

LANGUAGE TOOLING FOR IBM I (AS/400, ISERIES)

CL Language Engine — read the glue that runs your IBM i estate

Control Language is where job orchestration and business-critical scripting live. Our engine turns every CL member into a precise, typed syntax tree you can query, document, migrate or rewrite.

2,160CL COMMANDS MAPPED
TO TYPED AST CLASSES**2,150+**CONCEPTS PUBLISHED AS
A LIONWEB LANGUAGE**24**CL DATA TYPES
MODELLED**13**RELEASES IN UNDER A
YEAR, CI ON EVERY PUSH

WHY CL IS THE HARD PART

Modernization programmes usually start with RPG. They stall on CL. The scripts that submit jobs, set libraries and drive nightly batch encode operational knowledge nobody wrote down — and text search cannot analyse them. The CL Language Engine (also known as our CL parser) gives you a machine-readable model of that layer: what each program calls, which variables flow where.

WHAT YOU GET

Complete command coverage

2,160 CL commands mapped to typed AST classes; 1,442 expose their required parameters as typed fields.

Never throws

Malformed code always returns a usable partial AST plus positioned issues. Every node carries position and source.

LionWeb-native

The full CL metamodel is exported as a LionWeb Language, every node as LionWeb JSON with stable IDs.

Your commands too

Unknown, user-defined and third-party commands never break parsing: generic nodes, qualified name, parsed parameters.

Semantic enrichment

&variable references resolved to their DCL declarations across scopes, plus codebase-level cross-file analysis.

Editor-ready

A built-in token API classifies all 4,000+ tokens into eight categories: syntax highlighting out of the box.

WHY STRUMENTA

Guaranteed

A one-year guarantee, extendable at your convenience, or a pay-as-you-go guarantee.

Open foundation

Built with our Chisel method on Kolasu, our Apache-2.0 AST framework. No proprietary IR to be trapped in.

Fixed price

The quote we provide after the scope has been agreed is the final cost.

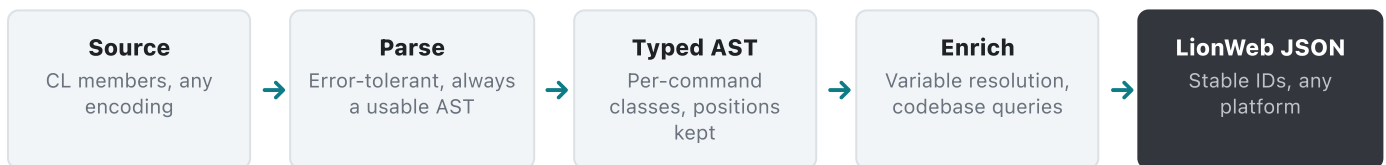
LionWeb founders

Federico Tomassetti is one of LionWeb's twelve founders, alongside people from JetBrains, itemis and Canon.

LANGUAGE COVERAGE

Platform	IBM i (AS/400, iSeries). ILE CL explicit, OPM CL too; .cl, .clp, .clle members.
Commands	2,160 commands mapped to typed classes (2,113 typed parameter properties). Positional and keyword forms; qualified LIB/OBJ names; selective prompting captured.
Control flow	PGM/ENDPGM, DCL, PARM, IF/ELSE, DO/DOFOR/DOWHILE/DUNTIL, SELECT/WHEN/OTHERWISE, GOTO+labels, SUBR/ENDSUBR, CHGVAR, CVTDAT, OPNQRYF MAPFLD, SQL.
Expressions	*AND / *OR / *NOT, arithmetic, *CAT / *BCAT / *TCAT, all eight comparison operators in symbolic and *EQ forms, %built-in functions, &variables, figurative constants.
Literals & types	11 literal kinds including hex, date, time, timestamp, DBCS-aware graphic, Unicode and *INxx indicators; EBCDIC-friendly charset. 24 CL data types as a typed hierarchy. Continuation lines (+ and -) even inside strings and comments; comments optionally kept.
Delivery	JVM library, Java 11+. Three Maven artifacts: language, semantics, LionWeb interop. Runs anywhere a JVM does — laptops, CI servers — with no connection to the IBM i: you analyse exported source members offline.

HOW IT WORKS



INTEROPERABILITY

The CL metamodel — 2,150+ concepts — is published as a LionWeb Language, every node exported to LionWeb JSON with stable IDs. Cross-file references may point at nodes not yet loaded, so large codebases process incrementally. Consume it from LionWeb tooling in Java, Python, C# or TypeScript.

ONE ECOSYSTEM, THREE ENGINES

RPG & DDS Language Engine

RPG IV fixed and free form, SQLRPGLE and DDS; battle-tested on 30+ million lines of production code.

COBOL Language Engine

COBOL 85 and selected extensions, validated against the NIST COBOL-85 test suite.

One shared AST framework and data model: analyse a whole IBM i estate — CL, RPG and DDS — in one model.

"Strumenta Migration Blueprint service proved to be an invaluable first step in our client legacy code modernization journey."

Paulo Jorge Dias, Director Consulting Expert – IT Modernization, CGI

TALK TO US

Try it in the Strumenta Playground before you buy. Standard, Distribution and Service licenses — all with documentation, dedicated support and a one-year extendable guarantee.

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