VEGA JDBC DRIVER

Contents

- Database support
- Prerequisites
- Architecture
- Driver features
- Tools
- Stored procedures
- Where to use

Database support

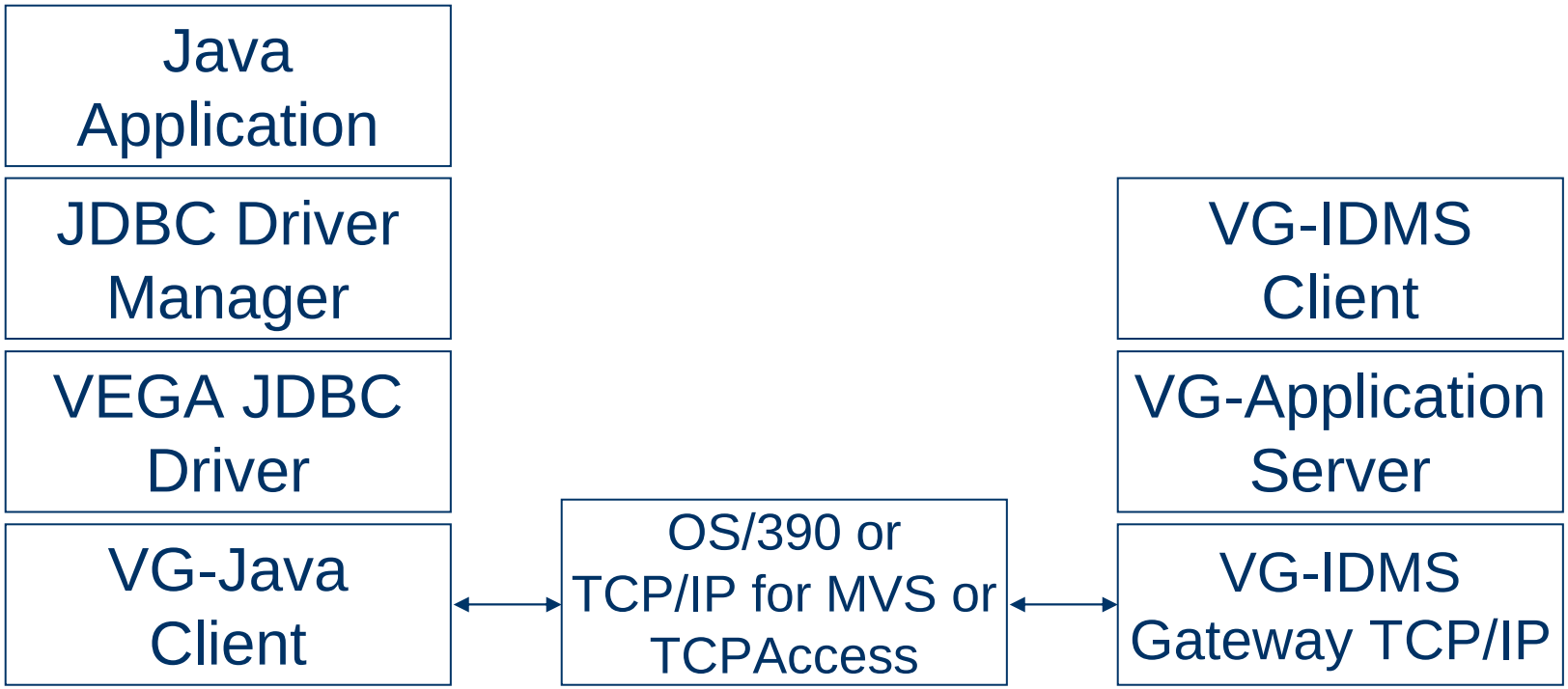
- CA-IDMS/SQL
  - including table procedures
- CA-IDMS/DML
  - via VEGA stored procedures
- DB2
  - via VEGA DB2 interface for CA-IDMS

Prerequisites

- JRE 1.2.2 or later required
- To access CA-IDMS
  - VG-Java Client (VG-Application Server is included)
  - VG-IDMS Client (VG-IDMS Gateway TCP/IP Option is included)
- Additionally, to access DB2
  - VG-IDMS/DB2 Server
    - access DB2 directly from CA-IDMS using DB2 Call Attachment Facility (CAF)

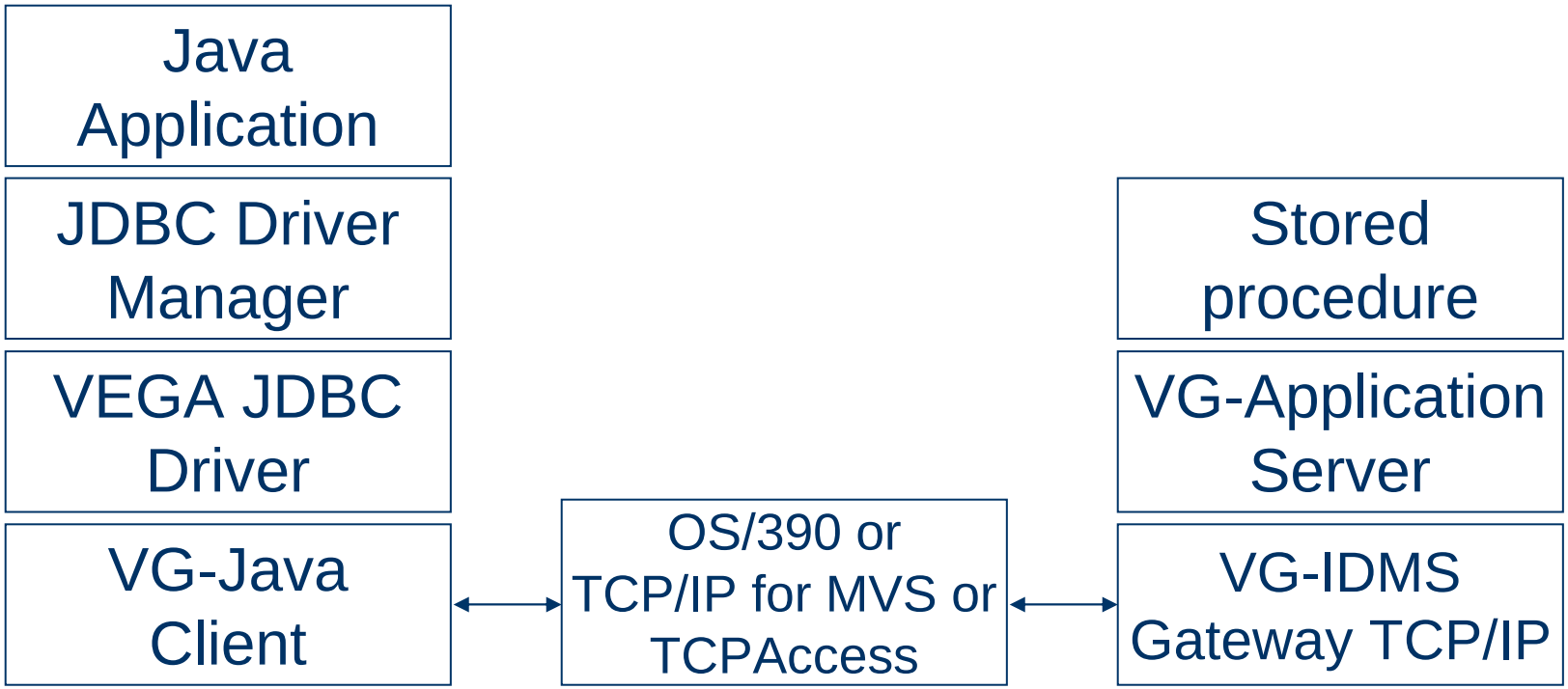
Architecture

- Access CA-IDMS/SQL and/or DB2



Architecture

- Access CA-IDMS using stored procedures



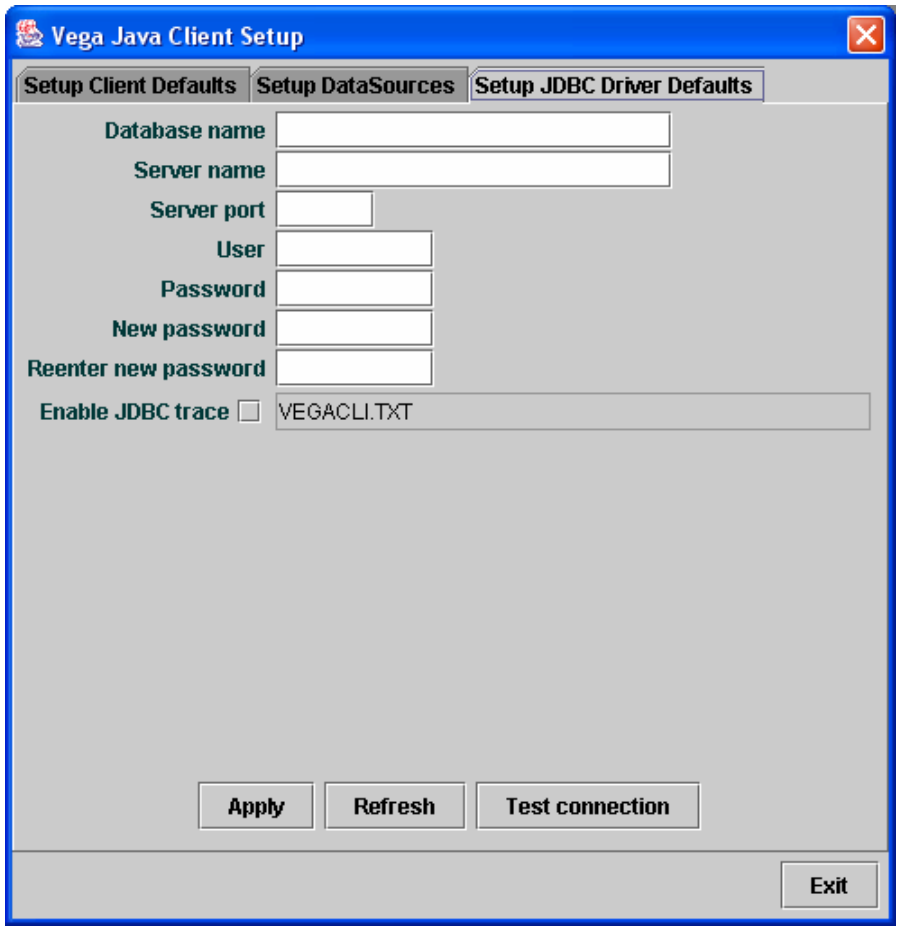
Driver features

- JDBC 2.1 compatible
- Pass-through SQL
  - Syntax checking in the target system
  - Target SQL fully supported
- Supports Stored Procedures
- Supports JNDI and DataSources

Driver features

- Internal bulk fetch enabled
  - if there is no ’for update of’ clause in select
  - in all catalog functions
- Catalog functions implemented as VEGA stored procedures

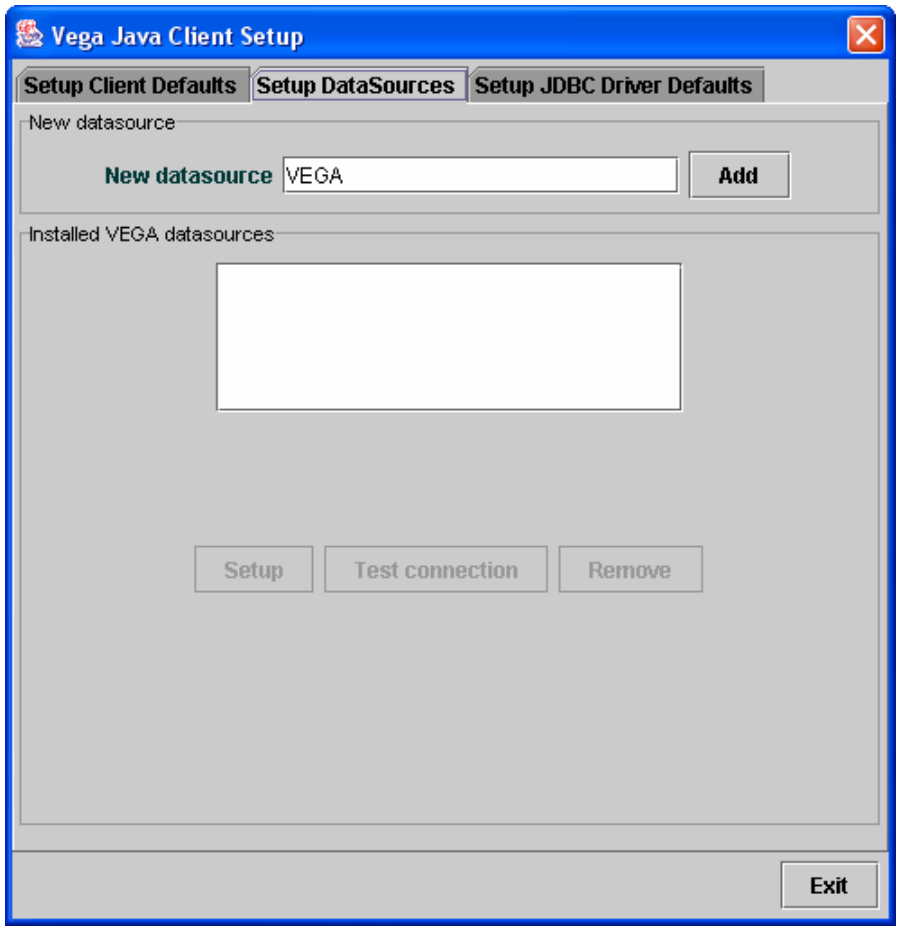
Setup Driver Defaults



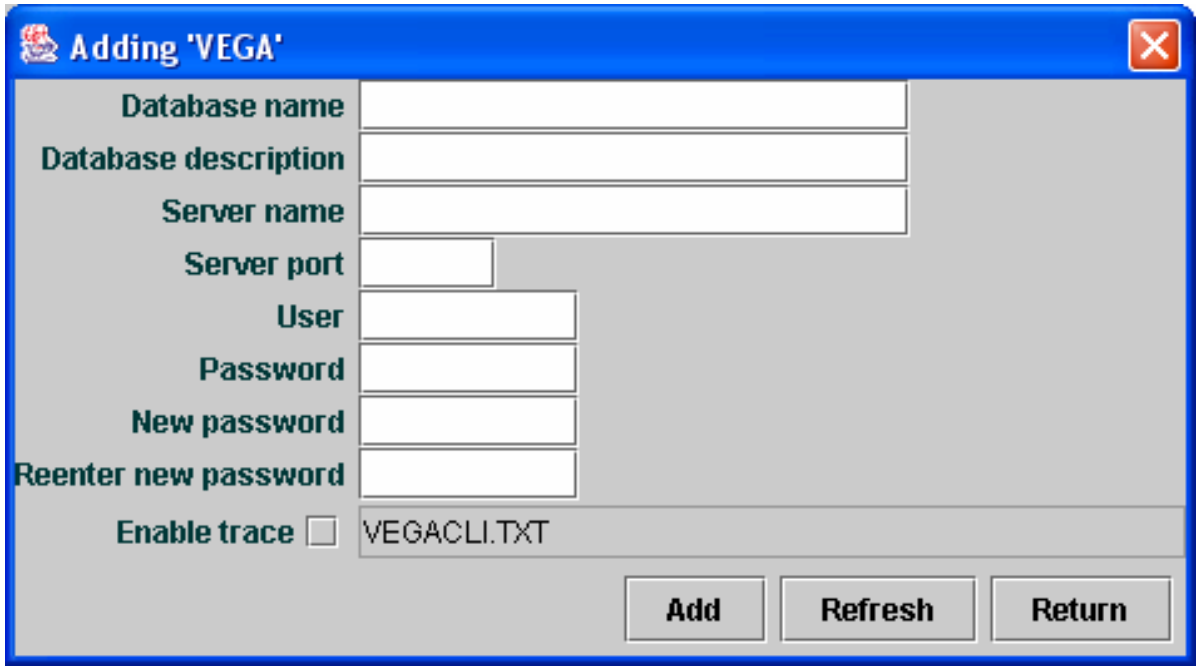
Setup Driver

- Optional fields override VG-Java Client defaults
  - there is no default for new password
- Signon and password change are supported in CA-IDMS R12 and later
- All attributes can be set in
  - URL in DriverManager.getConnection method or
  - Using DataSource methods

Setup DataSources



Setup DataSource



Setup DataSource

- Optional fields override JDBC Driver defaults
  - there is no default for new password
- Signon and password change are supported in CA-IDMS R12 and later
- user, password and new password can be set in DataSource.getConnection
- Set/get methods for each attribute

Stored procedures

- A stored procedure is
  - a DC-COBOL program
- Stored procedures can
  - use any CA-IDMS service except Mapping
  - also use external services
    - DB2
    - MQSeries
    - TCP/IP

Stored procedures

- How to call
  - JDBC short-hand syntax
    - { call proc [(p1[, p2][, ...])] }
  - VEGA extension syntax
    - call proc [(p1[, p2][, ...])]
- Restrictions
  - return values not supported
  - output parameters are part of result set

Stored procedures

- Terminal emulation available
  - to make life easier, because non-terminal tasks are difficult to test
  - emulates the JDBC driver functionality

Stored Procedure structure

- Always 3 call parameters
  - output scratch name
  - permanent work area kept across multiple CALLs
  - input from the driver
- Required functions
  - response to ’PROCINFO’
    - describe optional result set and input parameters
  - response to ’EXECUTE’
    - process request and optionally return data

Data description

- Stored procedure sends description of the result set and optional input parameters to JDBC driver
  - Example:

Col1	Col2	Col3	P1	P2
data to JDBC	data to JDBC	data to JDBC	data from JDBC	data from JDBC

Procedure output

- Procedure writes all output to a scratch area
  - at least one record
    - contains sqlca (sqlcode and sqlstate)
  - optional data records
  - eod record (sqlcode=100)
- After goback
  - VG-Application Server sends the data to JDBC Driver

Where to use

- In mission-critical applications
- If CA-IDMS SQL Option not available
  - VEGA supports CA-IDMS 10.2x and later
- To access multiple database systems
  - CA-IDMS
  - DB2
- To access MQSeries when it is not available on Java platform
- To reuse existing business logic in stored procedures

End of Presentation

Please contact our local distributor for more information.

USA and Canada

United Kingdom

If you are from a country not listed above, please contact us directly.