

Interactive and Instant: GenAI-driven Creation of Clinical Trial Applications

Marcin Dubel

Phuse US 2026, March 23
ML02

Interactive and Instant: GenAI-driven Creation of Clinical Trial Applications

Agenda

1. Our observations of market trends and needs
2. Path to find an optimal user experience
3. Demo of **TealFlow** capabilities

Clinical Data Application Development

Landscape Today

Modular app building is in demand.

Predefined solutions accelerate delivery.

Usability remains a challenge.

We believe that in **1 year**
majority of reporting and
data analytics will be
**produced automatically
much faster**

Agentic AI in Clinical Data Application Development

Goal is to **analyze trial data faster** by having analysis done in days from data being available.

Empower the users and increase productivity of highly specialized SME.

Gen AI Challenges

Lack of specialised capabilities.

No solution for internal frameworks and policies.

Usability remains a challenge.

TealFlow Vision

- Low-code access for non-developers
- Bypasses dev team for early validation
- Outputs reviewable, shareable, ready code
- Chat-based interface guides app creation
- AI suggests components based on framework
- Custom tools built in minutes, not days

Path from **chatbot** through **MCP** and **agents** to **smooth user experience**

Step 1

Agent ready with the prepared context of deepsearch on teal docs + system prompts that do the right job

Step 2

Frontend app

Pros: Easy to use, access through browser, standard features like chat history, extra ones like sharing on GitHub or Connect

Cons: limited to simple conversation, no agentic

Step 3

Dev tools

Pros: Full capability of state of the art agents, MCP tools integration for auto-testing and live docs access

Cons: barrier for non-coders

Step 4

TealFlow with Claude Code

Pros: Combine the agentic approach, Safe container environment, single place for many agents, easy access through browser, user history and other features

Cons: limited development experience compared to IDEs

TealFlow

Data & SAP
(Statistical Analysis Plan)



AI feedback loop



Suggestions, **based on the input**,
of what analyses to run
(e.g. "do survival analysis")



Everything conducted
via a **chat-style conversation**

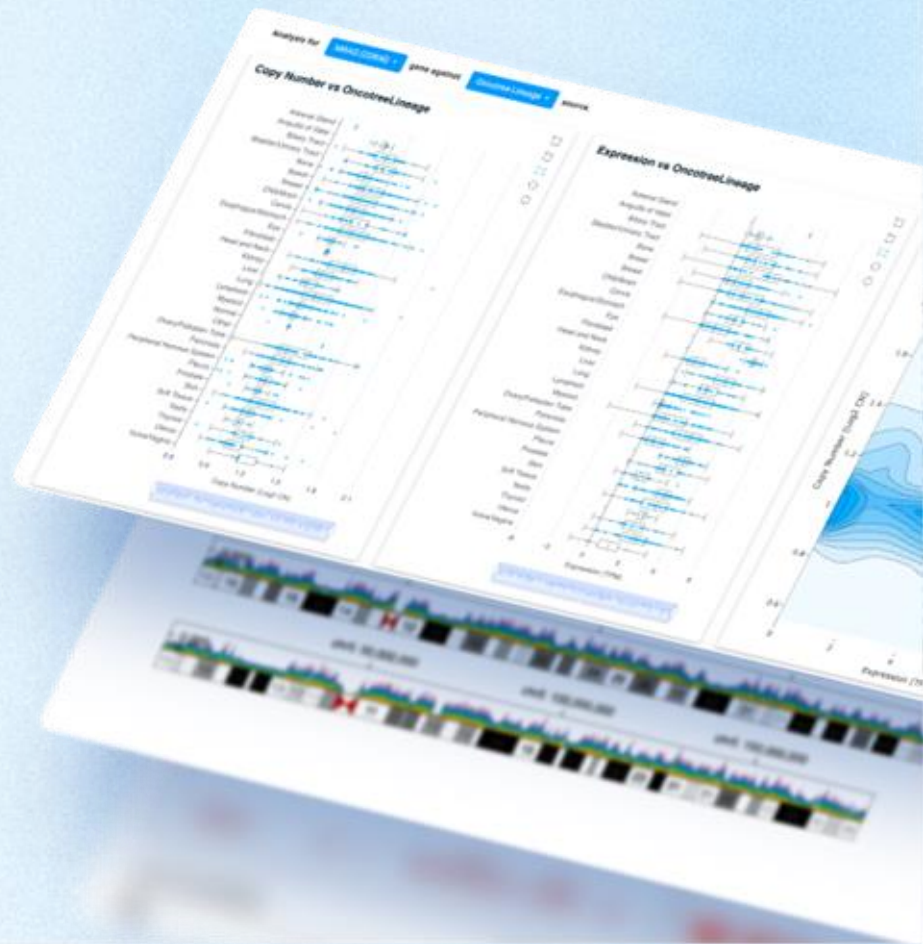


An app + code
(to be validated by an expert)



A button to **publish
the results**

Demo





⊕ New Chat

📖 Documentation

Recent Chats

TealFlow AI App ...

TealFlow AI App ...

TealFlow AI App ...

TealFlow AI App ...

TealFlow AI App ...

TealFlow AI App ...

TealFlow AI App ...

TealFlow App ...

TealFlow AI App ...

TealFlow AI App ...

View All >

Leave Feedback 🗨

JD Jane Doe
jane.doe@appsilon.com



To exit full screen, press and hold **Esc**

What can I help you analyze?

Teal



Ask me a question...



No file selected

Create a data analysis app with Teal

Create a teal app for survival analysis

TealFlow MCP

Open Sourced !

- *What:* tool integrated with developers environment
- *Why:* lack of trust in coding with AI by non-coders
- *How:* publicly available MCP for anyone to use in
`{teal}` projects



<https://github.com/Appsilon/TealFlowMCP>

The Future of App Development Starts Here

Help us build what developer actually need -

We're also seeking **partners** who want to co-develop this platform.

Your insights will directly shape the platform that will change app development.

We want to hear your feedback:

- Would you envision integrating this into your workflow?
- What challenges does this solve for your development teams?
- Which features would create the most value for your organization?



Let's Make an Impact Together



Marcin Dubel

HEAD OF TECHNOLOGY

marcin@appsilon.com