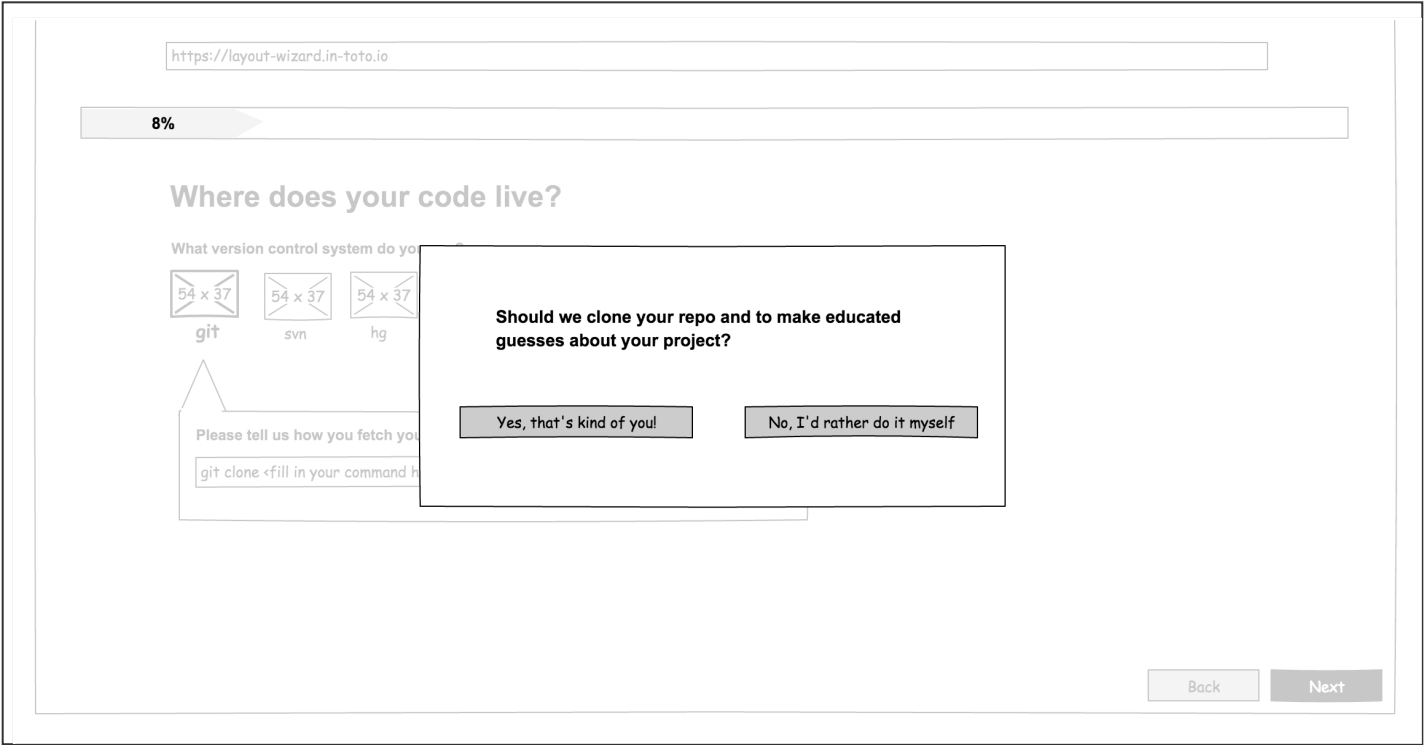
Please tell us how you fetch your code

git clone <fill in your command here>

Done

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17%

Do you build your software?

Please drag and drop the build commands and get them in the order in which you execute them

↕

configure

↕

make

↕

make
optimize

C

☒ configure

☐ laborum.

☒ make

☐ mollit

nulla

☐ nisi

☐ non proident,

☐ irure

☐ mollit

Your build command:

configure

Done

Python

☐ Duis

☐ et

☐ exercitation

☐ labore

☐ elit,

☐ mollit

☐ ipsum

☐ id

☐ mollit

☐ magna

☐ officia

☐ sit

Custom build commands

☒ make optimize

☐ Add custom build command

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How do you assure your software's quality?

Unit Testing

☐ Duis ☒ et ☐ exercitation ☐ labore ☐ elit, ☒ mollit

Continuous Integration

☒ officia ☒ nostrud ☒ mollit ☐ laborum.

Linting

☐ ipsum ☐ id ☐ mollit ☐ magna ☒ pylint ☐ sit

Your quality managment command:

pylint

I run this command before ☒ or after ☐ bulding?

How do you verify if everything went "okay"?

Return Value:

is

0

Standard Output

contains not

is

is not

contains

ERROR

Done

Custom quality management commands

☒ golden pony

☐ Add custom build command

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39%

How do you package your software?

☐ Duis ☒ tar ☐ exercitation ☐ labore ☐ magna ☐ laborum.

Your build command:

tar cfz ...

Done

☐ Add custom packaging command

Where do you host your software?

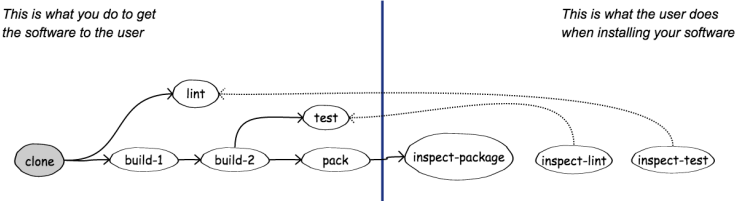
☐ ipsum ☐ id ☐ mollit ☐ magna ☐ officia ☐ sit

☐ Add custom packaging command

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Is this what your software supply chain looks like?



Are we assuming correctly that you first **clone** your software project from mygitproject.git with git, then run **lint** and build it using **configure** and **make**, and then **test** the built software with the command runtests before for you **package** it as tar archive?

And is it true that if we **inspected the package** it should contain exactly what you put in there in your package step? And further is it right that the **lint** command was successfull if it **returned 0** whereas the **test** command was successful if it **didn't have "ERROR"** in its output?

I should probably clarify some things

The steps of your software supply chain

Name: clone

Command: git clone myproject.git

Remove

Name: lint

Command: lint myproject

Remove

Name: build-1

Command: configure myproject

Remove

Name: build-2

Command: make myproject

Remove

Name: test

Command: runtests myproject

Remove

Name: pack

Command: tar czf myproject.tar.gz myproject

Remove

Add Step

The inspections of your software supply chain

Name: inspect-package

Command: tar xzf myproject.tar.gz

Remove

Name: inspect-lint

Command: in-toto-inspect --step lint --retval --equals 0

Remove

Name: inspect-test

Command: in-toto-inspect --step test --stdout --contains-not "ERROR"

Remove

Add Inspection

Done

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Who is allowed to do what in your project?

Upload Public Keys
Upload your "functionary" (the people who do the things) public keys. If you don't have any keys, you can easily generate them using our [in-toto key generation tool](#).

bob.pub

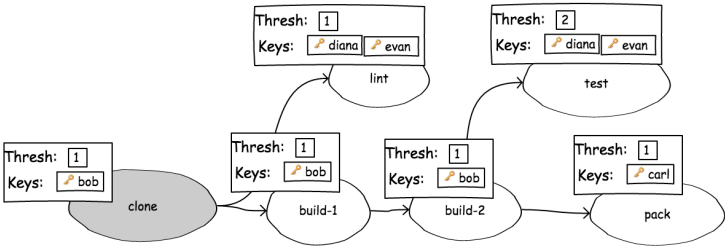
carl.pub

diana.pub

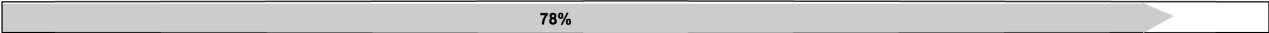
evan.pub

Public Key Dropzone

Authorize your functionaries to perform steps
Drag and drop the uploaded keys from above onto the supply chain steps to authorize one or many functionaries to perform a step.
The threshold indicates how many functionaries are required that step.



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Security Restriction Assessment a.k.a "linking your supply chain"

Now that we have figured out what your software supply chain looks like we need just a little bit more information about the files you are working on in each step.

Just paste the following commands in a terminal and upload the resulting link file archive. We will use the information to generate a set of rules that chains the individual links of your supply chain together.

Copy/Paste Commands

```
$ in-toto-run --dry --name clone -- git clone myproject.git
$ in-toto-run --dry --name lint -- lint myproject
$ in-toto-run --dry --name build-1 -- configure myproject
$ in-toto-run --dry --name build-2 -- make myproject
$ in-toto-run --dry --name test -- runtests myproject
$ in-toto-run --dry --name package -- tar -czf myproject.tar.gz myproject

$ tar czf all-links.tar.gz clone.link lint.link build-1.link build-2.link test.link package.link
```

Upload "all-links.tar.gz"



all-links.tar.gz

Link Metadata Dropzone

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Congrats, you are now the proud owner of a custom in-toto software supply chain layout!

But not so fast you still have to do a couple of things before your clients can verify your software with in-toto!

1. Download the layout

You can study and edit it using any text editor - it is just a JSON.

Download Layout

2. Create a project owner key pair (if you don't already have one)

```
$ in-toto-keygen project-owner
```

3. Sign your layout with your project owner key

```
$ in-toto-sign --key project-owner root.layout
```

4. Instruct your functionaries to use in-toto commands

Bob

```
$ in-toto-run --key bob --materials . --products . --step-name clone -- git clone myproject.git
$ in-toto-run --key bob --materials . --products . --step-name build-1 -- configure myproject
$ in-toto-run --key bob --materials . --products . --step-name build-2 -- make myproject
```

Diana

```
$ in-toto-run --key diana --materials . --products . --record-byproducts --step-name lint -- lint myproject
$ in-toto-run --key diana --materials . --products . --record-byproducts --step-name test -- runtests myproject
```

Evan

```
$ in-toto-run --key evan --materials . --products . --record-byproducts --step-name test -- runtests myproject
```

Carl

```
$ in-toto-run --key carl --materials . --products . --step-name package -- tar -czf myproject.tar.gz myproject
```

5. Ship out in-toto metadata along with your software

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Curious to see how your supply chain is protected now?

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And here is why you did all of this!

- ☒ You are now safe against blaaa
- ☒ you secured your bliip
- ☒ which guarantees that bluuump
- ☒ and prevents from blooor!

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