















Proposal to add the Ethereum symbol to Unicode


Josh Rudolf, Justin Drake

The purpose of this proposal is to demonstrate that the Ethereum symbol  is a strong candidate to be added to the Unicode Standard. The Ethereum symbol is widely recognized by a large, global, and highly-engaged community and user base. The symbol is used in running text in a variety of online contexts including articles, social media, and forums. The symbol also appears on mainstream TV and was featured in at least one physical book print.

Depending on context the Ethereum symbol  can be used to refer to Ethereum as the blockchain or more often to ether (ETH) the native money of Ethereum. The market capitalization of ETH as a cryptocurrency has grown to roughly \$200B, second only to that of bitcoin (BTC). Ethereum enjoys adoption from millions of users across the world spanning many different languages.

Since Ethereum's debut in 2014, the lack of the Ethereum Unicode symbol  has been inadequately attempted to be filled by other Unicode characters—including , , , , , , , , , , , ,

consensus mechanism which consumes a tiny fraction (less than 0.1%) of the electricity consumption of Bitcoin proof-of-work.

The Ethereum symbol  is used to represent the protocol and the network's native cryptocurrency: ether (ETH). Ether is used to secure Ethereum via staking, as well as to pay for transaction fees.

The Ethereum symbol is commonly used in running text and images. As shown in section 3, the symbol can be found in everything from popular websites and mainstream media publications, to books, software applications, message boards, and online forums. Adding a code point for the Ethereum symbol to Unicode would greatly assist in making it easier to write and search in plain text for users across all languages, geographic boundaries, and use cases.

2. suitability for inclusion

The Ethereum symbol fits the definition of character found in the Glossary of Unicode Terms. This symbol has not previously been proposed. It cannot be found in the pipeline table for proposed new characters, or in the Archive of Notices of Non-Approval. In addition, it meets the majority of criteria outlined in the Criteria for Encoding Symbols:

- Typically used as part of software applications
- Well-defined user community with strong usage
- Occurs together with text or numbers, rather than freestanding
- Must be searchable or indexable
- Customarily used in tabular lists as shorthand for characteristics
- Is part of a notational system
- Has well-defined semantics
- Has semantics that lend themselves to computer processing

Important note: The Ethereum symbol is a simplified version of the Ethereum logo. While the Ethereum logo is itself trademarked, the proposal has the support of the trademark owner—the non-profit Ethereum Foundation incorporated in Switzerland.

3. evidence of use

This section provides examples of the symbol being used in text and images over the past several years from a diverse set of sources.

for example, 1 ether, or 1 ETH, or Ξ 1, or \blacklozenge 1.

Figure 1: usage in running text in the book, Mastering Ethereum¹

Exchange rate: \blacklozenge 1 = \$307.

Figure 2: usage in an article by a community member on the Ethereum symbol²

about \blacklozenge 1,000 to 2,000 eth a day.

Figure 3: usage of substitute symbol in a news article³

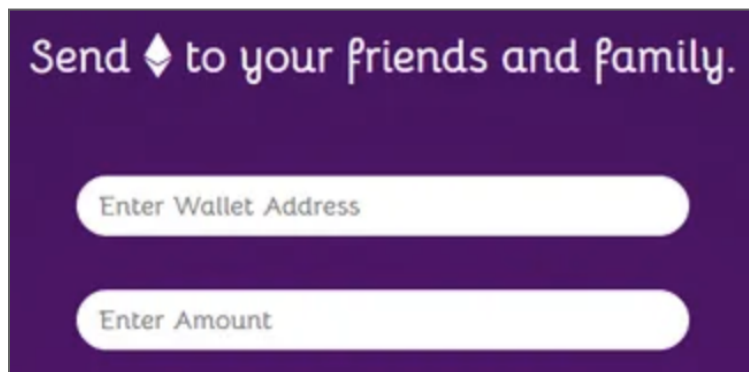


Figure 4: usage in running text in a programming tutorial article⁴

¹ Antonopoulos, Andreas M., and Wood, Gavin. *Mastering Ethereum*. (Stanford University Press, 2021), 58.

² <https://medium.com/@virgilgr/proposal-to-change-ether-symbol-to-e8230e24d836>

³ <https://www.trustnodes.com/2023/04/17/ethereums-supply-falls-by-100000-eth>

⁴ <https://www.metapunk.to/derajohnson/build-a-web3-app-with-solidity-15gg>

Some 160,000 eth has been sold by ICOs during the past 10 days, with another ◇120,000 sold in the previous 20 days, making it a total of ◇283,000 (~\$54 million) within the last 30 days.

Figure 5: usage in running text in a news article⁵



Figure 6: usage in LinkedIn article⁶

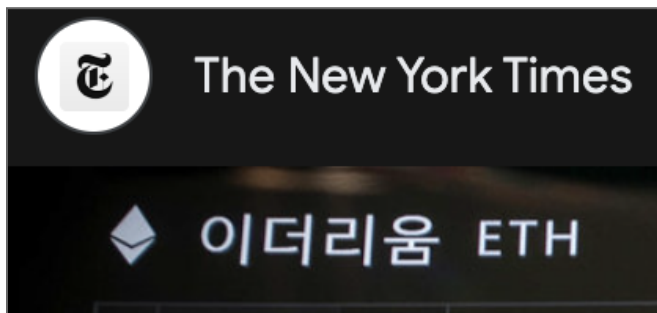


Figure 7: usage in The New York Times⁷

The symbol of ETH is ◇. You can replace this with your currency's symbol

Figure 8: usage on an instructional website⁸

**Ethereum Crosses \$4,000 as
the Burning Nears ◇200,000**

Figure 9: usage of substitute Ethereum symbol ◇ in Crypto News⁹

⁵ <https://www.trustnodes.com/2018/09/13/icos-capitulate-300000-eth-sold>

⁶ <https://www.linkedin.com/pulse/how-nft-scammer-got-scammed-doodhwadaily>

⁷ <https://www.nytimes.com/2017/10/01/technology/what-is-ethereum.html>

⁸ <https://www.binarycarpenter.com/how-to-add-new-currency-to-woocommerce/>

⁹ <https://cryptonews.net/news/ethereum/1675417/>

◇190,000. Then, as price rose so did shorts. Around ◇60,000 was added on September 12–13 to a new high of ◇250,000 before currently settling at ◇230,000.

Figure 10: usage of substitute Ethereum symbol ◇ in post¹⁰

BTC: \$0.0001622596
ETH: ◇0.0026857902

Figure 11: news article about cryptocurrency prices¹¹

◇ 16,418 ETH [\$21 million]

Figure 12: usage in LinkedIn article¹²

◇ to GBP Converter

Figure 13: usage on a currency converter page¹³

buy a kit or pack with eth ◇

Figure 14: usage in a tweet from a community member¹⁴

¹⁰ <https://medium.com/paradigm-research/ethereum-digest-two-weeks-before-constantinople-testnet-69d71d2713d5>

¹¹ <https://www.binance.com/en/feed/post/1207580>

¹²

https://www.linkedin.com/posts/brandon-chee_great-job-ftx-japan-corporate-structures-activity-7009044856429830144-nGeg

¹³ <https://coinbrain.com/converter/eth-0x1e89f368ecd96934516f6cdd8ba0fda7e4b031b2/gbp>

¹⁴ <https://twitter.com/supermetalx/status/1711406502974566421>





STAKE	PROB. OF WINNING	REWARD
0.5 	98.0392%	0.01 
0.5 	99.0099%	0.005 

Figure 15: usage in an online game application¹⁵



Figure 16: usage on the donate page of an open source operating system¹⁶

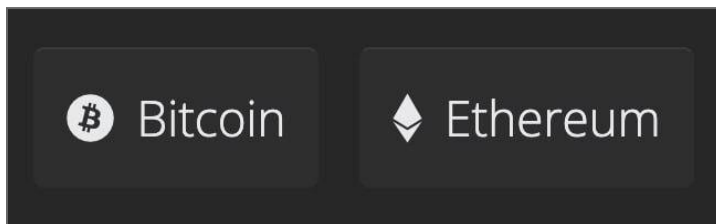


Figure 17: usage on the donate page of an open source software application¹⁷

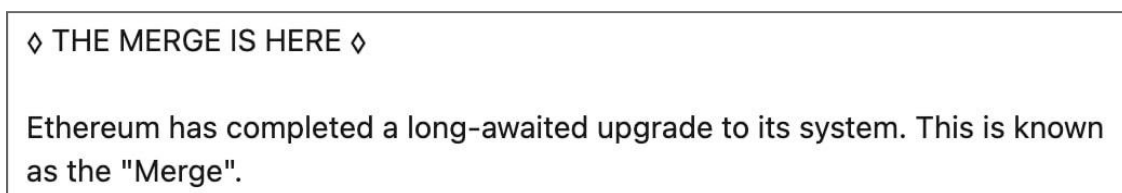


Figure 18: usage within a LinkedIn article¹⁸

¹⁵ <https://www.scapegroat.xyz/>

¹⁶ <https://www.qubes-os.org/donate/>

¹⁷ <https://getsharex.com/donate>

¹⁸

https://www.linkedin.com/posts/omar-rahim-69a81311_good-summary-of-the-impact-of-the-merge-activity-6976199848777658368-ERh2/

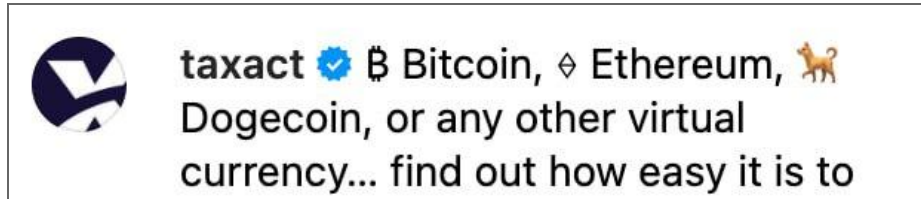


Figure 19: usage in an Instagram post for tax filing software¹⁹

measured in a smaller unit of **Ethereum's**  native currency

Figure 20: usage on a research project website²⁰

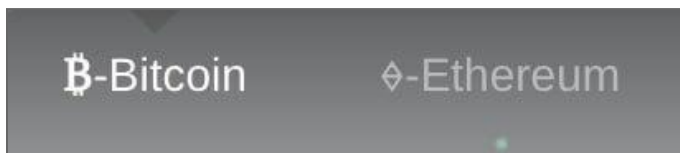


Figure 21: usage on a news and information website²¹

 AND  INVESTOR

Figure 22: usage on a personal website²²

 **Ethereum's PoS Transition:**

Figure 23: usage within a blog post²³

BTC ( SIGN)	No	0.0%
ETH ( SIGN)	Yes	0.0%

Figure 24: usage on a website²⁴

¹⁹ https://www.instagram.com/p/Cf_ss_4uPNU/

²⁰ <https://cryptokit.ch>

²¹ <https://minernav.com/crypto-miner-testing>

²² <https://bio.site/fdmjr01>

²³ <https://quantstamp.com/blog/quantstamp-community-update-may-2022>

²⁴ <https://blockframe.io/nfts/eth/0x79be9877702537c9bff2ad1f51de94160bae04a6/65000337>

Just bought another ETH ♦ shirt

Figure 25: usage in a Reddit post from a community member²⁵

ETH ♦ has closed April above \$2,800

Figure 26: usage in a Reddit post from a community member²⁶

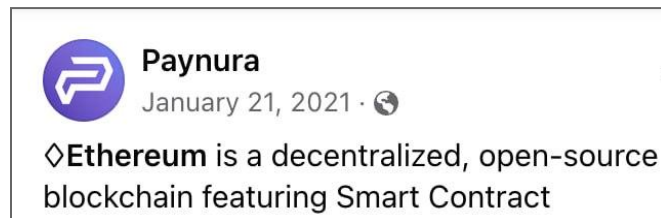


Figure 27: usage within a Facebook post²⁷

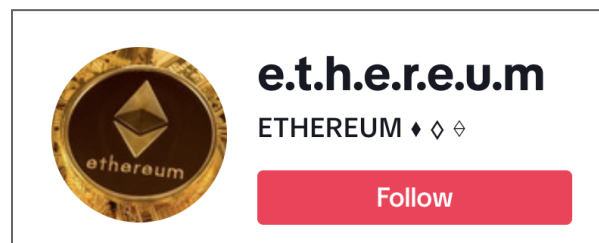


Figure 28: usage of three different substitute Ethereum symbol characters on a TikTok account²⁸

CRYPTOCURRENCY			
VS. U.S. DOLLAR			
	BITCOIN	38,899.2500 ▲	1,09.2190
	ETHEREUM	2,853.7700 ▲	63.5801

Figure 29: Fox Business showing the Ethereum symbol in currency segment²⁹

²⁵ https://www.reddit.com/r/ethtrader/comments/ms3oau/just_bought_another_eth_shirt_to_celebrate_2000/

²⁶ https://www.reddit.com/r/ethtrader/comments/n2fimg/eth_has_closed_april_above_2800_the_highest_close

²⁷ <https://www.facebook.com/paynura/photos/a.101800217885734/47493077239341>

²⁸ <https://www.tiktok.com/@e.t.h.e.r.e.u.m>

²⁹ <https://www.foxbusiness.com/technology/elon-musk-reportedly-calls-bitcoin-liquid-alternative-to-cash>



Figure 30: Used in running text on a price-tracking website³⁰



Figure 31: three community Twitter accounts using substitute symbols³¹

	handle text	name text	followers_count integer
1	DeFi_Dad	DeFi Dad ♦ defidad.eth	153298
2	antiprosynth	antiprosynthesis.eth ♦	63369
3	EthereumJesus	Ethereum Jesus♦	27640
4	AnettRolkova	♦ Anett ♦ anett.eth	8138
5	EthfinanceR	♦ /r/EthFinance	2855
6	ProDJKC	♦ JT Nichol	3714
7	dapplion	Lion ♦ dapplion .eth	3670
8	curvethots	♦Palis♦	27199
9	Abv_Avg_Joe	abvavgjoe.eth♦=	1973
10	AttestantIO	Attestant ♦	1636
11	ArtisticCrypto	ArtisticCrypto.eth ♦	63463
12	GatheringGwei	Luke ♦	4203
13	vetinary_eth	Vetinary.eth ♦	495
14	kaykayeth	Kay ♦	2466
15	slipnft	Slip ♦	97246
16	deepcryptodive	Giel ♦ Deepcryptodive.eth	2532
17	Kautukkundan	Kautuk ♦	1771
18	scottburke777	Scott BurkΞ ♦	2811
19	theEthereans	The Etheareans ♦	5892
20	gmEthereum	Austin ♦ rising.eth	2115
21	DegenKoloToure	DΞgen Kolo Touré ♦ DKT™	1816
22	deanrey3	Ξth Pørtisan	1934
23	ENSoriginals	fmi.eth ♦	2063
24	homershillion	HomΞr Shillion ♦ ∞	2613
25	yumatrades	♦yumatrades.eth♦ - #6585	1714

Figure 32: 25 examples of hundreds of Twitters accounts that use substitute symbols in their Twitter name

³⁰ <https://nomics.com/assets/eth-ethereum>

³¹ https://twitter.com/DeFi_Dad; <https://twitter.com/EthereumJesus>; <https://twitter.com/theEthereans>





☆ 	Bitcoin BTC	\$21,684.28		↘ 0.33%
☆ 	Ethereum ETH	\$1,521.98		↘ 0.74%

Figure 33: Coinbase using the Ethereum symbol on the currency explore page³²



Currency	Amount
 US Dollar USD	\$10
Currency	Amount
 Ethereum ETH	0.00650957

Figure 34: An additional usage of the symbol on Kraken, a cryptocurrency exchange site³³



	Bitcoin \$21,820.12 / BTC
	Ethereum \$1,536.72 / ETH

Figure 35: PayPal displaying the Ethereum symbol in currency usage³⁴


Earn passive **Eth**  income the moment the game starts!

Figure 36: usage on an online game³⁵

³² <https://coinbase.com/explore>

³³ <https://www.kraken.com/learn/buy-ethereum-eth>

³⁴ <https://www.paypal.com/myaccount/crypto/>

³⁵ <https://p3d-bot.github.io/index.html>

4. drawing the symbol

The Ethereum symbol is drawn as follows:



The symbol is generally composed of two distinct top and bottom sections, which together form a diamond-like design. The sections consist of two connected triangles in the top portion, and two connected triangles in the bottom portion.³⁶ According to different use cases, the symbol is frequently drawn with various line weights, fills, transparencies, borders, and colors.

The distinct and recognizable shape of the Ethereum symbol is generally maintained today across a wide-variety of uses. The symbol is currently available in a popular open source web font: fa-ethereum by Font Awesome.³⁷

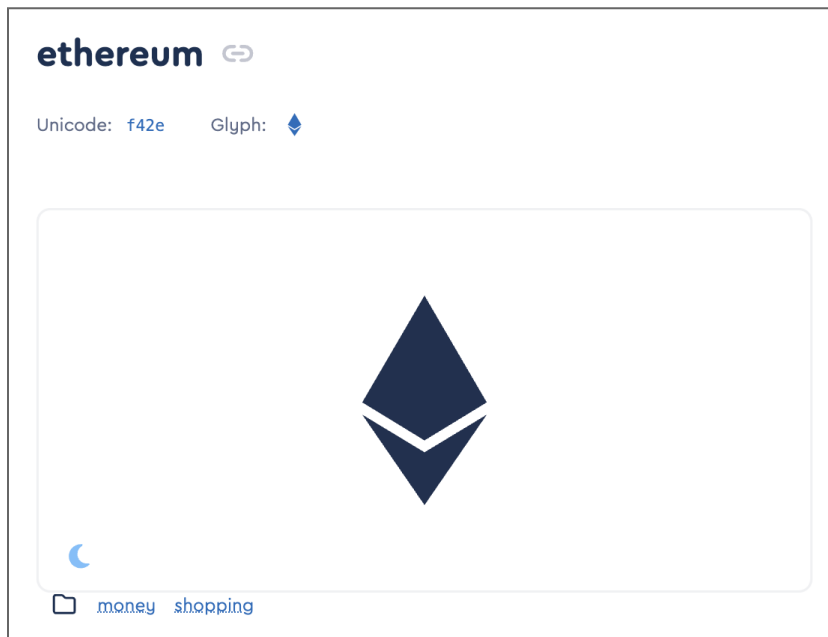


Figure 37: Ethereum glyph on Font Awesome

³⁶ <https://ethereum.org/en/assets/>

³⁷ <https://fontawesome.com/v6/icons/ethereum>

5. user community support

Ethereum maintains a large and passionate community from all over the world. There is strong support from the community to add the Ethereum symbol to the Unicode Standard.

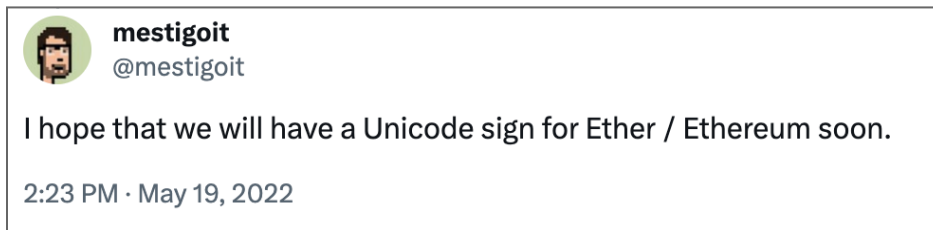


Figure 38: Twitter, May 2022

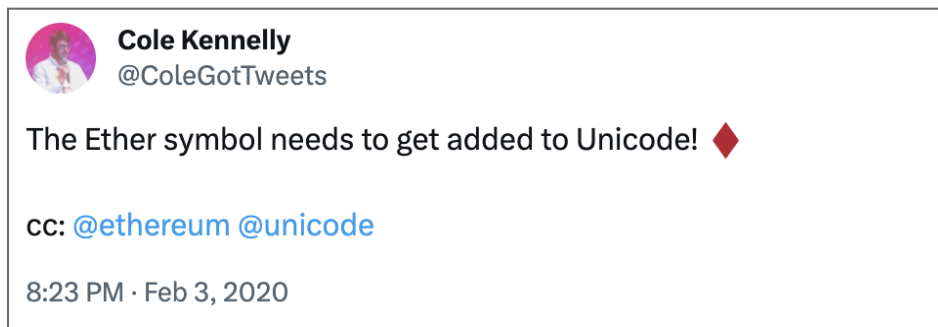


Figure 39: Twitter, February 2020

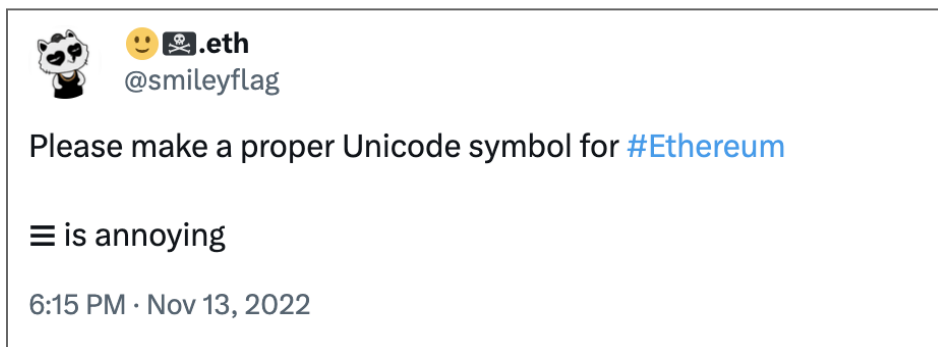


Figure 40: Twitter, November 2022

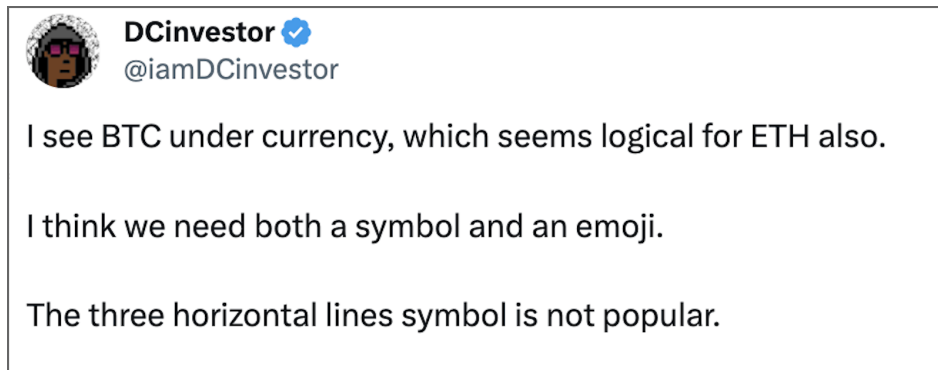


Figure 41: Twitter, June 2019

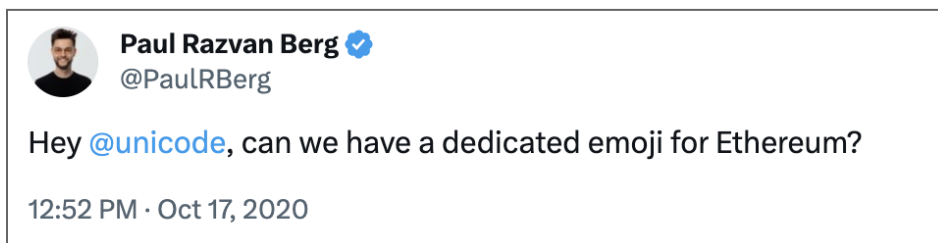


Figure 42: Twitter, October 2020

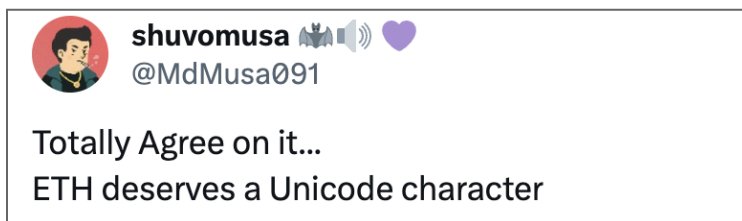


Figure 43: Twitter, May 2021

Many prominent researchers from within the community have also advocated for the symbol to be more heavily adopted³⁸ and added to Unicode.³⁹

This symbol is the most commonly-used symbol by the community to represent Ethereum in both text and image form. To illustrate, each of the largest Ethereum subreddits use some form of the symbol as their primary mark.⁴⁰ Additionally, the most commonly-used price charting websites and exchanges, such as Coinbase, use the symbol as the primary mark of Ethereum.⁴¹

³⁸ <https://ethresear.ch/t/proposal-change-ether-currency-symbol-from-to/120/6>

³⁹ <https://twitter.com/drakejustin/status/1397930556763955200>

⁴⁰ <https://www.reddit.com/r/ethereum/>; <https://www.reddit.com/r/ethtrader/>; <https://www.reddit.com/r/ethdev/>

⁴¹ <https://coinbase.com/price/ethereum/>; <https://www.gemini.com/prices/ether/>; <https://coingecko.com/en/coins/ethereum/>; <https://coinmarketcap.com/currencies/ethereum/>;

6. character properties

Suggested properties for the proposed symbol are:

20C1;ETHEREUM SIGN;Sc;0;ET;;;N;;;;

Property	Suggested Value
Code Point	20C1
Name	ETHEREUM SIGN
General Category	Sc
Canonical Combining Class	0
Bidirectional Class	ET
Decomposition Type/Mapping	
Numeric Type	
Numeric Value	
Bidi Mirrored	N
Unicode 1 Name	
ISO Comment	
Simple Uppercase Mapping	
Simple Lowercase Mapping	
Simple Titlecase Mapping	

Name: The name ETHEREUM SIGN is suggested. This naming convention follows BITCOIN SIGN, EURO SIGN, PESO SIGN, etc. This name also follows the Designation/Qualifier structure of ISO/IEC 10646:2014 Annex L Guideline 4.

Range: Currency Symbols (20A0–20CF), with a proposed code point of: 20C1, which is the next available code point. The Ethereum symbol is best-suited for the Basic Multilingual Plane (BMP). A code point in the Supplemental Multilingual Plane (SMP) is not recommended because the symbol will be used by a wide variety of applications and operating systems.

Collation: There is no required collation order for the Ethereum symbol.

7. anticipated objections

Can an existing Unicode symbol be used?

There are no Unicode symbols that can currently be used to accurately represent Ethereum. It is important to note that throughout the eight plus years that Ethereum has existed as a network, there has been strong interest from the community in creating a unified symbol, and a strong need for what a unified symbol would provide – namely consistency, indexability, and searchability. Despite this strong interest and need over many years, the community has been unable to converge on the usage of any pre-existing Unicode symbol. This is in part due to the global and diverse nature of the Ethereum community, but also highlights the fact that the community recognizes the importance for the symbol to be high in fidelity, accuracy, and consistency, due to the inherent nature of the use cases of currency symbols.

While there are a small number of symbols today that are at times used as a temporary workaround⁴², it is widely acknowledged that these symbols are not accurate representations and are a frequent source of confusion. Moreover, attempts to converge the community on any one of these existing Unicode symbols would break any attempts at searchability or indexability, as these existing symbols are often used in non-Ethereum contexts.

Examples of the many symbols used today are described in the following chart:

Name	Frequency of Use
◊ (U+27E0) LOZENGE DIVIDED BY HORIZONTAL RULE	27.8%
◊ (U+2B27) BLACK MEDIUM LOZENGE	2.8%
◆ (U+2B28) WHITE MEDIUM LOZENGE	11.1%
◆ (U+29EB) BLACK LOZENGE	2.8%
◊ (U+25CA) LOZENGE	5.6%
◇ (U+2662) WHITE DIAMOND SUIT	11.1%
◆ (U+2666) BLACK DIAMOND SUIT	5.6%
Other (non-unicode symbol used)	30.1%

Figure 44: summary of other symbols used out of necessity by the community

⁴² <https://academy.binance.com/en/articles/what-is-ethereum#what-is-the-ethereum-logo-and-symbol>

The above chart shows the frequency of usage of each symbol, based on a collection of 36 representative samples provided in section 3 of this proposal. As the chart indicates, the most commonly-used symbol is actually a collection of various non-Unicode graphical representations of the Ethereum symbol. This illustrates that none of the existing Unicode symbols have been found to be sufficiently accurate.

Of the existing Unicode symbols, the most used symbol is \diamond U+27E0 - LOZENGE DIVIDED BY HORIZONTAL RULE. The U+27E0 symbol is composed of two connected triangles which are equal in size and shape, and together form a diamond shape. However, the true Ethereum symbol is composed of a total of four triangles. In addition, the two triangles in the top section of the Ethereum symbol are of different proportions relative to the two triangles in the bottom section. Thus, U+27E0 is not a practical long-term option for representation of the Ethereum symbol.

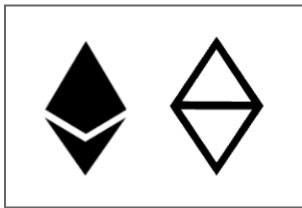


Figure 45: The Ethereum symbol next to U+27E0

The remaining Unicode symbols are primarily simple diamond shapes, of various sizes, color, and weight. These diamond shapes are likewise inadequate representations as they do not contain any internal separation or horizontal break, which is a hallmark characteristic of the Ethereum symbol.

Lastly, one other alternative symbol that is used at times is Ξ , the GREEK LETTER XI (U+039E). The Ξ symbol, however, is widely understood by most people to mean something completely distinct from Ethereum. It is generally used as a character of the Greek alphabet, and also has prominent usage in mathematics, physics, computer science, and astronomy.⁴³ The large number of prominent use cases outside of Ethereum precludes the symbol from ever being an adequate representation for Ethereum.

A quick search of Reddit demonstrates the significant amount of confusion today.⁴⁴

⁴³ [https://en.wikipedia.org/wiki/Xi_\(letter\)](https://en.wikipedia.org/wiki/Xi_(letter));

<https://tex.stackexchange.com/questions/390076/how-do-i-typeset-the-%CE%9E-letter-in-latex>

⁴⁴ https://www.reddit.com/r/ethereum/comments/6ldlgi/making_%CE%BE_ether_symbol_more_known/;

https://www.reddit.com/r/ethtrader/comments/6ei3xp/why_isnt_the_%CE%BE_symbol_used_for_eth_amounts/

The fact that so many distinct Unicode symbols are attempting to be used is further evidence that they are a source of general confusion. If the Ethereum symbol is added to Unicode it will be quickly widely-adopted and would greatly help eliminate this confusion.

Is the Ethereum symbol a commercial logo?

The Ethereum Foundation (EF) is a non-profit organization with a sole mission to support the Ethereum ecosystem and related open source, public good technologies. While the symbol does have an active trademark, the Ethereum Foundation supports the proposal for it to be added to the Unicode Standard.

Will Unicode be flooded with symbols for many cryptocurrencies?

It is highly unlikely that any other cryptocurrency would be able to meet the criteria for encoding symbols.⁴⁵

Ethereum is the second largest cryptocurrency by market cap (second only to Bitcoin), and has the largest, most active user community by a considerable margin. “Ethereum continues to have the largest ecosystem of tools, apps, and protocols, and is 2.8x larger than the second largest ecosystem.”⁴⁶ The community continues to grow quickly. Since 2018, the number of Ethereum monthly active developers increased over 500%, outpacing the growth of Bitcoin during this same time.⁴⁷

To be clear, it is not the purpose of this proposal to argue against inclusion of any other cryptocurrencies in Unicode. This proposal does contend the Ethereum symbol is the most heavily-used and the biggest source of user confusion today. As such, this proposal puts forth that the Ethereum symbol is the strongest candidate to be included, as it would also have the highest user utility.

8. conclusion


The addition of the Ethereum symbol  to the Unicode Standard will significantly reduce confusion amongst a large number of users in a wide variety of contexts. The

⁴⁵ <http://www.unicode.org/pending/symbol-guidelines.html>

⁴⁶ <https://medium.com/electric-capital/electric-capital-developer-report-2021-f37874efea6d>

⁴⁷ <https://blockworks.co/news/ethereum-has-most-developers-but-these-newer-chains-are-growing-fast>

substitute Unicode symbols being used today are workarounds that only add to the general confusion.

The Ethereum symbol  is a good fit for inclusion as it has a well-defined user base with frequent usage, well-defined semantics, and occurs together with running text or numbers. Not only is the Ethereum symbol a strong fit for inclusion based on the criteria, but its inclusion would also be highly useful and beneficial for a large number of people in many different geographic locations across the world.