Live-Demo: Automatische COBOL-Java-Migration mit CoJaC

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CoJaC
COBOL to Java Converter

Fachtagung "**SOFTWARE-MIGRATION aktuell**"
03.-04. April 2014, Chemnitz

Agenda

CoJaC
COBOL to Java Converter

1. Überblick
2. CoJaC im Detail
3. Live-Demo
4. Zusammenfassung

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Überblick
Produkteigenschaften

CoJaC
COBOL to Java Converter

Überblick
Basissystem

CoJaC
COBOL to Java Converter

Basissystem (COBOL)

COBOL
(COBOL85, BS2, MF, …)

Middleware
(TUXEDO, UTM, CICS, …)

Masken

Dateien
(ISAM, …)

Embedded SQL
(Oracle, DB2, …)

Überblick
Migrationspfade

CoJaC
COBOL to Java Converter

Basissystem (COBOL)	→	Zielsystem (Java, JEE)
COBOL (COBOL85, BS2, MF, …)	→	Java 1.6 (CoJaC)
Middleware (TUXEDO, UTM, CICS, …)	→	Java Webservices (CoJaC)
Masken	→	MaTriX (Maskentransformation in serverbasierten Systemen)
Dateien (ISAM, …)	→	Relationale Datenbank (FiRe – Files to Relational Database)
Embedded SQL (Oracle, DB2, …)	→	Dynamisches SQL (CoJaC)

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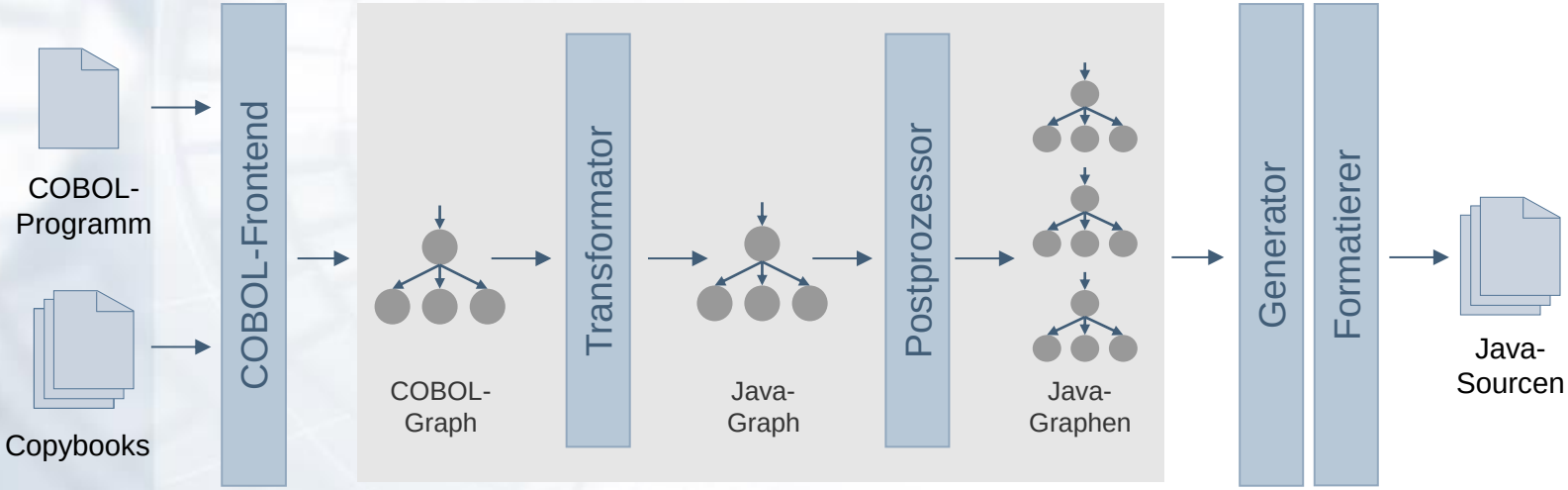
CoJaC im Detail

Translatormodell

CoJaC
COBOL to Java Converter



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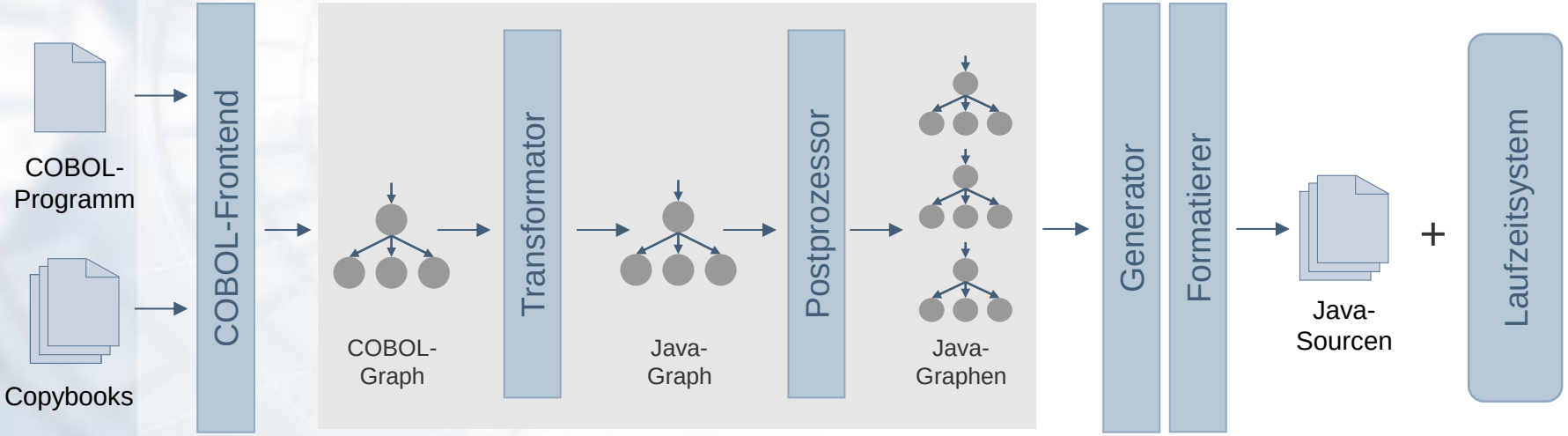

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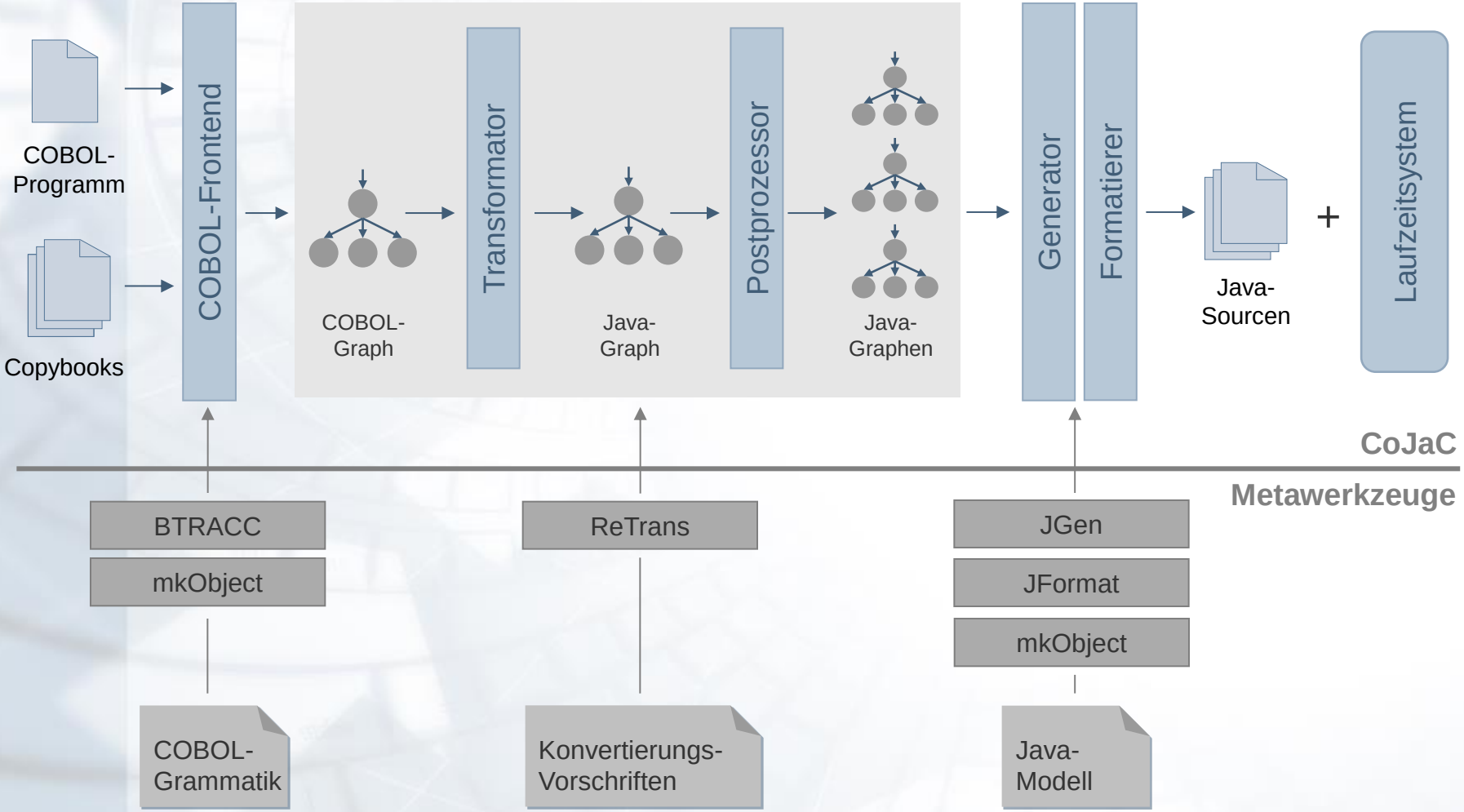

Abbildung der Programmstruktur

CoJaC
COBOL to Java Converter

- Beispiel:

```
IDENTIFICATION DIVISION.
PROGRAM-ID. SECT.

DATA DIVISION.
WORKING-STORAGE SECTION.
   01 A PIC 9 VALUE 5.

* Main
PROCEDURE DIVISION.
   DISPLAY "START".
   PERFORM 10-S1.
   PERFORM 100-S3.
   STOP RUN.

   10-S1 SECTION.
      DISPLAY "10-S1".
      ...

   100-S3 SECTION.
      DISPLAY "100-S3".
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```
public class Sect extends CobolProgram {

   public CobolNumber a = createNumber(1, 5);

   // Main
   public void procedure() throws CobolRuntimeException {
      display("START");
      s1_10();
      s3_100();
      stop();
   }

   private void s1_10() throws CobolRuntimeException {
      display("10-S1");
      ...
   }

   private void s3_100() throws CobolRuntimeException {
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Zusammenfassung

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pro et con ist in der Lage:

- COBOL mit einem hohen Automatisierungsgrad nach Java zu konvertieren
- Dabei verschiedene COBOL-Dialekte zu berücksichtigen
- Embedded SQL auf unterschiedliche Datenbanksysteme (Oracle, DB2, …) abzubilden

Zusammenfassung

CoJaC
COBOL to Java Converter

Migration in moderne Java-Enterprise-Lösungen

Werkzeug ist erweiterbar und modifizierbar

> 90% automatisiert

Ergebnisse sind konfigurierbar

Semantische Äquivalenz zwischen Quelle und Ziel

Zielcode ist performant, wartbar und Java-typisch

Vielen Dank

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pro et con
Innovative Informatikanwendungen GmbH

Analyse · Reengineering · Migration

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