

# Introduction Video

University of Aalto

Context:

- Text underlined with dashes are links
- Acknowledgements at the end of the presentation
- Text using Noto Serif are supposed to be “creative” elements
- List of tables, images, and links are in the Appendix at the end.
  - Download the presentation from Link to slides: GitHub:pawarherschel/UniOfAalto:condensed-slides.pdf to view them.

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Herschel Pravin Pawar

December 22, 2024

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= Self Introduction

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# = Who am I?



Herschel Pravin Pawar  
sakurakat.systems



[GitHub:pawarherschel/UniOfAalto](https://github.com/pawarherschel/UniOfAalto)

= Coventry University  
Summer School Game Jam

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Fractured Elements

## = Result

Criteria	Rank	Score*	Raw Score
Gameplay	2	3.286	3.600
Presentation	2	3.469	3.800
Creativity	3	2.739	3.000
Enjoyment	3	2.921	3.200

Table 1: Coventry University Game Jam Results

### Judge Feedback:

Visually nice platformer game with a pixel art approach and switching characters that allow either melee or ranged attacks. Multiple levels make it interesting and force the player to master their jumping and attacking skills. There is a final boss for the finale. One improvement I would suggest is that I was unsure what caused me to change between the characters - I was not sure if it was timed, depending on where I was in the level or a button press. Well done to all involved in the game and the hard work you put into it!

*Continuous Change*

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*2D Platformer*

## = The Team



Figure 1: Us

## = Main Mechanic

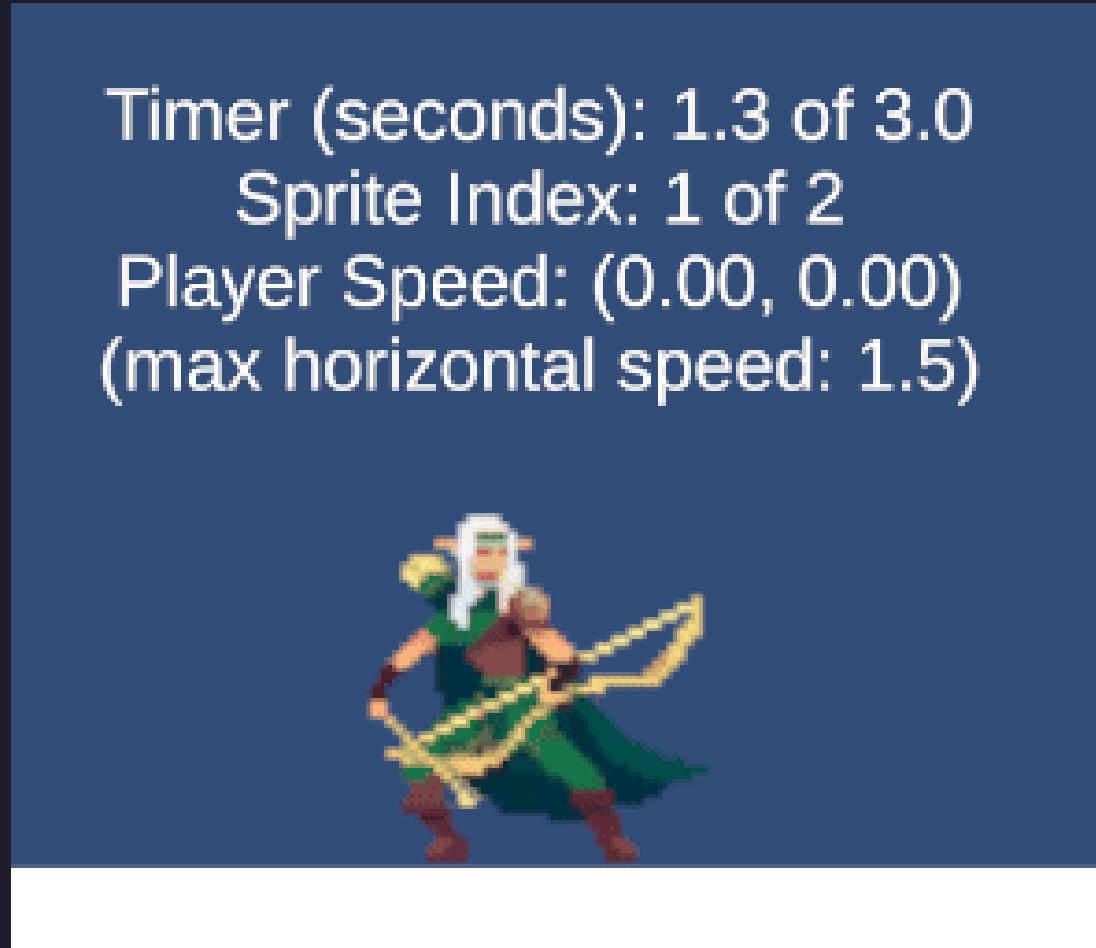


Figure 2: Hero Switching Mechanic

# = Player Architecture

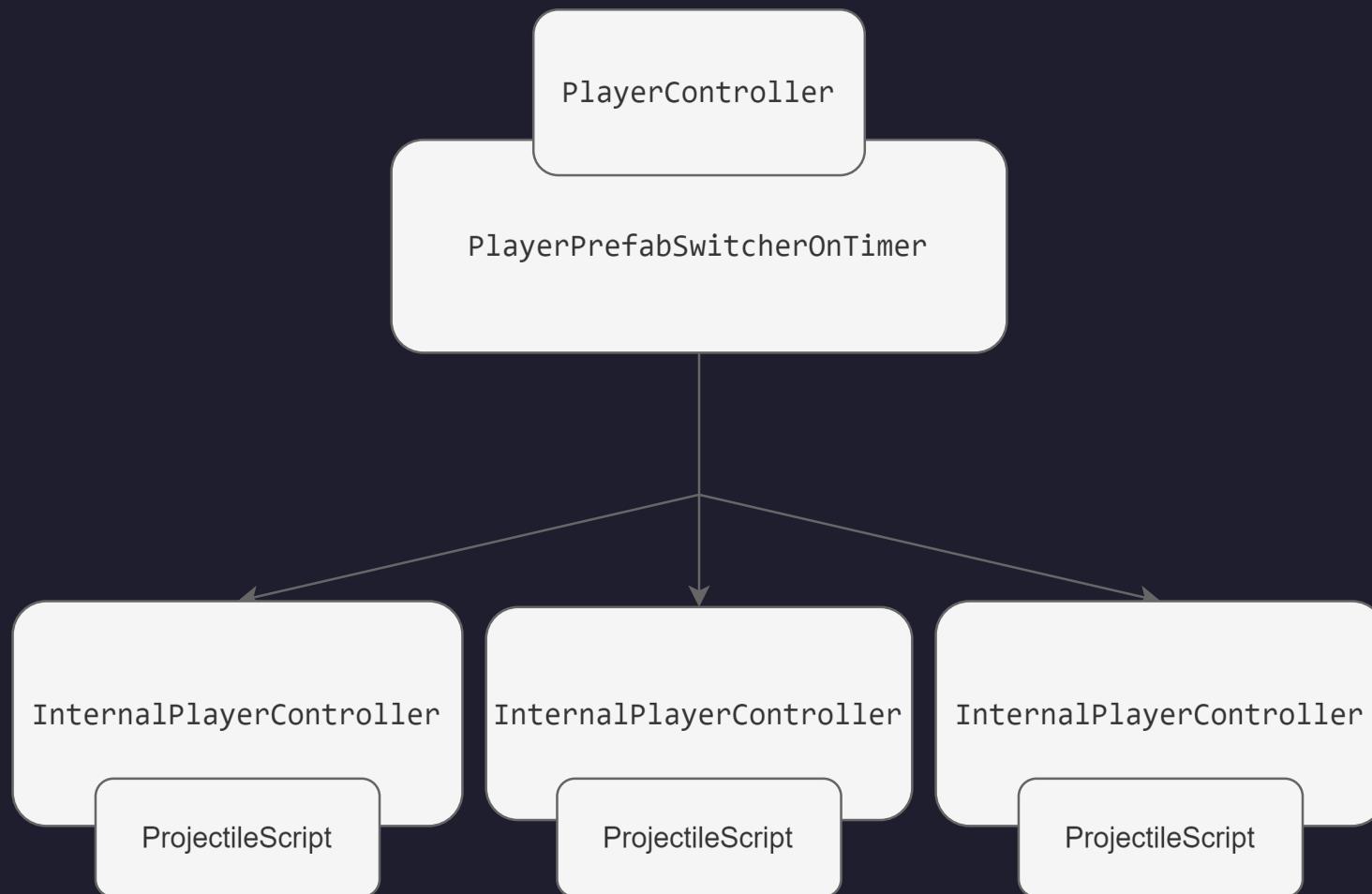


Figure 3: Player Architecture

= Game Maker ToolKit's  
2023 Game Jam

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Cosmos Conquerors

## = Result

Criteria	Rank	Score*	Raw Score
Enjoyment	4296	2.237	2.583
Overall	4652	2.285	2.639
Presentation	4720	2.237	2.583
Creativity	4780	2.382	2.750

Table 2: GMTK's 2023 Game Jam Results

= Theme

*Roles Reversed*

# = Gameplay



Figure 4: Screenshot

## = Main Mechanic



Figure 5: All Invaders Shooting

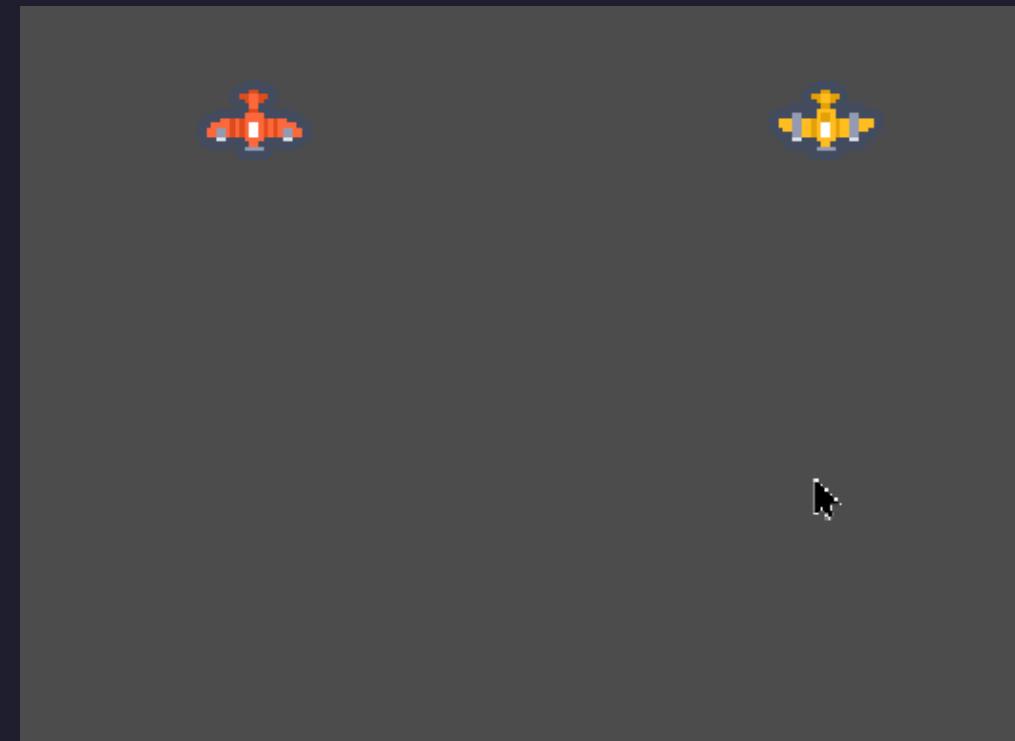


Figure 6: Two Invaders Shooting

= Bevy

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Pong



= Other Projects

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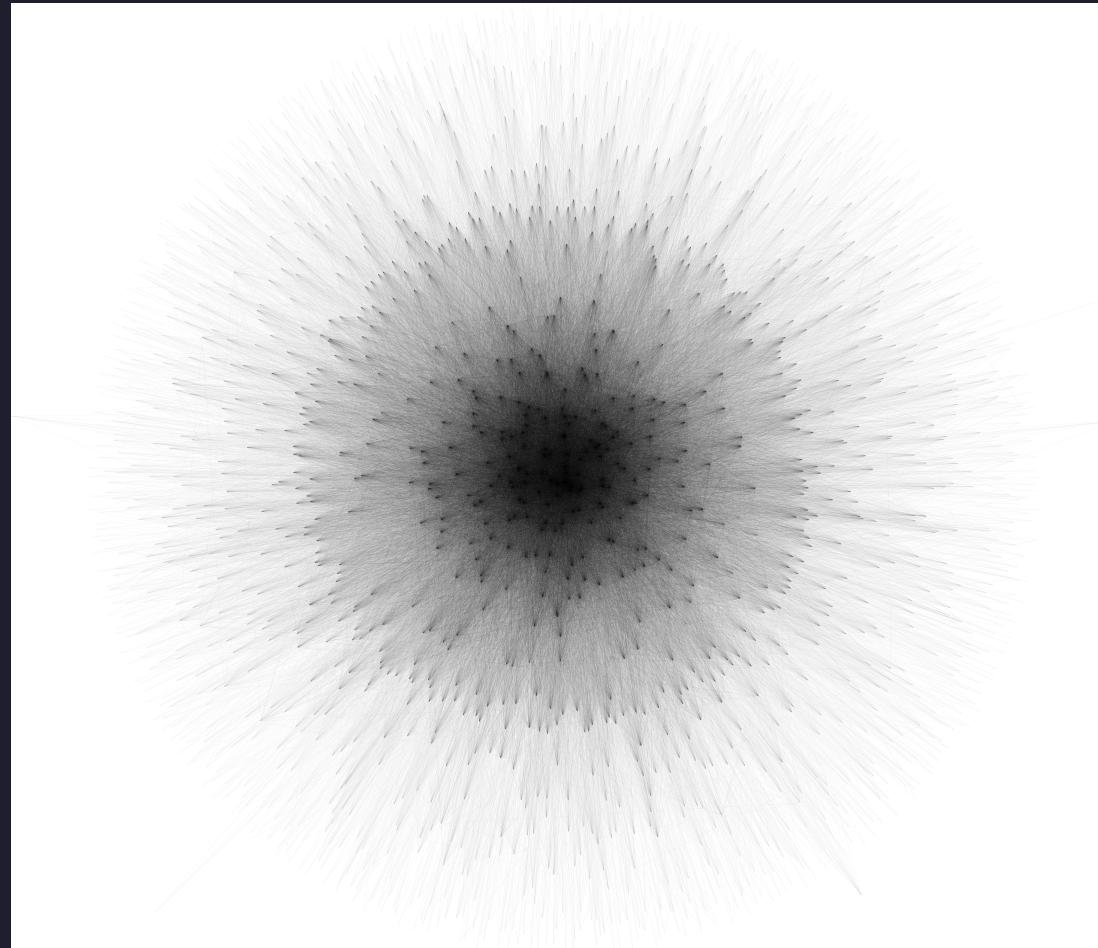


Figure 7: A *VERY* zoomed out view of the graph produced

# = VRCX Insights

## ≡ Output Metadata

number of labels in the DOT file:

1835 labels

total lines in the DOT file:

102,560 lines

size of svg:

33.7 MB (35,402,018 bytes)

png output code (using typst):

```
#page(height: (7680pt * 5), width: (7680pt * 5))[
    #image("dot_edge_no_label.dot.neato.with_sand.svg")
]
```

size of png produced:

3.34 GB (3,597,062,134 bytes)

= Booth Archiver

Figure 8: One of the spreadsheets generated by the program

# = Krita/GIMP Palette Generator



Figure 9: Original Image



Figure 10: Quantized Image



Figure 11: Color palette generated with quantization level 5

= Kait



Figure 12: OC Kait - Made with the help of VRoid Studio

## = Current Interests

- WGPU – an implementation of WebGPU spec in rust – to offload work to the gpu
- Cranelift – an alternative to LLVM – creating custom scripting languages for game engines
- Stateless Abstractions – Inspired by NixOS, functional programming, WGPU – Creating good abstractions which reduce cognitive load
- Technical art – bridging programming, art, and mathematics – I am fascinated by gpus and shaders
- GPGPU – Hardware Acceleration – Offloading tasks and doing them in parallel
- Giving technical talks – Inspiring Others – Kate Compton inspired me, and I want to inspire others, just like her (video)

= Why Aalto

---

and also acknowledgements

## = Acknowledgement

- fivepb for helping me push through when I wasn't able to
- mlembug for going through the script
- Shashank for checking the presentation
- Divyesh for checking the script, presentation, and video
- Henna for helping me practice and pushing me towards getting higher education
- and many many many other people

## = Heavily Inspired by

- [Acerola](#) for the general vibes of the presentation
- [No Boilerplate](#) for the introduction

Made with ❤️ using

- [typst](#) [Typst](#) – an alternative to LaTeX – // sorry couldn't figure out how to do make the logo visible
- [投Touying](#) [Touying](#) – Slides
-  [Catppuccin Theme](#) – Colors 
- [JetBrains Mono](#) – General font
- [Noto Serif](#) — Font for more “creative” aspects

# = Appendix

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The page numbers refer to the *PDF* page numbers and not the *Slide* page numbers

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- Table 1: Coventry University Game Jam Results
- Table 2: GMTK's 2023 Game Jam Results

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# = Table of Links

pg no	Accompanying Text	Link Destination
1	Link to slides:GitHub:pawarherschel/ UniOfAalto:condensed- slides.pdf	<a href="https://github.com/pawarherschel/UniOfAalto/blob/main/condensed-slides.pdf">https://github.com/pawarherschel/UniOfAalto/blob/main/condensed-slides.pdf</a>
2	Coventry University Summer School Game Jam	<a href="https://github.com/pawarherschel/CovUniGJ2024">https://github.com/pawarherschel/CovUniGJ2024</a>
2	Game Maker ToolKits 2023 Game Jam	<a href="https://github.com/pawarherschel/GMTK2023">https://github.com/pawarherschel/GMTK2023</a>
2	Bevy	<a href="https://bevyengine.org/">https://bevyengine.org/</a>

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pg no	Accompanying Text	Link Destination
3	VRCX Insights	<a href="https://github.com/pawarherschel/vrcx-insights">https://github.com/pawarherschel/vrcx-insights</a>
3	Booth Archiver	<a href="https://github.com/pawarherschel/booth_archiver">https://github.com/pawarherschel/booth_archiver</a>
3	Krita/GIMP Palette Generator	<a href="https://github.com/pawarherschel/krita-palette-creator">https://github.com/pawarherschel/krita-palette-creator</a>
5	sakurakat.systems	<a href="https://sakurakat.systems">https://sakurakat.systems</a>
5	GitHub:pawarherschel/Uni0fAalto	<a href="https://github.com/pawarherschel/Uni0fAalto">https://github.com/pawarherschel/Uni0fAalto</a>

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pg no	Accompanying Text	Link Destination
6	Coventry University Summer School Game Jam	<a href="https://github.com/pawarherschel/CovUniGJ2024">https://github.com/pawarherschel/CovUniGJ2024</a>
6	Fractured Elements	<a href="https://pawarherschel.itch.io/fractured-elements">https://pawarherschel.itch.io/fractured-elements</a>
7	Coventry University Game Jam Results	<a href="https://itch.io/jam/summer-school-24/rate/2856755">https://itch.io/jam/summer-school-24/rate/2856755</a>
12	Game Maker ToolKits 2023 Game Jam	<a href="https://github.com/pawarherschel/GMTK2023">https://github.com/pawarherschel/GMTK2023</a>
12	Cosmos Conquerors	<a href="https://pawarherschel.itch.io/cosmos-conquerors">https://pawarherschel.itch.io/cosmos-conquerors</a>

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pg no	Accompanying Text	Link Destination
13	GMTKs 2023 Game Jam Results	<a href="https://itch.io/jam/gmtk-2023/rate/2155150">https://itch.io/jam/gmtk-2023/rate/2155150</a>
17	Bevy	<a href="https://bevyengine.org/">https://bevyengine.org/</a>
17	Pong	<a href="https://github.com/pawarherschel/bevy-pong">https://github.com/pawarherschel/bevy-pong</a>
20	VRCX Insights	<a href="https://github.com/pawarherschel/vrcx-insights">https://github.com/pawarherschel/vrcx-insights</a>
21	VRCX Insights	<a href="https://github.com/pawarherschel/vrcx-insights">https://github.com/pawarherschel/vrcx-insights</a>

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pg no	Accompanying Text	Link Destination
22	Booth Archiver	<a href="https://github.com/pawarherschel/booth_archiver">https://github.com/pawarherschel/booth_archiver</a>
23	Krita/GIMP Palette Generator	<a href="https://github.com/pawarherschel/krita-palette-creator">https://github.com/pawarherschel/krita-palette-creator</a>
25	WGpu	<a href="https://wgpu.rs/">https://wgpu.rs/</a>
25	Cranelift	<a href="https://cranelift.dev/">https://cranelift.dev/</a>
25	NixOS	<a href="https://nixos.org/">https://nixos.org/</a>
25	WGpu	<a href="https://wgpu.rs/">https://wgpu.rs/</a>

# = Table of Links

pg no	Accompanying Text	Link Destination
25	Kate Compton	<a href="https://www.galaxykate.com/">https://www.galaxykate.com/</a>
25	video	<a href="https://www.youtube.com/watch?v=WumyfLEa6bU">https://www.youtube.com/watch?v=WumyfLEa6bU</a>
28	Acerola	<a href="https://www.youtube.com/@Acerola_t">https://www.youtube.com/@Acerola_t</a>
28	No Boilerplate	<a href="https://www.youtube.com/@NoBoilerplate">https://www.youtube.com/@NoBoilerplate</a>
28	Typst	<a href="https://typst.app/">https://typst.app/</a>
28	Touying	<a href="https://touying-typ.github.io/">https://touying-typ.github.io/</a>

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pg no	Accompanying Text	Link Destination
28	Catppuccin Theme	<a href="https://catppuccin.com/">https://catppuccin.com/</a>
28	JetBrains Mono	<a href="https://www.jetbrains.com/lp/mono/">https://www.jetbrains.com/lp/mono/</a>
28	Noto Serif	<a href="https://fonts.google.com/noto/specimen/Noto+Serif">https://fonts.google.com/noto/specimen/Noto+Serif</a>
32	Coventry University Game Jam Results	<a href="https://itch.io/jam/summer-school-24/rate/2856755">https://itch.io/jam/summer-school-24/rate/2856755</a>
32	GMTKs 2023 Game Jam Results	<a href="https://itch.io/jam/gmtk-2023/rate/2155150">https://itch.io/jam/gmtk-2023/rate/2155150</a>