Presentation Title

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Spectrum of Reproducibility

... in Computational Research

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reproduction from
descriptions in
research article

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Tough!

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same code,

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same code, same machine,

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same code, same machine, same researcher

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~~Easy!~~ if only!

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same code, ~~same machine~~, ~~same researcher~~

Tough!

~~Easy!~~ if only!

The problems...

Which version of my code did I use?

The problems...

Which version of my code did I use?

What parameters?

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“It worked yesterday.”

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“It worked yesterday.”

“Why did I do that?”

The problems... ... the solution

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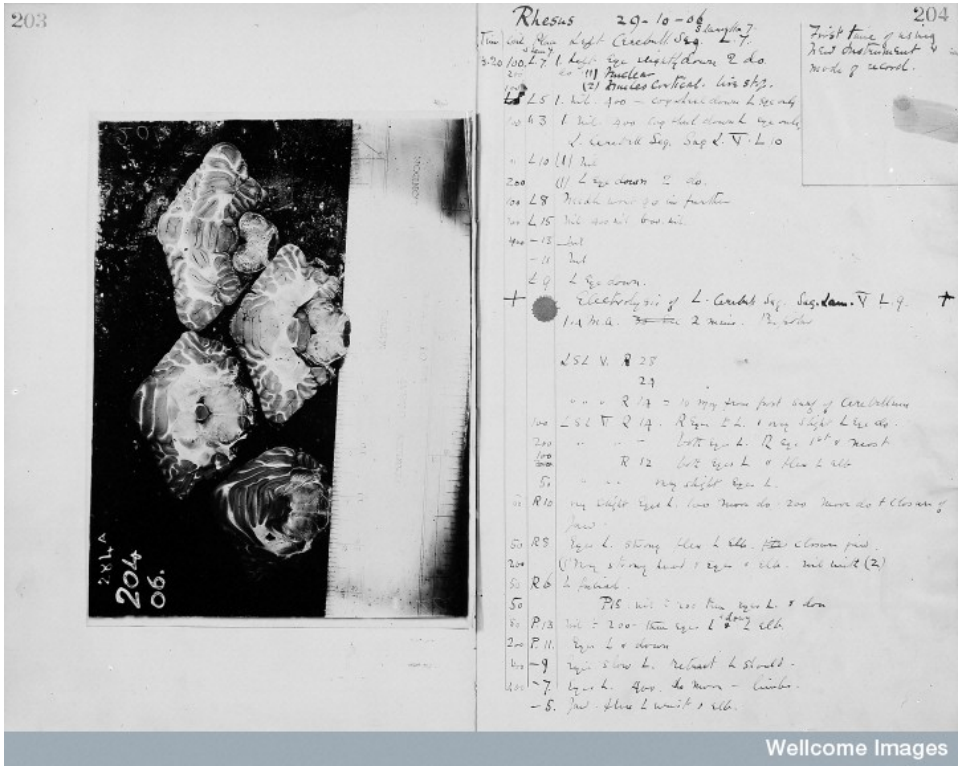
... the solution

laboratory notebook



The problems...

Which version of my code did I use?

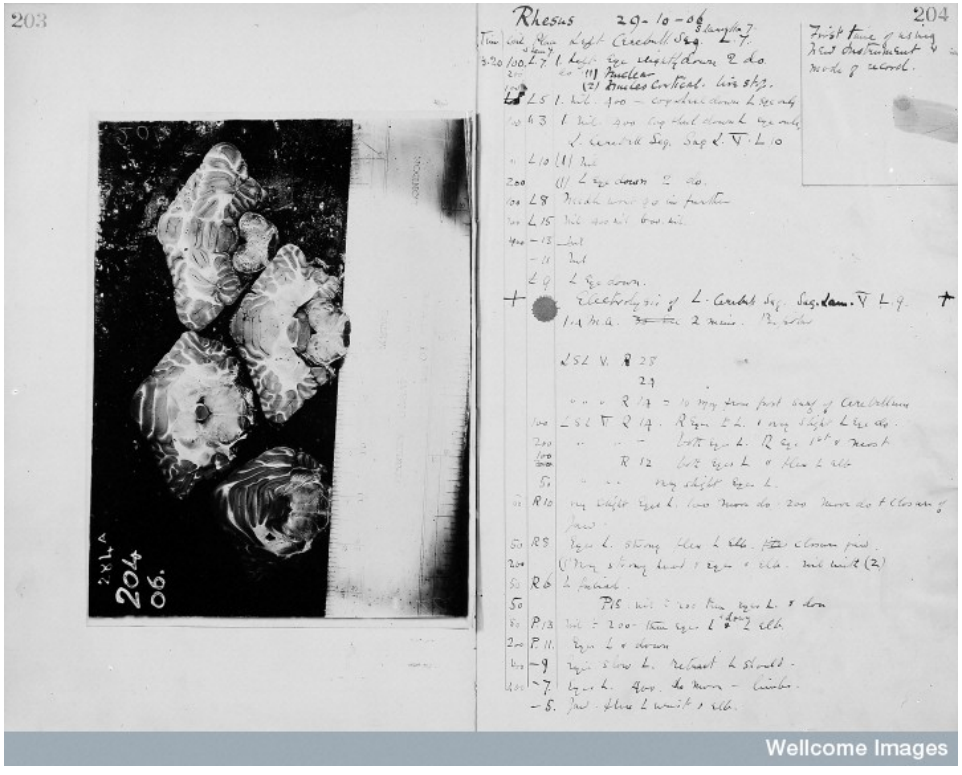
What parameters?

“It worked yesterday.”

“Why did I do that?”

... the solution

laboratory notebook



... in traditional, experiment-based research.

Sumatra - Simulation Management Tool

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"An automated lab notebook for computational projects"

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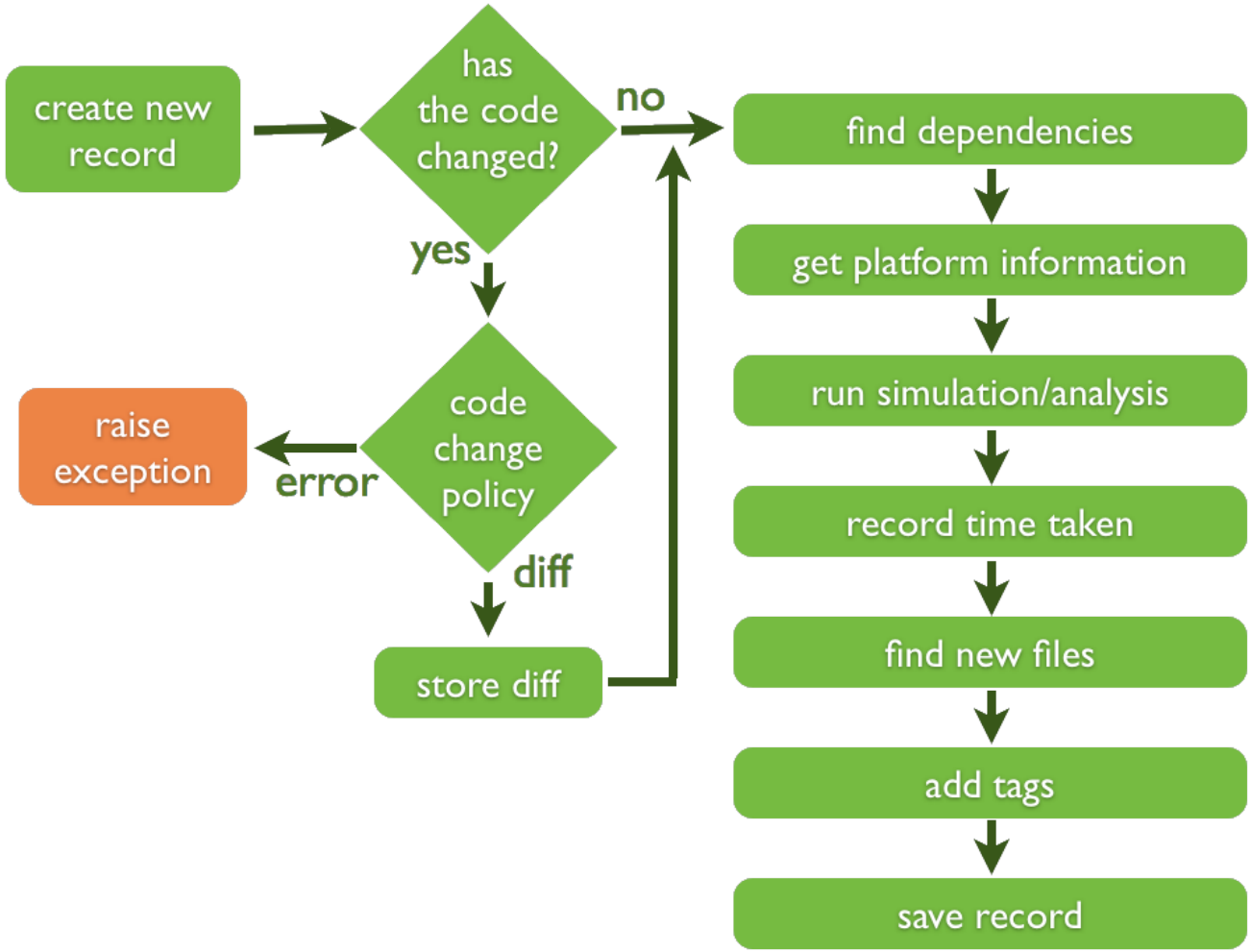


Sumatra - Simulation Management Tool

"An automated lab notebook for computational projects"

⇒ assumes that code is under version control

Sumatra - Simulation Management Tool

"An automated lab notebook for computational projects"

⇒ assumes that code is under version control

⇒ capture information about computation

`smt run`

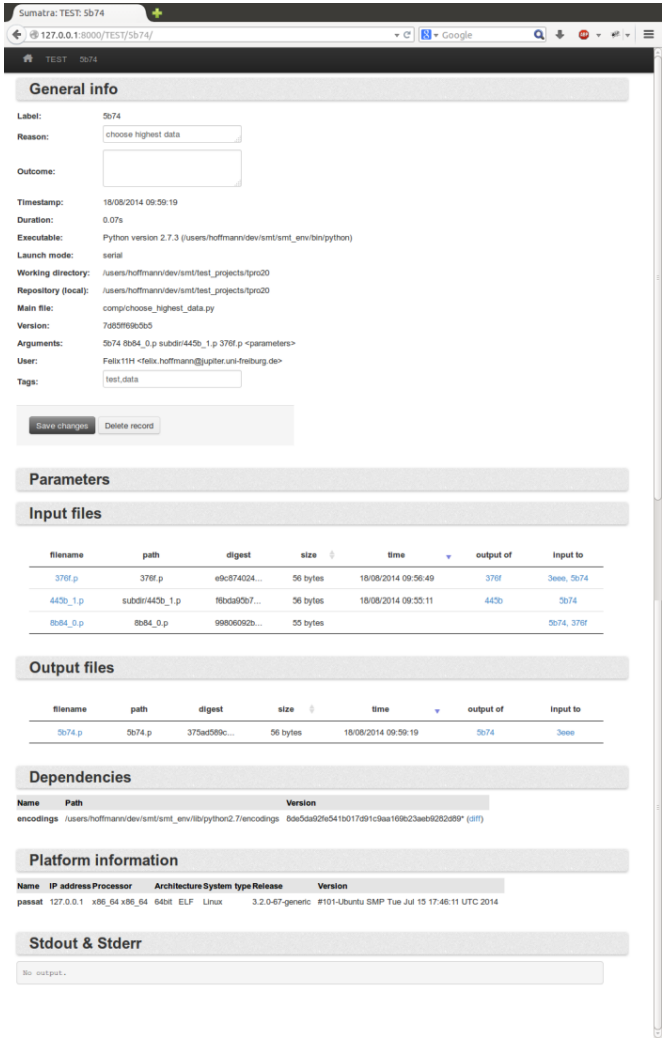
Sumatra - Simulation Management Tool

"An automated lab notebook for computational projects"

⇒ assumes that code is under version control

⇒ capture information about computation

⇒ make the information accessible through a command line and web interface



Sumatra - a tool for Reproducible Research

By capturing

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By capturing

- version of the code

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By capturing

- version of the code
- input data

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- input data
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By capturing

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} Full replicability of results

Sumatra - as an Open Science tool

computational research project

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computational research project

scientific code

Sumatra - as an Open Science tool

computational research project

input data

scientific code

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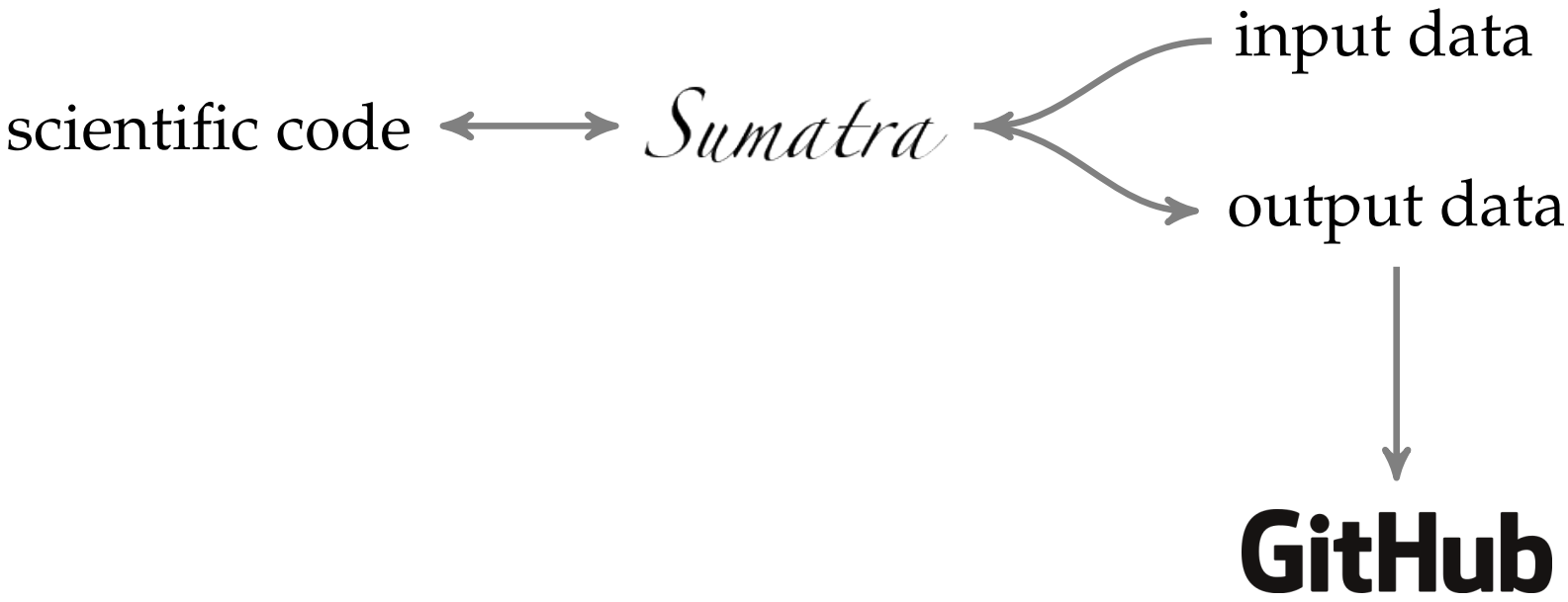

Sumatra - as an Open Science tool

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