# CA Gen Update 2014 - APAC Product Update and Roadmap

Daniel Short – Product Manager

**September 2014**

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# Agenda

- Organizational Changes

- Agile @ CA

- CA Gen Overall Strategy

- CA Gen Roadmap

  – Recent releases

  – Planned releases

- Q&A

- Features Demonstration

# Organizational Changes
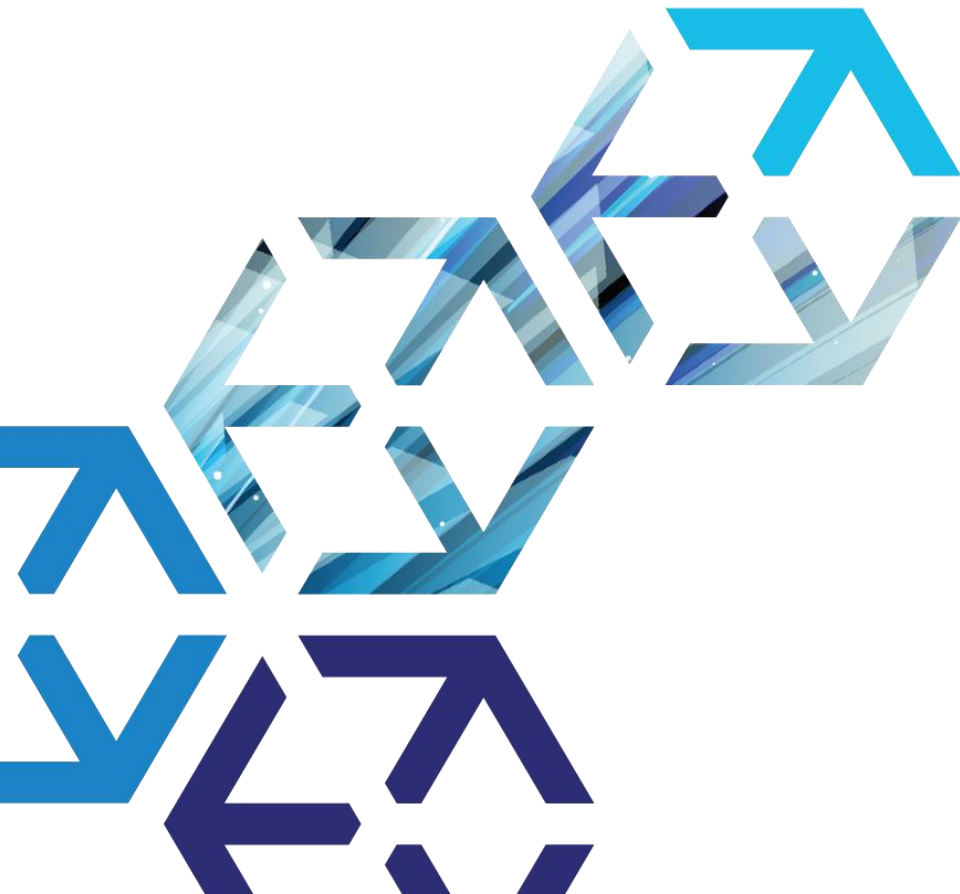
# Reorganizations, Restructuring, and Retirements

- Russ LeClaire retired

- Andy Wyatt left the company (again)

- Jean Rissmiller moved over to Chorus

- Increased CA Gen headcount in India Technology Center

- Formed a new Application Development Business Line

# Application Development Business Line Components

- Software Configuration Management Tools

- Test Tools

- Application Development Tools

# Application Development Business Line Product Management

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# Agile @ CA

# Communities.ca.com - Ideas
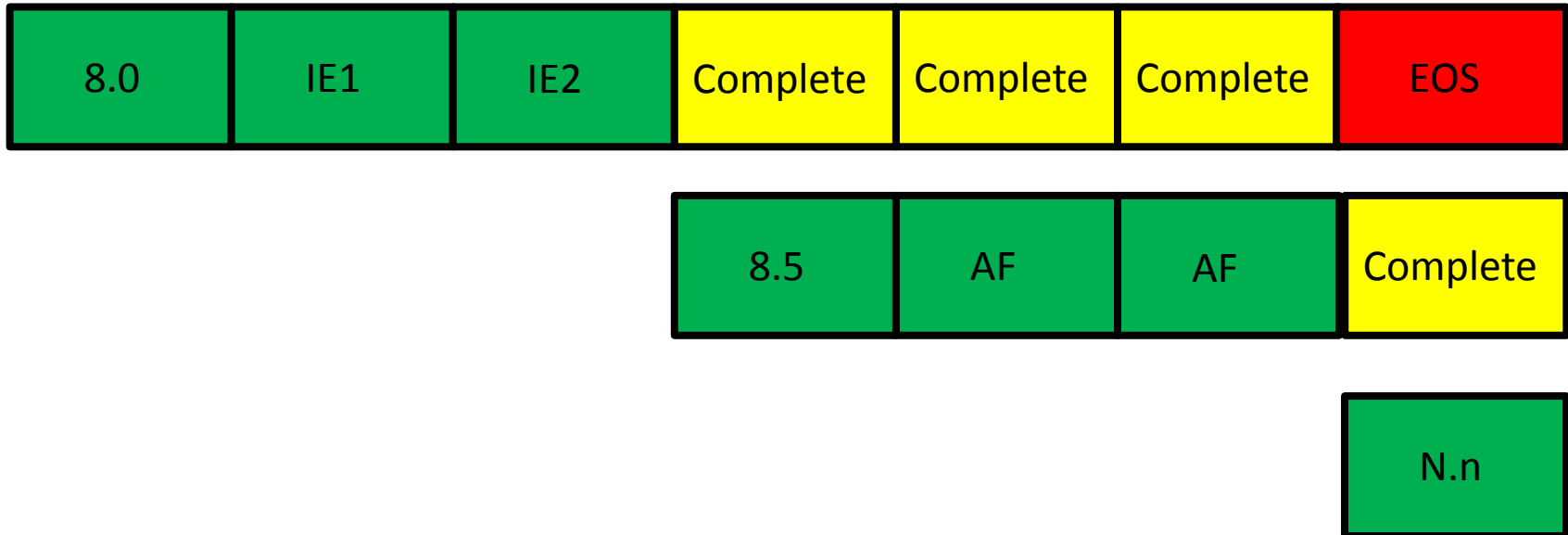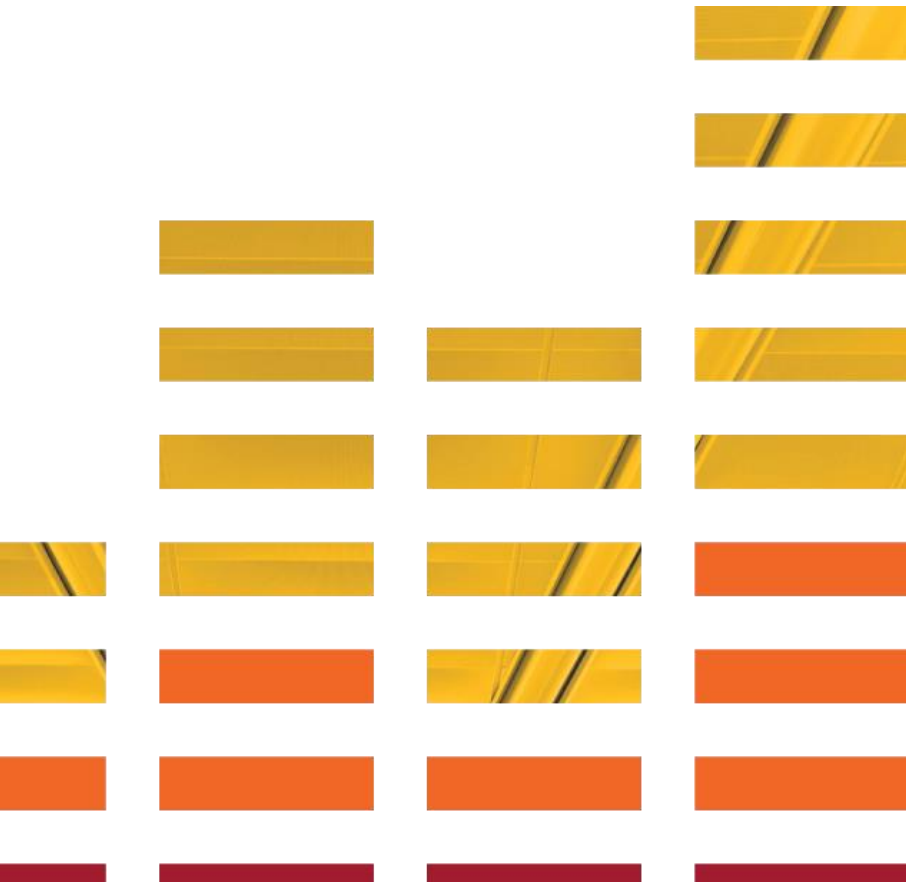
# Ideation process

- Periodically we will review the Ideas and the top-rated Ideas will be added to the Gen backlog as either Epics or Stories

- Stories are worked on in Sprints

- At the end of each Sprint we review progress with customers

- Customers provide feedback

- Customers get access to the software

- Customers must signup for the *Customer Validation Program*

# Support - Incremental and Complete Releases
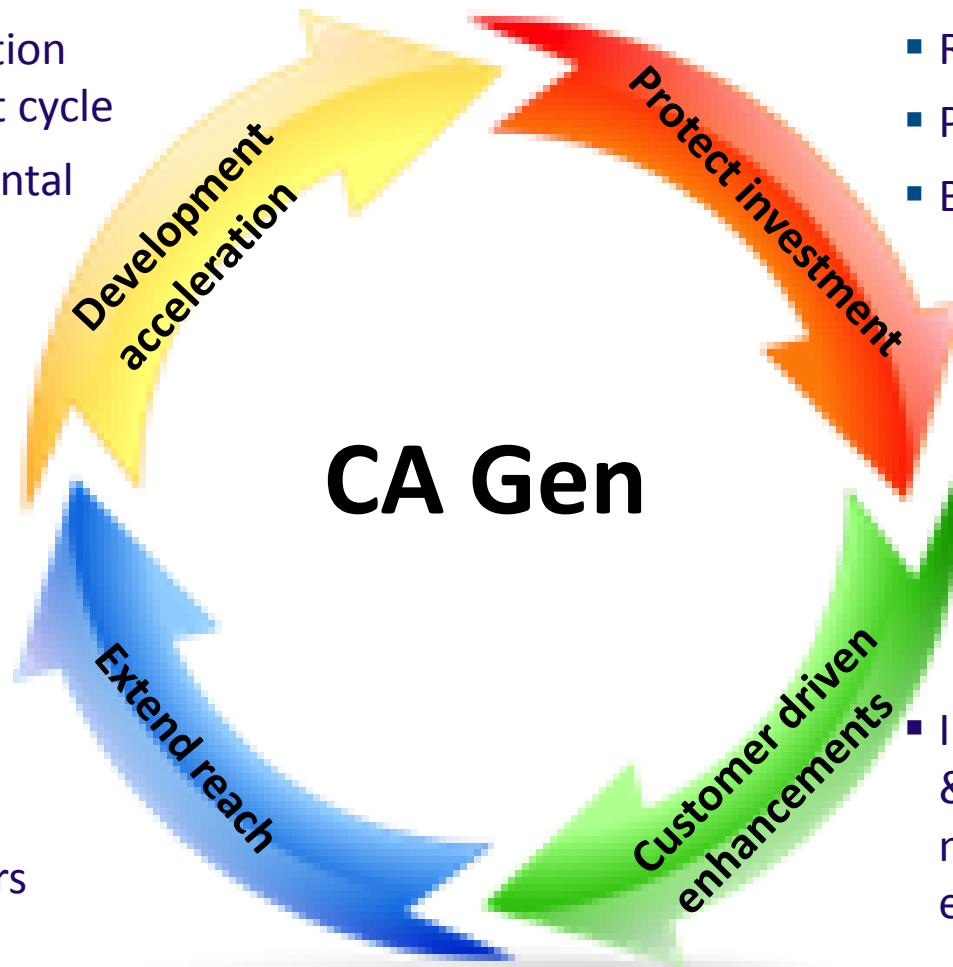
| 8.0 | IE1 | IE2 | Complete | Complete | Complete | EOS |
|-----|-----|-----|----------|----------|----------|-----|

| | | | 8.5 | AF | AF | Complete |
|--|--|--|-----|----|----|----------|

| N.n |
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# CA Gen Overall Strategy

# CA Gen
# Strategy Plan

- Customer collaboration during development cycle
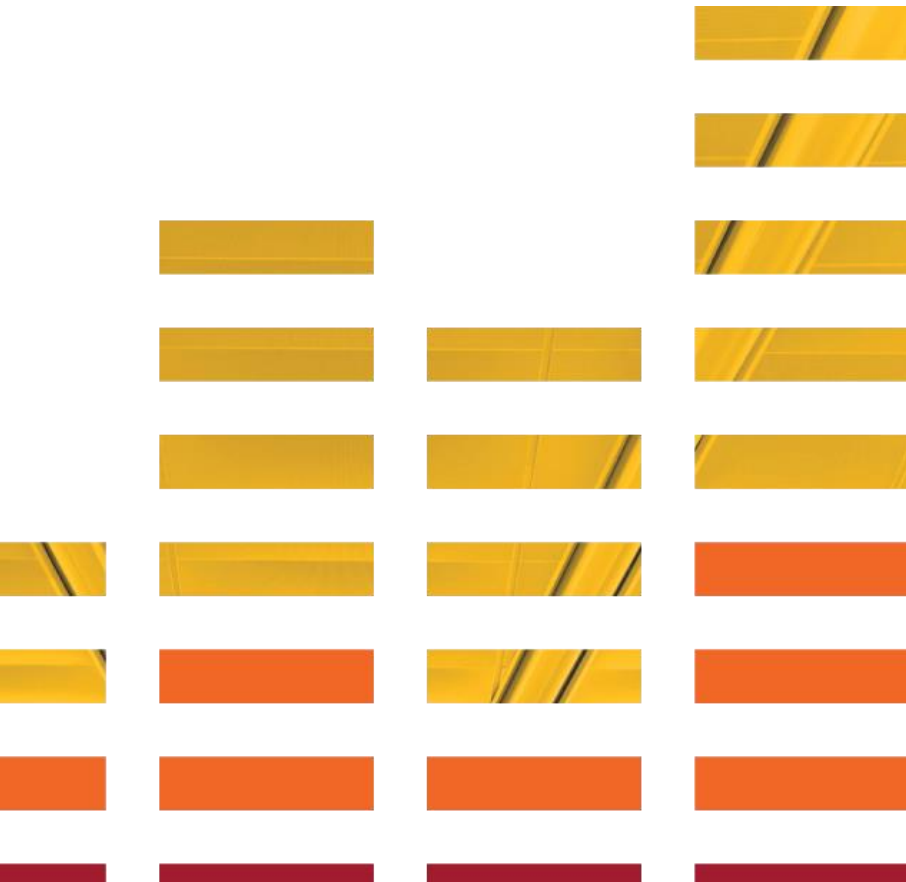- Complete / Incremental Release Plan

- Reliability & stability
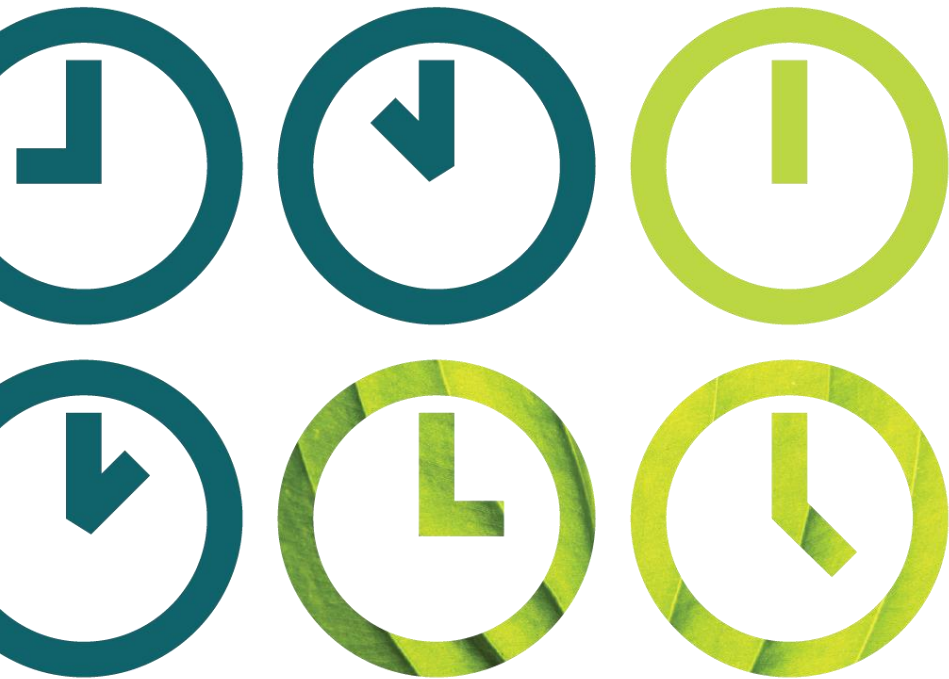- Predictability
- Backward compatibility

**Development acceleration**

**Protect investment**

## CA Gen

**Extend reach**

**Customer driven enhancements**

- Web Services
- Gen Studio
- New name customers

- Interact with customers & partners to determine new features and enhancements

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# CA Gen Roadmap

# Recent Releases

# Recent Releases
## CA Gen 8.0

- Release each of last three years

  - CA Gen 8.0                               May 2010

  - Interim Enhancement - 1        April 2011

  - Interim Enhancement - 2        January 2012

- Interim Enhancements (IE) added functionality to the active release

- Over 23 certifications to date for CA Gen 8.0 keeping the release relevant

- End of Service anticipated May 31, 2015

# Features in CA Gen 8.0
## slide 1 of 2

- Support Dynamic RI Triggers for Blockmode and Servers

- Created zLib for Blockmode and Servers

- Multi-socket listener

- DB2 package bind enhancements

- Multi-row fetches

- Larger models and subsets

- New READ / READ EACH statement relational operators

  - In

  - Between

# Features in CA Gen 8.0
# slide 2 of 2

- ➤ Identity columns (auto number)

- ▪ Compatible release runtimes

- ➤ Gen Studio

- ▪ Web Enhancements

  - – Web View

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# Features in CA Gen 8.0
# Multi-Row Fetch

- Default is to not generate a Multiple Row Fetch

- Option to use the value of the targeted group view to specify the number of rows to be returned

- Specify a range of 2 to 32,767 rows to be returned

# Features in CA Gen 8.0
## Larger Models and Subsets

- Prior to this change, you could only download models and/or subsets containing fewer than 64,000 of any object type

- Examples of object types include;

  - Views

  - Attributes

- After this change, you can download models and/or subsets containing as many as 1,000,000 of any object type

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# Features in CA Gen 8.0
# New READ / READ EACH statement relational operators

**Add Statement**

```
READ EACH  golfer
       TARGETING
    export_group_of_golfers FROM THE BEGINNING   UNTIL FULL
       WHERE   DESIRED   golfer handicap_index
```

Select a relational operator.

```
IS EQUAL TO
IS NOT EQUAL TO
IS EQUIVALENT TO
IS NOT EQUIVALENT TO
IS GREATER THAN
IS LESS THAN
IS GREATER OR EQUAL TO
IS LESS OR EQUAL TO
IS VALID
IS NULL
IS NOT NULL
IS BETWEEN
IS NOT BETWEEN
IS IN
IS NOT IN
```

Add    Complete    Qualify    View Maintenance    Cancel    Help

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# Features in CA Gen 8.0
# New READ / READ EACH statement BETWEEN operators

```
XXX_READ_EACH_BETWEEN
    IMPORTS:
    EXPORTS:
      Group View  export_group_of_golfers (1000,implicit,export only)
        Entity View export_grp golfer (transient)
            userid
            password
            first_name
            last_name
            email_address
            handicap_index
    LOCALS:
    ENTITY ACTIONS:
      Entity View golfer
        userid
        password
        first_name
        last_name
        email_address
        handicap_index

  READ EACH golfer
        TARGETING export_group_of_golfers FROM THE BEGINNING UNTIL FULL
        SORTED BY ASCENDING golfer handicap_index
        WHERE DESIRED golfer handicap_index IS BETWEEN (0, 10.0)

  MOVE golfer  TO export_grp golfer
```

# Features in CA Gen 8.0
# New READ / READ EACH statement IN operators
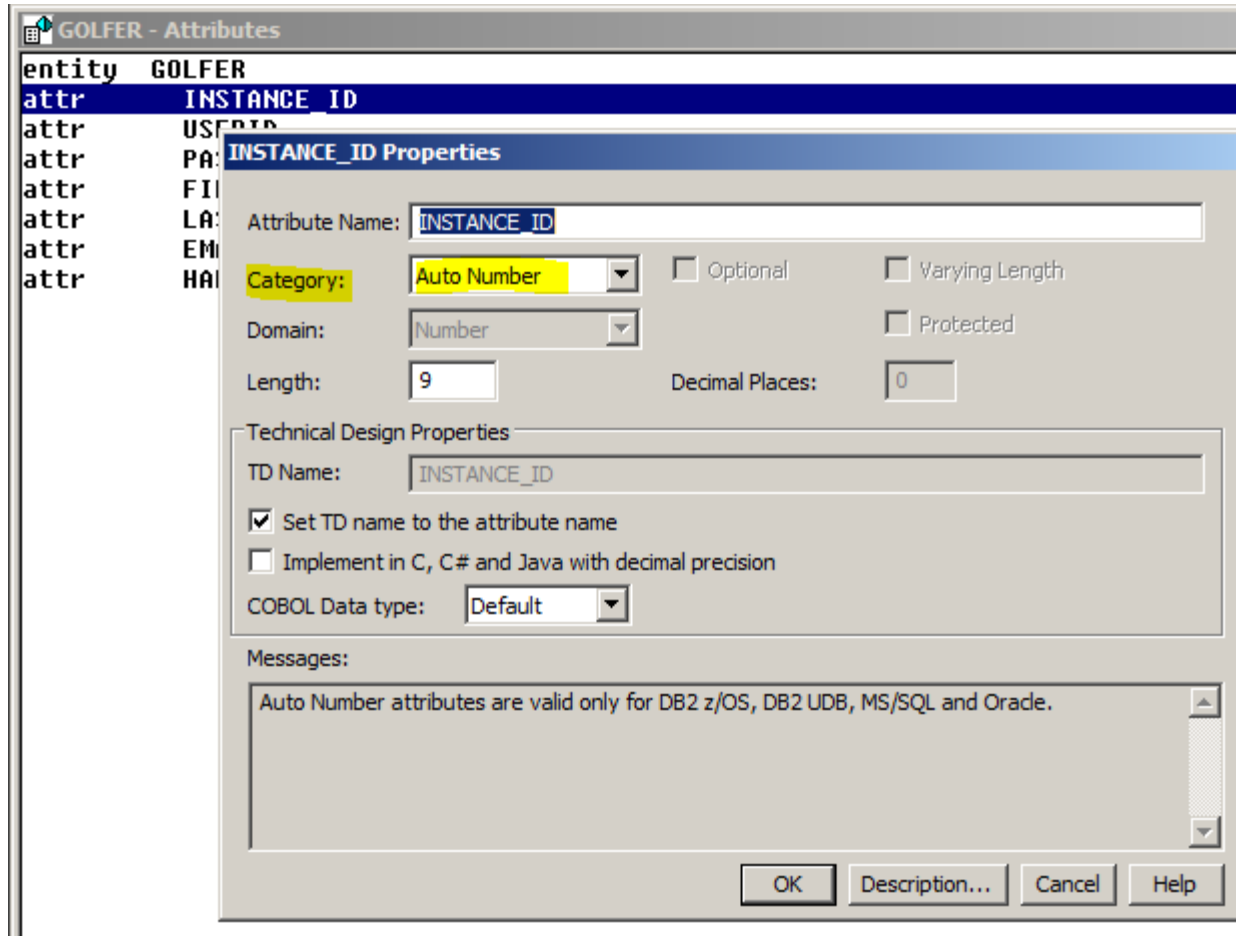
```
XXX_READ_EACH_BETWEEN
    IMPORTS:
    EXPORTS:
      Group View  export_group_of_golfers (1000,implicit,export only)
        Entity View export_grp golfer (transient)
            userid
            password
            first_name
            last_name
            email_address
            handicap_index
    LOCALS:
    ENTITY ACTIONS:
      Entity View golfer
        userid
        password
        first_name
        last_name
        email_address
        handicap_index

  READ EACH golfer
          TARGETING export_group_of_golfers FROM THE BEGINNING UNTIL FULL
          SORTED BY ASCENDING golfer last_name
          WHERE DESIRED golfer last_name IS IN ("Short", "Wie", "Woods", "Norman",
              "Poulter", "Player", "Sorenstam", "Palmer")

  MOVE golfer  TO export_grp golfer
```

# Features in CA Gen 8.0
# Identity Columns (aka Auto Number)

# Features in CA Gen 8.0
## Gen Studio
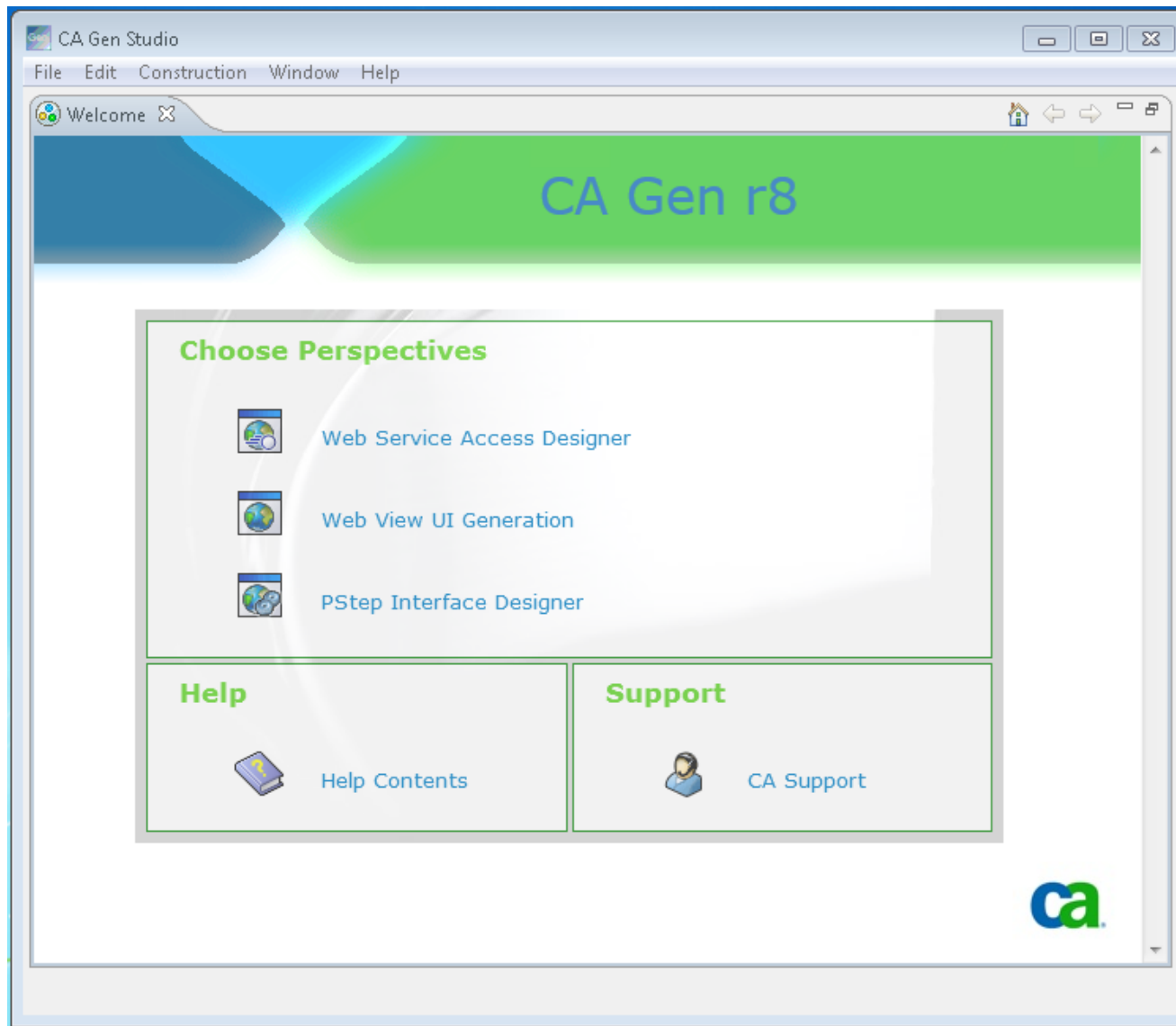
# Features in CA Gen 8.0 Interim Enhancement - 1

- Visual Studio 2010

- Mozilla Firefox

- JBoss

- Web View Customization (UI)

- Support Dynamic RI Triggers for Batch

- Support for zLib for Batch

- Performance improvements in z/OS Batch Processing

# Features in CA Gen 8.0 Interim Enhancement - 2

- Support 64-bit Windows Servers

➤ Custom Proxies

➤ Increased CFB Limit from 32K to 16MB (except for Mainframe)

# Features in CA Gen 8.0 IE2
## Gen Studio – Custom Proxies and Web Services

# Features in CA Gen 8.0 IE2
## CFB Extension

Increased the amount of customer data that can be sent between CA Gen clients and Distributed Servers using Common Format Buffer (CFB) from 32K to 16MB

- Windows

- Unix & Linux
  (TCP/IP, MQ & Tuxedo)

# Recent Releases
## CA Gen 8.5

- Releases

  - CA Gen 8.5                          May 2013

  - Agile Features                      Continuous

  - Interim Enhancement - 1      September 2014

- Agile Features and one last Interim Enhancement added functionality to the active release

- Over 70 DARs were implemented in this release

- End of Service not announced

# Features in CA Gen 8.5

- Increased CFB Limit from 32K to 16MB for Mainframe (all platforms)

- BLOBs – added CRUD actions and View passing

- Support 64-bit Unix/Linux Servers (all Distributed Servers)

- DB2 Table and Table Space partitioning

- CA Gen Studio Web View - full generation

- SOAP Middleware

- Transaction Enabler (TE) Web Services

# Features in CA Gen 8.5
## CFB Extension

Increased the amount of customer data that can be sent between CA Gen clients and Mainframe Servers using Common Format Buffer (CFB) from 32K to 16MB
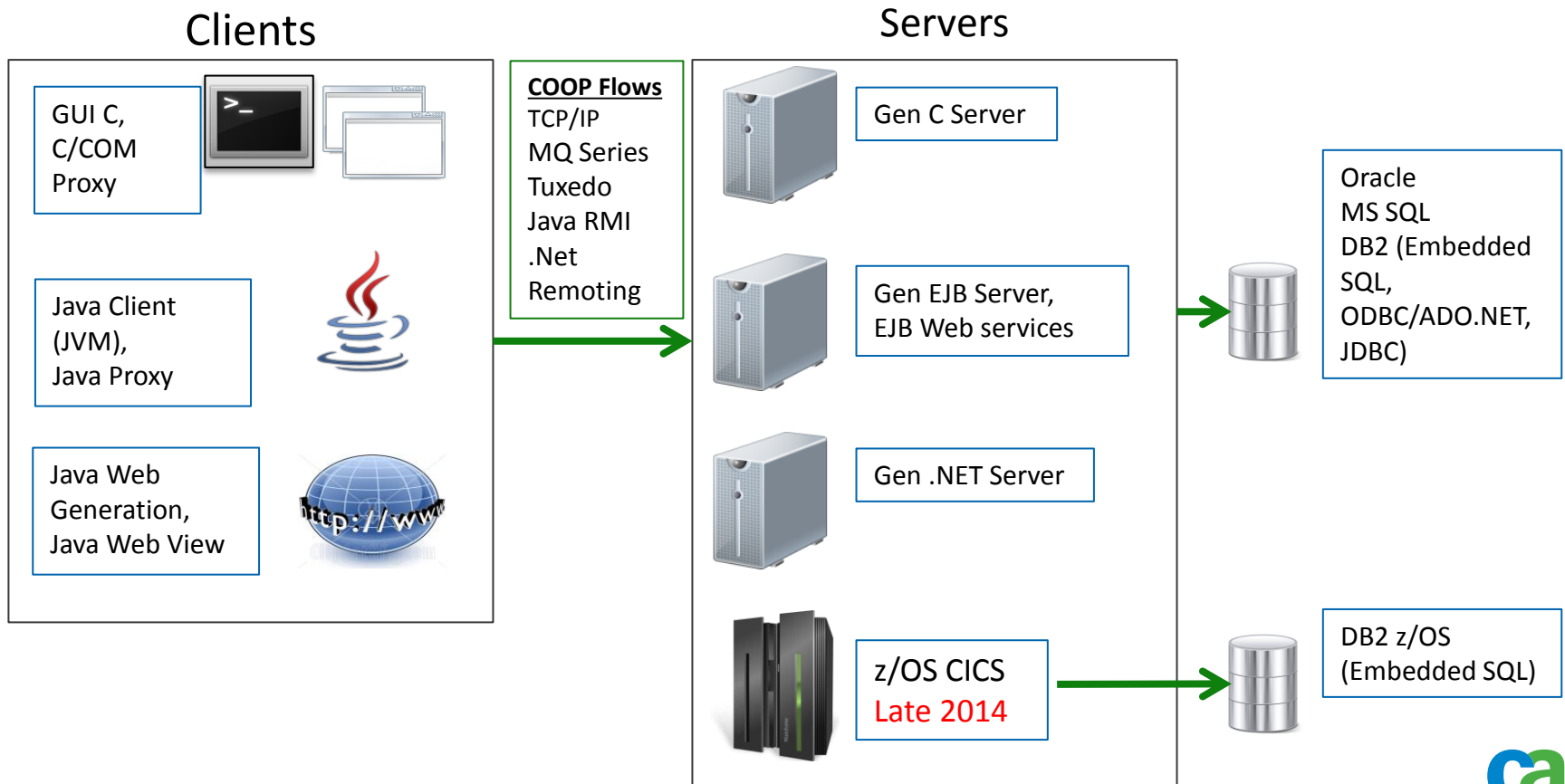
- z/OS  CICS (TCP/IP & MQ)

# Features in CA Gen 8.5
# BLOB Support for Cooperative Applications

Support for binary large objects for generated applications

- Create, Read, Update, and Delete entity types containing BLOB attributes
- View support

## Clients

## Servers

| GUI C, C/COM Proxy |
| --- |

| Java Client (JVM), Java Proxy |
| --- |

| Java Web Generation, Java Web View |
| --- |

**COOP Flows**
TCP/IP
MQ Series
Tuxedo
Java RMI
.Net
Remoting

| Gen C Server |
| --- |

| Gen EJB Server, EJB Web services |
| --- |

| Gen .NET Server |
| --- |

| z/OS CICS
Late 2014 |
| --- |

| Oracle
MS SQL
DB2 (Embedded SQL, ODBC/ADO.NET, JDBC) |
| --- |

| DB2 z/OS (Embedded SQL) |
| --- |

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# Features in CA Gen 8.5
## Attribute Properties - BLOB

# Features in CA Gen 8.5
# 64-bit Support

- Unix/Linux Transaction Enabler upgraded to 64 bit

- CA Gen 8.5 supports Unix/Linux 64 bit generated server applications only

  – Available for Solaris, AIX and Linux

    - Support for 64 bit HP-UX Itanium already exists

  – Existing 32 bit servers need to be recompiled for 64 bit

  – Existing 32 bit EAB's need to be recompiled with correct 64 bit flags

  – 64 bit Tuxedo available for Linux

- Windows 64 bit was released with IE2

  – GUI clients remain 32 bits Windows

- Keeps up with 3rd party 64 bit only API support

# Features in CA Gen 8.5
# DB2 Table and Table Space Partitioning Plug-ins

- ## Table Partitions

  - partition database tables based on the values of any column in the table OR whenever the size of the partition exceeds a certain value

- ## Tablespace Partitioning

  - partition database tablespaces based on growth or by pre-defining a number of partition ranges

- ## Available with DB2 version 9

Data is stored in the model and used by the DDL generator when generating CREATE TABLE and CREATE TABLESPACE statements.

# Features in CA Gen 8.5
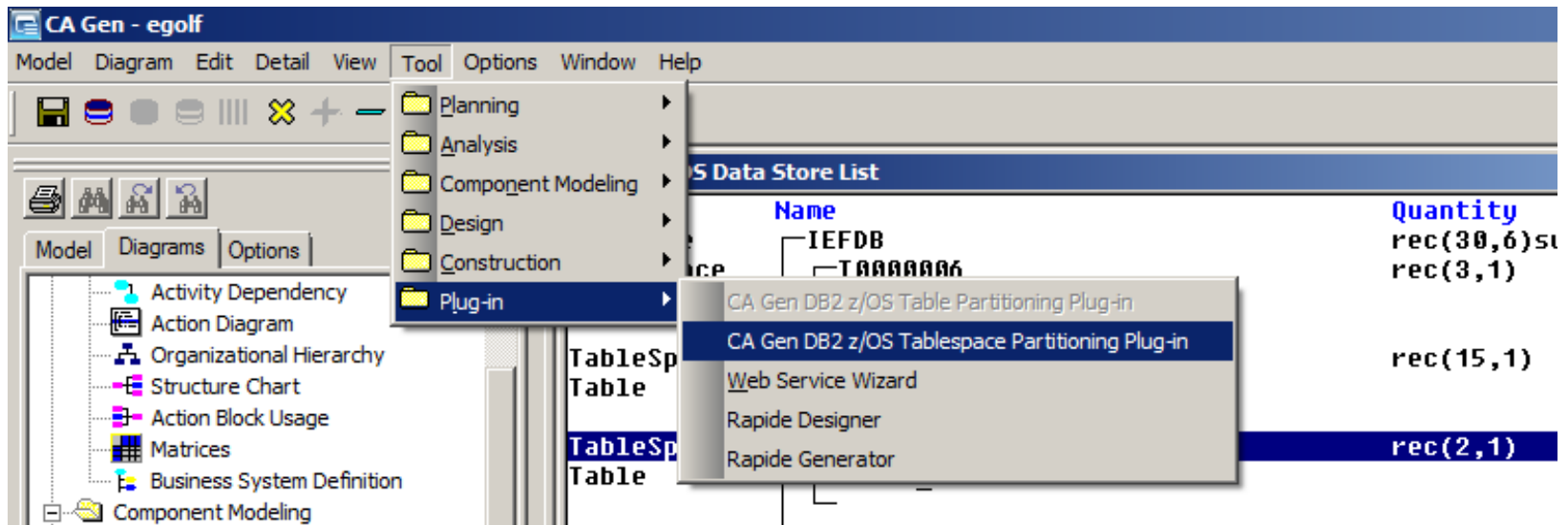# DB2 Table and Table Space Partitioning Plug-ins
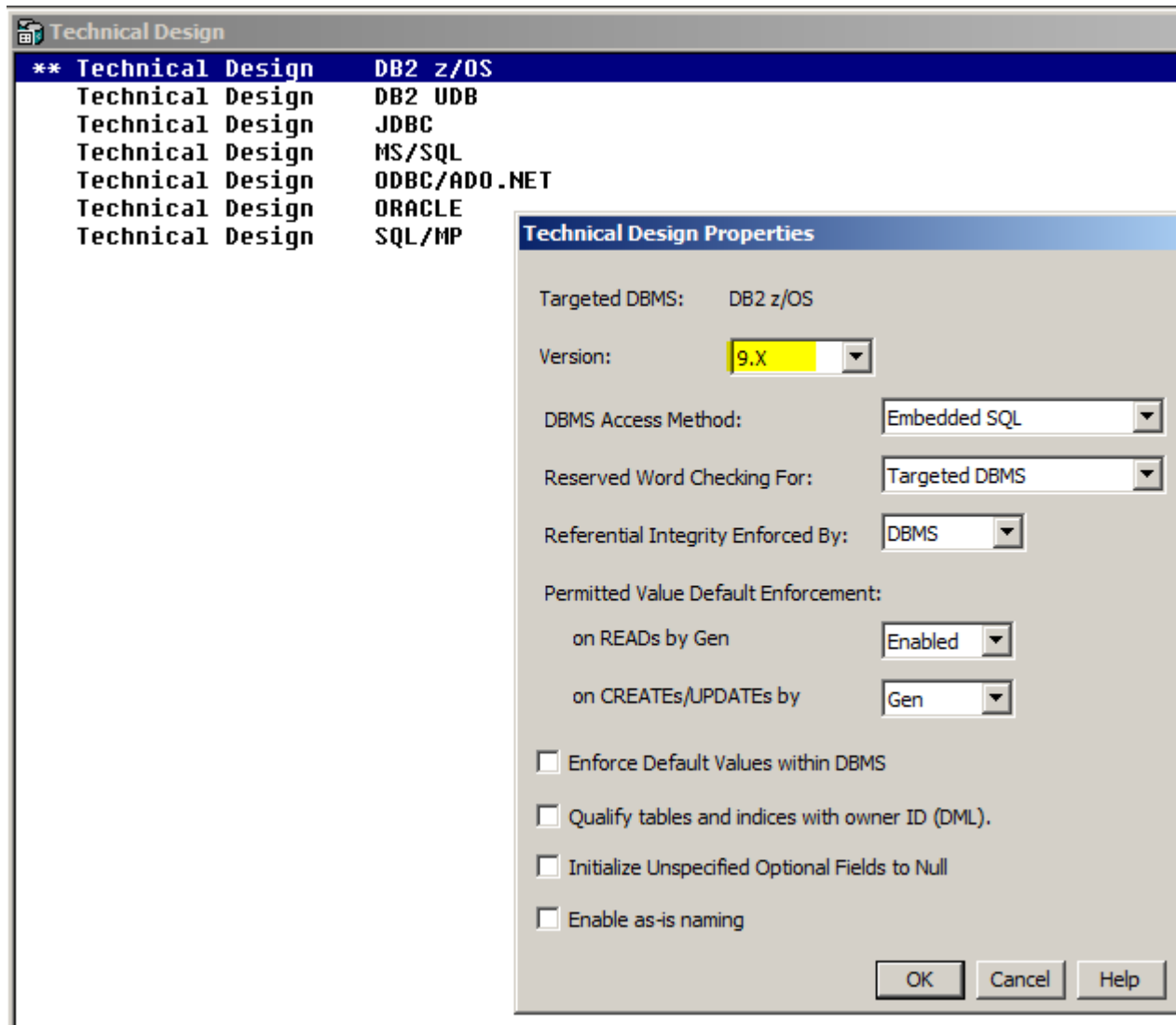
# Features in CA Gen 8.5
# DB2 Table and Table Space Partitioning Plug-ins

# Features in CA Gen 8.5
## DB2 Table Space Partitioning Plug-ins

# Features in CA Gen 8.5
# DB2 Table Partitioning Plug-ins

# Features in CA Gen 8.5
# Web View Generation

- Full generation for Web View applications from CA Gen Studio

  - DDL

  - Window Manager

  - Action Diagrams

- Maintain multiple generation configurations for each model

- Configurations may be added, modified, and deleted using the Generation Configuration dialog from within CA Gen Studio
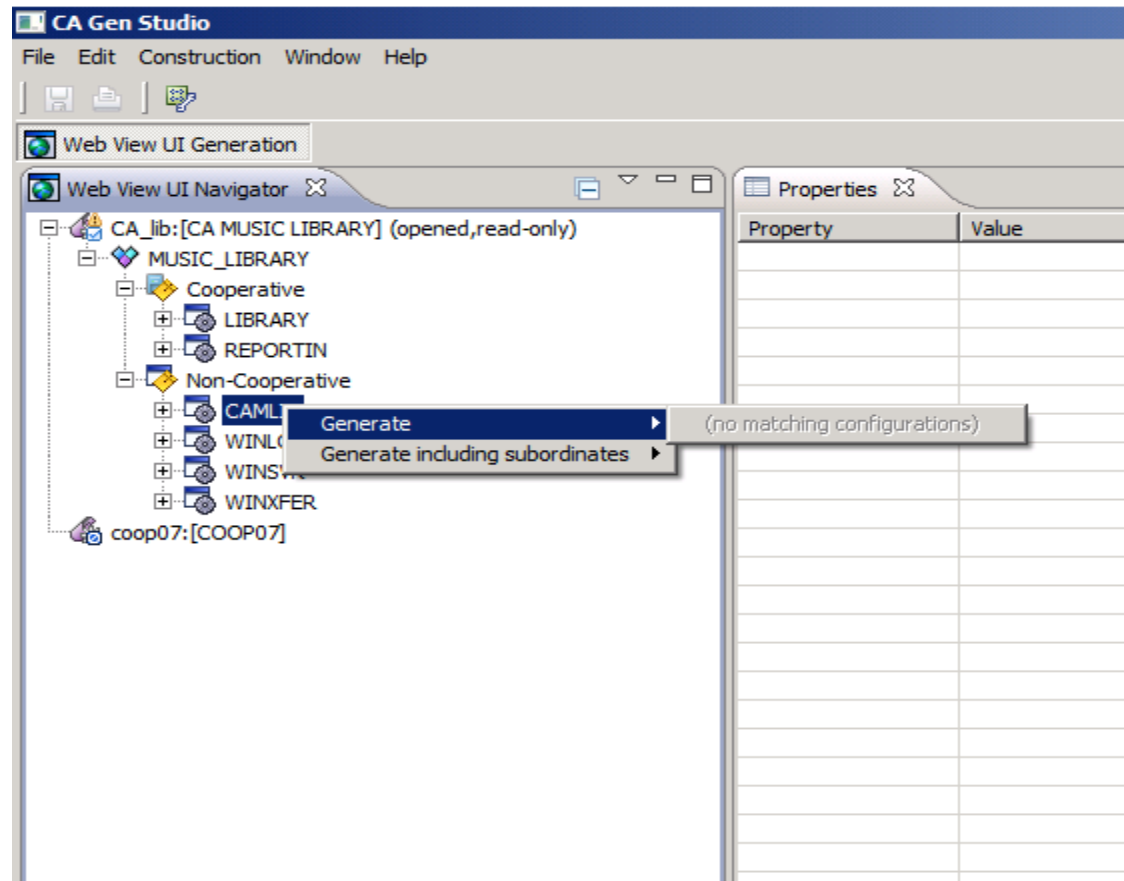
# Features in CA Gen 8.5
## Transaction Enabler (TE) as a Web Service

- All CA Gen servers that execute under the CA Gen Transaction Enabler (TE) support the web service protocol. Prior to CA Gen Release 8.5, only CA Gen EJB Servers were capable of using the web service protocol.

- The support for web services extends to the following platforms running the TE: Windows, AIX, IA64, and Solaris.

- With the Web Services Middleware support added, all CA Gen Clients (C, Java, and .NET) can now communicate with TE using web service as the protocol.

- **DB2 Features (August 2013)**

  – DDL comment removal

  – VARCHAR for text > 4000

  – date/time/timestamp default values

  – NULL for mandatory non-identifying relationships

- **Generate Proxies from UNIX CSE**

  – Provide the ability to generate proxies on UNIX capability is available on Windows CSE

- **Unlock Toolset if Upload to CSE Fails**

  – Provide option to unlock the model in the toolset should errors
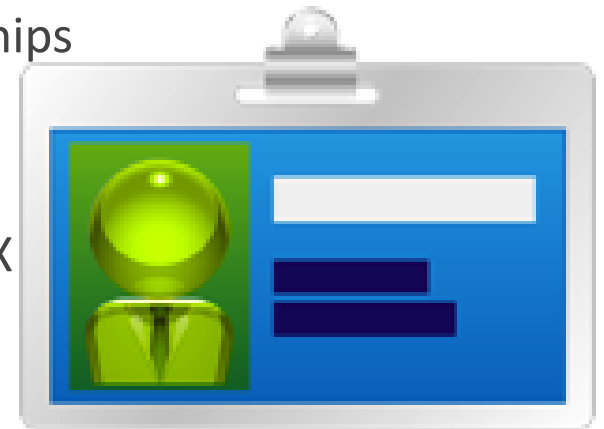
# CA Gen 8.5
## Other Development Activities Post Release 8.5    2 of 2

➢ Toolset Ease of Use

- Certify Java 7 and Visual Studio 2012

- Certify z/OS 2.1 and COBOL 5.1

# Features in CA Gen 8.5 Post 8.5
# Toolset Ease of Use Features

- Allow creation of a new action diagram from the action diagram selection list

- Default Import entity view optionality is set to mandatory

- Set default deletion rule when adding a relationship

- Fix highlighting after sort on the Navigation Diagram Open Window dialog

- Pass selected items on Windows to plug-in applications

- Partitioning indicated for Data Structure and Data Store List Diagrams

- Fix window sort when a dialect is displayed

- View matching dialogs displayed only when necessary

# Features in CA Gen 8.5 Interim Enhancement 1

- **In-Line Code**

  - Write native code and/or SQL statements not natively supported by the CA Gen action language

  - Write free-form source code and/or SQL to reference CA Gen views

  - Pass data between hand-written code and the Action Diagram

- **Web Services Consumption**

  - Via the CA Gen Action Diagram, provide the ability to call any web service

  - Support all CA Gen language targets as well as all CA Gen environments (i.e. clients, servers, block-mode, batch, CICS, IMS)

# Planned Releases

# Plans beyond CA Gen 8.5 Interim Enhancement 1 …just to list a few….

- BLOBs on z/OS (Late 2014)

- Mainframe Java Generation (need additional customers)

- Gen Studio Enhancements

  - Data Model List Diagram, Action Diagram, Window Designer

- Increase toolset support for larger models / subsets

- Add action diagram functions for BLOB (concat, substr, length, text-to-BLOB conversions)

- New targets: Eclipse plug-ins, HP NonStop MX

- CICS Web Services

- Diagram Trace Utility (DTU) on z/OS

# CA Gen and Mobile Devices…

- **IET's Rapide product allows current Gen models to be generated targeting tablets and smart phones**

  - Android and iOS

  - Multiple platform design

    - Browser, Tablet, Phone

    - Same procedure step, multiple layouts

  - Native Controls and widgets

  - Sophisticated layouts

- **CA will make minor modifications to the product to support Rapide in a more integrated fashion**

Q&A
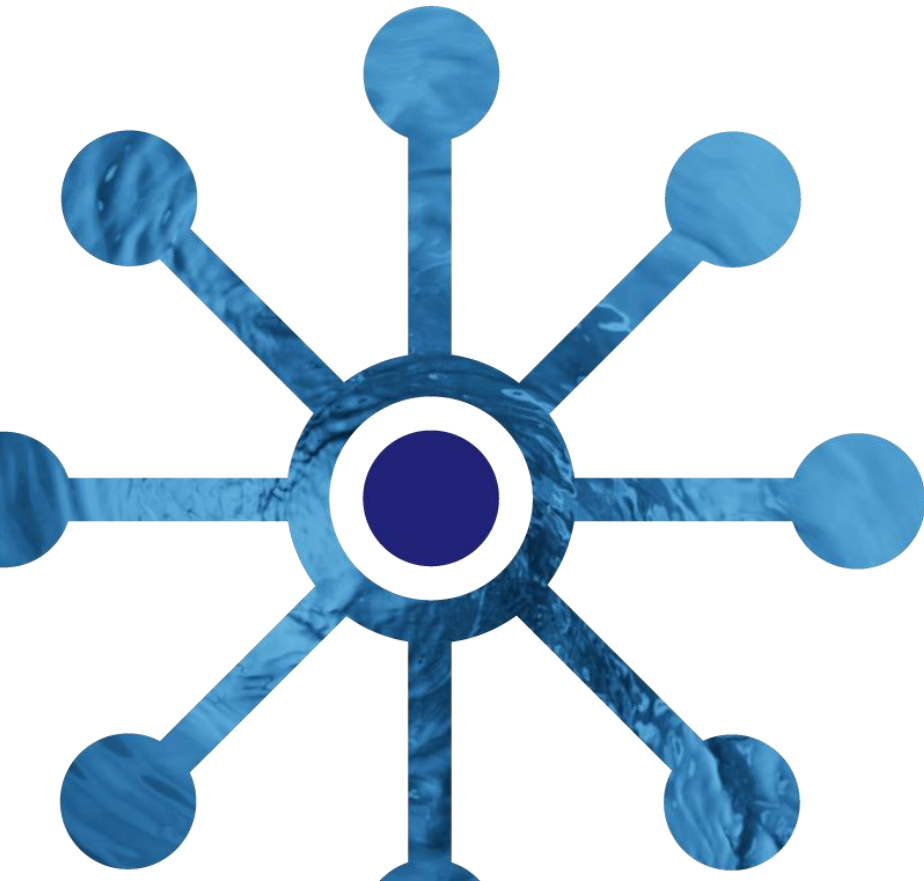
# Demonstration
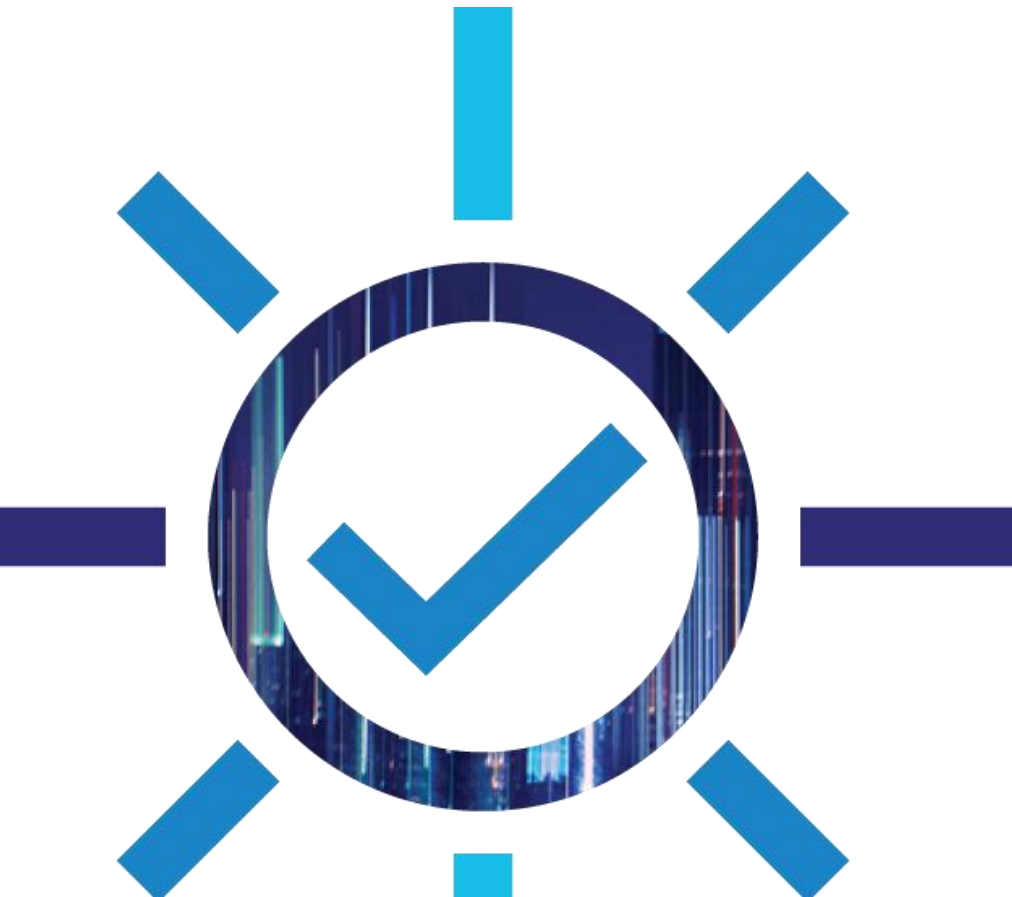
# CA Gen
# Demonstration of New Features

- Model Preferences

- Multi-Row Fetch

- Relational Operators IN and Between

- Identity Columns

- Table and Tablespace Partitioning Plugins

- BLOBs

- TE as a Web Service

  - http://localhost:2008/WEBAPSVR/MAINTAIN_GOLFER?wsdl

- Web Service Consumption Statement

- Custom Proxies

- Inline Code Statement

# CA Gen
## Demonstration of New Ease of Use Features

- Allow creation of a new action diagram from the action diagram selection list

- Default Import entity view optionality is set to mandatory

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