Less Than Twelve Parsecs

Building the Lego® Millennium Falcon™
in Record Time with Scaled Scrum

Daniel Pape - TNG Technology Consulting
Big Techday - May 18, 2018
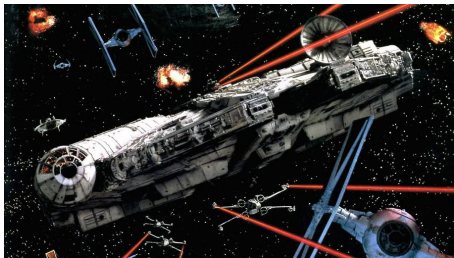
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Disclaimer

- Lego® is a trademark of the LEGO Group of companies which does not sponsor, authorize or endorse this content
- Millennium Falcon™ is a registered trademark of Lucasfilm Entertainment Company Ltd.

Millennium Falcon - Trivia

"What a piece of junk!"
– Luke Skywalker

Screenshot from Episode IV: A New Hope

Screenshot from Episode VI: Return Of The Jedi

Millennium Falcon - Trivia

"What a piece of junk!"
– Luke Skywalker

- Corellian YT-1300f Light Freighter
- Heavily modified
- Piloted by at least Lando Calrissian, Han Solo and Rey
- Appeared in Episodes III, IV, V, VI, VII and VIII, more than any other ship

The Lego® Set 75192 - Trivia

- 7541 parts
- 669 unique parts, i.e. 11 instances of each part

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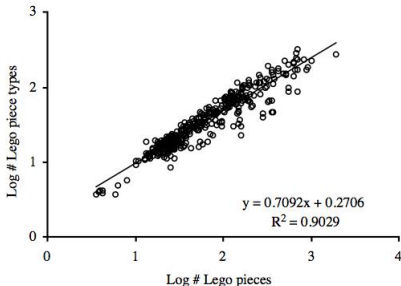
Comparison of unique vs. overall parts in 391 Lego sets. From:
M.A. Changizi et al., Journal of Theoretical Biology 218 (2002), pp. 215-37.

The Lego® Set 75192 - Trivia

- 7541 parts
- 669 unique parts, i.e. 11 instances of each part
- 1379 steps
- Heigth: 21 cm, length: 84 cm, width: 56 cm
- Weight: 13.2 kg
- At least the 9th Falcon Model by Lego

The Lego® Set 75192 - Trivia

Images taken from https://www.lego.com

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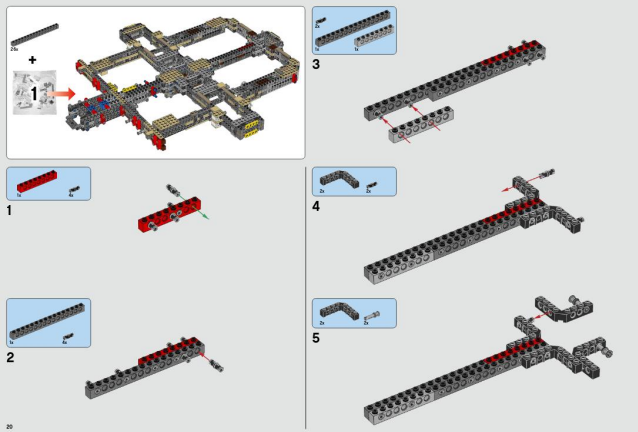
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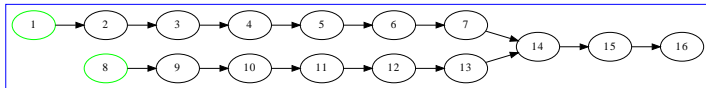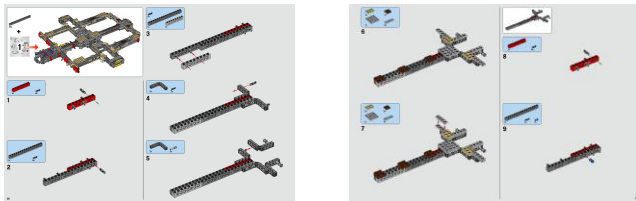The Largest Lego Set Available

Disassembling the Instructions

What's Agile About That?

Impressions
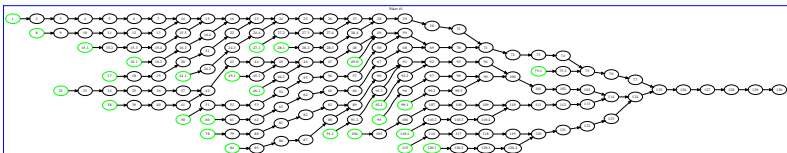
Anatomy of A Lego Instruction

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Anatomy of A Lego Instruction

Dependencies and Parallelism

- Dependency graph for package 1:

- Dependency graph for package 12:

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The Big Picture
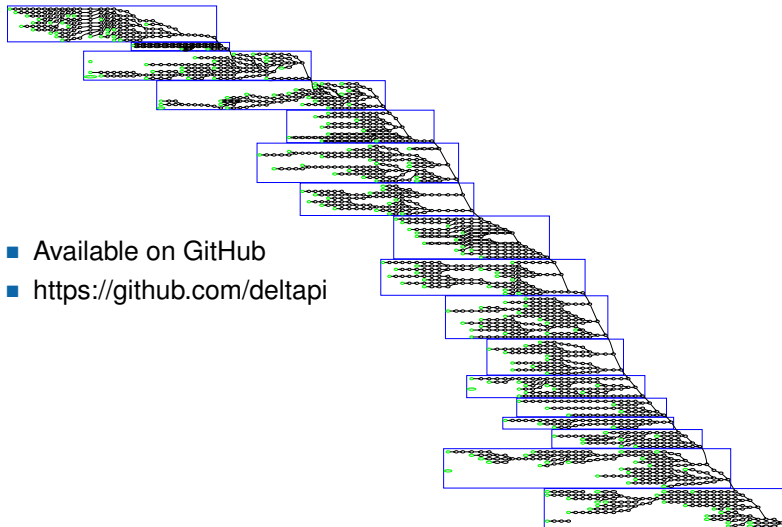
- Available on GitHub
- https://github.com/deltapi

Stories

Entry Points:
78, 84, 95, 104, 115

Links:
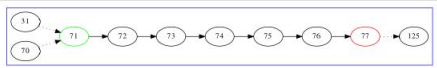89, 100, 114, 124

Dependencies:
-

Integration:
125
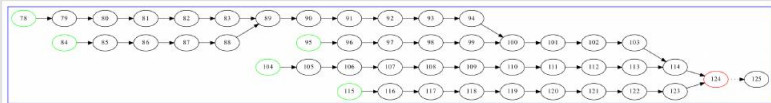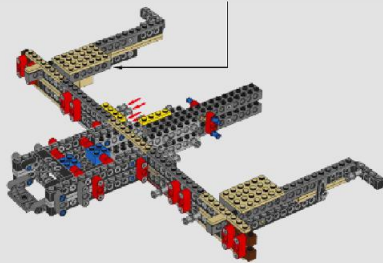
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Stories

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Impressions

Scaling Scrum

- Long-lived cross-functional teams
- Shared product backlog and product owners
- Teamwise Sprint backlogs
- Shared retrospective, planning etc.

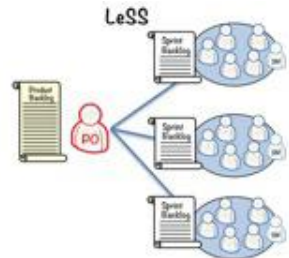Image taken from https://www.infoq.com/articles/scrum-multiple-teams-frameworks

The Teams

- Fully self-organized
- 3-4 people
- 8 teams plus one PO-team
- Pairing and reviews

Contents

Timelapse

Hello

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Finally

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Big Thanks To...

- TNG for the support, especially the models
- The LEGO Group for the great models they created ever since my childhood
- All builders and planers involved
- Thomas Endres and Gerhard Müller for recording the videos
- Stephan Hörtreiter of editmyvideo.de for the timelapse video
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