# TEA RESEARCH: **TEA ON THE WEB**

A High-Level Web Software Operating Environment Specification For The TEA Programming Language: Web TEA Architecture

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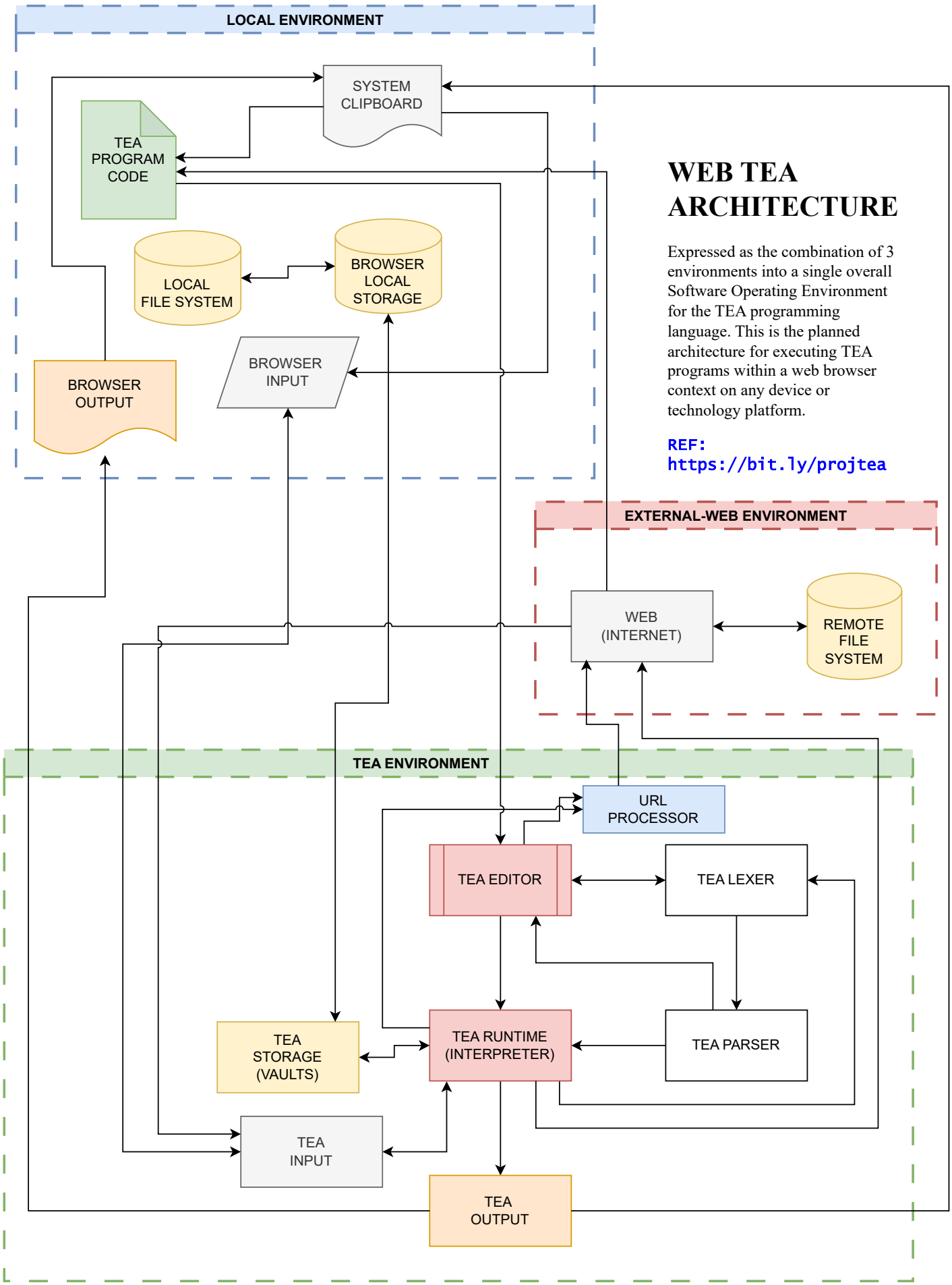
**Abstract**

Expressed as the combination of 3 environments — the local-browser/system environment, the TEA runtime environment, and the web/external environment — into a single, overall Software Operating Environment[1] for the TEA programming language, this is **the planned architecture for executing TEA programs within a web browser context on any device or technology platform or basically over the web**. It is intended as the next generation and **alternative reference implementation** for the **Transforming Executable Alphabet**(TEA) language that is to be built with [vanilla] JavaScript as the base/host language instead of Python 3 that currently powers the command-line reference implementation of TEA[2][3] installable on Linux, Debian-package compliant Operating Systems as well as anywhere Python 3 source-code can run. This implementation shall attempt to support the complete TEA Instruction Set as currently specified in the TAZ[4]. Ultimately, this implementation shall make it simple and readily possible for the TEA language to be used by netizens or anyone able to access the Internet or use a standard web-browser such as Firefox, Google Chrome or Safari. Such a break-through would then also allow us to see such important and generally useful programs such as ZHA[5] being able to run in any web-browser or basically over the web, but also, researchers and especially mathematical scientists interested in practically exploring or applying the newly proposed field of transformatics[6], shall then be able to do so, from the comfort of their web-browsers and not the command-line as is currently possible.

**Keywords**: Software Language Engineering, Software Operating Environment, TEA, Web, JavaScript

*Also inventor of the TEA text-processing oriented General-purpose Computer Programming Language — https://github.com/mcnemesis/cli_tttt


LOCAL ENVIRONMENT
SYSTEM CLIPBOARD
TEA PROGRAM CODE
LOCAL FILE SYSTEM
BROWSER LOCAL STORAGE
BROWSER INPUT
BROWSER OUTPUT
WEB ARCHITECTURE
Expressed as the combination of 3 environments into a single overall Software Operating Environment for the TEA programming language. This is the planned architecture for executing TEA programs within a web browser context on any device or technology platform.
REF:
https://bit.ly/projtea
EXTERNAL-WEB ENVIRONMENT
WEB (INTERNET)
REMOTE FILE SYSTEM
TEA ENVIRONMENT
URL PROCESSOR
TEA EDITOR
TEA LEXER
TEA STORAGE (VAULTS)
TEA RUNTIME (INTERPRETER)
TEA PARSER
TEA INPUT
TEA OUTPUT

## References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