Using Galaxy as a platform for continuous software development
Enabling agile development in a scientific setting

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Developing software

Commercial
- Goal: deliver a software product according to client requirements
- Focus on the software itself
- Well defined requirements (usually)
- Dedicated resources
- Emphasis on quality

Research
- Goal: support scientific publication (more often)
- Focus on the scientific question
- Requirements are usually more dynamic
- Part of the research
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Common agile process

Our process

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Main points

• Not the common usage scenario of Galaxy – embedded in the development process

• Minimize overhead to the point that it is actually more efficient than the command line process

• It works for us(!)
  – Highly collaborative inter-disciplinary environment
  – Lots of prototyping
  – So far in 2017: used in 5 accepted papers and 4 running projects

• Leans on Galaxy ProTo
  (https://github.com/elixir-no-nels/proto)
What’s in it for us (you)?
(compared to explorative command-line development)

• Rapid prototyping
• Logged development process
  – Exploiting Galaxy history (comes without effort)
• Streamlined collaboration (internal and external)
  – Short feedback loop
  – Efficient communication of:
    • Intended usage (data, parameters, output)
    • Feedback on relevance (requirements)
    • Bugs and deviances
  – Exploits sharing of Galaxy histories (data, outputs, re-run)
• Thank you for the attention!
• Questions?
• Suggestions?

• Check out the poster (Antigone 2 and https://f1000research.com/posters/6-1031)

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