

# Obsessive Compulsive Development: A Postmortem of the Development of Retro/Grade

**Matt Gilgenbach**

Co-founder - 24 Caret Games

# About Me

- Heavy Iron Studios – 2003-2005 – Gameplay Programmer
- High Impact Games – 2005-2008 – Lead Gameplay Programmer
- 24 Caret Games – co-founded in July of 2008
- I suffer from Obsessive Compulsive Disorder as well as depression (+ bonus insomnia)
  - Clinically diagnosed
  - I see a therapist and have been for over 10 years
  - There is no “cure”
  - Therapy helps with gaining tools to deal with it
  - I was dealing with it pretty well before starting 24 Caret Games

# About Retro/Grade

- Released 8/21/2012
- Development time - PS3: 4 years
- Development time - PC port: 6 months (just me part time)
- Team: Roughly 3
  - Myself – Game design & gameplay programming
  - Justin Wilder – Engine, effects, and tools
  - Art contractors – worked with various people for the first half. Contracted Joe Grabowski full time for the rest of the project
- Hours I worked: On average, around 80 hours/week
- Lines of code: 748,491
  - That is an insane amount for two programmers
  - Little Big Planet had 527,033 with 37 devs (according to gdmag)

0017421200



# In the Beginning...







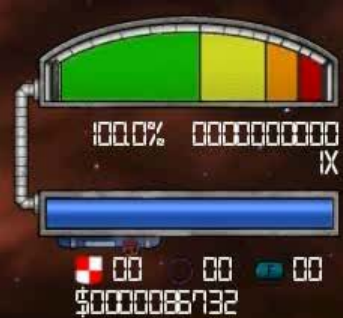
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# The IGF Demo (10/31/08)



# The IGF Show Floor (03/23/09)



# My Baby



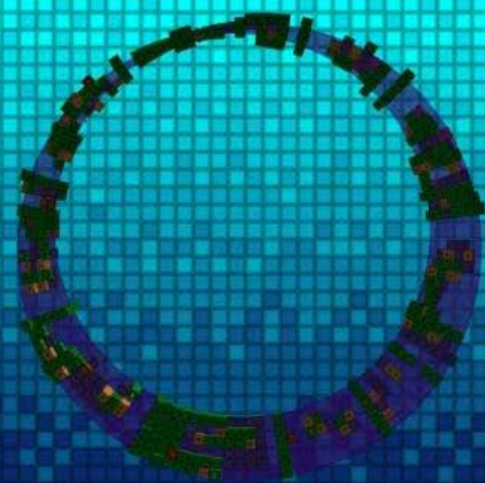
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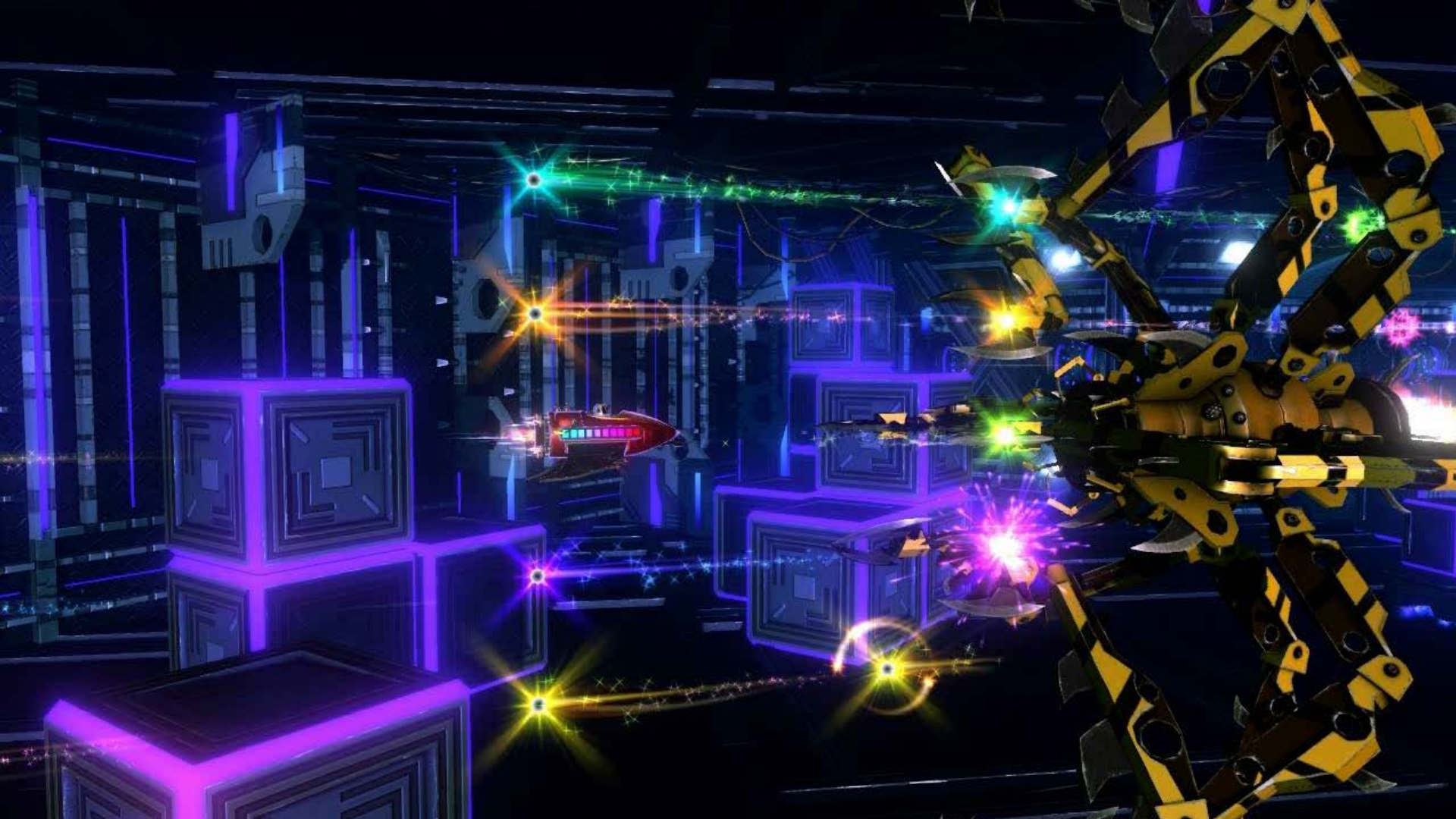
# HAMMERTIME



Press Start

(c) 2010 Ducere Uxorem, LLC





# Circular Logic







# CHALLENGES



Move your ship along the path to play challenges and unlock rewards.

● - Move ● - Select ● - Back





# The Finish






## The Best Videogames of 2012

by Jason Dietz, Metacritic Features Editor  
December 31, 2012

[↓ 12 user comments](#)

### Best PS3 Exclusives, 2012



#1	#2	#3	#4	#5
				
92	83	79	78	77
<b>Journey</b> Sony	<b>Dyad</b> Sony	<b>The Unfinished Swan</b> Sony	<b>Retro/Grade</b> 24 Carat	<b>Starhawk</b> Sony

**PSNSTORES****EDITOR  
CHOICE**

AWARD

2012

**WINNER**

EDITOR'S CHOICE AWARD WINNER

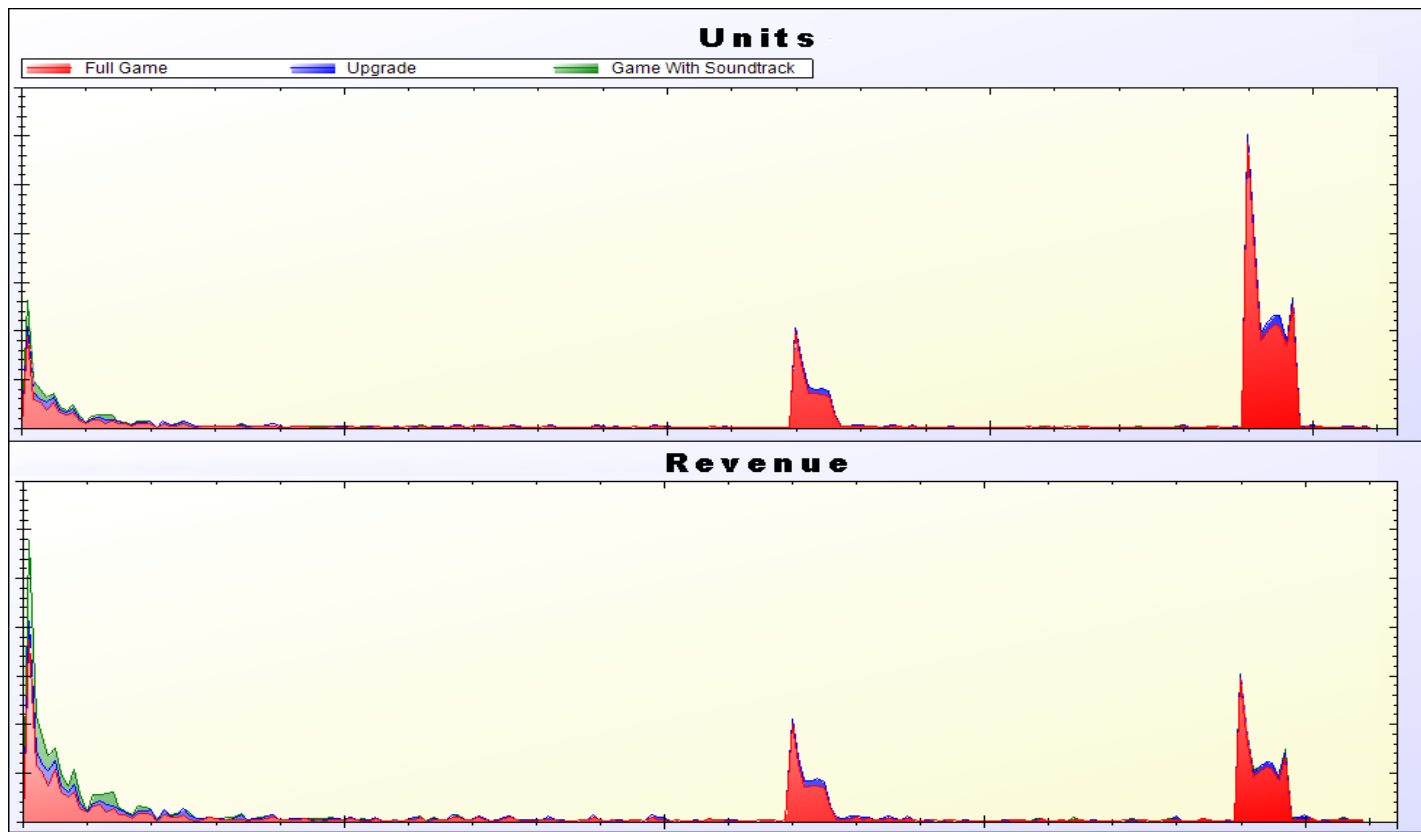
**GAMING  
ILLUSTRATED**  
THE DEFINITIVE SOURCE FOR GAMING INFORMATION

SUPERIOR PRODUCT

# Retro/Grade Final “Features”

- 1080p 60 fps with AA (PS3 first)
- Dynamic lighting and shadows
- PVS generator for object culling
- Background streaming for all data
- Optimized SPU CRN decoder in assembly to reduce load times
- Vertex shader based stateless particle system
- Runtime texture measurement to optimize texture sizes
- Shader preprocessor to create variations
- Brute force shader optimization tools
- Color Grading on the SPU
- Skydome with decal projections and shader compositing
- Infinite star field with clumping and frustum culling
- Ship based controls for camera path recording
- Complex procedural animation for bosses and characters
- Screen FX - Motion blur, distortion mapping, bloom
- HUD/menu design with animated refractive LED particles

# Sales





# The School Of Hard Knocks

to all who may read these letters, Greetings:

Hereby it is certified that upon recommendation of the  
College of Indie Games

The Regents of the School of Hard Knocks have conferred upon  
**Matt Gilgenbach**

in recognition of the satisfactory fulfillment of the prescribed requirements  
the degree of

**Indie Game Development**

with all the rights, privileges, and honor thereto pertaining here and elsewhere.

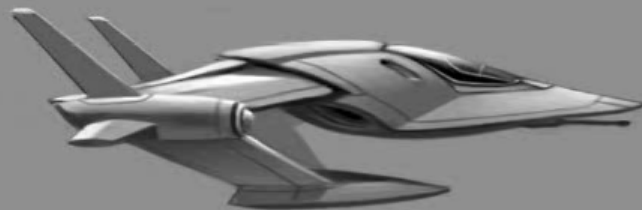
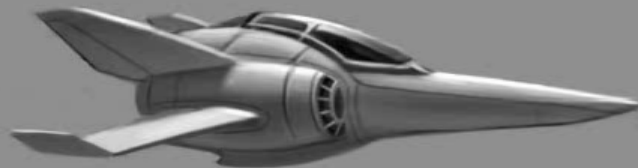
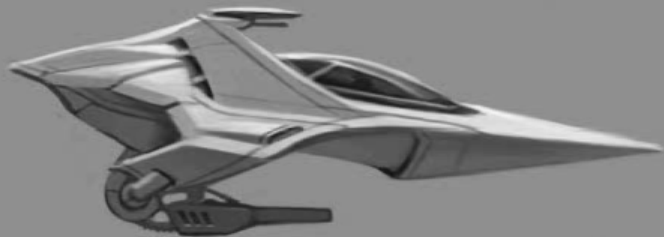
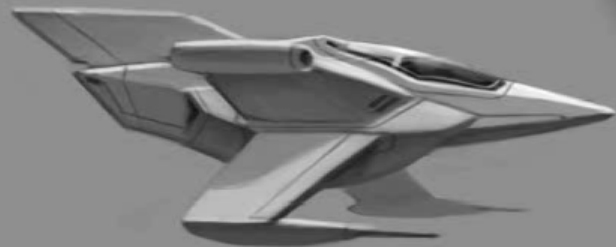
Dated at Los Angeles, CA, this twenty-first day of August, two thousand and twelve.

President



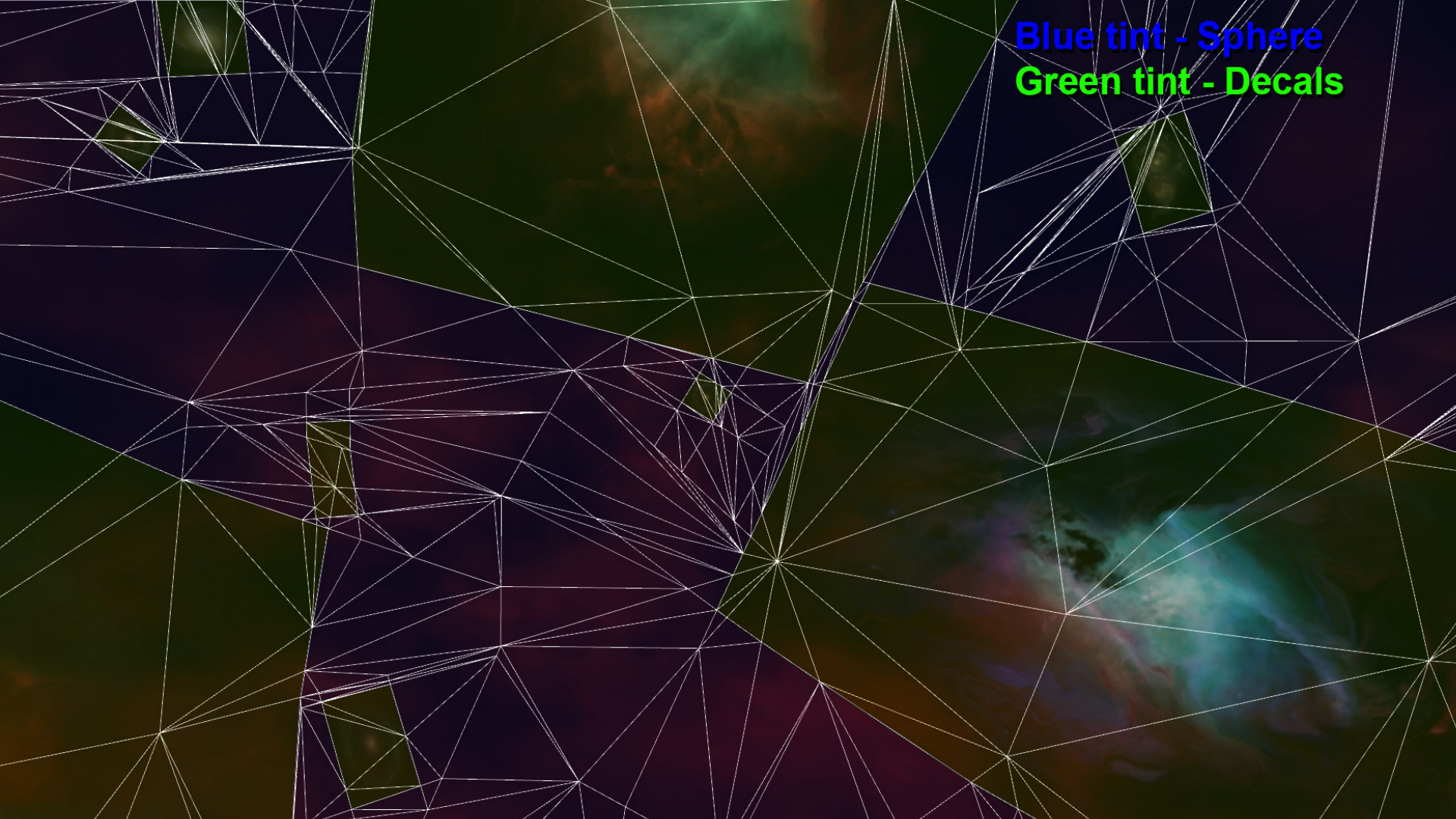
Vice President







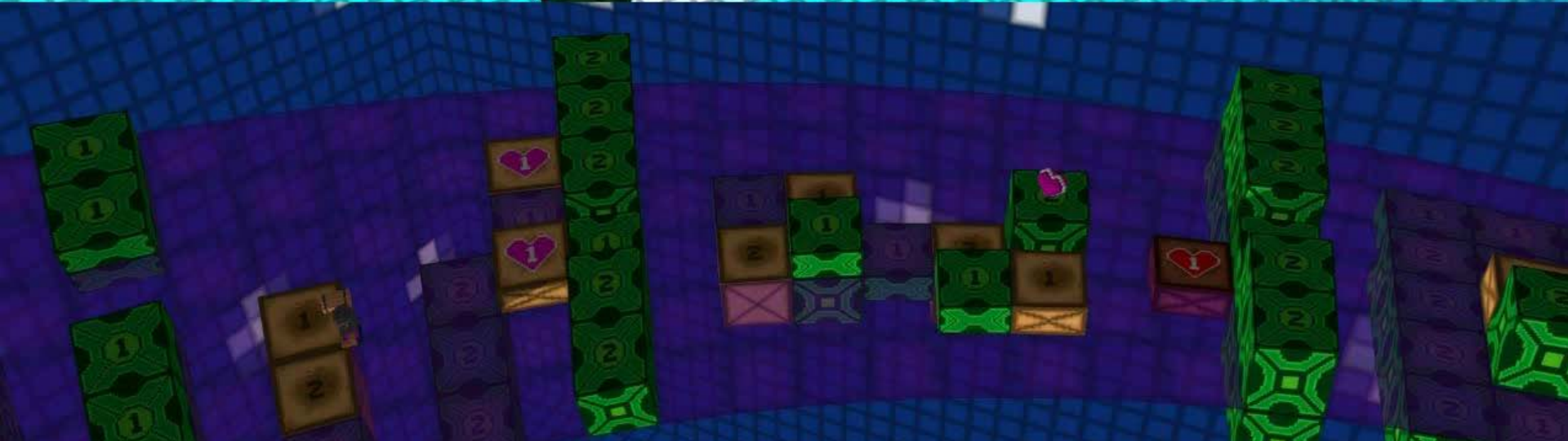
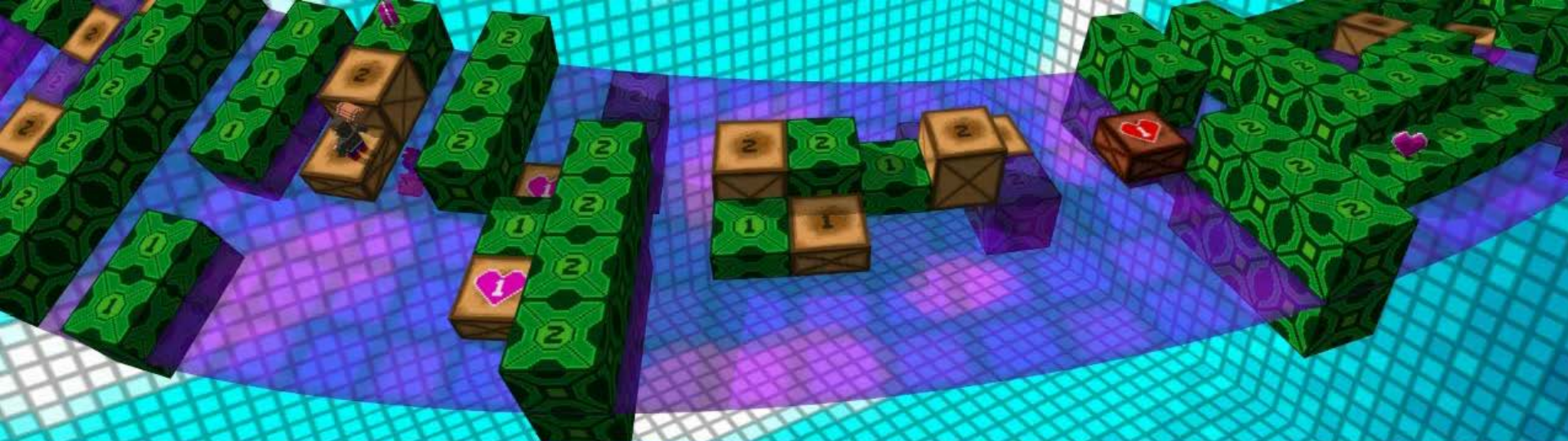
Blue tint - Sphere  
Green tint - Decals









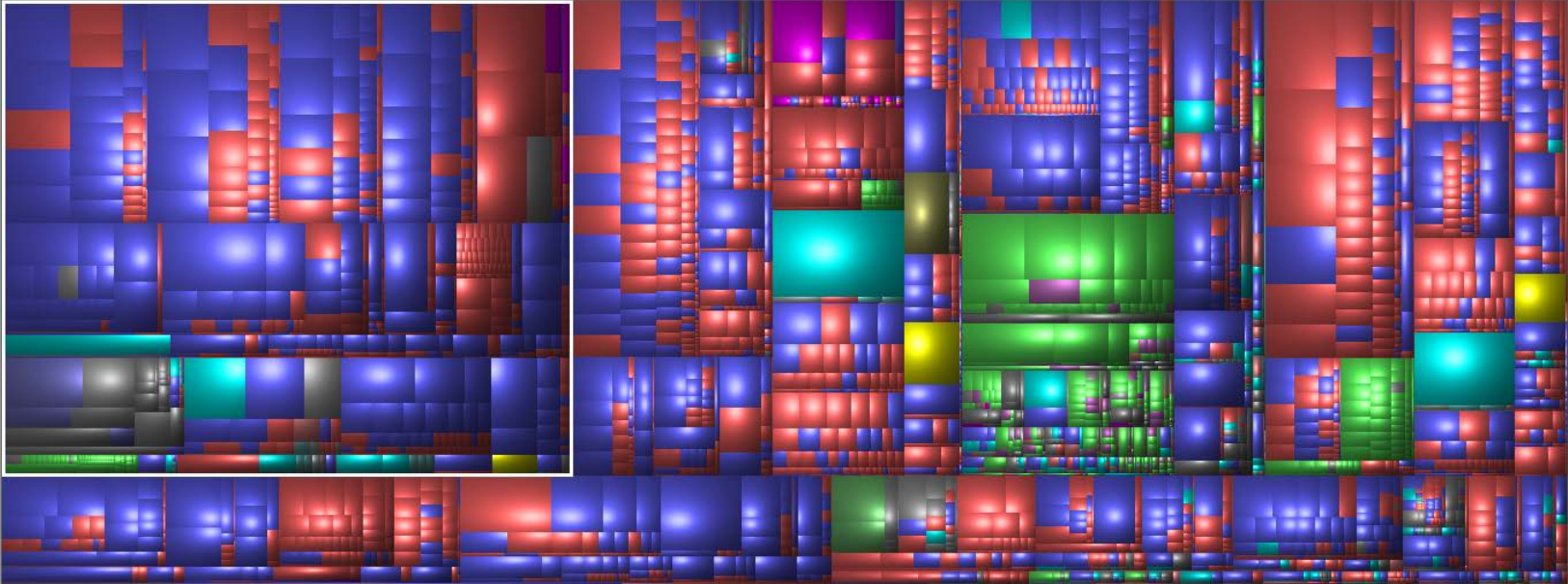


Well, duh!

F:\RetroGrade\_Code - WinDirStat

File Edit Clean Up Treemap Report Options Help

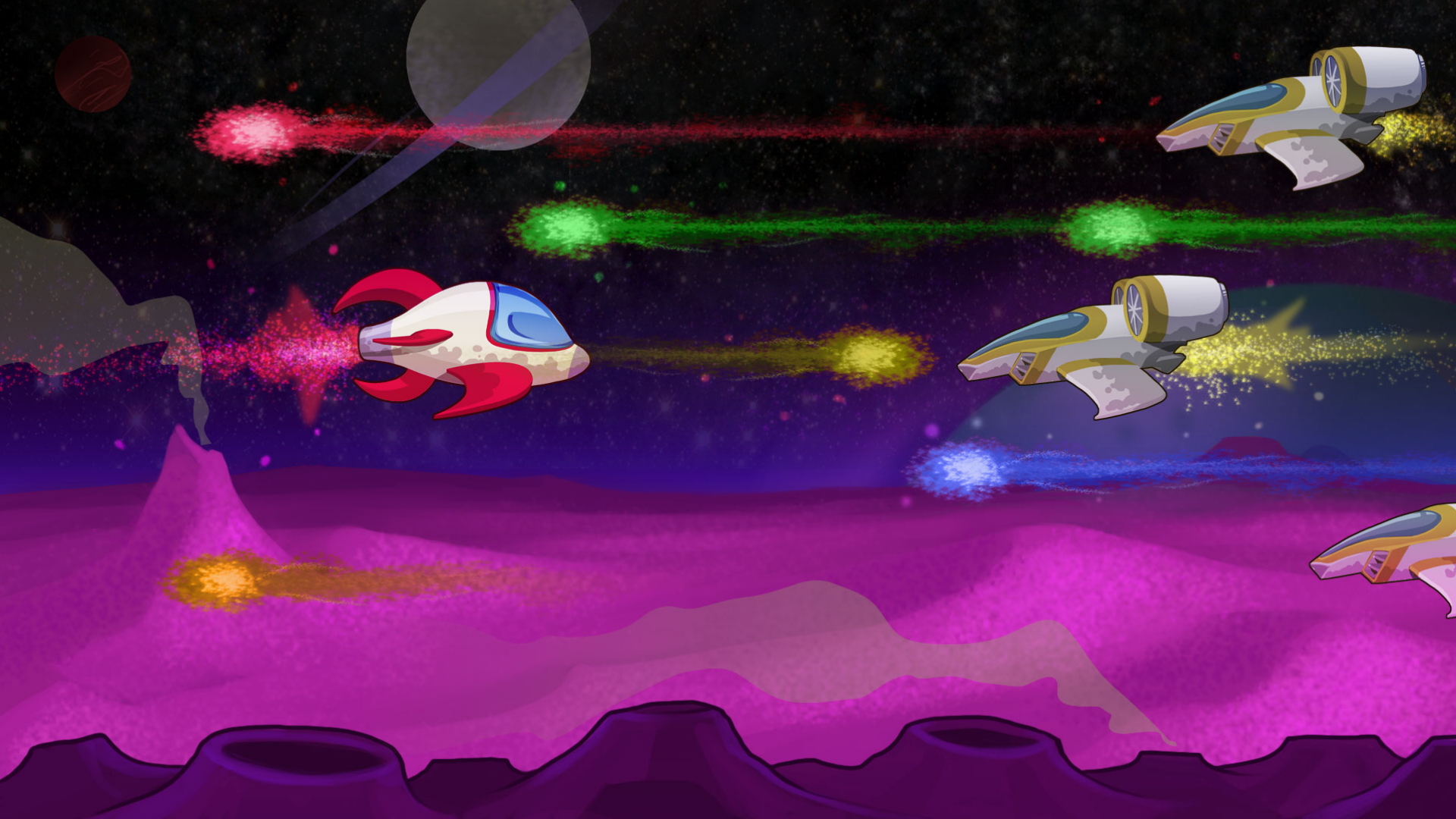
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└─ games	29.7%		13.9 MB	992	857	135	1/	.h		C/C++ Header	15.6 MB	33.3%	1,717
└─ engine	20.3%		9.5 MB	824	675	149	1/	.cs		Visual C# Source file	2.6 MB	5.5%	372
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Ready RAM Usage: 25.6 MB









# What's next?

- Justin Wilder, the other remaining founder of 24 Caret Games, left and got a full time gig
- I'm still trying to find balance in my life
  - I don't want to neglect my responsibilities to my family
- I'm hoping to do another indie game and apply the lessons I've learned
  - I'm not sure I can find the right balance

# Thank you for listening!

- Any questions?