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PORTFOLIO

Selected engagements from recent years in made products

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Use of a Framework

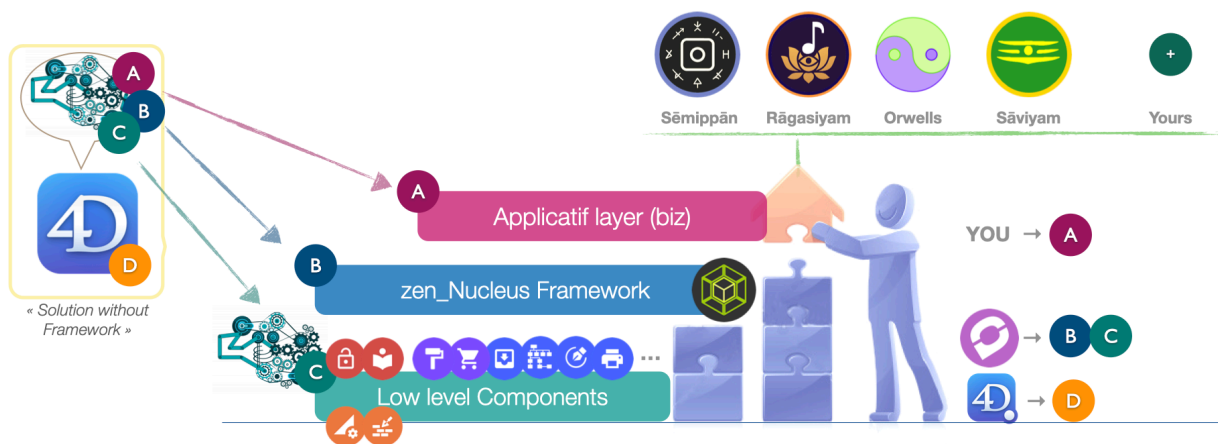
What is this?

A framework is a coherent set of structural components that creates the foundation and models the core architecture of your application.

In essence, a framework doesn't give you a finished house; it gives you the proven blueprints, tools, and rules to build a stronger, more maintainable one.

How is it Characterized?

- **Genericity:** It is inherently generic and weakly specialized, designed to be adapted rather than used as-is.
- **Guidance:** It provides constraints and conventions that guide your application's architecture, ensuring consistency and best practices.



Our Technical Advantage

All our information systems are built on a proprietary 4D framework, delivering:

- Renowned UX - Intuitive interfaces with fast onboarding
- Rapid Development - Reusable modules for common functions: Color pickers • Date/time inputs • Calendar systems...
- Consistent Performance - Battle-tested across 30+ years of deployments

Why It Matters

- For Clients: Get tailored solutions 40% faster
- For Users: Enjoy familiar, ergonomic tools
- For IT Teams: Simplified maintenance

ogTools Suite

Our proprietary framework is built on the comprehensive ogTools component suite, addressing every facet of 4D database development. We embrace the philosophy of 'completeness through layered completeness' — mirroring the structural elegance of Vedic shlokas.

Our latest zen_Nucleus component unifies the entire ogTools suite – delivering a complete 4D ORDA framework where all infrastructure is pre-built, so you focus solely on implementing your unique business logic.

See in the appropriate description document on [ogToolsSuite](#).

Sēmippān – 4D Developer Ecosystem

4D Product Asset Management | Oviyam Since 2008, Sēmippān rewriting 2025

Project Scope

Created a comprehensive 4D-powered platform for:

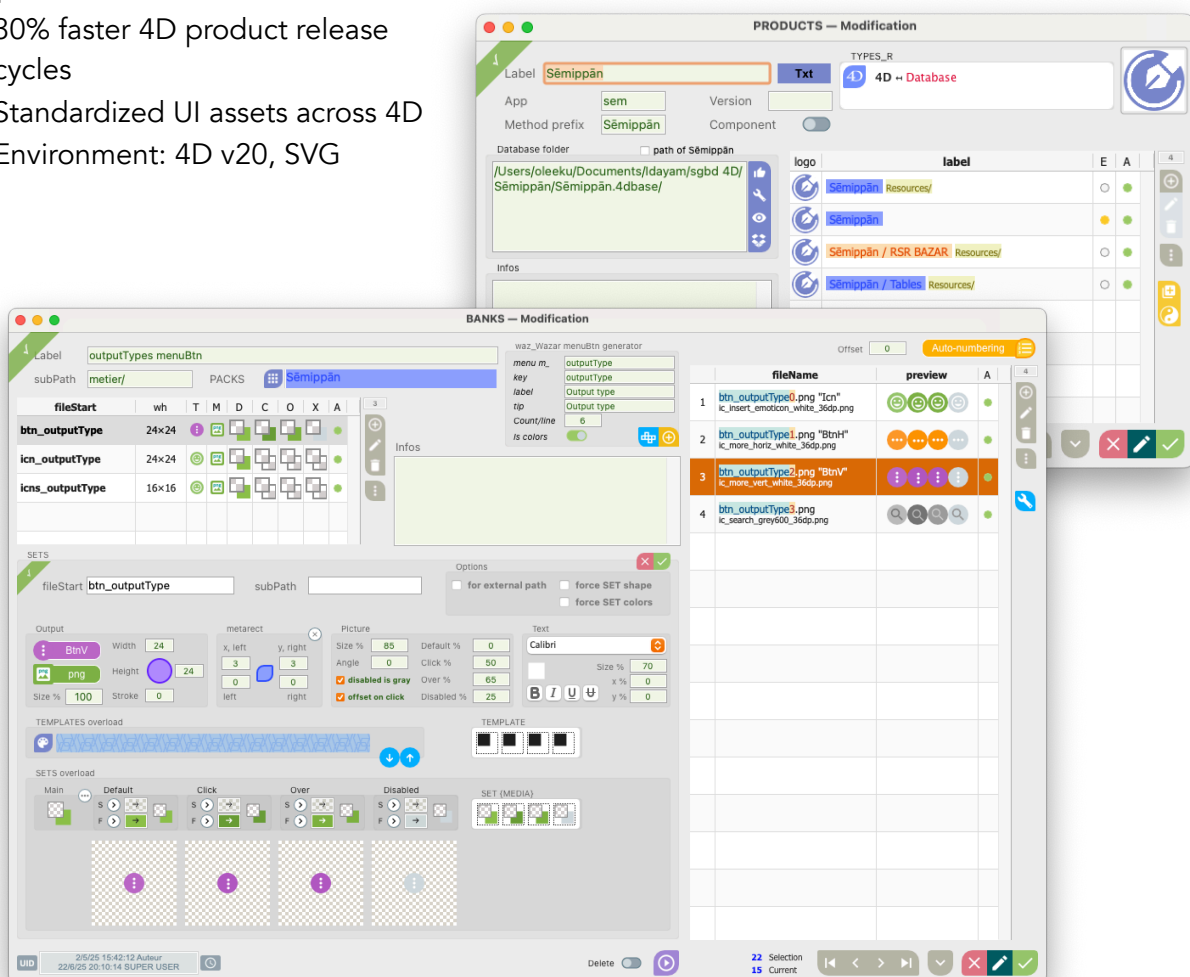
- 4D Product Development Management
 - PRODUCTS table indicates path for your databases (and Resources folder)
 - Organized in a recursive hierarchical lists of Types
 - PICTURES library filled with Goggle Material Design where to add your own
 - Then PACKS, BANKS, SETS, MEDIA connected to the Pictures library
- UI Asset Production
 - Vector icon design toolkit (SVG/PNG export)
 - Button state generator (hover/active/click/disabled) with indexed colors math module
 - Icon generator
 - Export to your product resources in one click

Technical Highlights

- Host database made on zen_Nucleus to demonstrate its power and simplicity
- Component architecture with ogTools Suite Integration
- Used by 20+ 4D databases projects worldwide

Impact

- 30% faster 4D product release cycles
- Standardized UI assets across 4D
- Environment: 4D v20, SVG



Rāgasiyam – World Music Scale Library

4D-Powered Musicology Platform | 2025

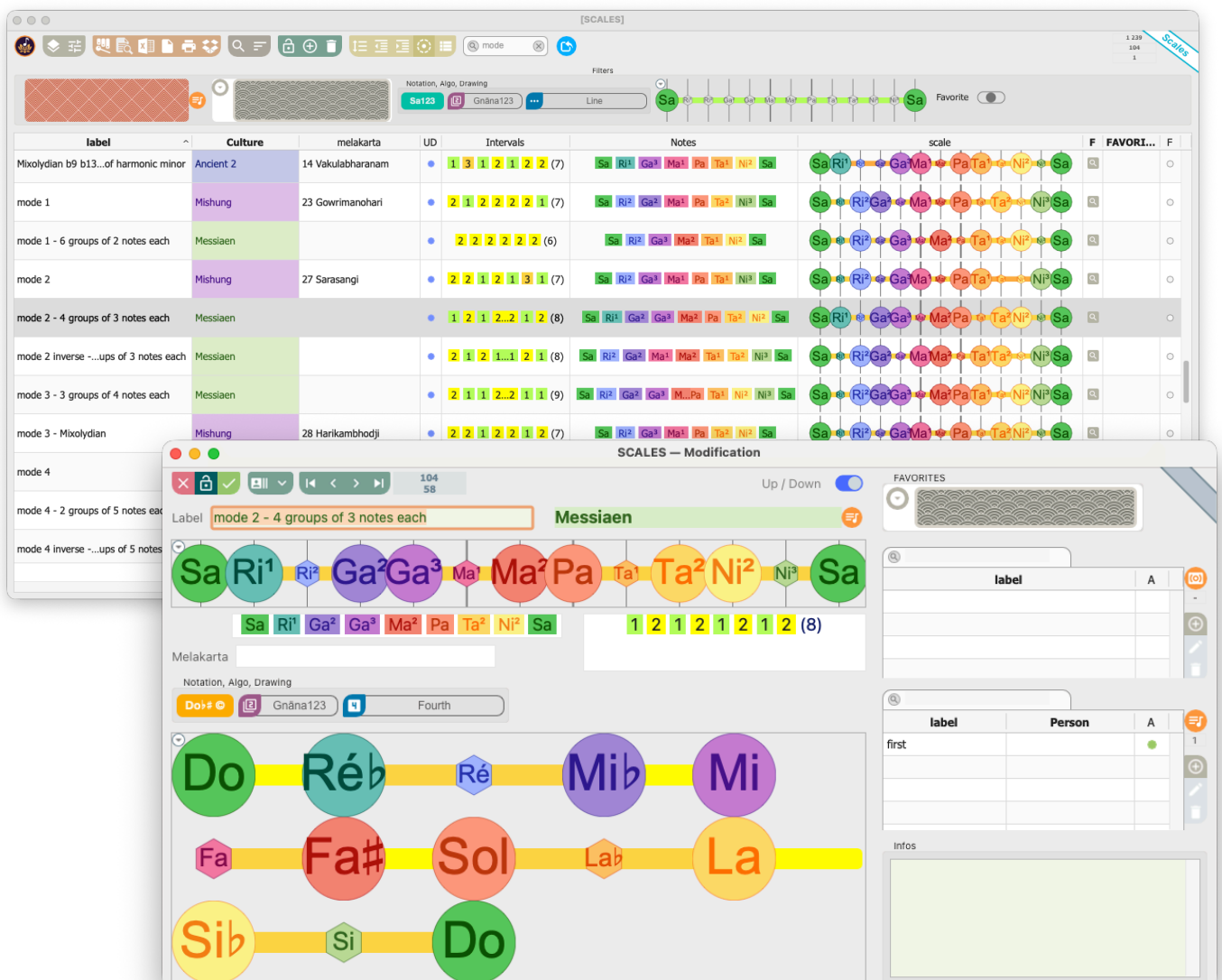
Project Scope

A universal analytical suite for 2,000+ global scales, including:

- Rāga & Scale Analysis: Interactive visualization of 2000+ world scales
- Cultural Context: Scale-to-region associations (e.g., Mayamalavagowla = Kerala)
- Rhythm Engine
 - Tālam custom widget with laghu/dhrutam patterning
 - Euclidean Rhythm Generator
- MIDI Player for Scales and Tālam
- Astro-Musical Player: Scale rendering based on planetary alignments

Technical Highlights

- Host database made on zen_Nucleus to demonstrate its power and simplicity
- Component architecture with ogTools Suite Integration
- Proprietary Component rāg_Scales for all drawing and widgets
- Research Use: Personal ethnomusicology toolkit



Genie Solutions (now Magentus) | Australia

4D Component Development Contractor | Jan–Aug 2021

Key Deliverables

- SVG Editor Component
Advanced vector graphics toolkit for 4D applications
Fully based on widget's stack : the editor itself is a widget.
- Apple Notarization Tool
Automated macOS app packaging and notarization workflow
Reduced developer setup time from 2 hours → 15 minutes

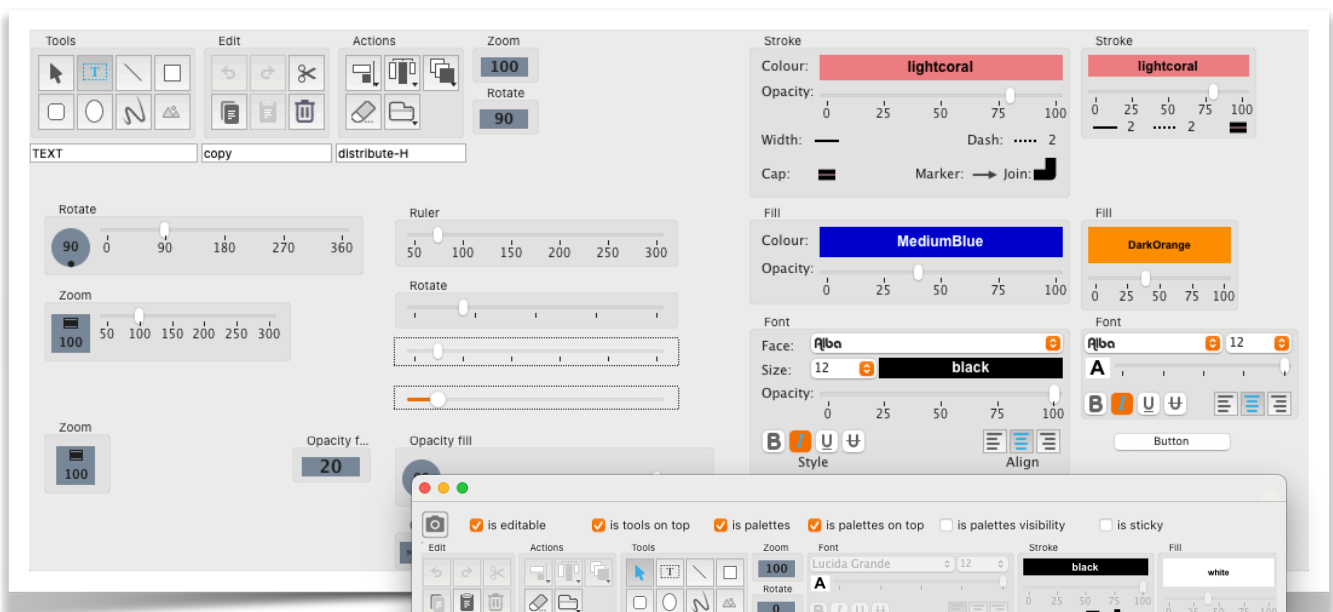
Features

- SVG compliant (except for Path and Bézier curve), export to PNG

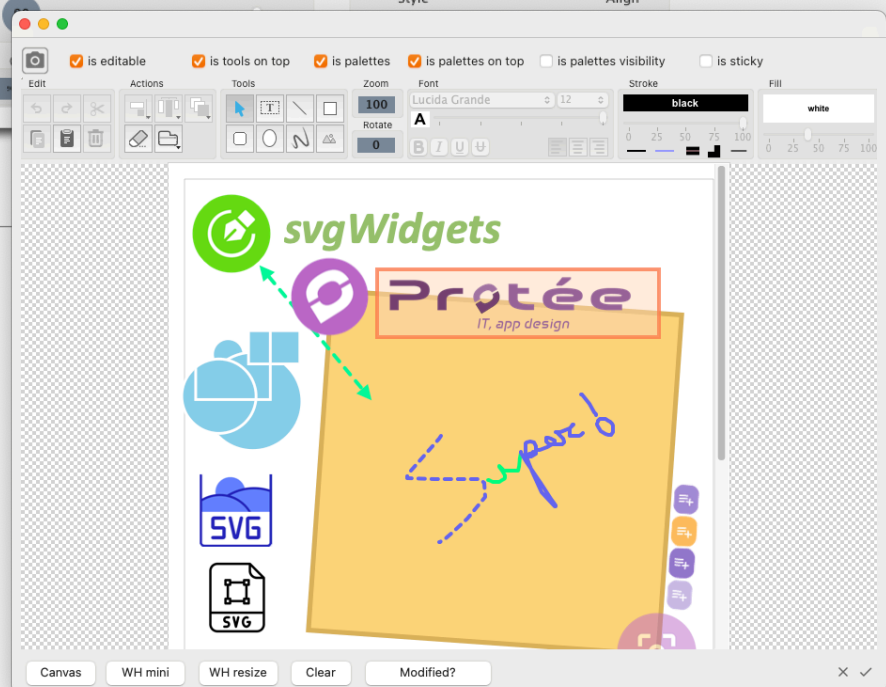
Technical Environment

4D v20 | Apple Developer APIs

Widgets test page



SVG editor



Fédération du Yoga (Fyo) – Enterprise Management

Full-Stack 4D Solution | Since 2000

Project Scope

Creator, developer and maintainer of a comprehensive 4D information system for France's national yoga federation, integrating:

- 5 distinct billing structures FNEY, EFY, UNY, SNPY, AGAY (certified yoga school, membership tiers, event fees, teacher...)
- Business portal with React-powered modules (modern UX)
- 4D-native web services (legacy system integration)

Technical Highlights

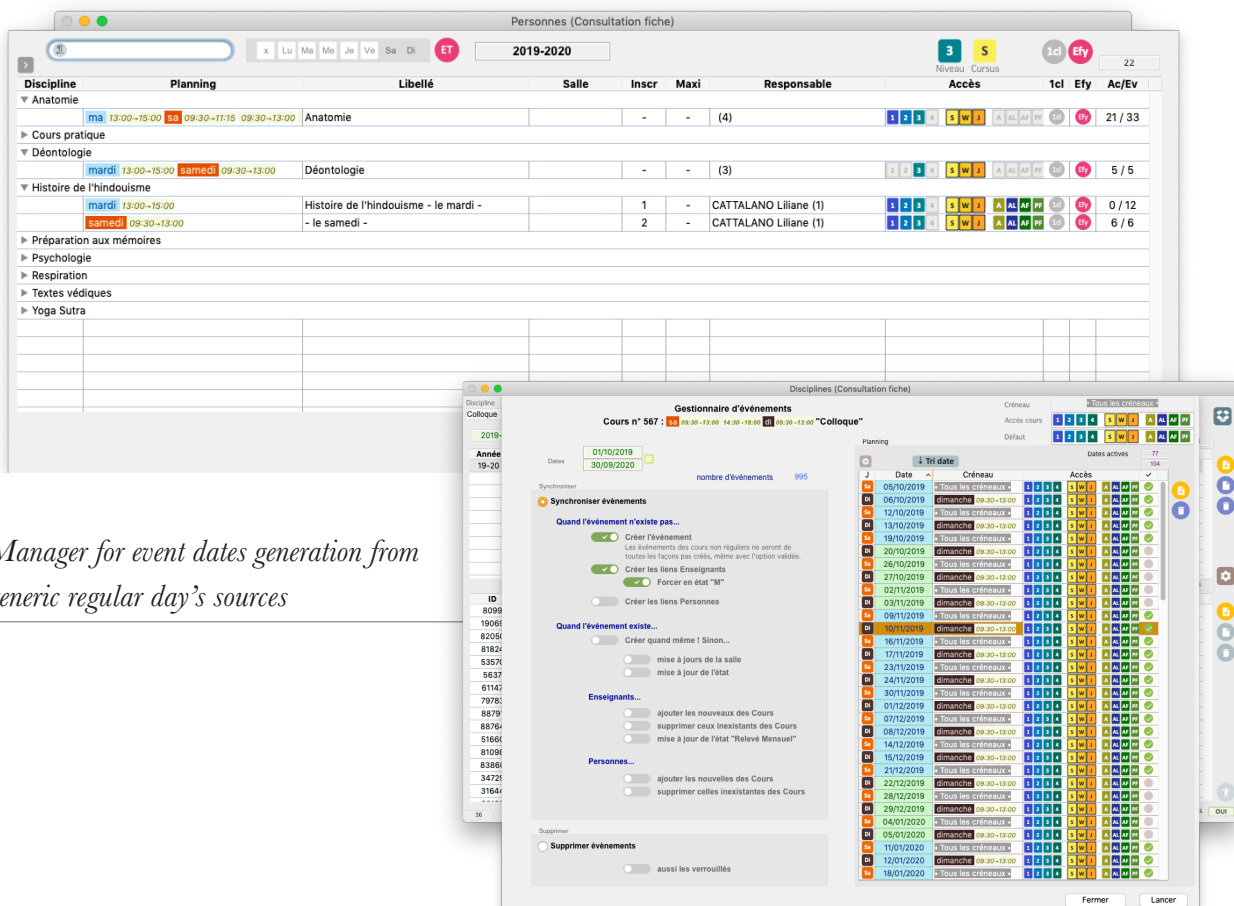
- 24-year evolution still in 4D Classic, but with the use of ogTools
- Hybrid stack blending 4D's robustness with React's flexibility
- Multi-entity financial logic handling complex revenue streams

Impact

- Became the federation's operational backbone for 100K+ members
- Annual processing: 10K+ transactions, 400+ certification workflows

Academic website, 4D website

Two levels choice listbox, with lazy load



Manager for event dates generation from generic regular day's sources

Montblanc DraWapp – Interactive Design

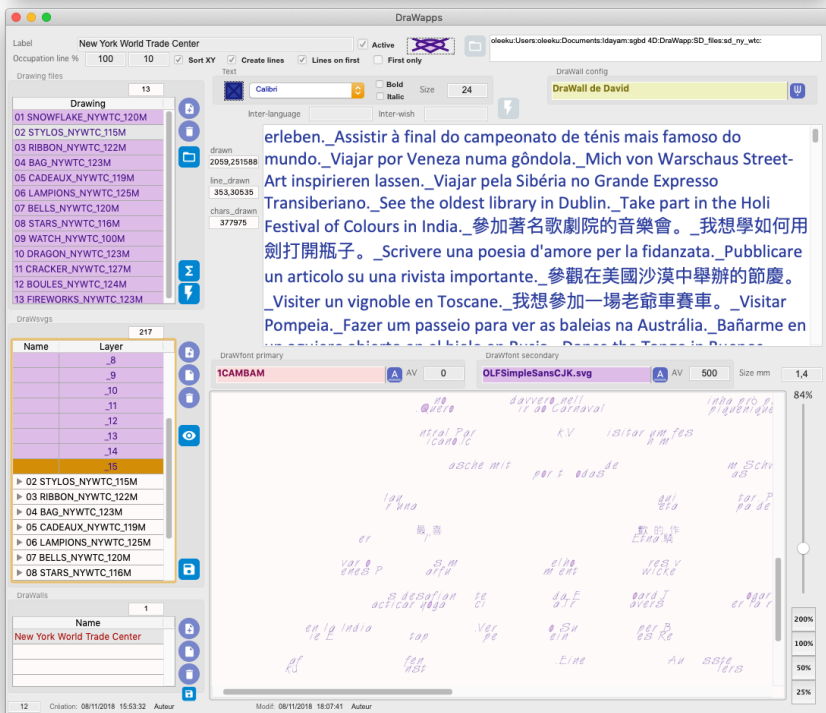
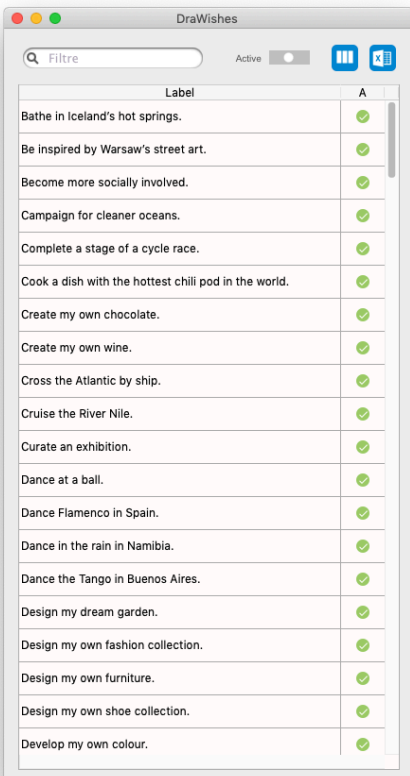
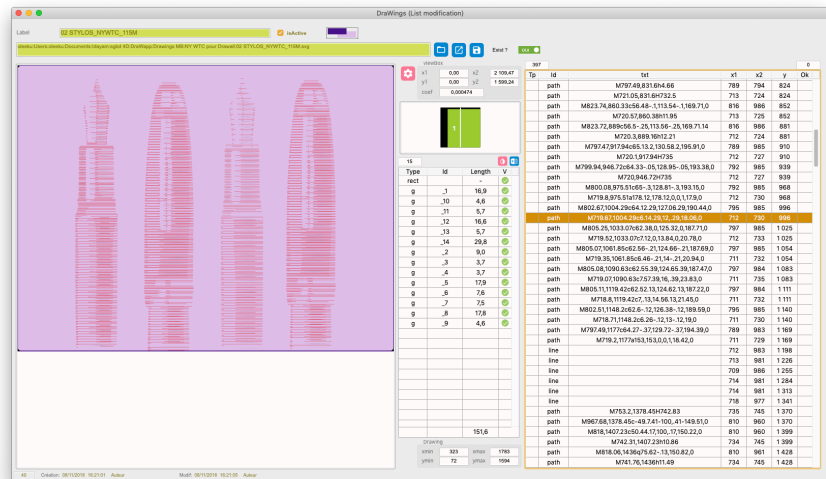
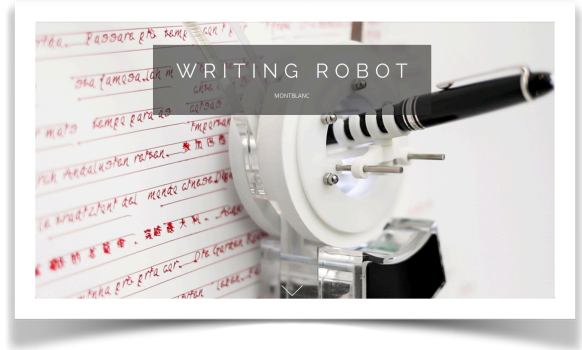
Award-Winning 4D Innovation | 2018

Project Scope

Developed for Jean-Marc Gady Design Agency, this 4D-powered SaaS solution transforms social content into luxury retail art:

- SVG Generation Engine: Converts tweets in 8 languages to vector artwork
- Adobe Illustrator svg reader and extractor, SVG font convertor
- PCODE Processor: Optimizes design for DraWall wall printer
- Boutique Integration: Served 15 global Montblanc locations all over the world
- We were a Team of 3 to design all the hardware and software

Project [here](#)



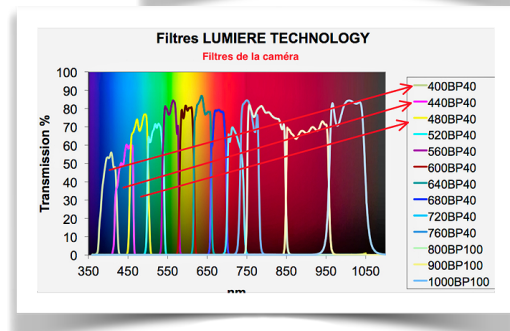
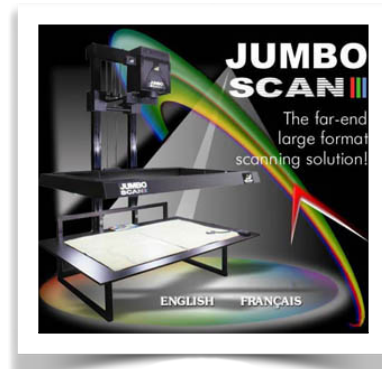
Lumiere Technology – Jumboscan | France

Hardware and Embedded Software Contractor | 1998 - 2001

Lumiere Technology is a company specializing in advanced imaging and authentication solutions, particularly for art analysis, forgery detection, and cultural heritage preservation. They are known for their Multispectral Imaging (MSI) technology, which helps examine artworks, documents, and historical artifacts in high detail.

Key Features

- First highest resolution and fastest scanner in the world. 12,000 pixels, 30,000 lines, 13 filters.
- Hardware based on Hitachi SH2 microcontroller, and Nogo, Protée's preemptive multitasking kernel based on Forth language.
- Multispectral Imaging (MSI): Uses different light wavelengths to reveal hidden layers, sketches, and alterations in artworks.
- Forgery Detection: Helps authenticate paintings and detect counterfeit elements.
- Art Restoration & Research: Assists museums and conservators in analyzing and preserving cultural heritage.
- Digital Archiving: Creates high-resolution spectral images for documentation.



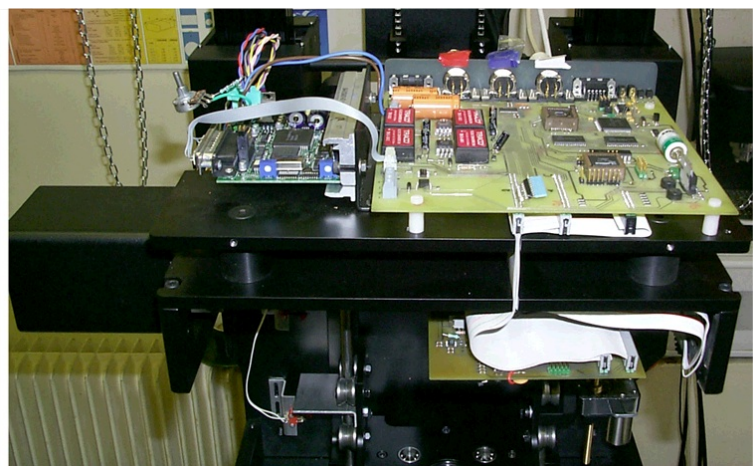
Notable Projects

- Worked with major museums and institutions to analyze famous artworks.
- Contributed to uncovering hidden details in paintings by artists like Van Gogh and Leonardo da Vinci.

Applications

- Museums & Galleries, Art Dealers & Auction Houses, Forensic Analysis, Academic Research

Website



4D Summit 2018 | Speaker

Paris, FR | Topic: "The Button in All Its States"

Presentation Highlights

UI/UX Deep Dive FR/EN: Explored button interaction states (active/hover/click/disabled) in 4D applications

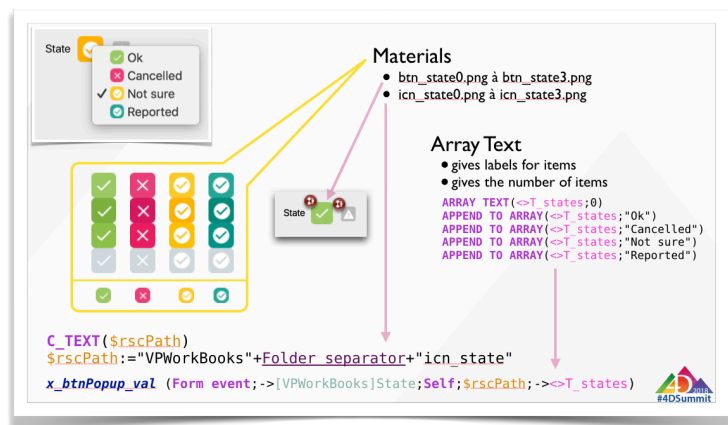
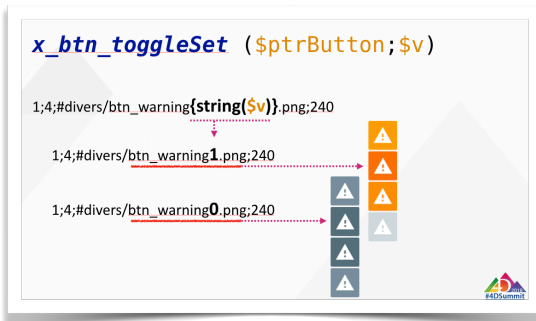
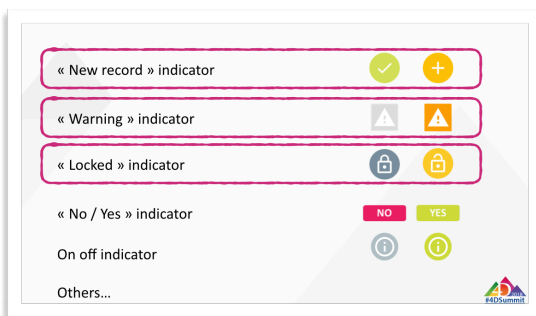
Technical Showcase

- Custom button component architecture
- State transition animations (4D integration)

Impact

- Featured session with 30+ attendees
- Inspired 4D v18's enhanced form controls

Watch Video

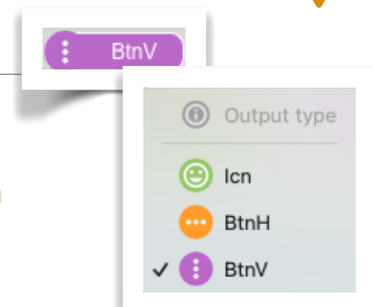


Now fully integrated into Sēmippān and Waz_Wazar component (2025).

Exporting from Sēmippān asset and an object, to get an immediate functional widget you can even bind to an ORDA property (field).

```

// ***** m_outputType btnMenu
// *
$vJ_menu:=New shared object()
$vJ_menuBtns.m_outputType:=$vJ_menu
$vJ_menu.t_label:="Output type"
$vJ_menu.t_tip:="Output type"
$vJ_menu.t_key:="outputType"
$vJ_menu.t_path:=$vT_path
$vJ_menu.fu_icon:=$c4Fu_icon
$vC_at lbl:=wox_shared_at_lbl_new($vJ_menu)
$vC_at_lbl.push("Icn"; "BtnH"; "BtnV")
$vC_al_lbl:=wox_shared_al_lbl_new($vJ_menu)
$vC_al_lbl.push(0xFF90; 0xFFC8; 0xFF1F)
    
```



BVA Mystery Shopping – Global Survey Platform

4D System Modernization | Paris | 2015 (1-year mission)

Project Scope

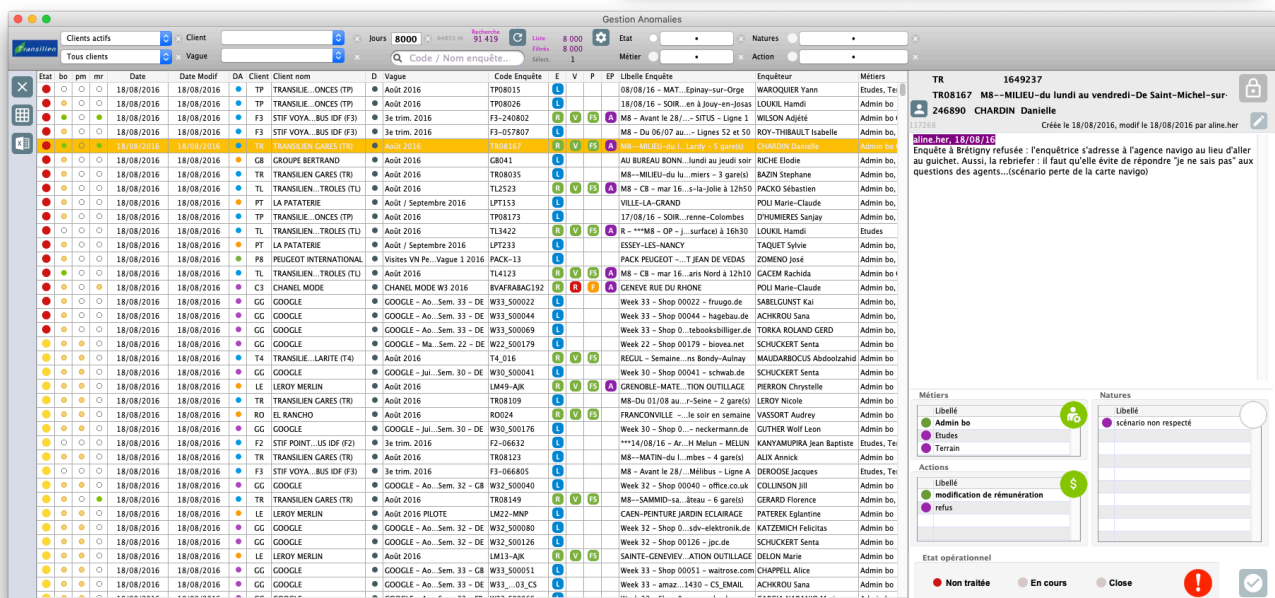
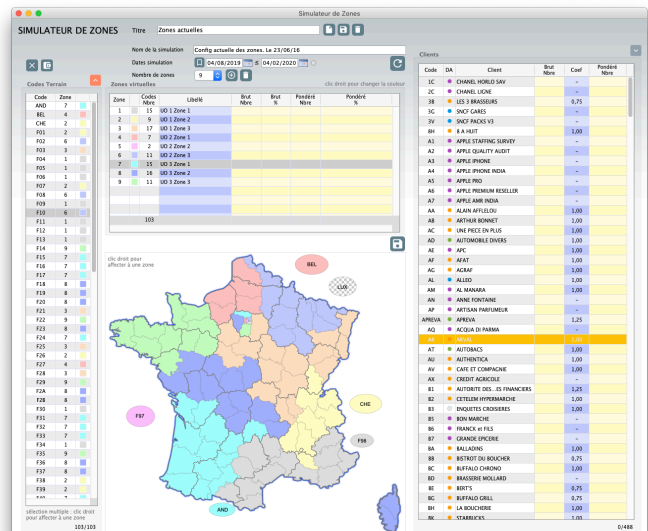
- Development into the core 4D v14 information system for this leading mystery shopping provider, handling:
 - 60,000+ mystery customers worldwide
 - 100+ concurrent 4D users (survey managers, analysts)
 - Complex decision engine for survey wave planning

Key Deliverables

- Modernized UI/UX with dashboard-driven workflows
- Google orders with Google sheet API integration into 4D
- Analytical Dashboards & Business Intelligence
 - Co-Designed KPIs: Worked shoulder-to-shoulder with leadership to identify critical metrics
 - Executive-Level Views: Real-time revenue, customer satisfaction, operational efficiency tracking
 - Drill-Down Capabilities: From big-picture trends to transaction-level details

Website

After this project, I decided to begin Protée ogTools Suite components.



Ensemble Intercontemporain – Orchestra Management System

Complete Information System Redesign | 2009–2022

Project Scope

- Transformed an in-house "amateur" 4D system into a Client/Server professional orchestra management software, featuring:
- End-to-end workflow management: Planning → Billing → Forecasting
- OAI-PMH MODS warehouse for digital asset preservation for IRCAM portail
- Web server integration (4D, API for mobile app)
- Mobile apps (iOS/Android) for musician schedules (made by a sub-contractor)

Technical Achievements

- Modernized legacy 4D architecture to enterprise standards
- Implemented real-time sync across web/mobile/desktop
- Developed predictive budgeting tools with 90% accuracy

Environment: 4D v11–19, ogTools, OAI-PMH, MODS XML – [Website](#)

Accounting panel with a listbox, a calculated 4DWrite Pro output in multi-columns

CONCERTo – Music Education Management System

Enterprise 4D Solution for Conservatories | Since 1996

Project Scope

Developed a comprehensive 4D platform for music institutions, handling:

- Student lifecycle management (admissions → diplomas)
- Curriculum scheduling (individual/ensemble training)

Technical Evolution

- 25+ years of continuous development (4D v3 → 4D v20)
- Multi-institution support (conservatories → municipal schools)
- Hybrid architecture (4D client + web portal)

Impact

- Adopted by 30+ institutions across Europe
- Processed 50K+ student enrolments

Environment: 4D (v3–present), ogTools

