

Technology Overview



Project Structure



The Accord Project



LINUX Top-level project within the Linux Foundation

Provides a **non-profit open source** techno-legal foundation for '**smart legal contracts**'

Three entities:

- Governing Board
- <u>Technical Steering Committee</u>
- Working Groups (e.g. Technical WG, Real Estate)

Antitrust Policy

<u>Governed as a Linux Foundation Project - Technical Charter</u>



Codebase





Accord Project Codebases

- CICEFO—A templating system to bind natural language and logic together and an embeddable execution engine for running smart legal contracts in any environment (DLT systems, cloud platforms, etc.).
- **ERGO** A formally verifiable DLT-agnostic language with grammar and syntax designed for expressing the logic of legal contracts.
- Concerto A platform-neutral, accessible schema-language to describe contract data
- Libraries Shared data models and templates for contracts
- Tooling Template Studio, VSCode extension, Web Components, Blockchain tooling, MS Word add-in (WIP)



Smart Legal Contract



What is a Smart Legal Contract?

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Canceling Purchase Orders.

"PETER" may, at no expense to itself, cancel part or all of a Purchase Order up to 10 Business Days before the Delivery Date.

Supply Forecasts.

On or before the 04/02/2018, and thereafter on or before the last day of each calendar quarter, the Purchaser "PETER" shall send the Supplier "DAN" a Supply Forecast. The Supply Forecast will be a binding commitment on the Purchaser's behalf to purchase during the first quarter included in each Supply Forecast at least 85% of the quantity of the listed Product.

Delivery.

Contract

Language

"DAN" shall deliver the "Colorful Umbrellas" and title to the "Colorful Umbrellas" to "PETER" within 1 days of the Delivery Date, at the Delivery Address, using any applicable delivery method detailed in the "Annex A", attached to this agreement.

Acceptance of Delivery.

PETER | will be deemed to have completed its delivery obligations if in DAN s opinion, the Umbrellas | satisfies the Acceptance Criteria, and DAN | notifies | PETER | in writing that it is accepting the Umbrellas |

Inspection and Notice.

DAN will have 10 Business Days to inspect and evaluate the Umbrellas on the delivery date before notifying PETER that it is either accepting or rejecting the Umbrellas.

Acceptance Criteria.

The "Acceptance Criteria" are the specifications the Umbrellas must meet for the PETER to comply with its requirements and obligations under this agreement, detailed in Attachment A , attached to this agreement.

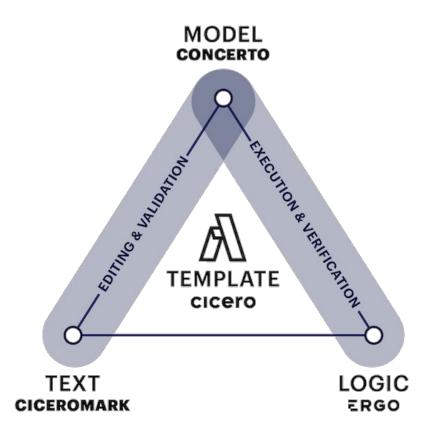
This is some more text after a clause. Test moving a clause by dragging it or by using the up and down arrows.

```
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     ≣ logic.ergo ×
     src > acceptance-of-delivery > logic > ≡ logic.ergo
            namespace org.accordproject.acceptanceofdelivery
            import org.accordproject.cicero.runtime.*
            import org.accordproject.time.*
            contract AcceptanceOfDelivery over AcceptanceOfDeliveryClause {
              clause acceptanceofdelivery(request : InspectDeliverable) : InspectionResponse {
                let received = request.deliverableReceivedAt:
                enforce isBefore(received,now()) else
                 throw ErgoErrorResponse{ message : "Transaction time is before the deliverable date." }
                 if isAfter(now(), addDuration(received, Duration{ amount: contract.businessDays, unit: ~org.
                  accordproject.time.TemporalUnit.days}))
🗜 master 😌 ⊗ 0 🛆 0 🐧 jerome@clauseinc.onmicrosoft.com 🔗 Live Share 🛭 Ln 31, Col 32 Spaces; 2 UTF-8 LF Ergo 📈 🌡
```

Code



What is a Smart Legal Contract Template?





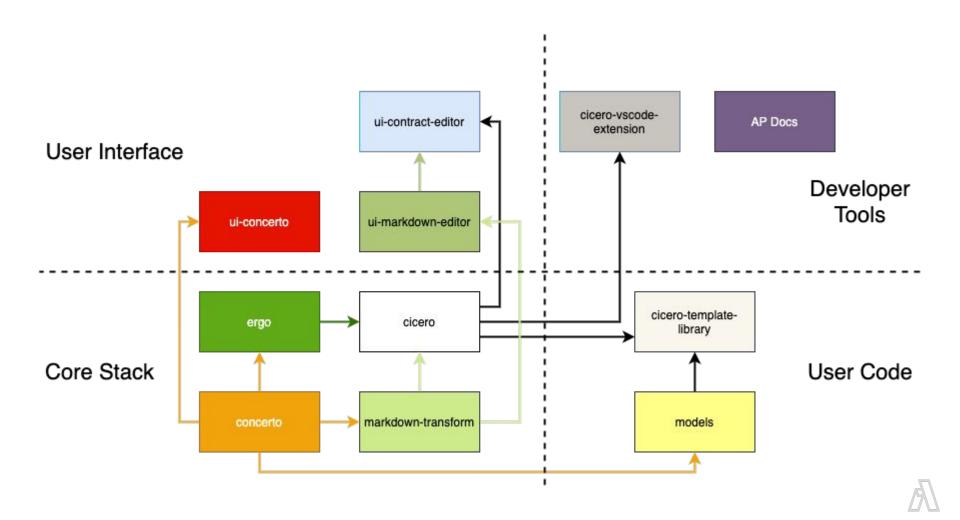
Step-by-Step

- 1. Contract **text**
 - Word processing/CLM, etc.
- 2. Contract text + *variables* (contracts as structured objects)
 - Cicero
- 3. Contract text + variables + **execution logic** (smart legal contracts)
 - Computation of contract obligations
 - Cicero + Ergo



Architecture





Get Involved



Useful Experience

- Front-End (Node.js / React)
 - Web Components
- Back-End (Node.js)
 - Markdown Transform
 - Cicero
- Compiler (Node.js/OCaml)
 - o <u>Ergo</u>
- Cloud
 - GitHub Actions
- Blockchain (Node.js/Java/OCaml, etc)
 - HyperLedger Fabric Sample
 - Corda Sample
 - 0 ...



Q&A



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