Open Djed: Maintenance, Development and Infrastructure

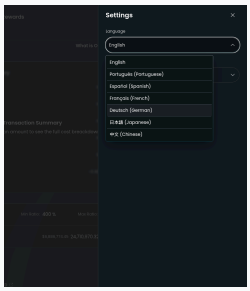
Project Completion Report

Project Name:	Open Djed
Project Number:	1400095
Project Manager:	Kylix Afonso
Lead Entity:	Artifi Labs
Project Start Date:	December 2025
Project Completion Date:	October 2026
Completion Video:	youtube.com/watch?v=QE1MAK0BkQ4

1. Deliverables

Open Djed is a fully open-source web application that gives anyone permissionless access to the Djed stablecoin protocol on Cardano, with no geographic restrictions. It is built on protocol logic reverse engineered from on-chain data, and it pairs that foundation with a faster, more transparent interface, analytics and investment tools that the official interface does not offer. Everything is published openly, together with a documentation portal so that users can learn the protocol and developers can run, extend or fork the project.

Delivered Features

Deliverable	What it does	Evidence
Unrestricted core interface	Permissionless minting and redeeming of Djed and Shen, with no geo-blocking.	Open Djed web app
On-chain analytics	Real-time metrics computed from on-chain data: time-weighted reserve ratios, daily transaction volumes, yield projections and collateralization.	Analytics
Shen simulator	Interactive tool to model potential Shen returns and test risk scenarios before committing capital.	Simulator
Order management	Transaction history with real-time order status, plus the ability to cancel pending orders without leaving the app.	Orders
Shen rewards tracker	A dedicated page where users can check accumulated Shen rewards and track their distribution.	Rewards
UI/UX overhaul and translations	A fast, responsive and accessible front end, localized into EN, PT, ES, DE, FR, CN, JA.	
Documentation portal	Guides for end users and developers, hosted as a public Docusaurus site.	Docs

Key Outputs and Evidence

Open source status	Yes. GPL-3.0 licence.
Source repository	github.com/artifi-labs/open-djed
Live application	djed.artifi.finance
Documentation	docs.djed.artifi.finance
Uptime	Currently 100% on both mainnet and preview. Availability has never fallen below 99%. Monitored publicly at status.artifi.finance.

On-chain evidence	Open Djed builds transactions directly against the original Djed protocol smart contracts and does not add any metadata tag or fee address of its own. Its transactions are therefore indistinguishable on-chain from those made through other interfaces. This is by design: Open Djed is a neutral alternative front end, not a separate protocol.
Testing performed	Unit tests covering the core logic, including the transaction builders and the protocol math, published with the source in the public repository. The application runs on both preview and mainnet.
Completion video	youtube.com/watch?v=QE1MAK0BkQ4

2. Usage

Open Djed serves the Cardano community: DeFi traders, Shen holders and liquidity providers, and users in regions that are excluded by geographic restrictions on other interfaces. Users connect a Cardano wallet to mint and redeem Djed and Shen, follow and cancel their orders, check Shen rewards and use the analytics and simulator to inform their decisions. Developers interact with the project through the source repository and documentation portal.

Before the Catalyst funding, Open Djed served about 200 users per month, and the proposal set a target of more than 300. During the funded period the team rebuilt the entire infrastructure, and usage tracking was not carried over to the new stack. Current user counts therefore cannot be measured directly. Transaction counts cannot be derived on-chain either, for the reasons given under On-chain evidence in Section 1.

The evidence of engagement that is available:

GitHub	11 stars and 1 fork on artifi-labs/open-djed
Ecosystem	Public joint communication with Minswap on its integration with Open Djed (see Section 3)
Availability	100% current uptime on mainnet and preview, never below 99% (status page)

3. Impact

Open Djed expands access to Cardano's main algorithmic stablecoin protocol by replacing a restricted, closed stack with open-source infrastructure that anyone can use, audit and fork.

Dimension	Official Interface	Open Djed
Accessibility	Regionally restricted (geo-blocked)	Permissionless and global
Transparency	Basic mint and redeem views	On-chain analytics and Shen simulation
Source status	Proprietary, closed front end	Open source (GPL-3.0)

Measurable Ecosystem Benefits

Ecosystem integration: Open code and documentation lower the barrier for other Cardano projects to integrate with the Djed protocol. Minswap and Open Djed made a joint public announcement on how Minswap integrates with Open Djed.

Access and inclusion: Users in previously excluded regions can mint and redeem Djed and Shen, which broadens the audience of a Cardano-native stablecoin.

Informed decisions: The Shen simulator lets users test several outcomes and market conditions first, which reduces user error and encourages better-informed capital allocation.

Resilience: A fully working alternative front end removes a single point of failure for stablecoin access on Cardano.

4. Sustainability

Open Djed is a **one-off, Catalyst-funded project**. The core application, backend API, analytics and documentation are built, tested and deployed. From here it becomes a community-owned, open-source repository: the original team provides light-touch maintenance, and anyone can contribute, self-host or fork it.

Maintenance Model

Core team: Artifi Labs will keep the deployment stable and respond to critical issues, in particular breaking changes to the Djed protocol. Open Djed depends on a protocol that is reverse engineered, so such changes are its main long-term risk, and this is a key reason the code is open for others to maintain.

Community: The codebase is GPL-3.0. Contributors can open issues, submit pull requests and maintain extensions.

Revenue model: None. The project is a public good.

Forking Instructions

Every step is detailed in the README.md of the open-source repository and in the documentation portal.

Permanent Storage

All source code and documentation are preserved in open repositories.

Source code (GitHub): github.com/artifi-labs/open-djed
Documentation portal: docs.djed.artifi.finance

5. Budget Volatility Mitigation

Open Djed was funded with **100,000 ADA**. The proposal budget was costed at an ADA price of **$0.79**, which put its value at about $79,000. Funding is denominated and paid in ADA, while the team's costs are effectively denominated in fiat, so the real value of the budget depends on the ADA price. Over the life of the project that price fell sharply.

Reference point	ADA/USD	USD value of 100,000 ADA	Change vs. proposal
Proposal costing	$0.79	$79,000	—
November 2025 (before project start)	~$0.42	~$42,000	≈ −47%
October 2026 (project completion)	~$0.19	~$19,000	**≈ −76%**

Market prices are approximate: the November 2025 monthly close and the spot price on 30 October 2026, from public market data.

The budget had already lost close to half of its planned USD value before work began. By completion it was worth roughly a quarter of what was planned, a shortfall of about $60,000. The decline continued throughout the funded period, so every milestone payment was worth less than the one before.

Mitigation Measures

The team chose not to reduce scope. Instead, the shortfall was covered in two ways:

- **Full use of the Contingency & Volatility Buffer:** the buffer was spent in full to keep the team operating (see Section 6).
- **External revenue:** the team took on additional private client work to fund itself and close the remaining gap. This kept the project solvent, but it reduced the time available for Open Djed and delayed the delivery of some milestones.

Outcome

Despite a loss of roughly 76% of the budget's planned USD value, every committed deliverable was delivered and deployed in full, with no reduction in scope, as documented in Section 1. The cost of this was time: some milestones were delivered later than originally planned.

6. Technical Challenges and Contingency Buffer

Unforeseen Challenges

Challenge	Impact	Resolution
Van Rossem hard fork	Cardano's hard fork ratified fully through on-chain governance. It was enacted on mainnet on 18 July 2026 after rolling out on the testnets first. Open Djed runs on both mainnet and preview, so both deployments had to stay compatible.	The team tracked the upgrade and accommodated the changes on both networks. Only minor adjustments were needed.
Full infrastructure rebuild	Open Djed began as a hobby project, and its original infrastructure was inefficient. It could not reliably offer the uptime expected of a production stablecoin interface, and it was costly to run relative to that.	The infrastructure was rebuilt from the ground up for reliability and low running costs. Uptime is now 100% on both mainnet and preview and has never fallen below 99%. Low operating costs are also what make long-term maintenance by a small team realistic.
Djed protocol changes	COTI made no changes to the Djed protocol during the funded period.	No action required. Because the protocol is reverse engineered, this remains the main long-term risk (see Section 4).

Contingency & Volatility Buffer

The proposal allocated a **Contingency & Volatility Buffer of 32,800 ADA**, about 33% of the total budget. It had two stated purposes:

- **ADA price volatility:** keeping developer compensation fair and the project operating for its full term, regardless of market conditions.
- **Protocol emergencies:** urgent, unplanned work caused by breaking changes in the Djed protocol or by Cardano hard forks.

Buffer size: 32,800 ADA (~$25,900 at the $0.79 proposal costing)
Activated: Yes
Amount used: The full buffer

Justification: The buffer was used in full, but not because of technical problems. On the technical side there was little to absorb. COTI made no changes to the Djed protocol, and the Van Rossem hard fork required only minor adjustments. The buffer was consumed by the volatility side of its purpose. With the budget's USD value down about 76% from the proposal costing (Section 5), every dollar of the buffer was needed to keep the team operating and the project on track. Even that was not enough on its own, and the team covered the rest through private client work, as described in Section 5.