

An Update on Canam's Products:

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- Canam Software: a Brief History
- Report Composer
- SOA Composer
- Customer Experiences
- Canam Product Direction

- Mississauga, Canada company (1994)
- Focusing on
 - Application reporting
 - XML related technologies
- Products
 - Report Composer
 - Data Composer
 - XML Composer / SOA Composer
- Customers in over 25 countries
- CA partner

- Version 8 upgrade
- Bulk Code Generator
- PDF Reports
- Crystal 2010
- Network licensing

- RC version 8 introduced with CA Gen r8 in 2010
- Required in order to work with CA Gen r8 EABs
 - Compatible with CA Gen 6.x and 7.x
- No schema changes to RC repositories
 - Changes are in content not in structure
- RC6 vs RC8
 - Can co-exist on same machine and share same license and repository
 - Each EAB is tagged with Gen version
 - RC6 can't process Gen r8 EABs created by RC8

Bulk Code Generator

With Conversion utility

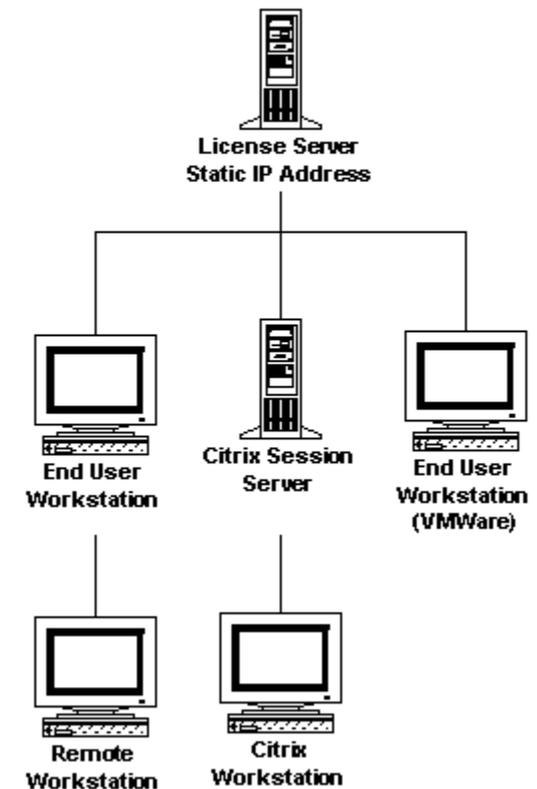
- Ability to generate multiple EABs at the same time
 - Same platform and language
- Bulk generation from Repository Manager and toolset
 - No need to check out EABs from shared repository
- Bulk conversion of EABs to CA Gen r8 format
 - No version control required
 - Assumes that all EABs are RC6 EABs and that EAB properties and views are unchanged
- Available as an extra cost option
 - Applies to all RC workstation licenses

- Generate Cobol EABs that create PDF reports on zOS
- View PDF reports on Windows
 - FTP or E-Mail to Windows platform
 - EBCDIC to ASCII conversion required
- Include jpg images in the design
- Also available for Java platforms
 - C language platforms forthcoming

- Crystal XI not compatible with VS2010
 - Can no longer call to the Canam Crystal viewer from a VS2010 Gen app
- Need to upgrade to Crystal Reports for VS2010
 - No charge for designer component or runtimes
 - Crystal 2010 designer imbeds into VS2010
 - New Canam runtime CNMCR2010 imbeds the CR2010 viewer
- CR2010 runtimes required to view Crystal reports from CA Gen transactions built with VS2010
 - New RC runtime viewer available from Canam

- New Security Architecture
 - Virtual development environments not supported by traditional workstation-based licensing
 - Citrix, VMWare, Remote Desktop
- Canam Network Licensing
 - Pre-defined number of concurrent users
 - Licenses no longer machine dependent
 - Pre-install Canam products on many developer workstation environments
 - Share the same license

Network License Architecture



- Windows based development tool
 - Natural evolution of XML Composer
 - Initial release 2012/Q1 for CA Gen C and Cobol
 - CA Gen Java and C# to follow
- Designs and generates
 - Basic XML Data Binders (XML Composer)
 - SOA Managers for all types of web services
 - Message Exchange Managers (consumer-side)
 - SOAP Reader and Writer Managers (provider-side)
- Allows developer to focus on business logic



- XML has become pervasive industry-wide
 - Self documenting
 - Programming language independent
 - Ideal for interfaces for multi-platform, heterogeneous environments
- Need to be able to map or “bind” business data to XML structures in existing CA Gen applications
 - Data Binders
 - SOA Managers

- SOA relies on XML and XML-based technology for data exchange
 - XSD and XML
 - WSDL and SOAP
 - REST and JSON
- Message transport challenges
 - HTTP, MQ, TCP/IP other technologies
 - Gateways, firewalls and authorizations

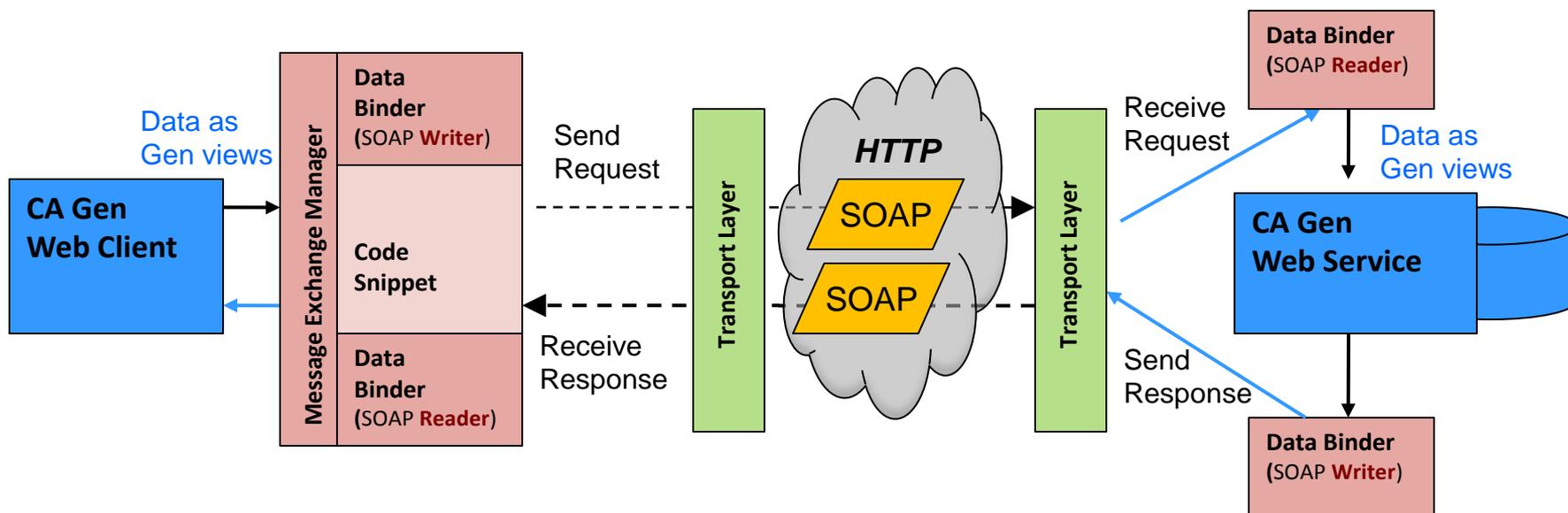
- Map business data to an SOA/XML document
 - **Reader Managers** parse a SOAP request to business data
 - **Writer Managers** converts business data to a SOAP response
- SOA Compser EABs interface directly with transport layer
 - Read/write from/to an external source using SOA Composer
 - MQ, HTTP, TSQ
 - 4094 CA Gen text limit no issue for large request/response documents
- The design of the SOA/XML document can be hand-crafted or derived from an XSD, WSDL or document sample.

SOA Managers

Web Service Consumer

- **Message Exchange Managers** handle the request-response process of the consumer of the web service
 - Handles CA Gen or 3rd party web services
- Insulates Action Block logic from the web service call
 - Import Views contains web service request data
 - Export Views contain web service response data
 - Code snippets execute the web service call
- The specification of the request-response pair can be imported from external sources (WSDLs)
 - Structure of request and response message on the client and server are the same

Using a Web Service with CA Gen



**Message Exchange Manager and Data Binders
developed using SOA Composer**

SOA Composer Wizard

The screenshot displays the SOA Composer v8.1.6 interface. The main window is titled "Message Exchange Manager" and shows a "Logical GEN Views" tree on the left with "import" and "xmlweather" folders. The "xmlweather" folder is expanded, showing "xmlweather.country (X:80)" and "xmlweather.city (X:80)". The right pane shows a SOAP envelope structure with "soap:Envelope", "xmlns:soap", and a URL "# http://schemas.xmlsoap.org/soap/envelope/".

Overlaid on this are two other "Message Exchange Manager" windows: "MEMWEATH Web Request" and "MEMWEATH Web Response". The "MEMWEATH Web Response" window shows a "Logical GEN Views" tree with "export" and "xmlw" folders. The "xmlw" folder is expanded, showing "xm" and "Field xmlwes".

In the foreground, a "Message Exchange Manager - MEMWEATH Code Snippets" dialog box is open. It contains the following text:

Use REQUEST-BUFFER to access the Writer output.
Use RESPONSE-BUFFER to access the Reader input.

Below this text are two tabs: "COBOL", "C", and "JAVA". The "COBOL" tab is selected, showing a tree view of COBOL components:

- COBOL
 - STORAGE
 - FILE CONTROL
 - FILE DEFINITION
 - WORKING STORAGE
 - LINKAGE SECTION
 - LOGIC
 - SOA LOGIC
 - ADDITIONAL LOGIC

To the right of the tree view is a text area containing COBOL code:

```
INTO(WS-ERROR)
  FLENGTH(LENGTH OF WS-ERROR)
END-EXEC
*
*
* IMPORTANT - PLEASE ENSURE THAT THE STATU
* "RESPONSE-STATUS-CODE" HAS A VALUE OF "C
* THE MANAGER PROCESS TO CONTINUE. ANY OTH
* INCLUDING LOW-VALUE OT SPACES, WILL BE J
* AN ERROR AND EXECUTION WILL STOP. THIS V
* (*) CHARACTERS LONG- DO NOT EXCEED TWO C
```

- SOA Managers have internal Data Binders
 - MEM's create the Request message that the Reader Manager reads
 - Writer Managers create the response message that the MEM reads
- Simplified views
 - Only business attributes, no SOAP buffers
- Simplified Action Diagram
 - One USE statement
- Customizable code snippets
 - Imbedded EAB code to traverse transport layers, security and firewalls

- Extends XML Composer functionality to the SOA world
- Design time
 - Uses CA Gen EABs to create SOA Mangers (consumer and provider)
 - XSD, XML instance, WSDL, JSON (Future)
- Run time
 - Creates XML documents, SOAP messages
 - Supports all CA Gen targets COBOL, C (Java soon)
- Customizable code snippets traverse transport layer
 - z/OS, Unix, Windows
 - Striving to minimize the degree of customization required.

- Avios (Travel Rewards Program - UK)
 - Use SOA Composer Message Exchange Managers to verify addresses by consuming a 3rd party web service from zOS/CICS
- Idiso (Hotel and Resort Software - Spain)
 - Transitioned text based Report Composer reports to PDF
 - Generated from Cobol on zOS
 - Converted to ASCII and emailed to windows platforms
- Bulk code generation used by several customers
 - Conversion of all of their RC6 EABs to Gen r8 format from Repository Manager
 - Version control not required
 - Re-generated all of their Report Composer EABs at once

- Report Composer
 - Reverse engineer report designs from RC source code
 - Utility to compare report designs
 - PDF Reports for C

- SOA Composer
 - JSON support
 - Java generation
 - Design EAB based upon WSDL/schema
 - Infer EAB view structure from XML/SOAP
 - Create EAB work views in CA Gen model using CA Gen API

- Customer ideas are always welcome.

More information

Please Contact

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Questions?

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