

# IBM Rational Developer Traveler

A nimble z/OS development  
environment, for use anywhere

# Why Another Tool

Aren't there enough tools already?

- ISPF is already available
- Rich client IDE's are available

# What We Offer

## Really, Really Easy to Use

- *Zero* Client Install. Honestly, zero
- Open any web browser
- Enter the URL for RD Traveler (bookmarked)
- Log in, and start coding

# RD Traveler and IBM

*Our mission is to provide a collection of connected, task-oriented tools for developers building enterprise applications on IBM systems and middleware, capable of scaling to thousands of concurrent developers, available on a variety of client devices*

*Our immediate goal is to provide an enhanced development environment for z/OS customers with our web-based technology, in conjunction with existing mainframe development tools*

*Our mission aligns with IBM's latest cloud-based technology*

- *IBM's jazzhub technology : software development in the cloud*
- *IBM's softlayer technology : software cloud services*
- *Open Source Orion technology : eclipse for the web... RD Traveler is built on it*

# ISPF is Zero Install too...

## Multiple Edit Windows at Once

- This is 'free' with any web-browser interface

## Rich Edit with No Delay

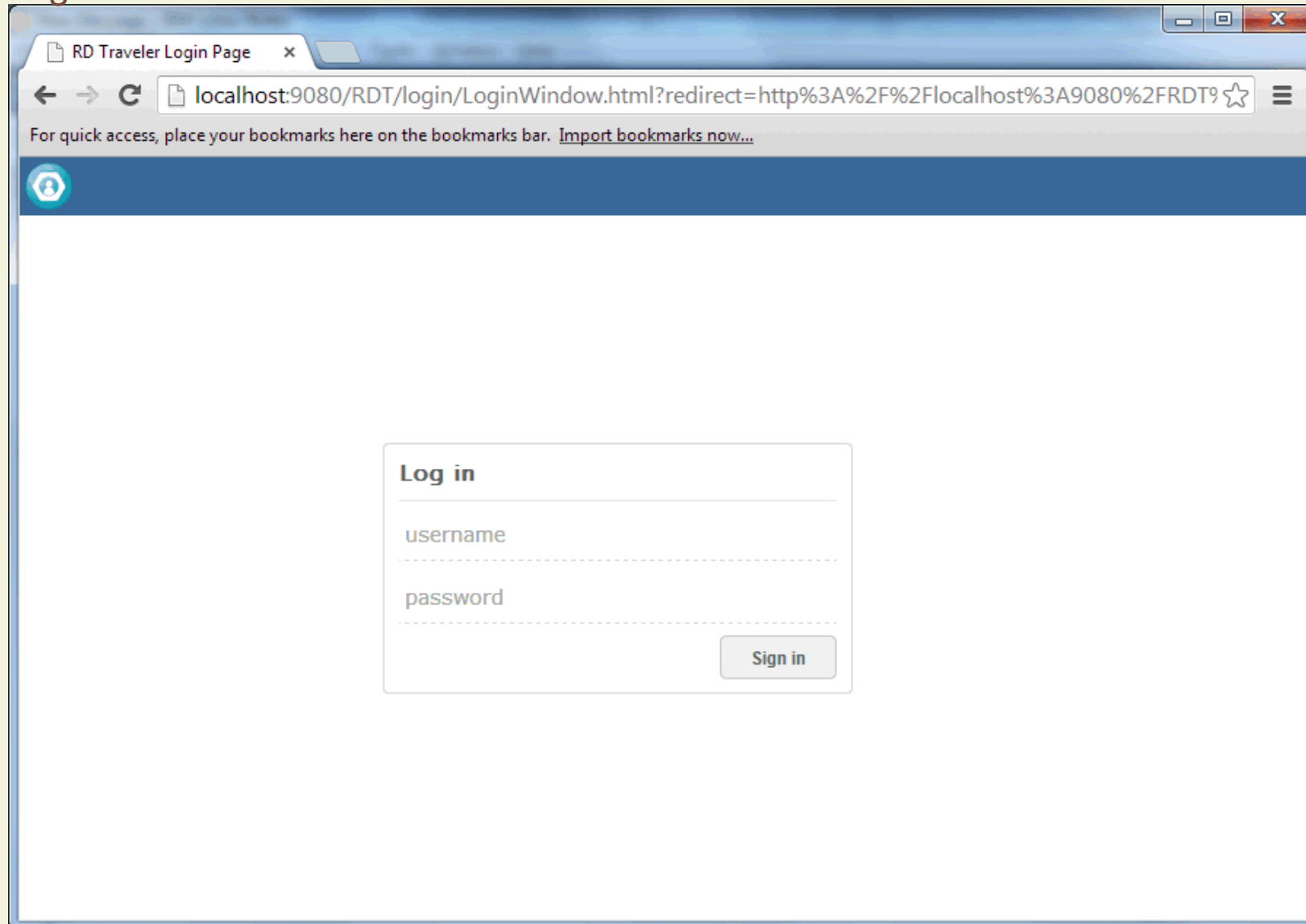
- COBOL and JCL source with rich edit

## Compare Files Really Easy

- Click on two files, compare

# A Quick Overview

Log In To Get Started

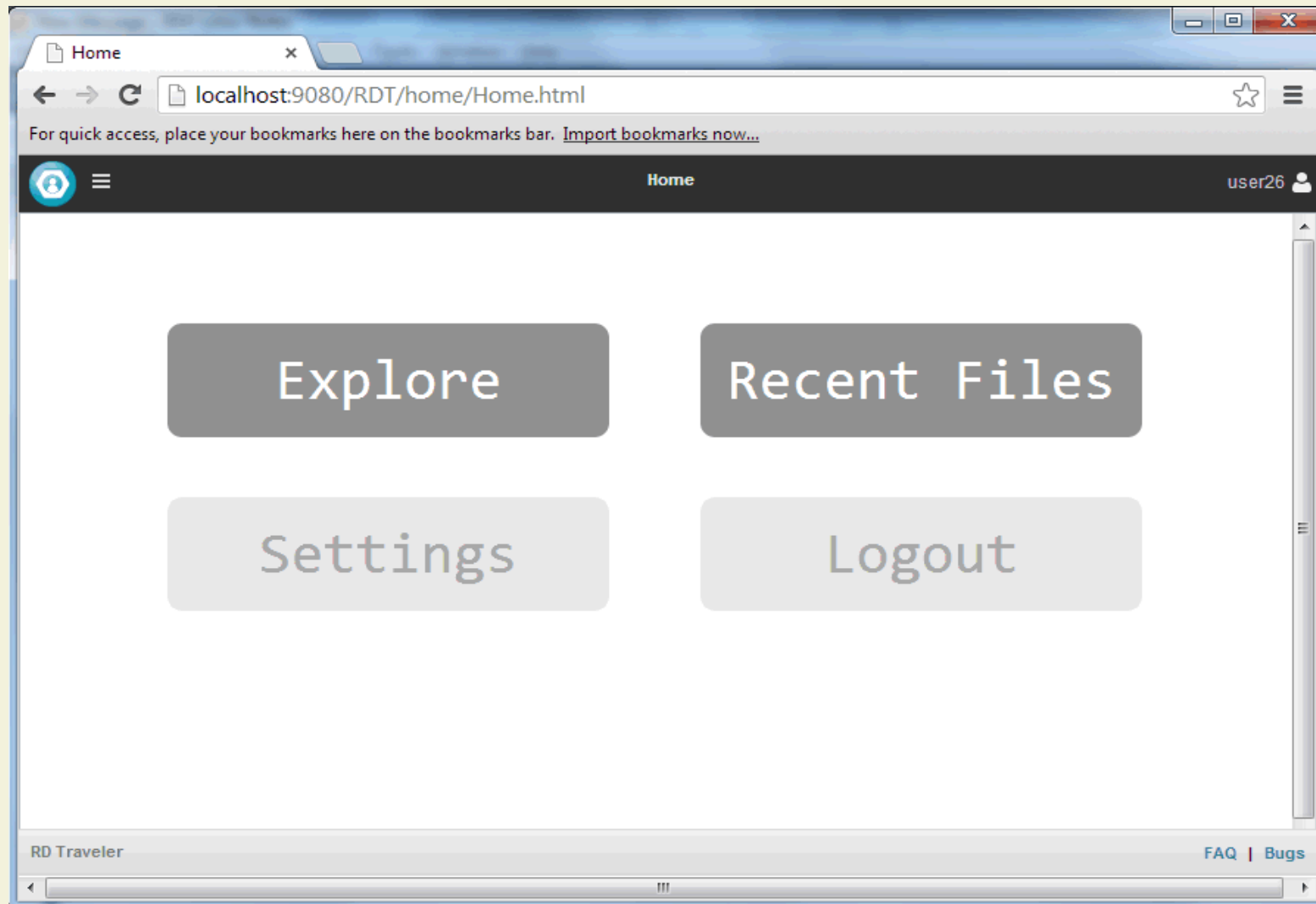


The screenshot shows a web browser window with the following elements:

- Browser Tab:** RD Traveler Login Page
- Address Bar:** localhost:9080/RDT/login/LoginWindow.html?redirect=http%3A%2F%2Flocalhost%3A9080%2FRDT%2F... (with a star icon for bookmarks)
- Page Header:** A blue horizontal bar containing a circular icon with a person silhouette.
- Form:** A white box with a light gray border containing:
  - Title:** Log in
  - Username Field:** A text input field with the placeholder text "username".
  - Password Field:** A text input field with the placeholder text "password".
  - Sign in Button:** A gray button with the text "Sign in".

# Explore Your Datasets

Look at recent files, change your settings, logout, or... Explore



# Log in to z/OS with your TSO ID

We don't store any z/OS passwords, and connections are all secure

localhost:9080/RDT/login/HostLoginWindow.html?redirect=http%3A%2F%2Flocalhost%3A9080%2F

Host Credentials user26

Enter a Username and Password for each of the specified host environments:

mvs099.rtp.raleigh.ibm.com:6714

Username:

Password:

Submit

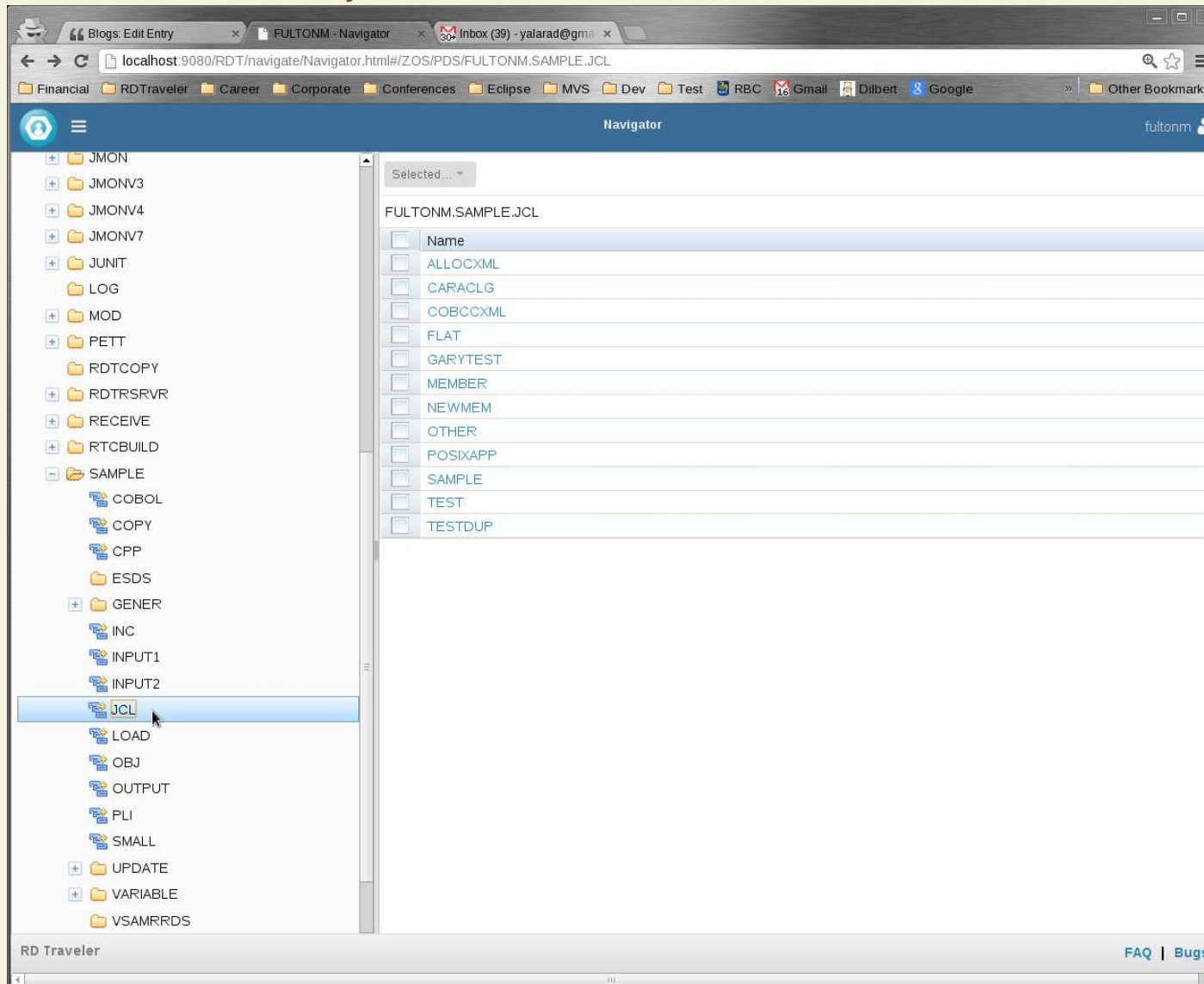
*(Host credentials are temporarily stored in memory by the RD Traveler Application Server, and can only be accessed by internal RD Traveler Application Server operations. Host credentials can be cleared from the RD Traveler Application Server at any time by logging out of RD Traveler. More information on how Host credentials are managed can be found on the RD Traveler FAQ.)*

RD Traveler FAQ | Bugs

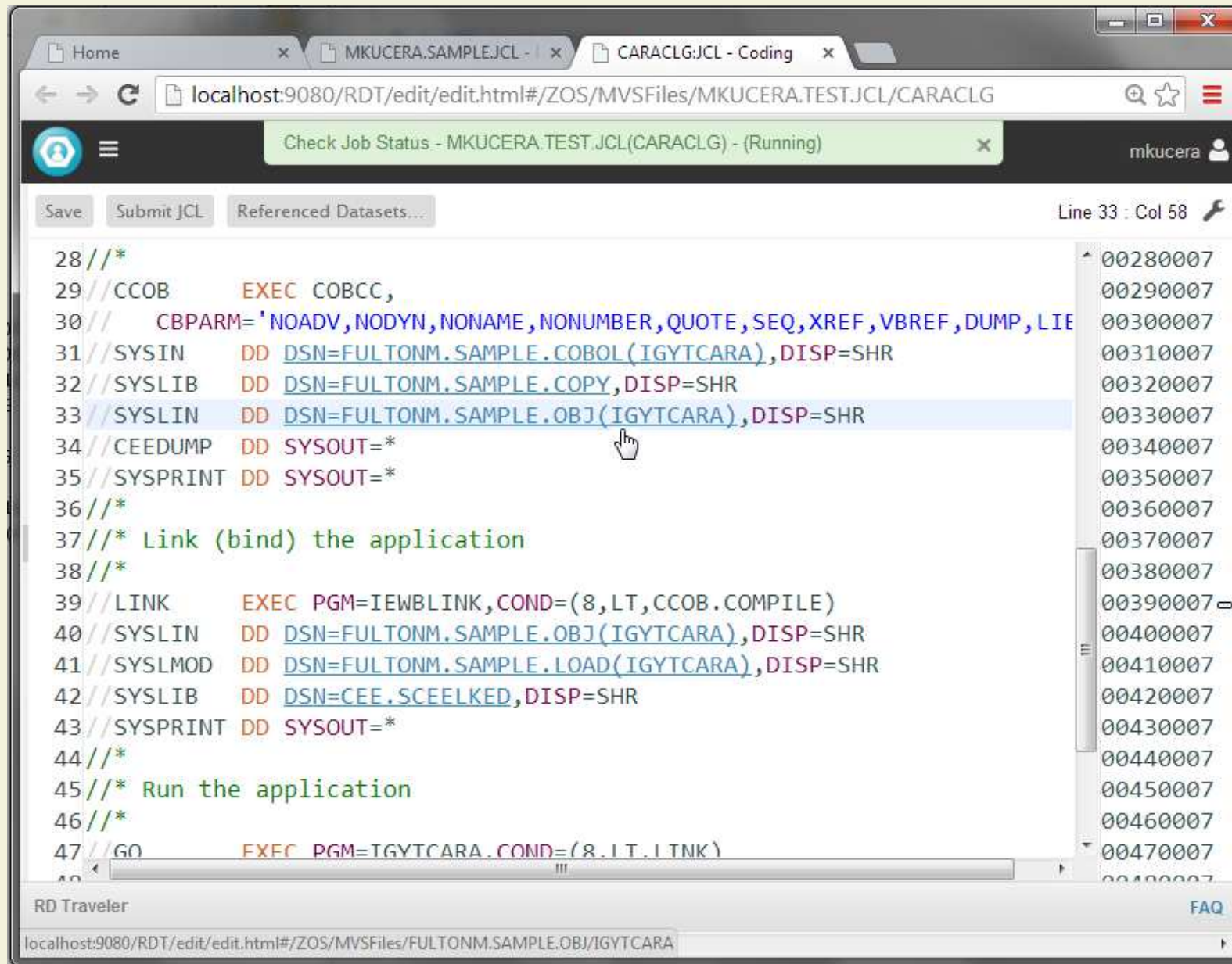


# Find the dataset you need quickly

Drill down to the dataset you want to work with



# Edit and Submit Your JCL



The screenshot shows a web browser window with the URL `localhost:9080/RDT/edit/edit.html#/ZOS/MVSFiles/MKUCERA.TEST.JCL/CARACLG`. The browser has two tabs: `MKUCERA.SAMPLE.JCL` and `CARACLG:JCL - Coding`. A notification bar at the top indicates `Check Job Status - MKUCERA.TEST.JCL(CARACLG) - (Running)`. The main content area is a code editor with a dark theme. The code is as follows:

```
28 //*  
29 //CCOB      EXEC COBCC,  
30 //      CBPARM='NOADV,NODYN,NONAME,NONUMBER,QUOTE,SEQ,XREF,VBREF,DUMP,LIE  
31 //SYSIN     DD DSN=FULTONM.SAMPLE.COBOL(IGYTCARA),DISP=SHR  
32 //SYSLIB    DD DSN=FULTONM.SAMPLE.COPY,DISP=SHR  
33 //SYSLIN    DD DSN=FULTONM.SAMPLE.OBJ(IGYTCARA),DISP=SHR  
34 //CEEDUMP   DD SYSOUT=*  
35 //SYSPRINT  DD SYSOUT=*  
36 //*  
37 //* Link (bind) the application  
38 //*  
39 //LINK      EXEC PGM=IEWBLINK,COND=(8,LT,CCOB.COMPILE)  
40 //SYSLIN    DD DSN=FULTONM.SAMPLE.OBJ(IGYTCARA),DISP=SHR  
41 //SYSLMOD   DD DSN=FULTONM.SAMPLE.LOAD(IGYTCARA),DISP=SHR  
42 //SYSLIB    DD DSN=CEE.SCEELKED,DISP=SHR  
43 //SYSPRINT  DD SYSOUT=*  
44 //*  
45 //* Run the application  
46 //*  
47 //GO        EXEC PGM=IGYTCARA,COND=(8,LT,LINK)
```

The editor interface includes buttons for `Save`, `Submit JCL`, and `Referenced Datasets...`. The status bar at the bottom shows `RD Traveler` and `FAQ`. The current cursor position is `Line 33 : Col 58`.

# Find Errors

No need to wade through JES output – the errors are right there

The screenshot shows a web-based JCL editor interface. The main window displays a COBOL job definition for 'sample'. The job includes steps for deleting and allocating datasets, creating and compiling source code, linking the application, and running it. The output pane on the right shows the execution results, including error messages for lines 28-32. A yellow box highlights these error messages:

```
28 Multiple annotations:
29 Messages for FULTONM.SAMPLE.COBOL(IGYTCARA)
30 (IGYDS1082) A period was required. A period was assumed before "05".
31 Messages for RDT.RDTUTIL.RDTPROC(COBCC)
32 (IEF142I) FULTONMC COMPILER COB - STEP WAS EXECUTED - COND CODE 0008
```

The interface also shows a left-hand navigation pane with a tree view of the job steps: PROCLIB JCLLIB, DELOUT EXEC PGM=IEFBR14, CREATE EXEC PGM=IDCAMS, COB EXEC COBCC, LINK EXEC PGM=IEWBLINK, and GO EXEC PGM=IGYTCARA. The top of the browser shows the URL 'rdpweb01.torolab.ibm.com:17384/RDT/edit/edit.htm#/ZOS/MVSFiles/FULTONM.SAMPLE.JCL/CARACLG' and the user 'mike fulton'.

# Fix Errors

Click on the source file, and the associated errors are highlighted

The screenshot shows a web browser window displaying the RD Traveled Web Client interface. The browser's address bar shows the URL: `rdpweb01.torolab.ibm.com:17384/RDT/edit/edit.html#/ZOS/MVSFiles/FULTONM.SAMPLE.COBOBOL/IGYTCARA`. The interface includes a navigation menu on the left with a tree view of the program structure, a central editor area showing COBOL source code, and a right-hand pane displaying line numbers. An error message is highlighted in a yellow box over line 181 of the source code.

**Program Information:**

- Program-id: IGYTCARA
- Author: A. Programmer
- Installation: IBM - Santa Teresa Laboratory
- Date-written: April 1991
- Date-compiled: 149
- Environment division
- Data division
  - File section
    - FD COMMUTER-FILE
      - 01 commuter-record 05 commuter-key PIC x(16)
    - FD COMMUTER-FILE-MST
      - 01 commuter-record-mst
    - FD LOCATION-FILE
      - 01 location-record
    - FD UPDATE-TRANSACTION-FILE
      - 01 update-transaction-record PIC x(80)
    - FD PRINT-FILE
      - 01 print-record pic x(121)
    - Working-storage section
    - procedure division

**Source Code Snippet:**

```
145  
146 IA1070      *-----*  
147              Select COMMUTER-FILE  
148                  assign COMMUTR  
149                  organization indexed  
150                  access random  
151                  record key COMMUTER-KEY  
152 IA1180                  file status COMMUTER-FILE-STATUS COMMUTER-VSAM-STATUS.  
153              *-----*  
154              * File-control entry for QSAM files.  
155              *-----*  
156  
157 IA1190      Select LOCATION-FILE  
158                  assign LOCCODE  
159 IA1300                  file status LOCCODE-FILE-STATUS.  
160  
161      Select COMMUTER-FILE-MST  
162                  assign COMMUTR  
163                  organization indexed  
164                  access sequential  
165                  record key COMMUTER-KEY-MST  
166                  file status I-F-FILE-STATUS.  
167  
168      Select UPDATE-TRANSACTION-FILE  
169                  assign UPDTRANS  
170                  file status is UPDATE-FILE-STATUS.  
171      Select PRINT-FILE  
172                  assign UPDPRINT  
173                  file status is UPDPRINT-FILE-STATUS.  
174 Data division.  
175 File section.  
176  
177  
178 FD COMMUTER-FILE  
179     record 80 characters.  
180     01 commuter-record  
181     05 filler PIC x(04).  
182  
183  
184 FD COMMUTER-FILE-MST  
185     record 80 characters.  
186     01 commuter-record-mst.  
187         05 commuter-key-mst PIC x(16).  
188         05 filler PIC x(64).  
189  
190 FD LOCATION-FILE  
191     recording mode F  
192     block 0 records  
193     record 80 characters  
194     label record standard.  
195     01 location-record.  
196         05 loc-code PIC xx.  
197         05 loc-description PIC x(20).  
198         05 filler PIC x(58).
```

**Error Message:**

⊗ (IGYDS1082) A period was required. A period was assumed before "05".

RD Traveled Web Client V1.0.0 (20131025-1820) [FAQ](#) | [Ask a Question](#)

# Examine Job Results

Examine your referenced datasets and JES Output from your JCL

The screenshot shows the RD Traveler Content interface for editing JCL. The main window displays the JCL code for a job named 'sample'. The code includes various steps such as DELOUT, CREATE, SYSIN, LINK, and GO, with associated DD statements for datasets. A modal window titled 'Data Sets (Job ID: JOB00423)' is open, showing a table of datasets used in the job.

Step	DD	DSN
CCOB.COMPILE	SYSPRINT	FULTONM.FULTONMC.JOB00423.D0000103.?
CCOB.COMPILE	SYSXMLSD	FULTONM.FULTONMC.JOB00423.D0000104.?
LINK	SYSPRINT	FULTONM.FULTONMC.JOB00423.D0000107.?
JES2	JESMSGLG	FULTONM.FULTONMC.JOB00423.D0000002.JESMSGLG
JES2	JESJCL	FULTONM.FULTONMC.JOB00423.D0000003.JESJCL
JES2	JESYSMSG	FULTONM.FULTONMC.JOB00423.D0000004.JESYSMSG
CREATE	SYSIN	FULTONM.FULTONMC.JOB00423.D0000101.?
CREATE	SYSPRINT	FULTONM.FULTONMC.JOB00423.D0000102.?

The JCL code in the background includes the following steps and DD statements:

```
1 // FULTONMC JOB 'sample', CLASS=D, MSGCLASS=S, NOTIFY=&SYSUID.
2 // PROCLIB JCLLIB ORDER=(RDT.RDTUTIL.RDTPROC)
3 // JOBPARM T=1,L=50
4 /**
5 /** Delete/Allocate the report dataset
6 /**
7 //DELOUT EXEC PGM=IEFBRI4
8 //UPDTRANS DD DSN=FULTONM.SAMPLE.OUTPUT, DISP=(MOD,KEEP,DELETE),
9 // LIKE=RDT.SAMPLE.OUTPUT
10 /**
11 /** Delete/Allocate the VSAME dataset
12 /**
13 //CREATE EXEC PGM=IDCAMS
14 //SYSIN DD *
15 DELETE FULTONM.IGYTCAR.MASTFILE -
16 DIRGE
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37 /**
38 //LINK EXEC PGM=IEWBLINK, COND=(8,LT,CCOB.COMPILE)
39 //SYSLIN DD DSN=&SYSUID.SAMPLE.OBJ(IGYTCAR), DISP=SHR
40 //SYSLMOD DD DSN=&SYSUID.SAMPLE.LOAD(IGYTCAR), DISP=SHR
41 //SYSLIB DD DSN=CEE.SCEELKED, DISP=SHR
42 //SYSPRINT DD SYSOUT=*
43 /**
44 /** Run the application
45 /**
46 //GO EXEC PGM=IGYTCAR, COND=(8,LT,LINK)
47 //STEPLIB DD DSN=&SYSUID.SAMPLE.LOAD, DISP=SHR
48 // DD DSN=CEE.SCEERUN, DISP=SHR
49 //COMMUTR DD DSN=RDT.IGYTCAR.MASTFILE, DISP=SHR
50 //LOCCODE DD DSN=COBOL_V4R2MR.SIGYSAMP(IGYTCODE), DISP=SHR
51 //UPDTRANS DD DSN=COBOL_V4R2MR.SIGYSAMP(IGYTRANX), DISP=SHR
52 //SYSOUT DD DSN=FULTONM.SAMPLE.OUTPUT(ERRORS), DISP=SHR
53 //UPDPRINT DD DSN=FULTONM.SAMPLE.OUTPUT(REPORT), DISP=SHR
```

# Compare Files

Select Two Dataset Members, Compare (can be in different datasets)

The screenshot displays the RD Traveler web client interface. The browser address bar shows the URL: `rdpweb01.torolab.ibm.com:17384/RDT/navigate/Navigator.html#/ZOS/PDS/FULTONM.SAMPLE.COBO`. The interface is divided into several sections:

- Left Panel:** A tree view showing the directory structure of the dataset `FULTONM.SAMPLE.COBO`. The `COBOL` folder is selected.
- Right Panel:** A list of dataset members. Two members, `ANAGRAMN` and `CICSCOB`, are selected. A context menu is open over these selections, showing options: `Delete`, `Compare with each other`, and `Open the compare editor on the two selected members.`
- Bottom:** The footer contains the text "RD Traveler Web Client V1.0.0 (20131025-1820)" on the left and "FAQ | Ask a Question" on the right.

# And easily see the difference

Works fast even on really big files...

The screenshot displays a web browser window with multiple tabs open, including 'SAMPLE.COBOL - Navigato...', 'Compare', 'CARACLG.JCL - Coding', and 'IGYTARA.COBOL - Coding'. The address bar shows the URL: `rdpweb01.torolab.ibm.com:17384/RDT/compare/compare.html#/ZOS/MVSFiles/FULTONM.SAMPLE.COBOL/ANAGRAM,compareTo=/ZOS/MVSFiles/FULTONM.SAMPLE.COBOL/ANAGRAMN`. The browser interface includes a navigation bar with various application icons and a search bar.

The main content area is split into two panels, each displaying a COBOL program. The left panel, titled '/ZOS/MVSFiles/FULTONM.SAMPLE.COBOL/ANAGRAM', shows the original code. The right panel, titled '/ZOS/MVSFiles/FULTONM.SAMPLE.COBOL/ANAGRAMN', shows the code with a syntax error highlighted in red. The error is on line 23: 'syntax error' and 'syntax erro new line'.

```
7 000700* Corp. *00070004
8 000800* *00080004
9 000900* IBM Rational Developer for System z (RDz) *00090004
10 001000* IBM z/OS Automated Unit Testing Framework (zUnit) *00100004
11 001100* Enterprise COBOL zUnit Test Case Sample AZUTC001 *00110004
12 001200* ANAGRAM.cbl *00120004
13 001300* *00130004
14 001400* This file contains a program ANAGRAM that is part of the *00140004
15 001500* Enterprise COBOL zUnit test case sample AZUTC001. ANAGRAM *00150004
16 001600* tests if one word or phrase is an anagram of another, but it *00160004
17 001700* has an intentional flaw where punctuation causes false *00170004
18 001800* negatives. *00180004
19 001900* *00190004
20 002000* @since 8.5.0.0 *00200004
21 002100* @version 8.5.0.0 *00210004
22 002200* *****00220004
23 002300 IDENTIFICATION DIVISION. 00230004
24 002400 PROGRAM-ID. 'ANAGRAM'. 00240004
25 002500 DATA DIVISION. 00250004
26 002600 WORKING-STORAGE SECTION. 00260004
27 002700 01 WORD-BUF-1 PIC X(999). 00270004
28 002800 01 WORD-BUF-2 PIC X(999). 00280004
29 002900 01 CMPTMPA PIC S9(9) COMP-5. 00290004
30 003000 LINKAGE SECTION. 00300004
31 003100 COPY ANAGRAM. 00310004
32 003200 PROCEDURE DIVISION USING ANAGRAMIC. 00320004
33 003300 MAINLINE SECTION. 00330004
34 003400 DISPLAY 'ANAGRAM STARTED...' 00340004
35 003500 PERFORM VALIDATE-INPUT 00350004
36 003600 PERFORM ANAGRAM-TEST 00360004
37 003700 DISPLAY 'ANAGRAM SUCCESSFUL' 00370004
38 003800 GOBACK 00380004
39 003900 . 00390004
40 004000 VALIDATE-INPUT. 00400004
41 004100 INITIALIZE STATUS-MSG-LEN STATUS-MSG 00410004
42 004200 IF FIRST-WORD-LEN = 0 00420004
43 004300 MOVE 1 TO CMPTMPA 00430004
44 004400 STRING 'ANAGRAM ERROR, FIRST-WORD-LEN IS ZERO.' 00440004
45 004500 DELIMITED BY SIZE INTO STATUS-MSG 00450004
46 004600 WITH POINTER CMPTMPA 00460004
47 004700 END-STRING 00470004
48 004800 COMPUTE STATUS-MSG-LEN = CMPTMPA - 1 00480004
49 004900 SET INPUT-ERROR TO TRUE 00490004
50 005000 MOVE 16 TO RETURN-CODE 00500004
51 005100 GOBACK 00510004
52 005200 END-IF 00520004
53 005300 IF FIRST-WORD = SPACES 00530004
54 005400 MOVE 1 TO CMPTMPA 00540004
55 005500 STRING 'ANAGRAM ERROR, FIRST-WORD IS BLANK.' 00550004
56 005600 DELIMITED BY SIZE INTO STATUS-MSG 00560004
57 005700 WITH POINTER CMPTMPA 00570004
58 005800 . 00580004
59 005900 . 00590004
```

# There is Lots More to See

This is new: we need early adopter feedback

- *Does Web Based Editing Enhance the z/OS Development Experience?*

If you want to try it out, you have 2 options:

- Get a sandbox id on our server and play
- Install an early driver on your own server

To see videos and blogs about RD Traveler:

- <http://ibm.co/rdtraveler>

Or: send us email:

- <mailto:rdtraveler@ca.ibm.com>