



## APPLICATION INVENTORY

# VCL2FMXConverter

## v6.0 Navigator

V6.0 — Codebase, Coverage, and Release Profile



A measured inventory of source architecture, mapping intelligence, validation coverage, documentation, and release artifacts.

**Prepared September 2, 2026**

Apache License 2.0 • Release state: validated local candidate

## EXECUTIVE PROFILE

## V6.0 at a glance

Navigator is a contract-driven Delphi conversion application with a designer-owned FireMonkey interface, extensible mapping packs, deterministic reporting, and layered validation.

|                      |               |                  |                   |                   |
|----------------------|---------------|------------------|-------------------|-------------------|
| <b>36,392</b>        | <b>493</b>    | <b>227</b>       | <b>63</b>         | <b>66</b>         |
| IMPLEMENTATION LINES | MAPPING RULES | CONTRACTS PASSED | ACCEPTANCE CHECKS | REGRESSION GUARDS |

## Key inventory

| Area                 | V6.0 measure            | What it represents                                 |
|----------------------|-------------------------|----------------------------------------------------|
| Production source    | 24 Pascal units + 1 DPR | 34,588 physical Pascal lines                       |
| Designer UI          | 1 MainForm.fmx          | 1,804 lines of IDE-editable form definition        |
| Mapping intelligence | 22 packs / 22 vendors   | 493 rules with property and event mappings         |
| Contract validation  | 227 of 227 passed       | 19 categories; zero failures                       |
| Release validation   | Win32 + Win64           | Both Release builds succeeded                      |
| Report output        | 3 formats               | Plain text, HTML, and deterministic JSON           |
| Documentation tree   | 311 files               | Guides, PDFs, notes, help, and supporting material |

## RELEASE POSITION

V6.0 is the validated Navigator baseline: maintainability, report integrity, designer-owned UI, mapping-pack discipline, and stronger validation are the release priorities.

## PROGRAM INVENTORY

## Entry points and project fixtures

The repository contains one production application and a deliberate set of developer, sample, regression, and contract project entry points.

| Program category          | Count | Purpose                                |
|---------------------------|-------|----------------------------------------|
| Production GUI converter  | 1     | VCL2FMXConverter.dpr                   |
| Developer console harness | 1     | RunConversionEngine.dpr                |
| Sample projects           | 6     | Demonstration and usage examples       |
| Regression-test projects  | 2     | Focused executable regression coverage |
| Contract-project fixtures | 12    | Project-level conversion behavior      |
| Total DPR entry points    | 22    | Excludes generated output              |

## Production architecture

| Unit group     | Units | Primary responsibility                                     |
|----------------|-------|------------------------------------------------------------|
| Advanced       | 4     | Higher-order analysis and semantic groundwork              |
| Core           | 4     | Engine orchestration, models, options, and shared behavior |
| Generator      | 1     | FMX source and form generation                             |
| Mapper         | 2     | Component and mapping-pack decisions                       |
| Parser         | 2     | Pascal and form input parsing                              |
| Project        | 1     | Project-level discovery and conversion                     |
| Reporting      | 4     | Text, HTML, JSON, and fidelity reporting                   |
| Rewrite        | 5     | Targeted Pascal transformation passes                      |
| Application UI | 1     | Designer-owned MainForm implementation                     |

## SOURCE PROFILE

## Codebase size and concentration

| Source measure                    | Count  |
|-----------------------------------|--------|
| Production Pascal units           | 24     |
| Production Pascal lines           | 31,592 |
| Main project DPR lines            | 34     |
| Production Pascal total           | 34,588 |
| Designer-owned MainForm.fmx lines | 1,804  |
| Implementation footprint          | 36,392 |

## Largest production units

| Unit                               | Physical lines |
|------------------------------------|----------------|
| Converter.Rewrite.LiveBindings.pas | 3,459          |
| Converter.Core.Engine.pas          | 2,902          |
| Converter.Generator.FMX.pas        | 2,782          |
| MainForm.pas                       | 2,176          |
| Converter.Mapper.Component.pas     | 2,730          |

## INTERPRETATION

The largest units identify the best future refactoring targets. Navigator treats compiler-style architecture as a measured research track, not a v6.0 release promise.

MAPPING INTELLIGENCE

Mapping-pack coverage

Third-party knowledge is kept in validated mapping packs instead of being scattered through converter logic, preserving a disciplined and extensible conversion model.

|               |       |               |            |
|---------------|-------|---------------|------------|
| 22            | 493   | 674           | 494        |
| MAPPING PACKS | RULES | PROPERTY MAPS | EVENT MAPS |

Rule action distribution

| Action        | Rules | Share  | Meaning                                      |
|---------------|-------|--------|----------------------------------------------|
| Convert       | 21    | 4.3%   | Direct supported conversion                  |
| Partial       | 105   | 21.3%  | Useful conversion with review                |
| Manual review | 100   | 20.3%  | Human decision required                      |
| Detect only   | 186   | 37.7%  | Identify and report without unsafe rewriting |
| Preserve      | 81    | 16.4%  | Retain source behavior or declaration        |
| Total         | 493   | 100.0% | All validated mapping rules                  |

PACK PROFILE

The 22 vendor packs contain 4,974 JSON lines and conform to the vcl2fmx.mapping-pack.v1 schema.

## CONTRACT VALIDATION

## 227 executable conversion contracts

Every contract passed. The suite spans 19 conversion categories and includes multi-file fixtures, expected outputs, report expectations, uses-clause behavior, and forbidden patterns.

|                      |                    |                                 |                                     |
|----------------------|--------------------|---------------------------------|-------------------------------------|
| <b>227</b><br>PASSED | <b>0</b><br>FAILED | <b>189</b><br>COMPILER ELIGIBLE | <b>38</b><br>INTENTIONAL EXCLUSIONS |
|----------------------|--------------------|---------------------------------|-------------------------------------|

## Coverage by category

| Category              | Count | Category                | Count |
|-----------------------|-------|-------------------------|-------|
| Colors                | 16    | Comments and boundaries | 23    |
| Components and events | 26    | Data-aware              | 8     |
| DFM fidelity          | 4     | DFM pairs               | 10    |
| Dry-run preview       | 2     | Encoding                | 7     |
| Graphics              | 8     | Include analysis        | 11    |
| LiveBindings          | 6     | Pascal structure        | 15    |
| Project files         | 6     | Project integration     | 6     |
| Reporting             | 4     | Semantic resolution     | 4     |
| Third-party           | 6     | Uses clause             | 25    |
| WinAPI messages       | 40    |                         |       |

## QUALITY AND DELIVERY

## Layered validation

| Validation layer  | Result            | Evidence                          |
|-------------------|-------------------|-----------------------------------|
| Contract suite    | 227 pass / 0 fail | 19 conversion categories          |
| Acceptance suite  | 63 pass / 0 fail  | Release-level behavior checks     |
| Regression guards | 66                | Structural and policy protections |
| Win32 Release     | Succeeded         | Validated production executable   |
| Win64 Release     | Succeeded         | Validated production executable   |

## Reporting and project support

| Area                | Inventory                                                                 |
|---------------------|---------------------------------------------------------------------------|
| Report formats      | Plain text, HTML, deterministic vcl2fmx.report.v1 JSON                    |
| Maintenance tooling | 44 PowerShell scripts + 2 Python scripts; 7,672 lines including harness   |
| Documentation       | 311 files: 21 DOCX, 24 PDF, 12 Markdown, 30 Help HTML pages               |
| Local website       | 5 HTML pages; approximately 2,020 lines across pages, CSS, and JavaScript |
| Tracked repository  | 2,395 files; 1,865 tracked text files                                     |
| Tracked text volume | Approximately 211,981 lines including docs, goldens, and history          |

## REPORTING INTEGRITY

Navigator reports the distinction between conversion, partial conversion, detection, preservation, and manual review instead of overstating automatic conversion coverage.

## RELEASE ARTIFACTS

## V6.0 deliverables

| Artifact                | Size             | SHA-256                                                          |
|-------------------------|------------------|------------------------------------------------------------------|
| Win32 Release EXE       | 13,355,008 bytes | 50D3EBB1B5CD61DE90D048BD39C162641437036343145E464F32A78B195D23B8 |
| Win64 Release EXE       | 18,881,024 bytes | 526869EBC6D3439EAF32CACCBACAF1949696ECB1AF6F3BDAC1A35BD2167990D3 |
| Source distribution ZIP | 748,508 bytes    | C313C52C737BEFE484A33D330B792324DD30F188E7B2F69F2D173CB4B3A5EFDD |

## Source distribution

VCL2FMXConverter\_v6\_0\_Navigator\_Build027\_Source\_Distribution\_2026-09-02\_151952.zip

## Measurement notes

| Measure                  | Method                                                                                                                  |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Line counts              | Physical lines, including comments and blank lines.                                                                     |
| Implementation footprint | Production Pascal plus the designer-owned FMX form definition.                                                          |
| Exclusions               | Generated conversion output and build-output folders are excluded from program counts.                                  |
| Repository estimate      | Tracked text volume includes documentation, contract goldens, and historical material; it is not application code size. |
| Validation record        | The final V6.0 validation is summarized in this application inventory and the release acceptance results.               |

## BUILD IDENTITY

VCL2FMXConverter v6.0 Navigator — V6.0 • Released • September 2, 2026