Building the Future with MetaMask Snaps

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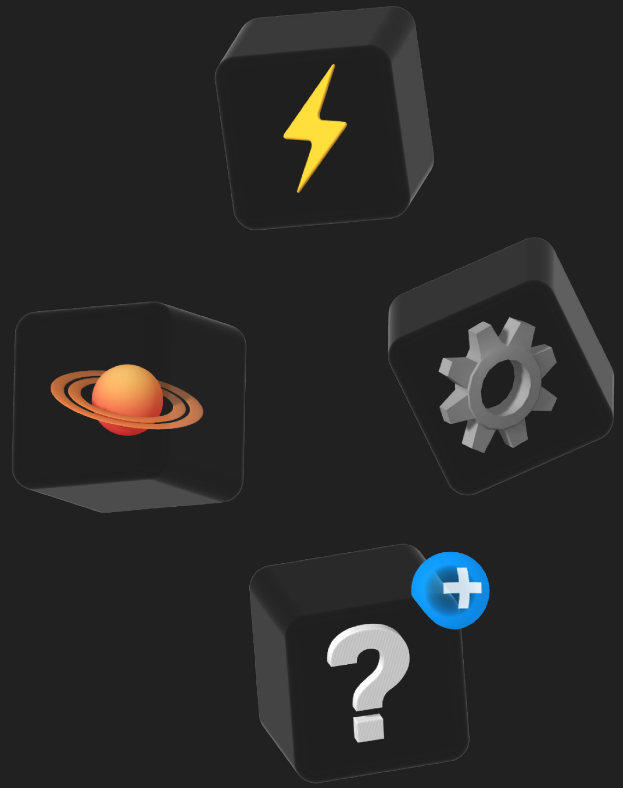
Developer Advocate @ MetaMask 🦊 Snaps

@ZiadMTL on Social Networks



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What is Snaps?

Extend the functionality of MetaMask

Snaps allows anyone to extend the functionality of MetaMask, in a way that is secure, decentralized, and keeps users in control.

We view Snaps as the most important feature for the future of MetaMask and for the future of web3 development in general.

Why is this important?

MetaMask today:

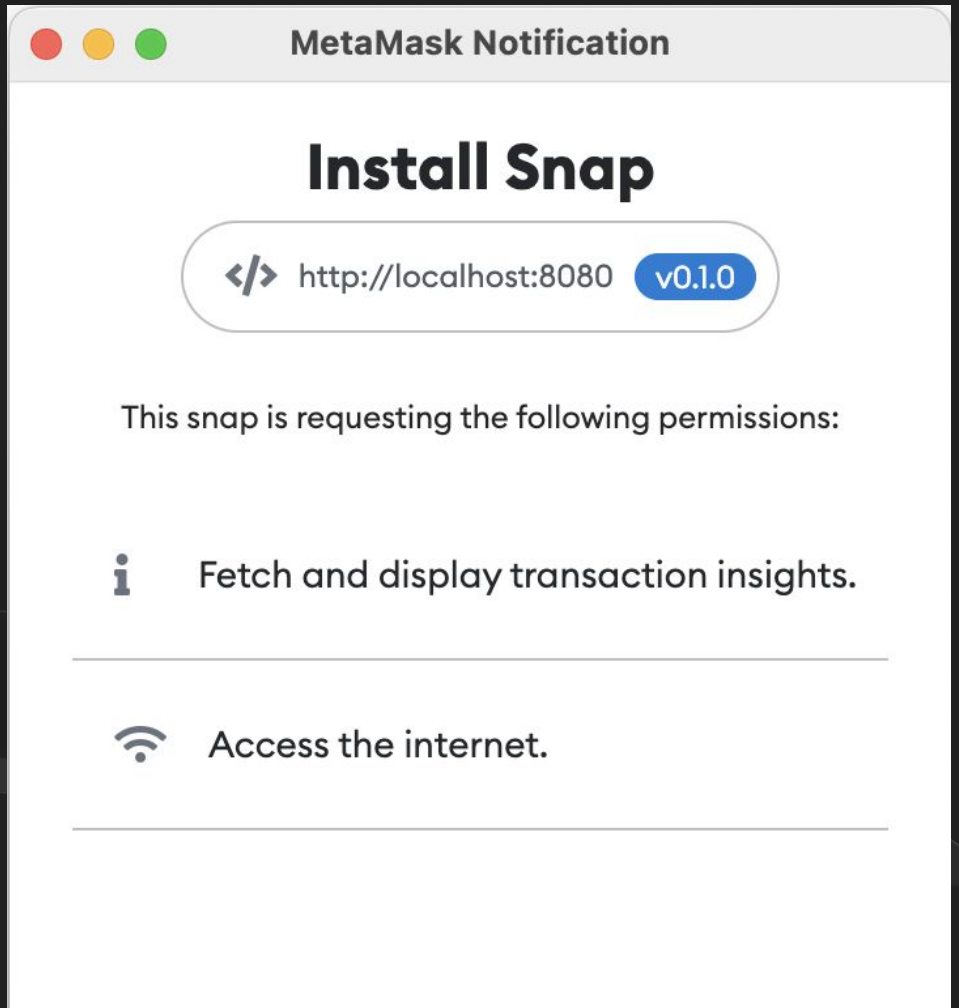
- Ethereum-specific
- All features built by one team
- Behind the pace of innovation

MetaMask tomorrow:

- Can accommodate any chain
- Can incorporate all of the innovation happening in the ecosystem
- Can accelerate innovation in Web3

A New Way to Build

- Trustless execution environment running inside of MetaMask
- Zero permissions by default; permissions have to be requested from the user, such as:
    - Network access
    - Disk access
    - … and more
- A snap can have its own API, can use many of the methods in MetaMask, and can even use Snap-exclusive methods


MetaMask Notification
Install Snap
http://localhost:8080
v0.1.0
This snap is requesting the following permissions:
Fetch and display transaction insights.
Access the internet.

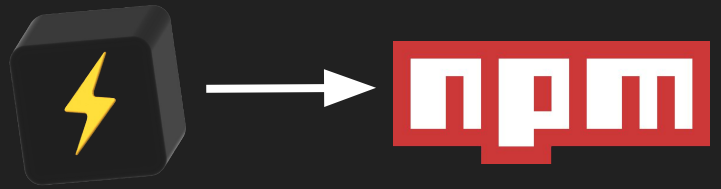
How This Works

A Snap is an npm package with:

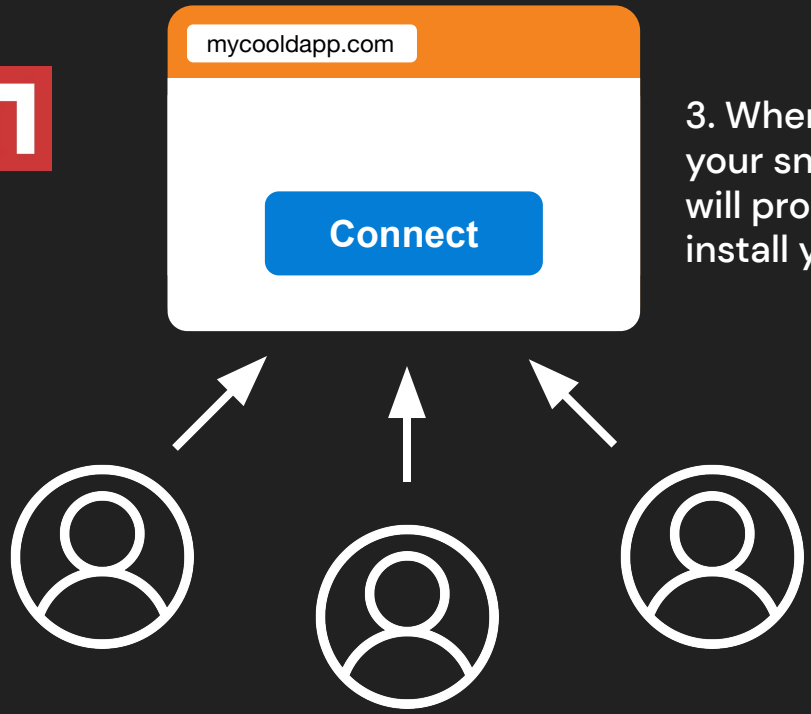
- Source code (JavaScript, TypeScript, Wasm)
- Manifest (snap.manifest.json)
- package.json

... bundled into a single JavaScript file (and yes, we provide a bundler you can use), published to npm, and made available from a dapp.

How Snaps are Distributed



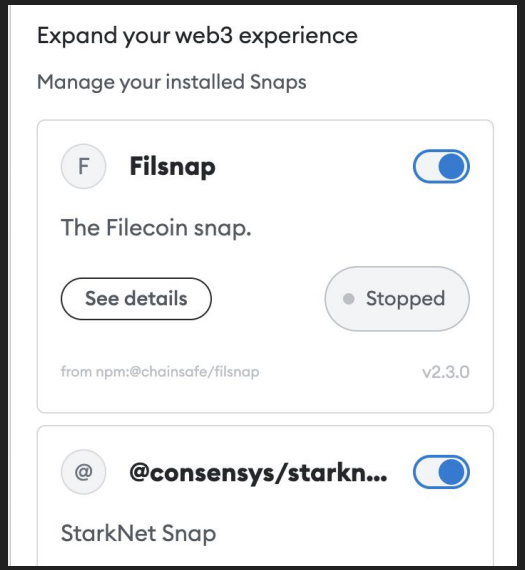
1. You publish a snap to npmjs.io



2. You deploy a dapp to invite users to install your snap

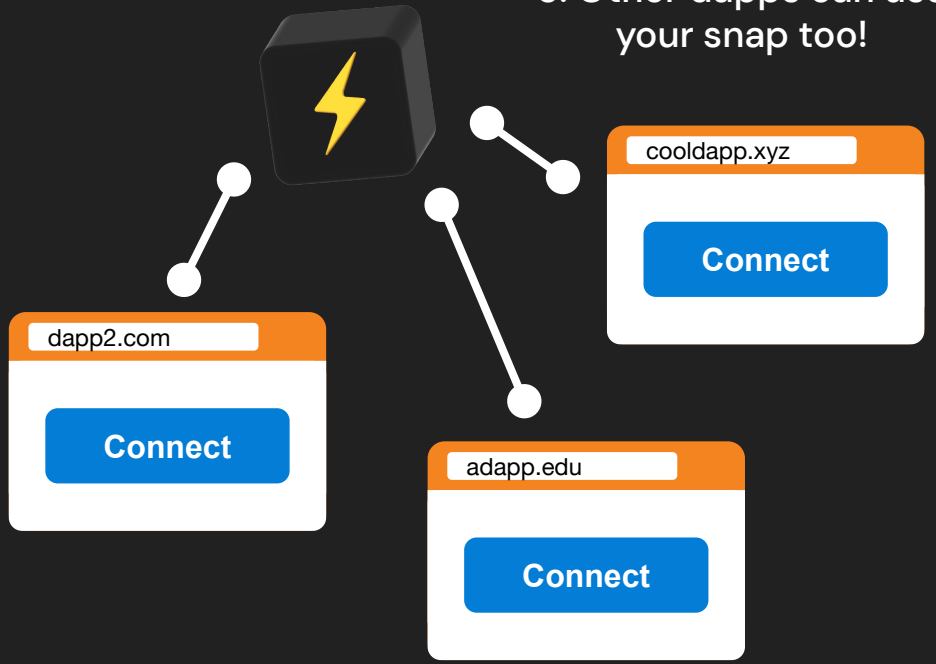
3. When a dapp invokes your snap, MetaMask will prompt users to install your snap

How Snaps are Distributed



4. After installation, snaps appear in the Snaps menu under settings

5. Other dapps can use your snap too!

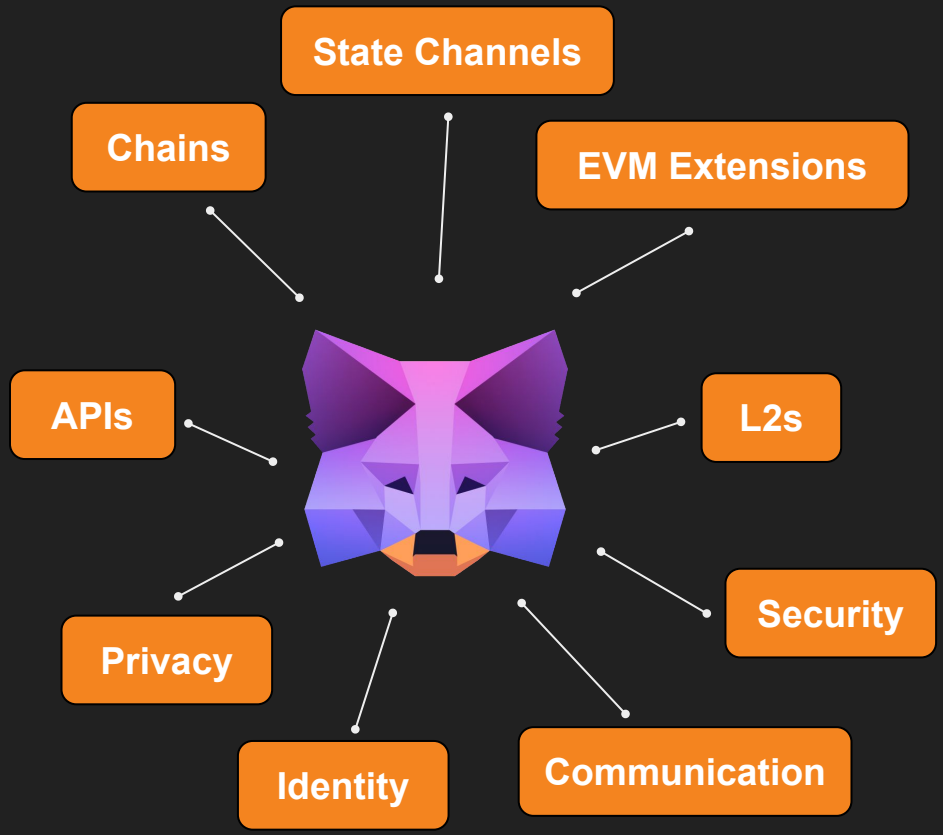


What can you do with Snaps?

What Can You Do With Snaps?

Snaps enables you to integrate a wide range of functionality into MetaMask.

In the future, MetaMask will enable additional APIs for Snaps, which will enable even more use cases.



An ever-growing API

- Display custom popups
- Notify users
- Store and manage data
- Control non-EVM accounts and assets
- Populate the pre-transaction window with custom transaction insights
- Schedule actions with cron jobs

Coming soon:

- Custom interactive UI

and much more...

Why is this important?

18:05
4G
Hotel Alhambra Palace
Casa Museo Manuel de Falla
Hace 21 min
Calle Antequeruel...
Granada
Buscar
SÁBADO
17
Día de Melilla (...
Día de Melilla (...
Day of Melilla (...
Calendario
Ajustes
Watch
Instagram
Spotify
Finanzas
Cámara
TikTok
Empresa
Fotos
Fotos y vídeos
WhatsApp
Telegram
Twitter
YouTube

4.5M+ apps
as of 2021
18:05
4G
SÁBADO
17
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Watch
Instagram
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Cámara
TikTok
Empresa
Fotos
Fotos y vídeos
WhatsApp
Telegram
Twitter
YouTube

4.5M+ apps
as of 2021
Less than
0.001%
made by
18:05
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Día de Melilla (...
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Twitter
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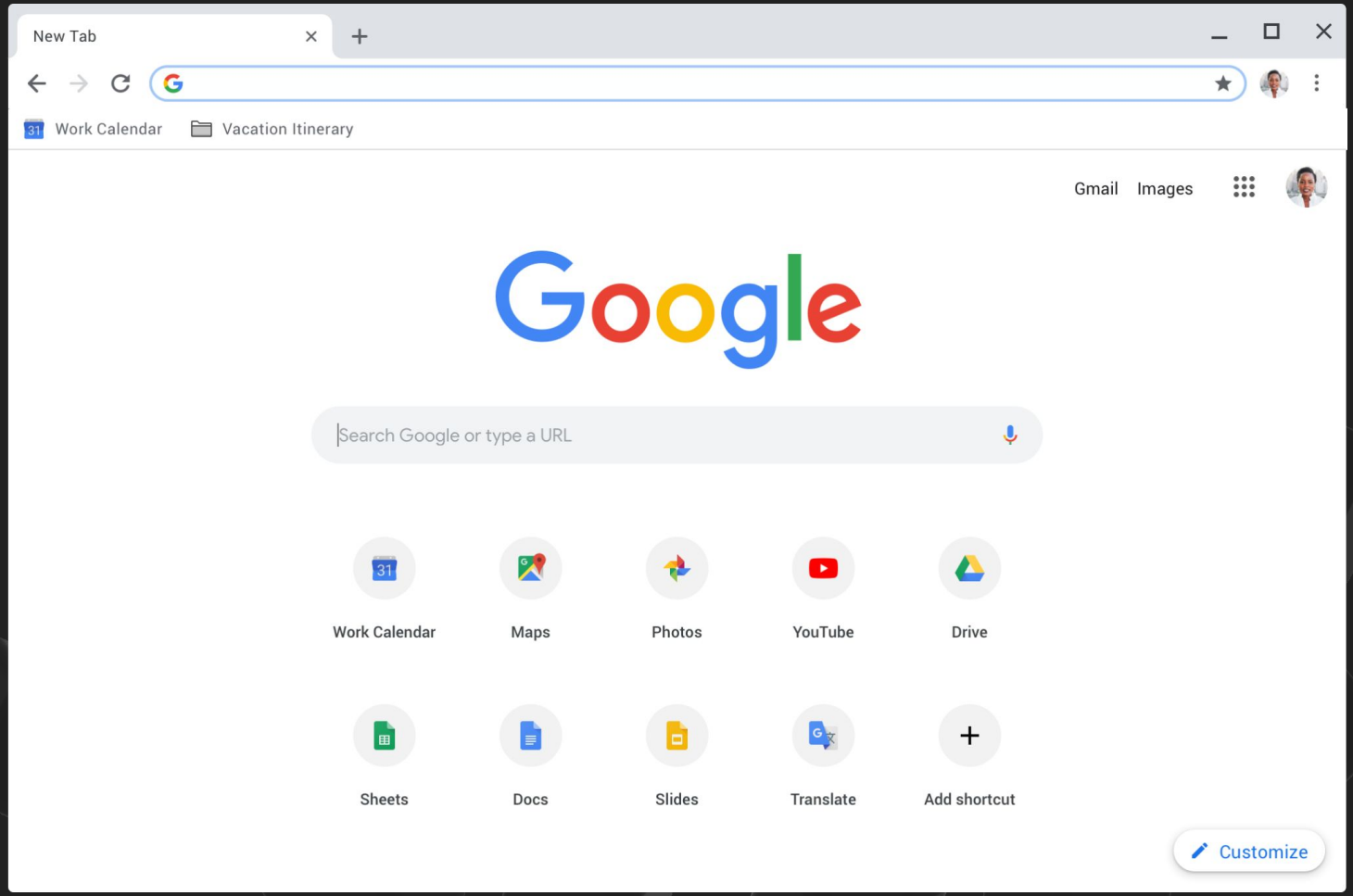
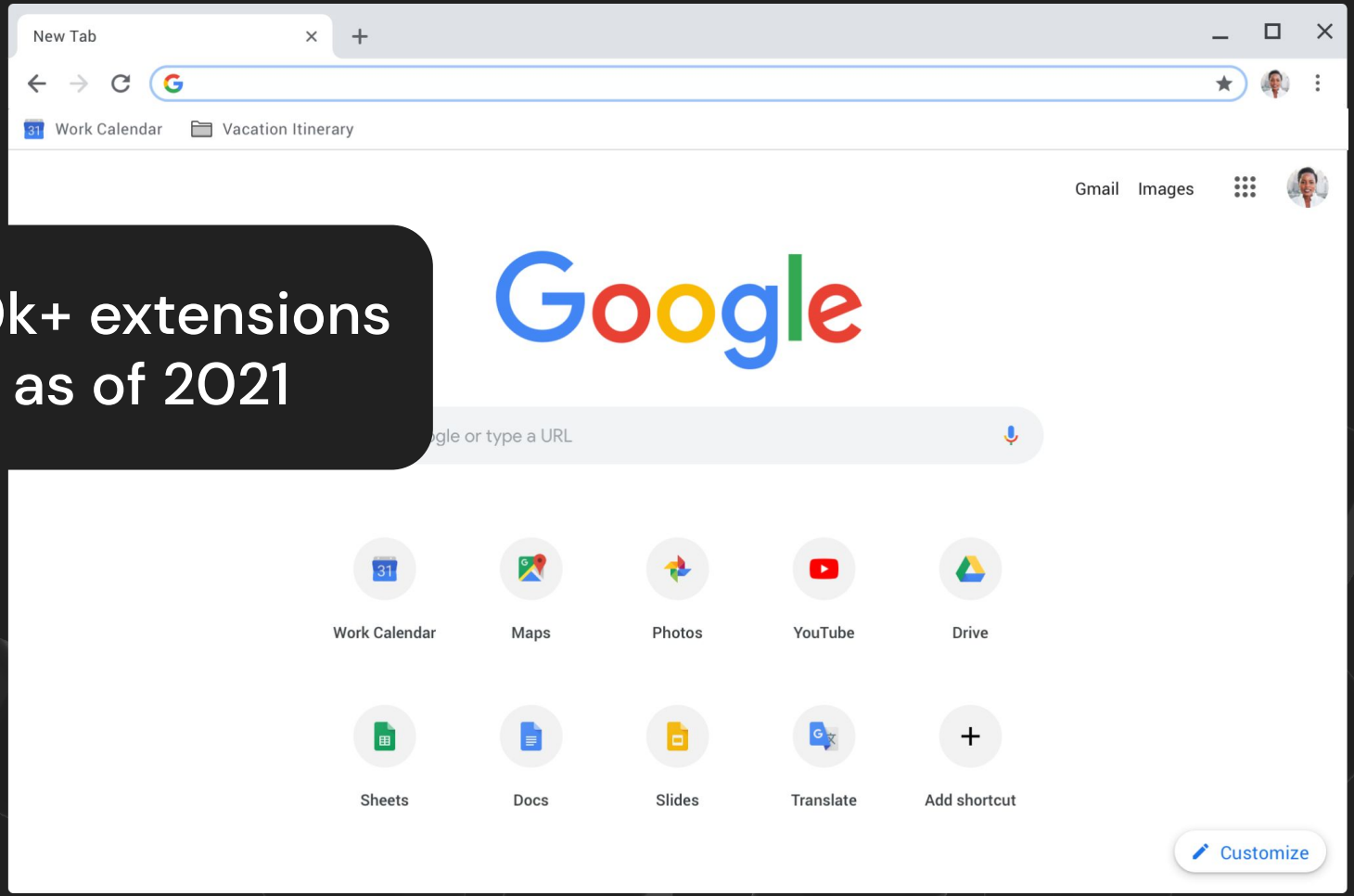
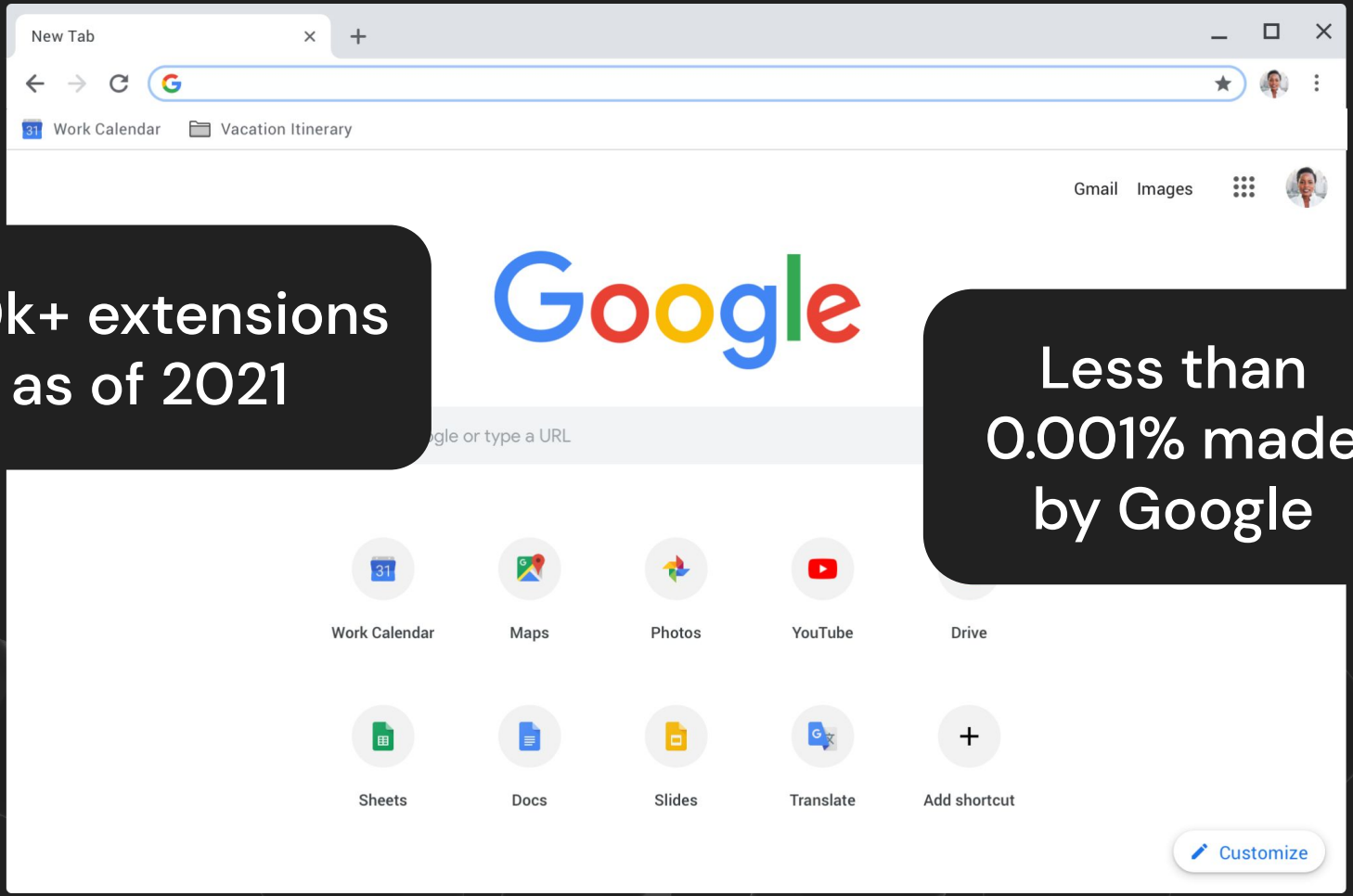

New Tab
Work Calendar
Vacation Itinerary
Gmail
Images
Google
Search Google or type a URL
Work Calendar
Maps
Photos
YouTube
Drive
Sheets
Docs
Slides
Translate
Add shortcut
Customize

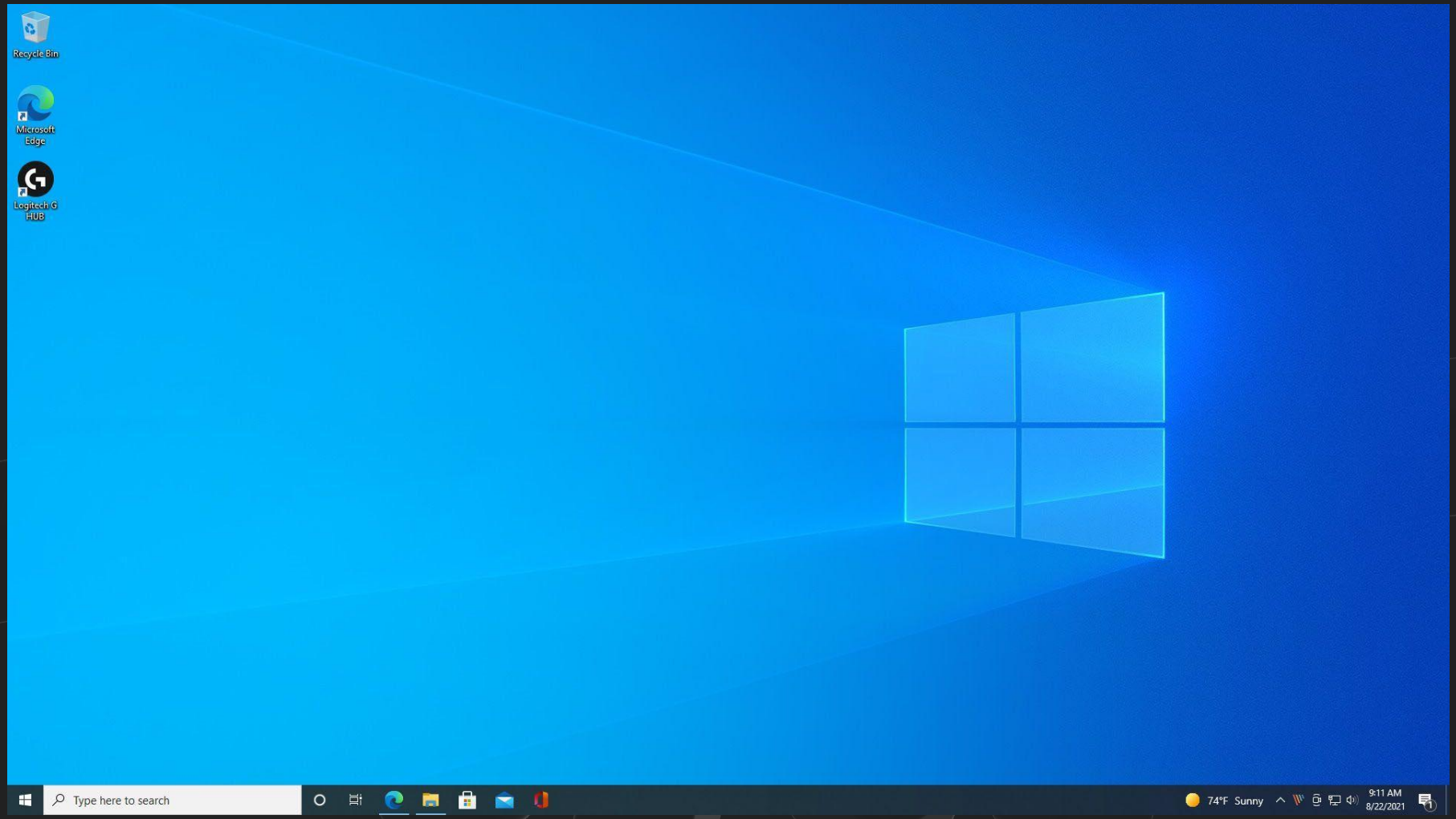
130k+ extensions as of 2021

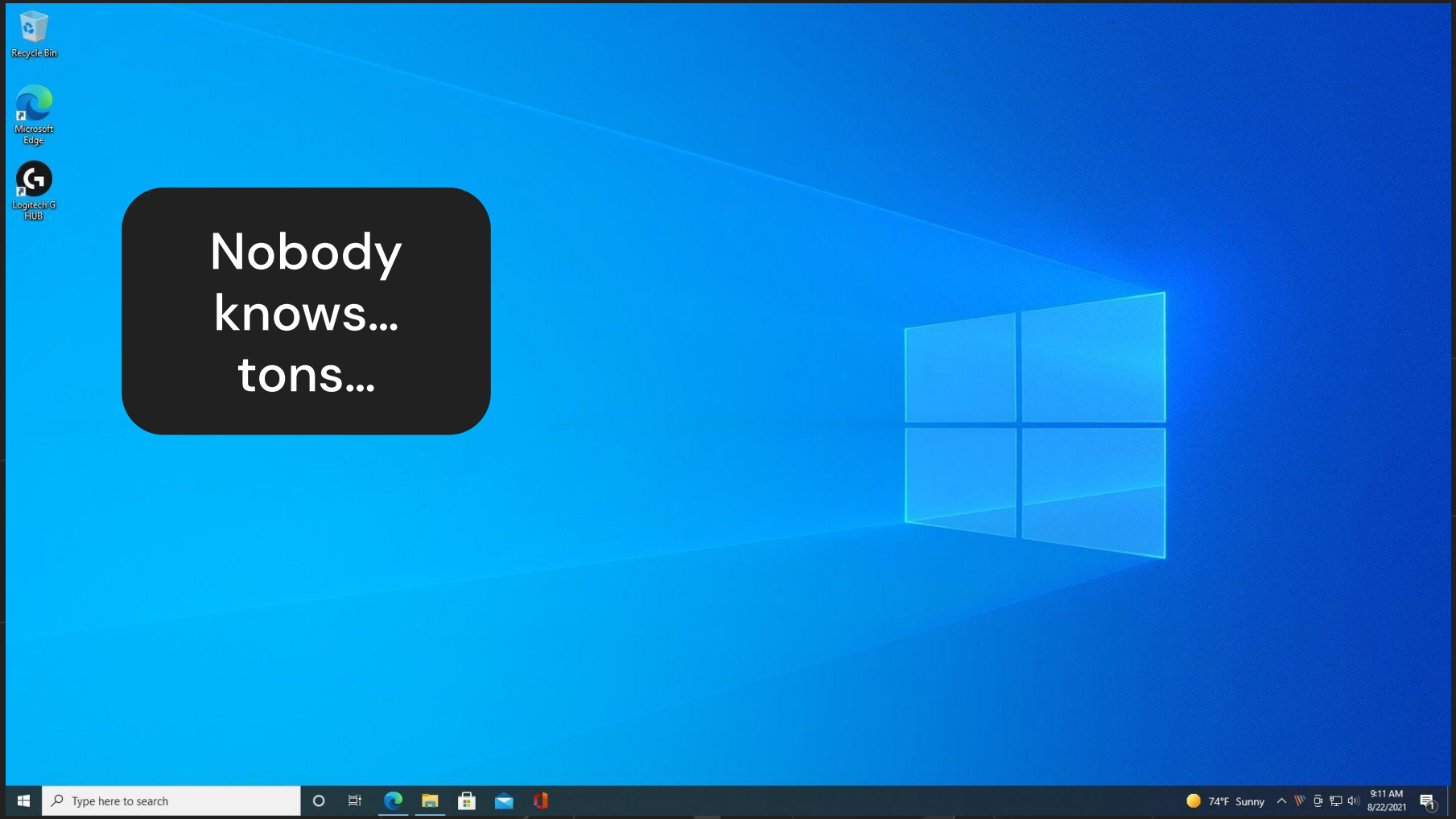


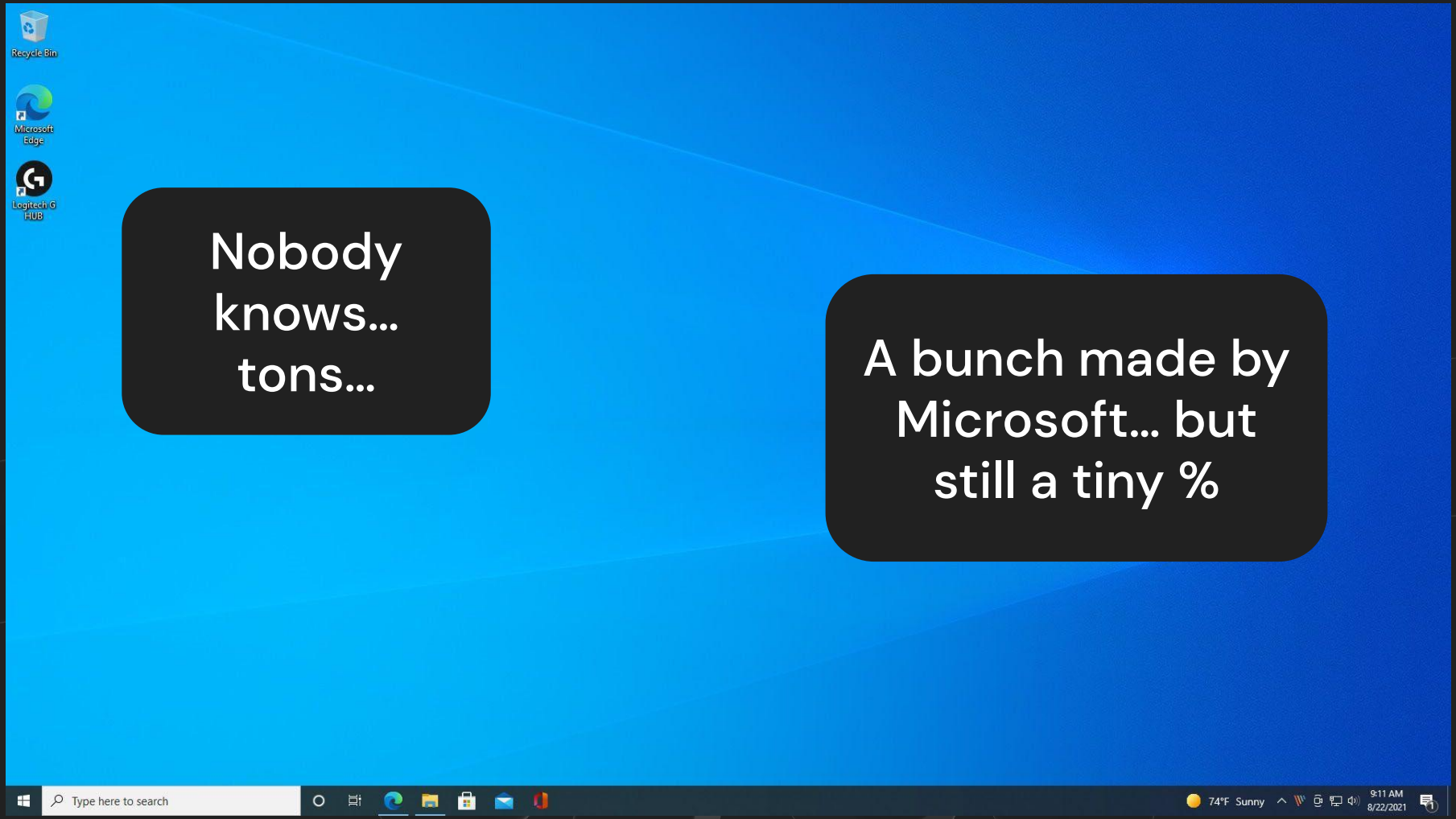


130k+ extensions as of 2021

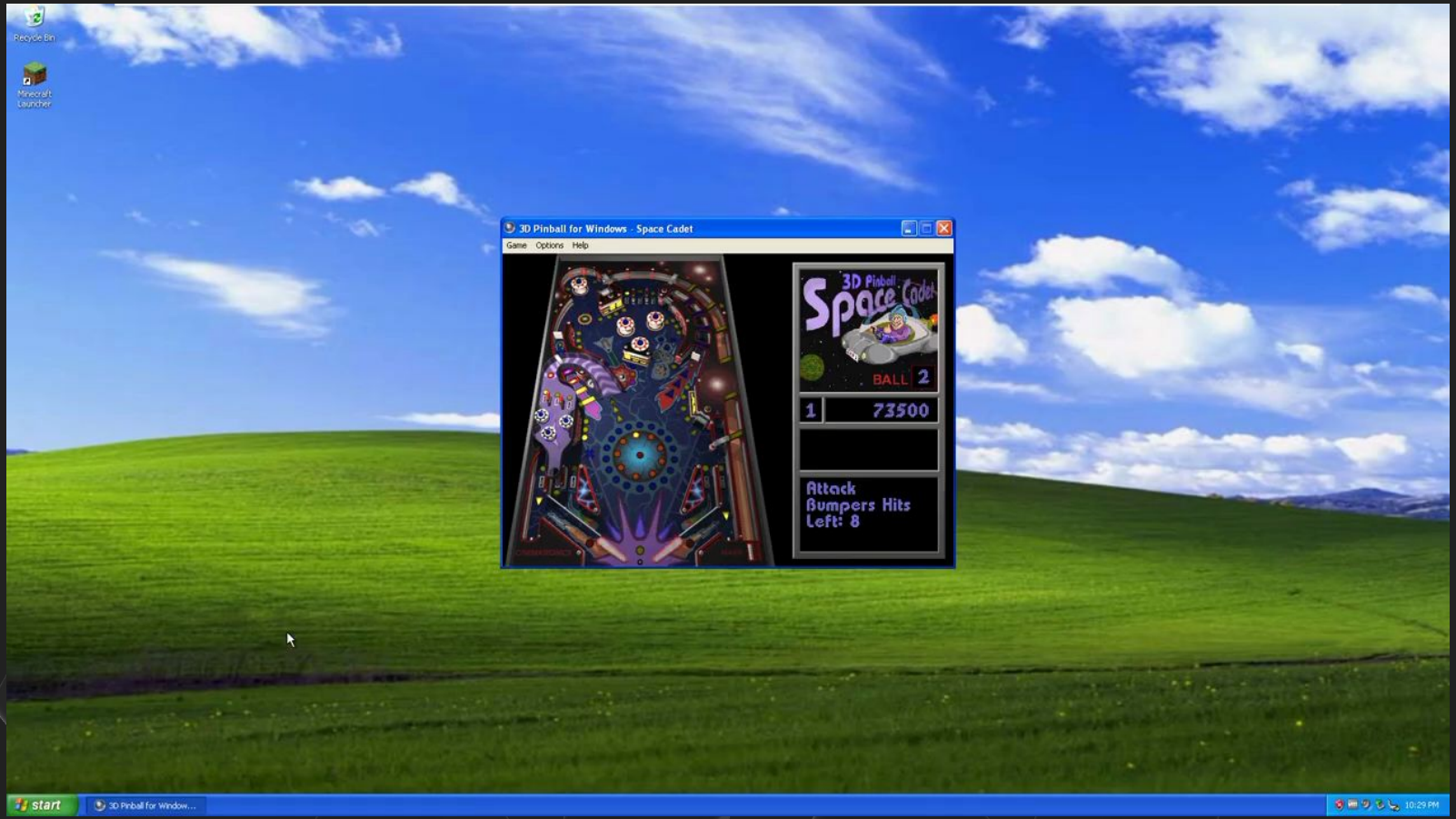
Less than 0.001% made by Google

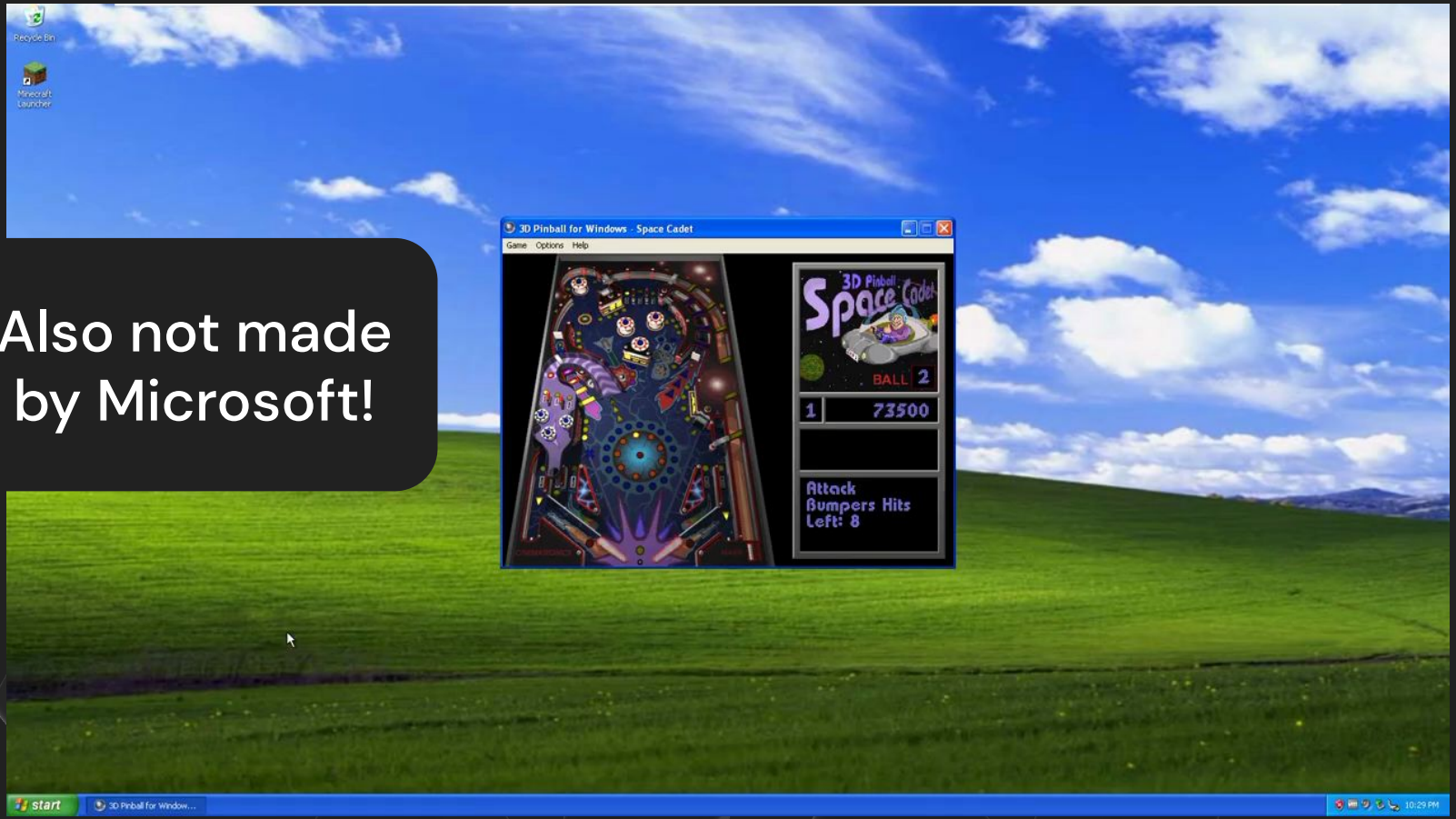

Recycle Bin
Microsoft Edge
Logitech G HUB
Type here to search
74°F Sunny
9:11 AM
8/22/2021


Recycle Bin
Microsoft Edge
Logitech G HUB
Nobody knows... tons...
Type here to search
74°F Sunny
9:11 AM
8/22/2021

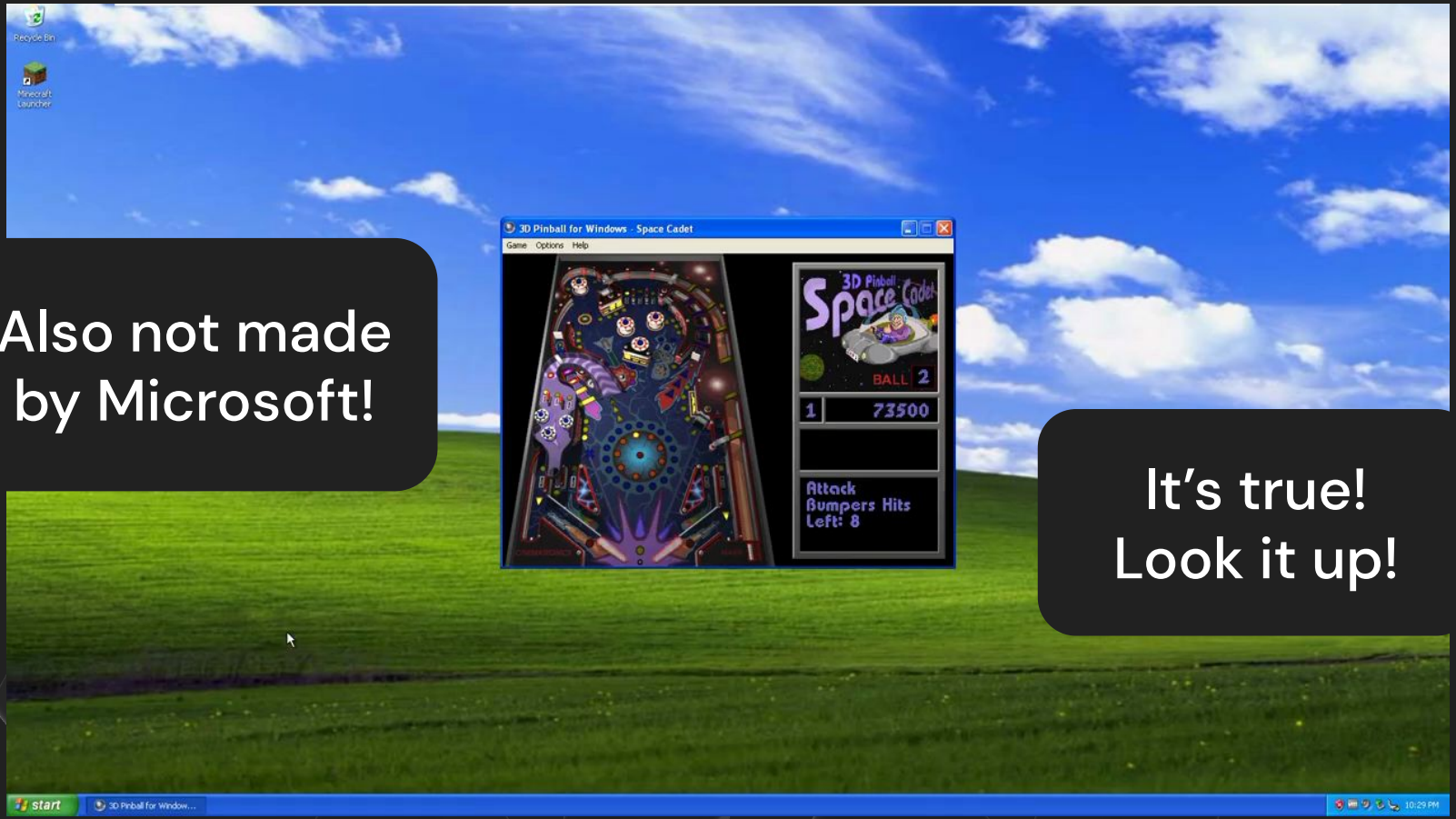

Recycle Bin
Microsoft Edge
Logitech G HUB
Nobody knows... tons...
A bunch made by Microsoft... but still a tiny %
Type here to search
74°F Sunny
9:11 AM
8/22/2021

Recycle Bin
Minecraft Launcher
start
10:27 PM


Recycle Bin
Minecraft Launcher
3D Pinball for Windows - Space Cadet
Game Options Help
3D Pinball Space Cadet
BALL 2
1 73500
Attack Bumpers Hits Left: 8
start
3D Pinball for Window...
10:29 PM



Also not made by Microsoft!

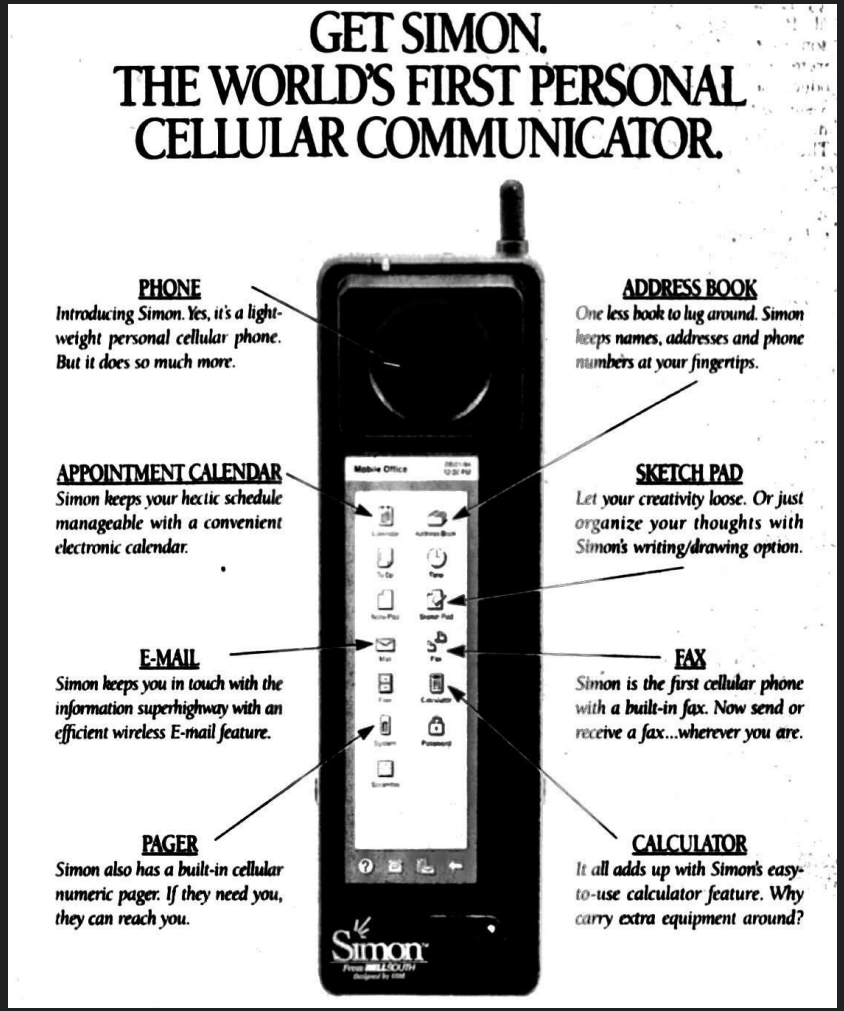


Also not made by Microsoft!

It's true! Look it up!

Back to the point...

Wallets today are here



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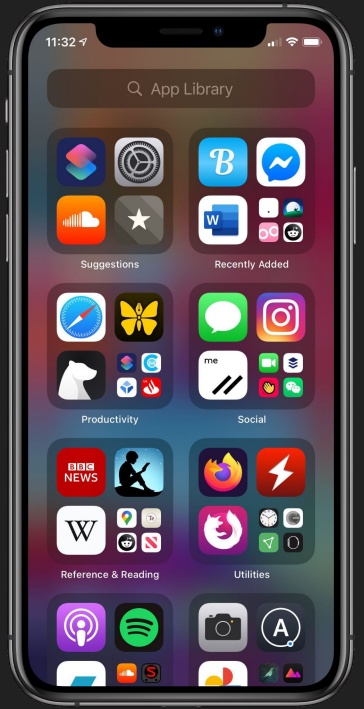
Everyone is building another Simon

At MetaMask, we're taking the world...

from this:

to this:



An open door for innovation

We do not want to be a bottleneck for all of the innovation that is happening.

And we do not want to pretend that we know what will be the best solutions.

Instead, we are empowering you to bring the features you want to see with Snaps.

The wallet is now the platform

Snaps makes a new world of innovation possible.

You can build Snaps today, using our “canary” build of MetaMask, called “Flask.”

metamask.io/flask/

Snaps will eventually be enabled on both the stable extension and on MetaMask mobile.

Resources to get you started

Let’s build the future together!

Get started building snaps:

1. ETHDenver 2023 Workshop
2. Learn about Snaps: metamask.io/snaps/
3. Install Flask: metamask.io/flask/
4. Follow the guide: tinyurl.com/snaps-guide
5. Our Discord: #snaps-dev channel

Thank you!

Get in touch:

Ziad Saab

Developer Advocate @ MetaMask 🦊 Snaps

@ZiadMTL on Social Networks