

The 3-Minute Performance Health Check: Rapidly Test Your Mobile Game

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GDC
March, 2016



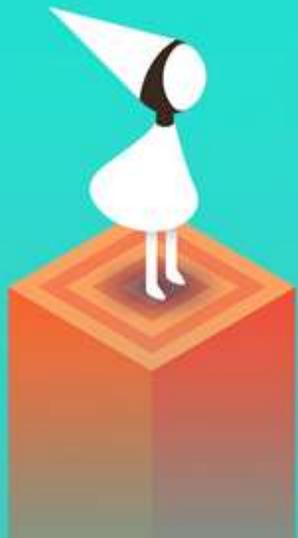
150,000

The number of mobile
games launched in 2014



5%

The proportion that
broke even



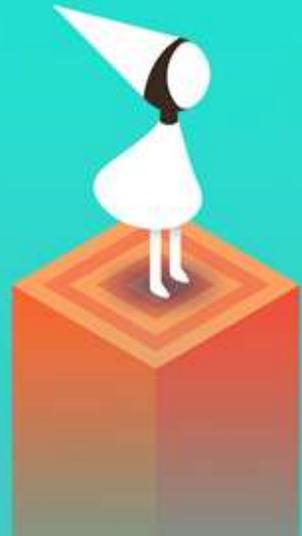
\$25,000

The estimated average
development cost per game



\$400

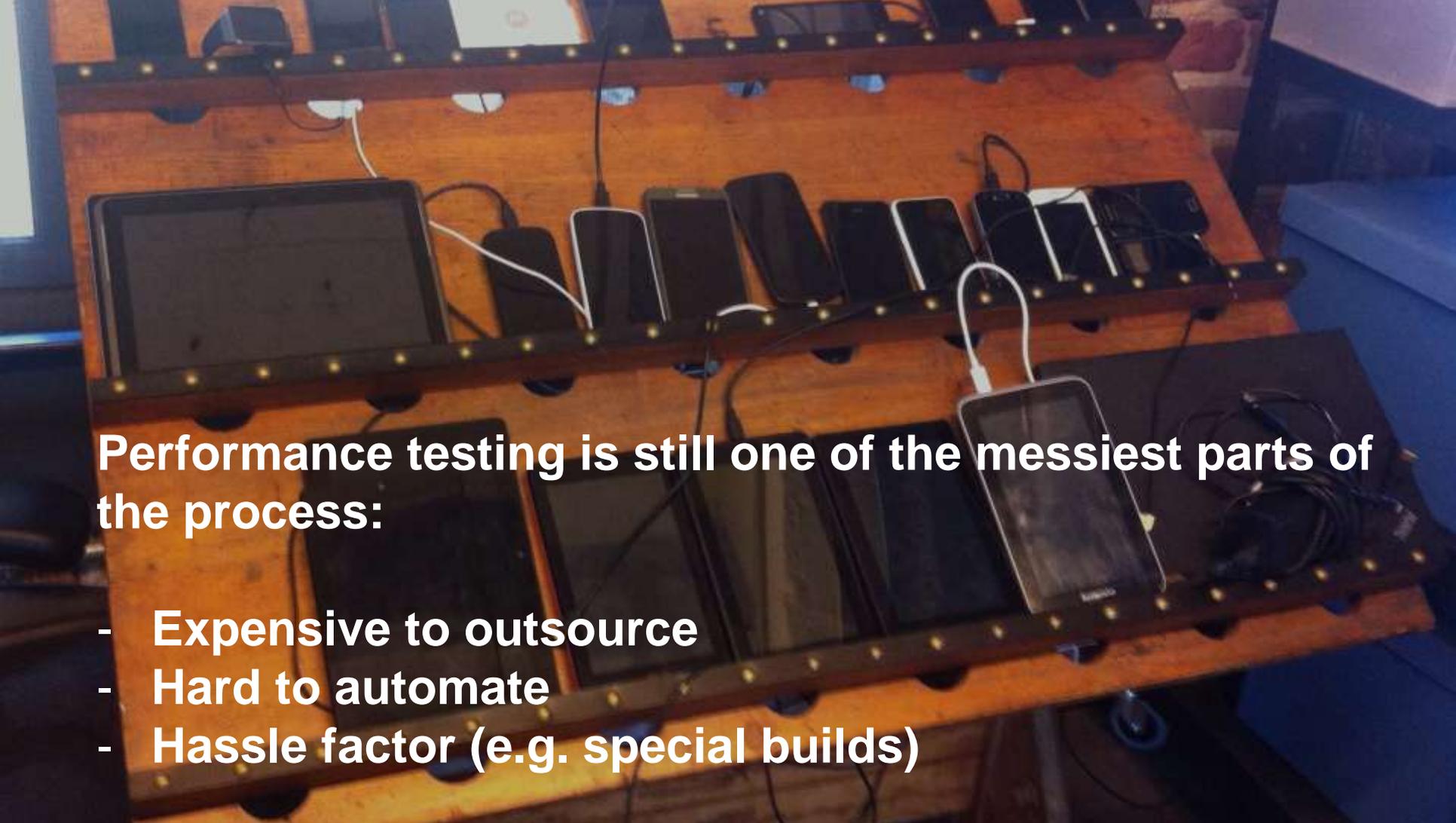
Average lifetime revenue





“Soft launches, analytics, PR and marketing must all be considered, and the bald reality is that simply launching a great game in a market where hundreds launch each week is no longer enough.”

– Edge Magazine, March 2016



Performance testing is still one of the messiest parts of the process:

- **Expensive to outsource**
- **Hard to automate**
- **Hassle factor (e.g. special builds)**



Swedish Spectre 19 March 2015

★★★★★

Frame rate issues (Note 3) Please add controller support! This game is begging for a frame rate fix. I can see that they have already removed details like shadows. I also didn't play the original, but something really felt missing without voice overs.



Christian Tszanch 31 May 2014

★★★★★

Framerate & Responsiveness It's hard to really enjoy it with such a low frame rate and the interactions feel unresponsive as well. The menus and buttons could also benefit from some minor changes.



Jeshua Gollott 5 June 2014

★★★★★

Favorite game, but the port needs work Sorry to echo the frame rate complaint but it's true! I'd accept slight graphical sacrifices for smoother performance. Please add custom controller support! Otherwise worth every penny and five stars.. after optimizations! Now I just need Final Fantasy Tactics on Android.



Rifqy Fatara 26 February 2016

★★★★★

Lag It lags on my meizu m2 note. Everytime it tried to make a move, either my fighter or the opponent, it started to lag so much that made the game unresponsive. Totally enjoy the move and the hit, though. Waiting for good update.



Иван Бондаренко 31 January 2016

★★★★★

Last updates slowed the performance massively I played hearthstone on my Sony Xperia z2 even before it was released for Android phones(I found it on reddit, it was version for tablets) and after and it worked smoothly and perfect. Since some update this summer it became working very slow, every animation is being "slow mo", and the application itself grew up from 1.5 gb to 3+ gb. Is there any way to fix it? I mostly play hearthstone on my phone...



Helman Ruiz 30 May 2014

★★★★★

Great game hampered by frame rate Great game, awesome controls. The frame rate hurts the experience, fix it and you got a five star masterpiece

Dartkun 1 year ago

#2

That sucks.

I've run it on a Nexus 7 (2013).

It's 30 FPS except when entering a battle and during **** like Lightning storm where it drops down to like 4 fps.

I want to play fast, but you really gotta take your time, play cards when the frame rate goes back to normal. Because I Lava Burst myself in the face because it lags while I was trying to cast it.

The logo for GameBench features the word "GameBench" in a bold, black, sans-serif font. The letter "B" is significantly larger than the other letters. Above the "B" and the following "e", "n", and "c", there are five vertical bars of varying heights, resembling a bar chart. From left to right, the bars are black, black, red, green, and black.

GameBench

- Used by big studios, QA firms, manufacturers, but accessible to all



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- Test and optimize performance before launch, instead of leaving it to chance



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- Test manually from a desktop, or wirelessly from a beta group, or get crowdsourced data from a soft launch



- Used by big studios, QA firms, manufacturers, but accessible to all
- Test and optimize performance before launch, instead of leaving it to chance
- Test manually from a desktop, or wirelessly from a beta group, or get crowdsourced data from a soft launch
- No code changes, no SDKs, no rooting, no debug versions of apps, no dependence on other tools

GameBench
Cross-platform performance



Truly Cross Platform

(Talk about something, anything for three minutes)

30fps or 60fps?

It depends on the game and genre

CROSSY
ROAD



HEARTHSTONE
HEROES OF WARCRAFT

LARA
CROFT

GO



HITMAN
SNIPER

MONUMENT
VALLEY



SHADOWBLADE

Fallout Shelter



ANGRY BIRDS
2

UNKILLED

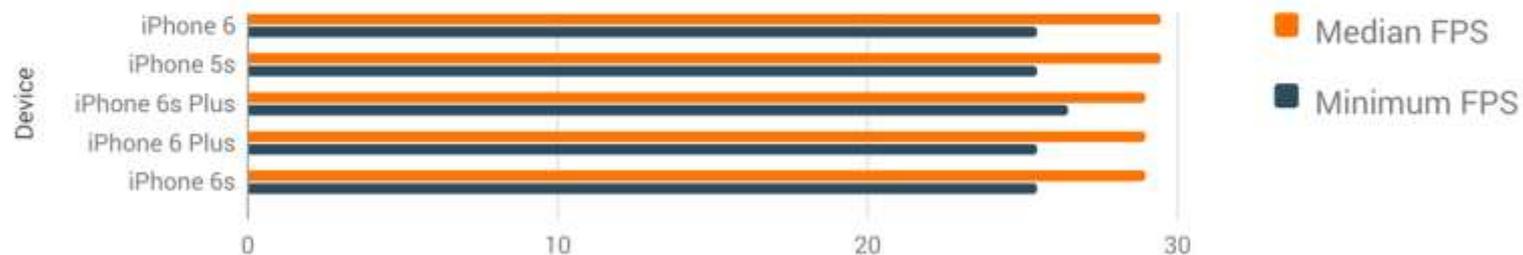
COUNTERSPY

THE CLOCK IS TICKING

DYNAMIGHTY

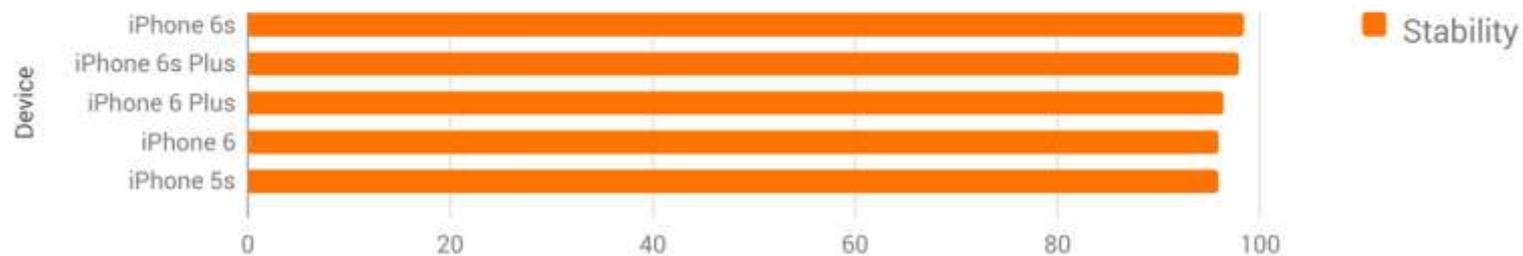
iOS 30FPS Games

Median and minimum frame rate by device



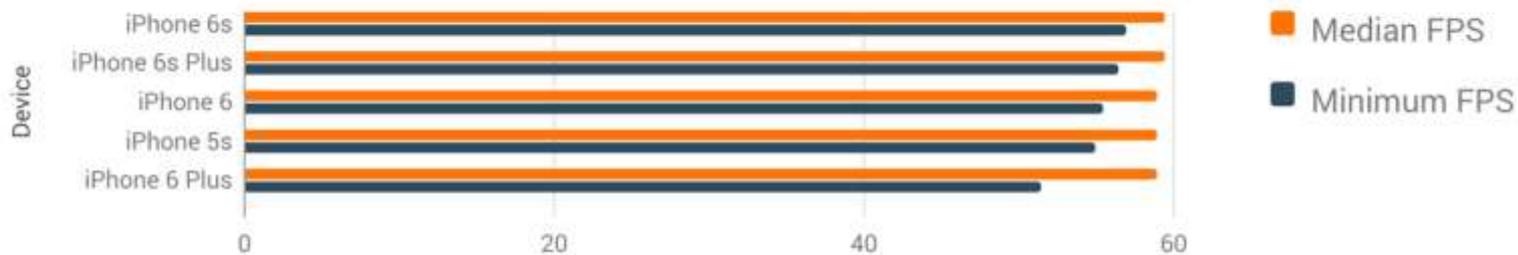
iOS 30FPS Games

Framerate Stability



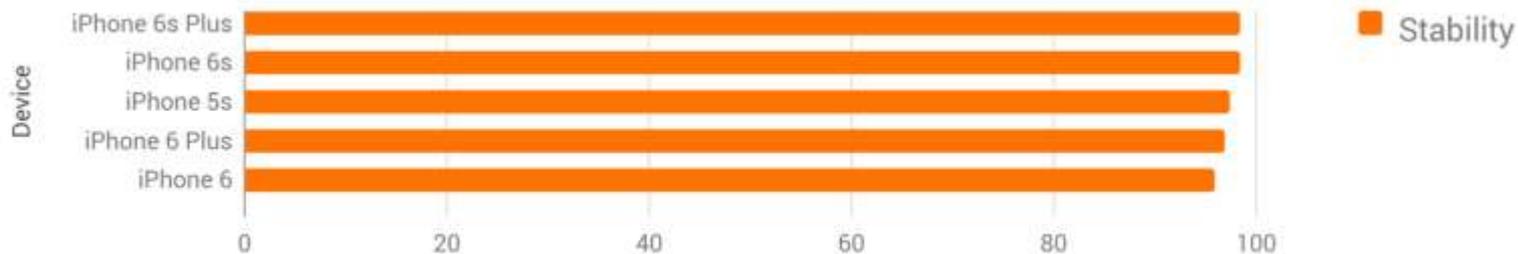
iOS 60FPS Games

Median and minimum frame rate by device



iOS 60FPS Games

Framerate Stability



How perfect

does a game need to be?

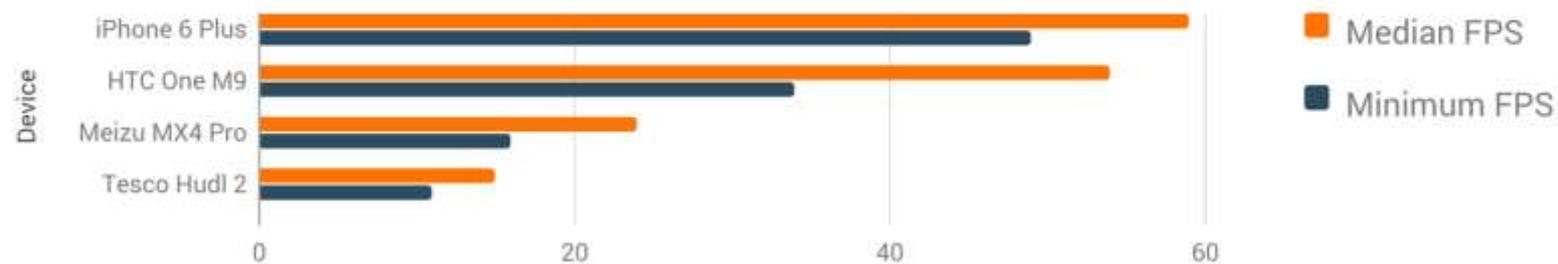


LARA
CROFT



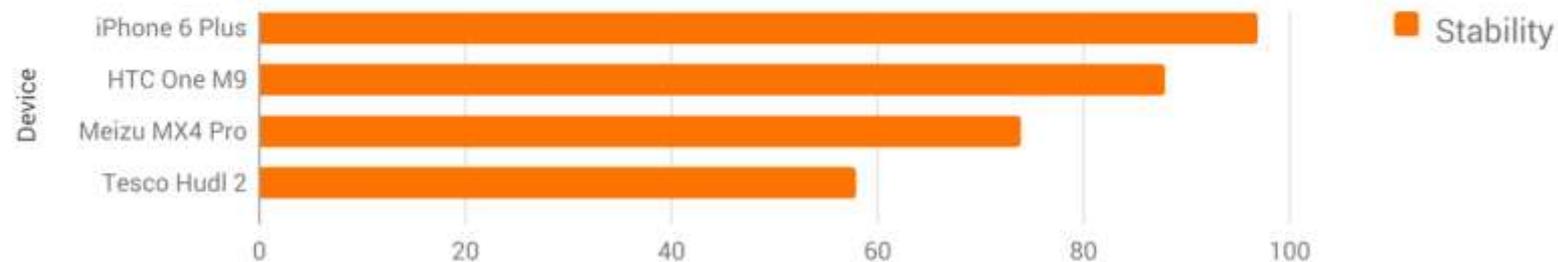
Lara Croft Go

Median and minimum frame rate by device



Lara Croft Go

Framerate Stability





After three minutes

the results are in.



Filter...

Go



Vainglory

SM-G920F

Time Played: 03m 5s

3 minutes ago



Jenga

iPhone 6

Time Played: 01m 15s

15 days ago



Epic Citadel

iPhone 6

Time Played: 44s

15 days ago



Epic Citadel

iPhone 6

Time Played: 01m 35s

15 days ago



Epic Citadel

SM-G920F

Time Played: 01m 26s

15 days ago

MANGO

MANGO

iPhone 5

Time Played: 01m 5s

15 days ago

MANGO

MANGO

iPhone 5

15 days ago



SM-G920F

Android Version: 6.0

ARM Mali-T760

S/N: 01157df1d5377039



Vainglory

com.superevilmegacorp.game

Version: 1.15.1 (29630)

Last Updated: 10-Mar-2016 02:0...

03m 5s, 01:40am - Mar 10, 2016

Session Notes



No Notes

Summary

Performance

Battery

CPU

GPU

Memory

Network

59

Median Frames Per Second

7.29%

CPU Usage (%)

20.38%

GPU Usage (%)

578MB

Memory Usage (MB)



Filter... Go

- Vainglory** SM-G920F 3 minutes ago
Time Played: 03m 5s
- Jenga** iPhone 6 15 days ago
Time Played: 01m 15s
- Epic Citadel** iPhone 6 15 days ago
Time Played: 44s
- Epic Citadel** iPhone 6 15 days ago
Time Played: 01m 35s
- Epic Citadel** SM-G920F 15 days ago
Time Played: 01m 26s
- MANGO** iPhone 5 15 days ago
Time Played: 01m 5s
- MANGO** iPhone 5 15 days ago
Time Played: 11m 11s

Screenshot (Click to Rotate)

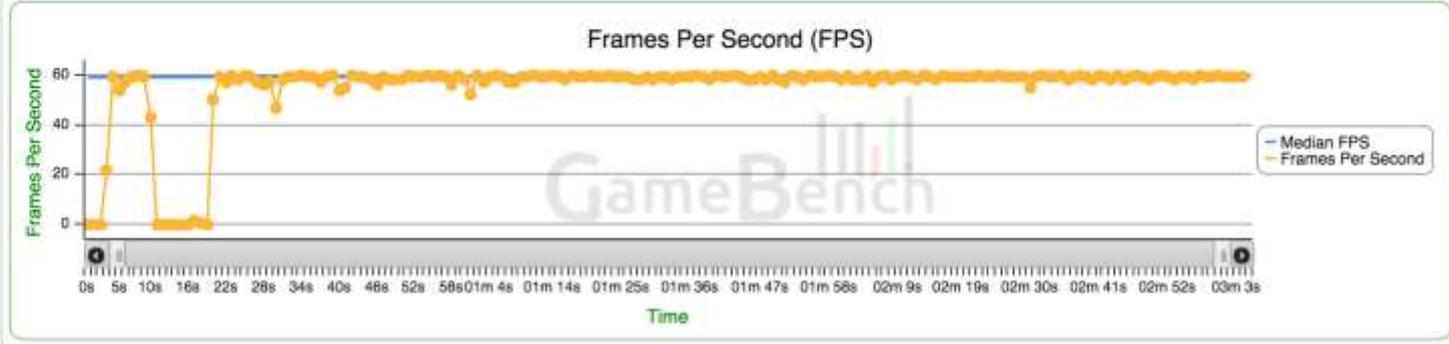


Performance Info

59 Median FPS	91% FPS Stability	CSV Export
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Session Markers

No Markers





Filter...

Go



Screenshot (Click to Rotate)



Performance Info

59

Median FPS

91%

FPS Stability

CSV

Export

Session Markers

No Markers



Vainglory
SM-G920F

Time Played: 03m 5s

7 minutes ago



Jenga
iPhone 6

Time Played: 01m 15s

15 days ago



Epic Citadel
iPhone 6

Time Played: 44s

15 days ago



Epic Citadel
iPhone 6

Time Played: 01m 35s

15 days ago



Epic Citadel
SM-G920F

Time Played: 01m 26s

15 days ago



MANGO
iPhone 5

Time Played: 01m 5s

15 days ago



MANGO
iPhone 5

Time Played: 11m 11s

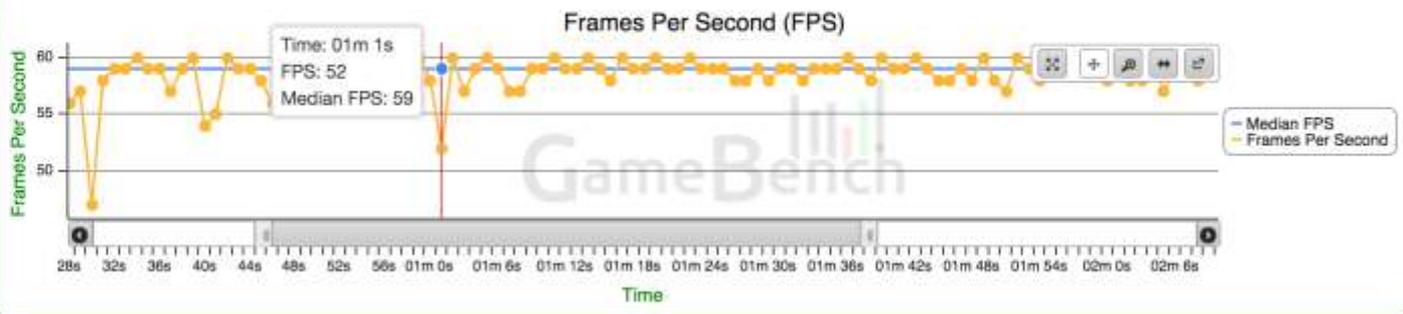
15 days ago



Monument Valley
HTC Desire 816

Time Played: 26s

15 days ago



FPS Stability

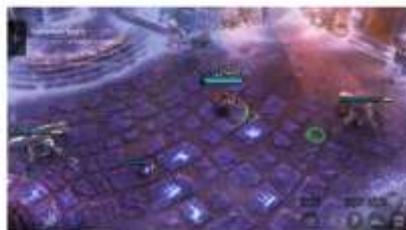


Filter...

Go



Screenshot (Click to Rotate)



CPU Info

7.29%	20.84%	arm	400Khz - 1.50Ghz	CSV
Average CPU Usage	Peak CPU Usage	CPU Type	CPU Frequency	Export

Session Markers

No Markers



Vainglory
SM-G920F
Time Played: 03m 5s

4 minutes ago



Jenga
iPhone 6
Time Played: 01m 15s

15 days ago



Epic Citadel
iPhone 6
Time Played: 44s

15 days ago



Epic Citadel
iPhone 6
Time Played: 01m 35s

15 days ago



Epic Citadel
SM-G920F
Time Played: 01m 28s

15 days ago



MANGO
iPhone 5
Time Played: 01m 5s

15 days ago

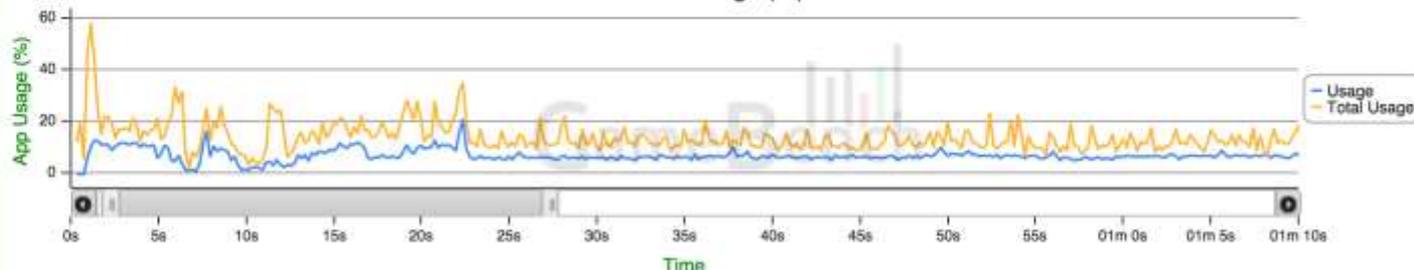


MANGO
iPhone 5
Time Played: 11m 11s

15 days ago

15 days ago

CPU Usage (%)





- Filter... Go
- Vainglory SM-G920F 5 minutes ago
Time Played: 03m 5s
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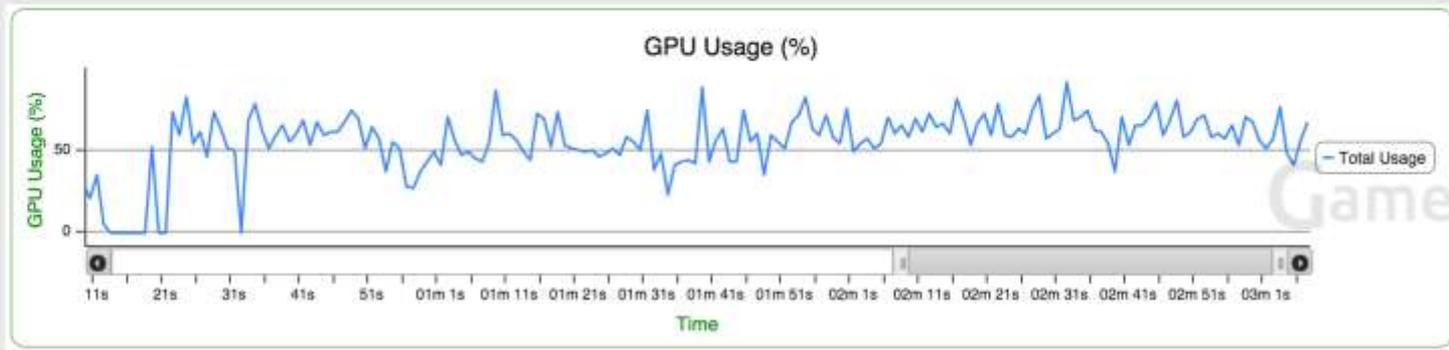


GPU Info

20.38%	91.00%	ARM	Mali-T760	CSV
Average GPU Usage	Peak GPU Usage	GPU Vendor	GPU Renderer	Export

Session Markers

No Markers





Filter... Go

- Vainglory SM-G920F 5 minutes ago Time Played: 03m 5s
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- MANGO iPhone 5 15 days ago Time Played: 11m 11s
- Monument Valley 15 days ago

Screenshot (Click to Rotate)



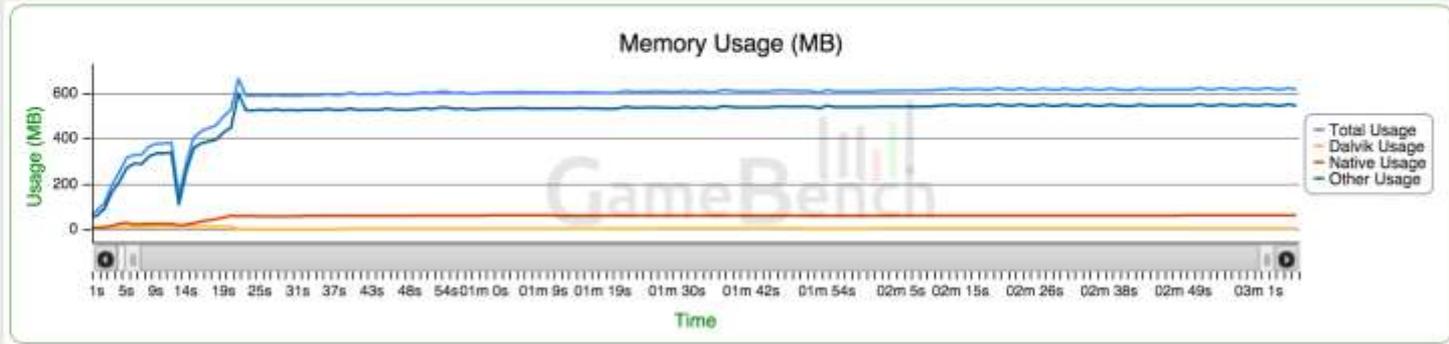
Memory Info

578MB
Median Memory Usage

CSV
Export

Session Markers

No Markers





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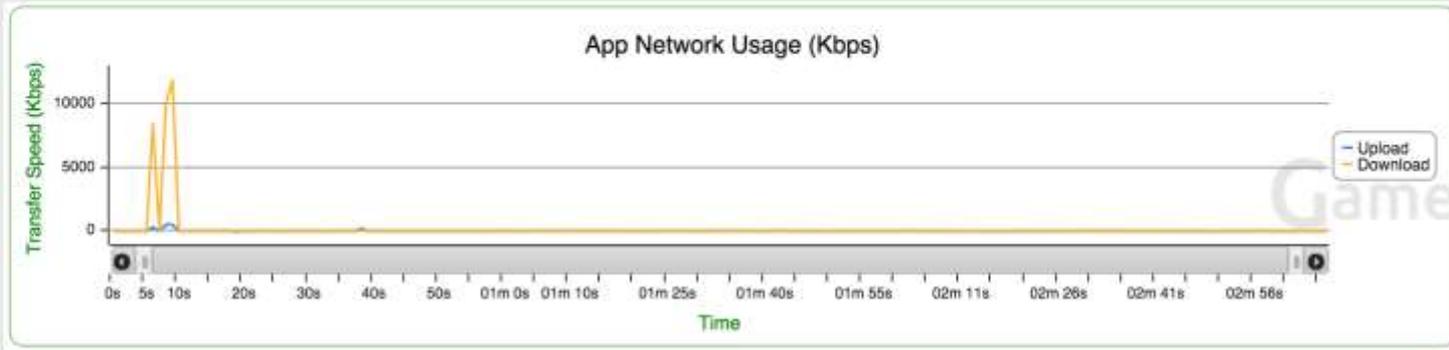


Network Info

		306.7KB	4.0MB	CSV
Wifi	Mobile Data	Uploaded	Downloaded	Export

Session Markers

No Markers





Get in touch!

At GDC: Booth 1016

By email: sharif@gamebench.net

More info: www.gamebench.net