

Transforming CA Ideal™ Applications To Meet 2012 Business Needs

Maryellen Birdsey

CA Technologies

May 2012

maymainframemadness 2012



abstract

As CA Technologies customers, you rely on CA Support Online and its ecosystem for timely software support and solutions. Built on CA Datacom® and CA Ideal™ over 20 years ago, these applications have undergone extensive transformations to meet the rapidly evolving requirements of CA's worldwide customer base.

In this session, Maryellen Birdsey from the CA Technologies IT organization describes the CA Ideal and CA Datacom techniques used to modernize these critical business applications, including adding web interfaces, XML support, dynamic query capabilities and Smartphone access, and the benefits these enhancements have provided.

2 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



agenda

- Brief history
- Size of the database and application
- Legacy application transformation with CA Ideal
- Conversion techniques
- Tools for ongoing support and maintenance
- Key benefits
- Live example
- Q & A

3 [maymainframemadness 2012](#)

Copyright © 2012 CA. All rights reserved



brief history

- Legacy application, STAR (Support Tracking and Reporting) implemented in 1985 with 25+ years of enhancements
- Beta customer of **CA Datacom/DB** and **CA Ideal**, along with all the **CA IPC** versions
- Currently using CA Ideal 11.0, CA Datacom/DB 14.0, CA Datacom CICS Services 11.0 and 14.0.
- CICS transaction-based “green screen” application
- Minimal COBOL, **CA Easytrieve®**, ASM, **CA Earl™**
- Case management, problem management, solution management sub-systems
- Interfacing with other entitlement, solution, and case management systems
- STAR Database is the backend of Customer Support Online and MyCA
- Various versions of GUI-based application conversions prior to MyCA

4 [maymainframemadness 2012](#)

Copyright © 2012 CA. All rights reserved



size of database

- # of database tables and sizes
 - 366 areas (including indexes)
 - 595 tables
- Additional statistics
 - 7.7 thousand requests per second
 - 910 MB memory allocated for virtual tables
 - 2.8 GB memory allocated for covered tables
 - Covered tables process 94% activity of respective tables
 - zIIP processing 33% of non-IO tasks
- # transactions per month
 - 23 billion database requests
 - 172 billion total requests
 - 107 million adds
 - 35 million deletes
 - 60 million updates
 - 2 billion physical reads
 - 412 billion logical reads
 - 61 million physical writes
 - 5.5 billion logical writes

5 [maymainframemadness 2012](#)

Copyright © 2012 CA. All rights reserved



size of application

- # of programs
 - 1000+ programs (3270 transactions, extracts, reports, etc.)
 - 75 web programs (XML)
 - Approximately 20 strategic subprograms shared by 3270, batch, and XML functions
- Production CICS regions (non-restricted and restricted)
 - 1 TOR
 - 7 AORs
 - 4 Web regions
- Management of throughput
 - TCLASS
 - Alert mechanisms
 - **CA Application Performance Management (CA Wily Introscope)**
 - **CA NSM**
 - CSP Analyzer

6 [maymainframemadness 2012](#)

Copyright © 2012 CA. All rights reserved



legacy application transformation

- Why?
 - Business requirements
 - Customer needs
 - Combination of multiple 3270 screens into single transaction enhances productivity

7 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



legacy application transformation (cont.)

- Learning curve
 - New technicians resistant to 3270 application
 - Experienced technicians resistant to change
 - New technology
 - XML
 - Cloud computing

8 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



legacy application transformation (cont.)

- Resources required
 - Team consisting of:
 - Legacy SMEs from both the development point of view as well as the business point of view
 - Front end developers experienced with Java and XML parsing
 - Windows of opportunity for team collaboration

9 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



3270 → browser based application

- Screen scrapers
- Rogue applications
- XML output
- HTTPCOMM – communicate via HTTP with a web server using GET or POST method
- FTPLIST – verify existence of files on an ftp server
- Dynamic SQL

10 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



control and security

- Logon and SSO
 - CA SiteMinder®
 - LDAP
 - EMP table defines user roles
 - CA Top Secret® allows access via opid
- Transaction security
- Functional security
- Admin authority
- High Security Support

11 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



High Security Support (HSS)

- Assign DBID to cloned DB structures
- Assign 2nd AUTHID for transactions accessing cloned DB
- Amazing speed in implementation
- No additional programming required
- Encryption of data in database tables and backups
- Masking of data in extracts

12 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



converting programs

- Basic functions, basic approach
 - CA Ideal Web interface
 - Remove all TRANSMIT and related logic (PFkey processing, scrolling, etc.)
 - Retain all business logic (validation rules, DB access, etc.)
 - Output XML from working storage areas to either COMMAREA or allocated storage above the line
- Using above the line storage
 - @I\$ABOVE
 - Sample code

13 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



converting programs (cont.)

- Using the post method to retrieve parameter values
 - @I\$IPOST
 - Sample code
- Performance considerations
 - Transmission time (realistic volume of xml data to be transmitted)
 - Maximum 12.5 meg
 - Number of transactions in and out (use TCLASS to control throughput)

14 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



CA Ideal functions used in web XML programs - (@ISABOVE)

```

>>
IDEAL: PROCEDURE DEFINITION PGM STARCUX3 (011) PROD SYS: STA DISPLAY
Command.....1.....2.....3.....4.....5.....6.....7.....
01282 <<CALL_ABOVE>> PROCEDURE
01283 :=====
01284 : Determine the approximate size of the output area
01285 : required for the result document.
01286 :=====
01287 : Now calculate size of area required
01288 SET LENGTH-FIXED = 2000 : RIGHTHAND VALUE GETS LOST IN AROUND
01289 SET LENGTH-ISS = 4000 : <===== MAINTAIN THIS !!!!!!!!!!!!!!!
01290 SET LENGTH = $ROUND(
01291 (40-ROWS-DEFAULT + LENGTH-ISS) + LENGTH-FIXED, FACTOR=4096)
01292 SET LENGTH = $ROUND(
01293 ((40-ROWS-NBR + LENGTH-ISS) + LENGTH-FIXED, FACTOR=4096)
01294 IF LENGTH < 65536
01295 SET LENGTH = 65536 : MAKE IT WORTH GETTING
01296 ELSE
01297 IF LENGTH > 65536 * 200
01298 SET LENGTH = 65536 * 200
01299 ENDIF
01300 ENDIF
01301 and request it to initialize the output space
01302 SET COMMAND = 'INI'
01303 SET RETURN = 0
01304 SET STRING = NULL-STRING
01305 CALL @ISABOVE USING
01306 INPUT COMMAND
01307 UPDATE LENGTH
01308 INPUT STRING
01309 UPDATE RETURN
01310 IF RETURN NE 0
01311 LIST 'ADD CALL FAILED'
01312 LIST 'RETURN CODE = ' RETURN
01313 LIST 'CICS STORAGE = ' LENGTH
01314 DO ERROR
01315 ENDIF
01316 ENDPROC :CALL_ABOVE
01317 P.1

```

```

>>
IDEAL: WORKING DATA DEFN. PGM STARCUX3 (011) PROD SYS: STA DISPLAY
Command.....1.....2.....3.....4.....5.....6.....7.....
007209 1 INPUT-PARM
007210 2 PARAM-NAME X 17 'ECHOES BACK THE INPUT PARAMS'
007211 2 PARAM-NAME V 20 'parameter name='
007212 2 PARAM-VALUE X 9 'value='
007213 2 PARAM-VALUE V 400 ' '
007214 2 CRLF X 9 ' '
007215 2 CRLF X 2 CRLF
014000 1 ISS-REQ X 22 : required elements
014001 2 CONTACT-NO V 12 'class contactnumber='
014002 2 CONTACT-NO V 15 ' '
014003 2 ISSUE-NO V 2 ' '
014004 2 ISSUE-NO V 2 ' '
014005 2 ISSUE-NO V 2 ' '
014006 2 CRLF X 2 CRLF
014007 2 COMPANY-NO V 8 ' '
014008 2 COMPANY-NO V 8 '<co_no>'
014009 2 COMPANY-NO V 8 '</co_no>'
>>
IDEAL: PROCEDURE DEFINITION PGM STARCUX3 (011) PROD SYS: STA DISPLAY
Command.....1.....2.....3.....4.....5.....6.....7.....
011040 <<CALL_ABOVE>> PROCEDURE
011041 :=====
011042 : CALL STORAGE MANAGER
011043 :=====
011044 CALL @ISABOVE USING
011045 INPUT COMMAND
011046 UPDATE LENGTH
011047 INPUT STRING
011048 UPDATE RETURN
011049 IF RETURN NE 0
011050 LIST 'ADD CALL FAILED'
011051 LIST 'RETURN CODE = ' RETURN
011052 LIST 'CICS STORAGE = ' LENGTH
011053 DO ERROR
011054 ENDIF
011055 ENDPROC :CALL_ABOVE
011056 P.1

```

15 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



CA Ideal functions used in web XML programs - (@ISIPOST)

```

>>
IDEAL: PROCEDURE DEFINITION PGM STARCUX3 (011) PROD SYS: STA DISPLAY
Command.....1.....2.....3.....4.....5.....6.....7.....
003040 : Extract W-LISTTYPE from HTML Form
003041 :=====
003042 SET FUNCTION = 'FIND'
003043 SET PARAM-NAME = 'listtype'
003044 DO CALL-POST
003045 IF TRACING LIST ' listtype' PARAM-VALUE ENDIF
003046 IF PARAM-VALUE > $SPACES
003047 SET W-LISTTYPE = $TRANSLATE(PARAM-VALUE, FROM=LOWCASE, TO=UPCASE)
003048 ENDIF
003049 SELECT FIRST
003050 WHEN W-LISTTYPE = 'INDIVIDUAL'
003051 WHEN W-LISTTYPE = 'GROUP'
003052 WHEN W-LISTTYPE = 'SITE'
003053 WHEN W-LISTTYPE = 'USER'
003054 WHEN NONE
003055 SET W-LISTTYPE = $SPACES
003056 ENDSEL
003057 :=====
003058 : Extract W-INCLUDE from HTML Form
003059 :=====
003060 SET FUNCTION = 'FIND'
003061 SET PARAM-NAME = 'include'
003062 DO CALL-POST
003063 IF TRACING LIST ' include' PARAM-VALUE ENDIF
003064 IF PARAM-VALUE > $SPACES
003065 SET W-INCLUDE = $TRANSLATE(PARAM-VALUE, FROM=LOWCASE, TO=UPCASE)
003066 ELSE
003067 SET W-INCLUDE = 'ALL'
003068 ENDIF
003069 IF TRACING LIST ' W-INCLUDE' W-INCLUDE ENDIF
003070 SELECT FIRST
003071 WHEN W-INCLUDE = 'ALL'
003072 WHEN W-INCLUDE = 'DGSOMLY'
003073 WHEN W-INCLUDE = 'NOHARS'

```

```

>>
IDEAL: PROCEDURE DEFINITION PGM STARCUX3 (011) PROD SYS: STA DISPLAY
Command.....1.....2.....3.....4.....5.....6.....7.....
011004 <<CALL-IPOST>> PROCEDURE
011005 :=====
011006 GET PARAM VALUE FROM HTML FORM
011007 :=====
011008 CALL @ISIPOST USING
011009 UPDATE FUNCTION,
011010 UPDATE PARAM-NAME,
011011 UPDATE PARAM-VALUE,
011012 UPDATE RC,
011013 UPDATE STATE
011014 :=====
011015 :
011016 :
011017 IF (RC GT 4 OR (RC NE 0 AND FUNCTION = 'INIT'))
011018 LIST 'RC GT 4 OR (RC NE 0 AND FUNCTION = INIT)'
011019 LIST 'IPOST CALL FAILED: FUNC = ' FUNCTION
011020 LIST ' PARAMNAME = ' PARAM-NAME
011021 LIST ' PARAMVAL = ' PARAM-VALUE
011022 LIST ' RC = ' RC

```

16 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



sample conversion of legacy 3270 transaction

- Converting is01 ➔ isx1 using XML
 - Sample 3270 screen
 - Sample generated XML
 - Sample rendering of that html page

17 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



sample conversion of legacy 3270 transaction - continued

```

=> IS01          *** DISPLAY ISSUE ***      * VERSION UNIQUE DATA *
Contact #: 204317-01002 Issue #: 1 Version: 3 of: 3 ISSUE ACTIVITY - IS09
Company: 204317 - GLOBAL INFORMATION SERVICES - CA
Contact: MARVELLEN BIRDSEY 609-737-0502 (PHONE) LANGUAGES: ENG,BUL
Transfer: SEP 23 2011 10:32 Reopened: SEP 23 2011 11:03 JULIA GIANCOLA
Title: DYNAMIC SQL W/ SALCODE -275
Group: DATCH1 GBL SUP LV11 DATCHON LEVEL1 Assigned: JULIA GIANCOLA
Product: IDEAL Time Spent: SBI:
Type: HQM-TO/INFORMATION FDP: N Release: 12.0
IS: OS Maint Lvl: NONE
Action: NO SOLUTION SubCategory:
Category:
SAP/Player:
Definition: SEP 21 2011 10:09 Tech: JULIA GIANCOLA
query executes in CA-HoIf but not when generated by an ideal pgm
STRALICS

Resolution: SEP 21 2011 11:03 Tech: JULIA GIANCOLA
user error.... problem was that he fetch column list did not match the
select list.

Keywords: SALCODE -275 G1AJU01
FETCH SELECT

Consultants:
Related Problem: Product: Problem #: Next Action: N/A
Solutions: Product Release Sol # Type Product Release Sol # Type
>
Diagnosis Identified: N DI Date: DI Count: 0000000
Solution Given: N SO Date: SO Count: 0000000
  
```

```

=> IS09          *** DISPLAY ISSUE ACTIVITY TEXT ***
Contact #: 204317-01002 Issue #: 1
Company: 204317 - GLOBAL INFORMATION SERVICES - CA
Client: MARVELLEN BIRDSEY 609-737-0502 (PHONE)
Title: DYNAMIC SQL W/ SALCODE -275
SEP 21 2011 09:11 MARVELLEN BIRDSEY DATCH1 GBL S1 MIN: 0
CALL 1-801 FROM CLIENT TO CAI
query executes in CA-HoIf but not when generated by an ideal pgm
STRALICS
Initial issue type: UNKNOWN
Initial issue product: IDEAL

SEP 21 2011 09:12 MARVELLEN BIRDSEY DATCH1 GBL S1 (TCC NTF)
John H wants a DIAL trace
need instructions how to do that

SEP 21 2011 09:29 JULIA GIANCOLA DATCH1 GBL S1 MIN: 0
CALL 1-801 FROM CAI TO CLIENT CALLBACK
taken

SEP 21 2011 09:29 JULIA GIANCOLA DATCH1 GBL S1 (CA ONLY)
ISSUE REASSIGNMENT VIA SE01 FROM UNASSIGNED
TO JULIA GIANCOLA

SEP 21 2011 10:13 JULIA GIANCOLA DATCH1 GBL S1 (TCC NTF)
Issue being worked on by John West.

SEP 21 2011 10:13 JULIA GIANCOLA DATCH1 GBL S1 MIN: 0
Next Action: Pending Customer Feedback Due Date: 09/28/2011 NY time

SEP 21 2011 10:19 JOHN WEST IDEAL PIN D2 (CA ONLY)
ISSUE REASSIGNMENT VIA SE01 FROM UNASSIGNED
TO JOHN WEST

SEP 21 2011 10:19 JOHN WEST IDEAL PIN D2 (TCC NTF)
Found bug in SC040011 Should not translate DIALMASK to upper.

SEP 23 2011 11:03 JULIA GIANCOLA DATCH1 GBL S1 MIN: 0
Next Action: Issue Resolved Due Date: 09/23/2011 NY time
  
```

18 maymainframemadness 2012

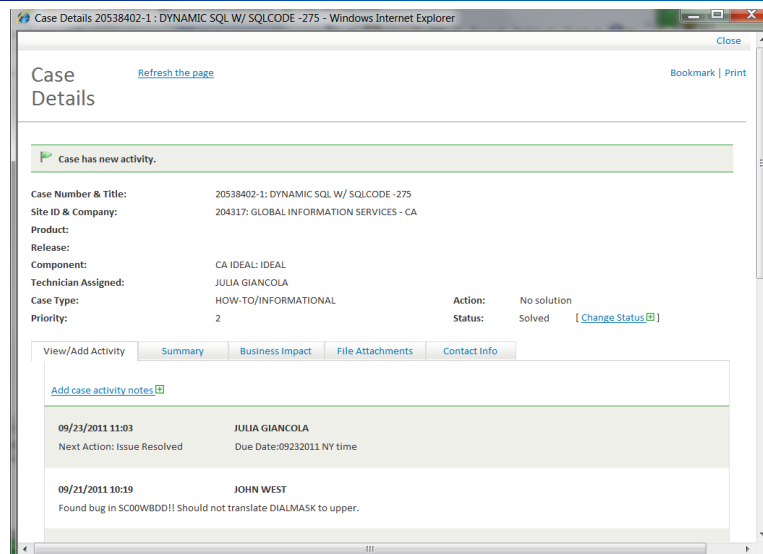
Copyright © 2012 CA. All rights reserved



sample conversion of legacy 3270 transaction - continued

<pre> <issue_detail> <siteid> 204317</siteid> <company>GLOBAL INFORMATION SERVICES - CA</company> <hotsite_msg></hotsite_msg> <contact> <name>MARYELLEN BIRDSEY</name> <lname>BIRDSEY</lname> <fname>MARYELLEN</fname> <phone> 609-737-0502 609-468-4421</phone> <phone1>609-737-0502</phone1> <phone2>609-468-4421</phone2> <email>maryellen.birdsey@ca.com</email> <capmfkey></capmfkey> <reply_method>PHONE</reply_method> <fax></fax> <language>ENG,BUL</language> <connect_id>3148 </connect_id> </contact> <issue_contactnumber>"20538402" issuenumber="1"> <title>DYNAMIC SQL W/ SQLCODE -275</title> <call_desc>DYNAMIC SQL W/ SQLCODE -275</call_desc> <open_date_time>09/21/2011 09:11</open_date_time> <upd_date_time>09/23/2011 11:03:55</upd_date_time> <sol_date_time>09/23/2011 11:03</sol_date_time> <days_closed></days_closed> <topscod></topscod> <topsrrel></topsrrel> <product_name>IDEAL</product_name> <group_name>DATCM1</group_name> <group_loc>GBL</group_loc> <group_func>S</group_func> <group_lvl>1</group_lvl> <cliemp_fname>JULIA</cliemp_fname> <cliemp_lname>GIANCOLA</cliemp_lname> ... </pre>	<pre> ... <history> <this_date_time>09/21/2011 09:11</this_date_time> <this_tech>MARYELLEN BIRDSEY</this_tech> <this_type>public</this_type> <this_description><this_line>CALL 1-001 FROM CLIENT TO CAI</this_line> <this_line>query executes in CA-Wolf but not when generated by an ideal pgm</this_line> <this_line>STARICK3</this_line> <this_line>initial issue type: UNKNOWN</this_line> <this_line>initial issue product: IDEAL</this_line> </this_description> </history> <history> <this_date_time>09/21/2011 09:12</this_date_time> <this_tech>MARYELLEN BIRDSEY</this_tech> <this_type>public</this_type> <this_description><this_line>John W wants a DIAL trace</this_line> <this_line>need instructions how to do that</this_line> </this_description> </history> <history> <this_date_time>09/21/2011 09:29</this_date_time> <this_tech>JULIA GIANCOLA</this_tech> <this_type>public</this_type> <this_description><this_line>CALL 1-001 FROM CAI TO CLIENT CALLBACK</this_line> <this_line>taken</this_line> </this_description> </history> <history> <this_date_time>09/21/2011 10:13</this_date_time> <this_tech>JULIA GIANCOLA</this_tech> <this_type>public</this_type> ... </pre>
---	---

sample conversion of legacy 3270 transaction - continued



Case Details 20538402-1: DYNAMIC SQL W/ SQLCODE -275 - Windows Internet Explorer

Case Details [Refresh the page](#) [Bookmark](#) [Print](#)

Case has new activity.

Case Number & Title:	20538402-1: DYNAMIC SQL W/ SQLCODE -275
Site ID & Company:	204317: GLOBAL INFORMATION SERVICES - CA
Product:	
Release:	
Component:	CA IDEAL: IDEAL
Technician Assigned:	JULIA GIANCOLA
Case Type:	HOW-TO/INFORMATIONAL
Priority:	2
Action:	No solution
Status:	Solved [Change Status]

View/Add Activity [Summary](#) [Business Impact](#) [File Attachments](#) [Contact Info](#)

[Add case activity notes](#)

09/23/2011 11:03	JULIA GIANCOLA
Next Action: Issue Resolved	Due Date: 09/23/2011 NY time
09/21/2011 10:19	JOHN WEST
Found bug in SC00WBDD!! Should not translate DIALMASK to upper.	

sample conversion of embedded SQL to dynamic SQL

- **Cux3 → icx3 using DATACOM dynamic SQL**
 - Implemented with CA Ideal and supported by CA Ideal
 - Sample code (before)
 - Sample code (after)
 - Challenges
 - More complex queries
 - More difficult to debug

21 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



sample conversion of embedded SQL to dynamic SQL (cont.)

- **Benefits of dynamic SQL**
 - Significant reduction in DB calls
 - One query/one fetch vs. 7 queries/7 fetches
 - Elimination of additional DB accesses
 - Ability to retrieve total counts while limiting the # rows returned

22 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



sample conversion of embedded SQL to dynamic SQL - continued

```

IDeAL: PROCEDURE DEFINITION PGM STARCUX3 (011) PROD SYS: STA DISPLAY
Command .....1.....2.....3.....4.....5.....6.....7.....
023732 DECLARE S12 CURSOR FOR
023733 SELECT I.CNT_NO
023734 , I.SER_NO
023735 , I.ISS_DT
023736 , I.ISS_THE
023737 , I.ISS_ASQ_EMP_NO
023738 , I.POT_NO
023739 , I.POT_REL_NO
023740 , I.ISS_SHT_TXT
023741 , I.ISS_TYP_CD
023742 , I.ISS_SHT_DT
023743 , I.ISS_SHT_THE
023744 , I.ISS_CUR_PTV_NO
023745 , I.ISS_CUR_STA_CD1
023746 , I.ISS_CUR_STA_CD2
023747 , I.COL_NO
023748 , I.ISS_WMT_DT
023749 , I.ISS_WMT_THE
023750 , I.OP_SVS
023751 , I.INFO_ABR_LVL
023752 , I.ACTION_CD
023753 , I.CUS_SEN_CD
023754 , I.CUS_POT_SEN_CD
023755 , 'non-restricted'
023756 FROM CNT_ISS_CONNECT C, CNT_ISS I
023757 WHERE C.CNT_NO = H-COMPANY-NO-LOW
023758 AND C.CNT_NO = H-COMPANY-NO-HIGH
023759 AND C.CONNECT_ID = H-CUSERID
023760 AND I.CNT_NO = C.CNT_NO
023761 AND I.SER_NO = C.ISS_NO
023762 AND I.SER_NO <= 99
023763 AND I.ISS_DT <= '1'
023764 AND (I.ISS_ASQ_EMP_NO = H-ASQ-TECH-LOW AND
023765 I.ISS_ASQ_EMP_NO = H-ASQ-TECH-HIGH)
023766 AND (I.ISS_CUR_PTV_NO = H-SEVERITY-LOW AND
023767 I.ISS_CUR_PTV_NO = H-SEVERITY-HIGH)
023768
023769
023770

```

```

IDeAL: PROCEDURE DEFINITION PGM STARCUX3 (011) PROD SYS: STA DISPLAY
Command .....1.....2.....3.....4.....5.....6.....7.....
023830 LOOP
023831 EXEC SQL
023832 FETCH S12
023833 INTO H-CNT-NO
023834 , H-ISS-NO
023835 , H-SER-NO
023836 , H-ISS-DT
023837 , H-ISS-THE
023838 , H-ISS-ASQ-EMP-NO
023839 , H-POT-NO
023840 , H-POT-REL
023841 , H-GRP-NO
023842 , H-ISS-SHT-TXT
023843 , H-ISS-TYP-CD
023844 , H-ISS-SHT-DT
023845 , H-ISS-SHT-THE
023846 , H-ISS-CUR-PTV-NO
023847 , H-ISS-CUR-STA-CD1
023848 , H-ISS-CUR-STA-CD2
023849 , H-COL-NO
023850 , H-ISS-WMT-DT
023851 , H-ISS-WMT-THE
023852 , H-OP-SVS
023853 , H-INFO-ABR-LVL
023854 , H-ACTION-CD
023855 , H-STRGE
023856 , H-TESTCASE
023857 , H-LOCATION
023858
023859 END-EXEC
023860
023861 UNTIL SQLCA.SQLCODE NOT = 0
023862
023863 IF EXCLUDE-RESTRICTED
023864 AND H-LOCATION = 'restricted'
023865 PROCESS NEXT CNT-ISSN
023866 ENDIF
023867 IF H-CNT-NO = H-SAME-CONTACT

```

23 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



sample conversion of embedded SQL to dynamic SQL - continued

```

IDeAL: PROCEDURE DEFINITION PGM STARCUX3 (030) PROD SYS: STA DISPLAY
Command .....1.....2.....3.....4.....5.....6.....7.....
024095 MOVE $STRM1 TO DYNSQLA DYNSQLA DYNSQL12
024096
024097 "SELECT I.CNT_NO I.ISS_NO I.SER_NO I.ISS_DT I.ISS_THE"
024098 "AND I.ISS_ASQ_EMP_NO I.POT_NO I.POT_REL_NO I.GRP_NO"
024099 "AND I.ISS_SHT_TXT I.ISS_TYP_CD I.ISS_SHT_DT I.ISS_SHT_THE"
024100 "AND I.ISS_CUR_PTV_NO I.ISS_CUR_STA_CD1 I.ISS_CUR_STA_CD2"
024101 "AND I.ISS_WMT_DT I.ISS_WMT_THE"
024102 "AND I.OP_SVS I.INFO_ABR_LVL I.ACTION_CD I.CUS_SEN_CD"
024103 "AND I.CUS_POT_SEN_CD C.APP_POT_CD C.APP_POT_REL"
024104 "AND 'non-restricted'"
024105 FROM SYSJOBH.CNT_ISS_CONNECT C, SYSJOBH.CNT_ISS I
024106 WHERE C.CNT_NO = H-COMPANY-NO-LOW
024107 AND C.CNT_NO = H-COMPANY-NO-HIGH
024108 AND C.CONNECT_ID = H-CUSERID
024109 AND I.CNT_NO = C.CNT_NO
024110 AND I.SER_NO = C.ISS_NO
024111 AND I.SER_NO <= 99
024112 AND I.ISS_DT <= '1'
024113 AND (I.ISS_ASQ_EMP_NO = H-ASQ-TECH-LOW AND
024114 I.ISS_ASQ_EMP_NO = H-ASQ-TECH-HIGH)
024115 AND (I.ISS_CUR_PTV_NO = H-SEVERITY-LOW AND
024116 I.ISS_CUR_PTV_NO = H-SEVERITY-HIGH)
024117
024118
024119
024120
024121
024122
024123
024124
024125
024126
024127
024128
024129
024130
024131
024132

```

```

IDeAL: PROCEDURE DEFINITION PGM STARCUX3 (030) PROD SYS: STA DISPLAY
Command .....1.....2.....3.....4.....5.....6.....7.....
024230
024231 "AND I.CNT_NO = 12.CNT_NO"
024232 "AND I.ISS_NO = 12.ISS_NO"
024233 "AND I2.SER_NO = 99"
024234
024235
024236
024237
024238
024239
024240
024241
024242
024243
024244
024245
024246
024247
024248
024249
024250
024251
024252
024253
024254
024255
024256
024257
024258
024259
024260
024261
024262
024263
024264
024265
024266
024267
024268
024269
024270
024271
024272
024273
024274
024275
024276
024277
024278
024279
024280
024281
024282
024283
024284
024285
024286
024287
024288
024289
024290
024291
024292
024293
024294
024295
024296
024297
024298
024299
024300
024301
024302
024303
024304
024305
024306
024307
024308
024309
024310
024311

```

24 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



support and maintenance

- **CA Ideal Debugger**
- Application tracing
- **CA Datacom® Resource Analyzer** for performance checking
- **CA Application Performance Management (CA Wily Introscope)** for monitoring
- Periodic **AutoScope** reports to measure performance and identify opportunities for continued improvements
- No outage required for move to production

25 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



benefits of using CA Ideal Web Interface

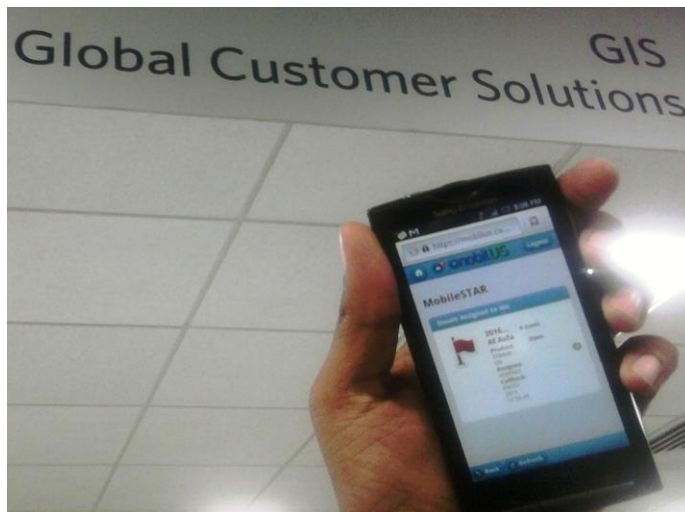
- Significantly enhances implementation turn-around
- Ease of maintenance
- Smaller programs (< 25% of lines of code)
- Enables mobile application development
- By improving the efficiency and accessibility of the mainframe application, CA employees now can respond more quickly to customer requests

26 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



live illustration



27 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



summary - transforming CA Ideal applications

- Builds on years of investment already there
- Extend existing applications to embrace the web
- Meet the customer demand without re-engineering the world
- CA Support Online – a real-life example

28 maymainframemadness 2012

Copyright © 2012 CA. All rights reserved



for more information

- Check out all the other CA Datacom and CA Ideal information in the CA Datacom booth
- Be sure to see the CA Datacom 2012+ session, given by Kevin Shuma in the Main Hall Auditorium on Thursday May 10th at 10 AM ET. The session will also be available on-demand following May 10th.
- Visit and join the CA Datacom (CADRE) Global User Community at <https://communities.ca.com/web/ca-datacom-cadre-global-user-community/welcome123>

thank you

ca world®'11