



IBM Software Group

IBM Developer for z Systems – for ISPF Developers

Module 7 – MVS Subprojects - Organizing PDS Members



DevOps

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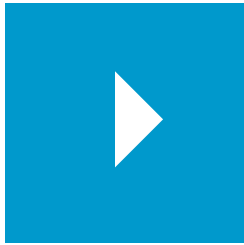
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UNIT

The RDz Workbench



Topics:

- MVS Subprojects
- **Offline Subprojects**
- MVS Subproject use with CARMA for Endeavor/Changeman

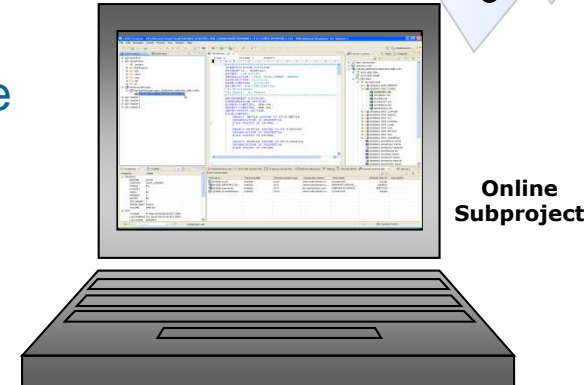
Offline SubProjects were deprecated after RDz v9.5

States of a z/OS Project

z/OS Projects can be in either of two states:

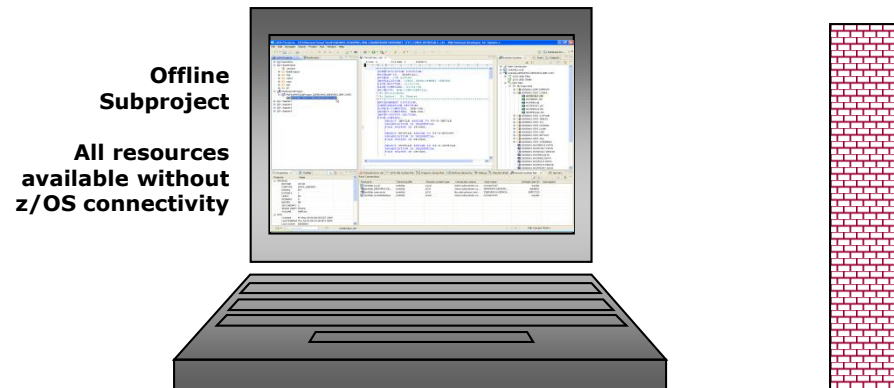
1. Online

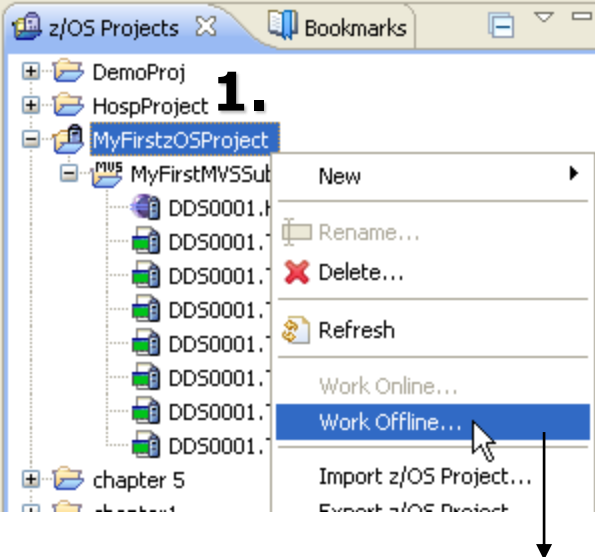
- ▶ The project is connected to the z/OS system to which the project refers
- ▶ You can directly change the data sets that are stored in that system



2. Offline

- ▶ The project can only access mainframe resources that were explicitly taken offline
- ▶ This allows you to work even if TSO is down or if your mainframe connection is down - and you will notice very quick development response time as well



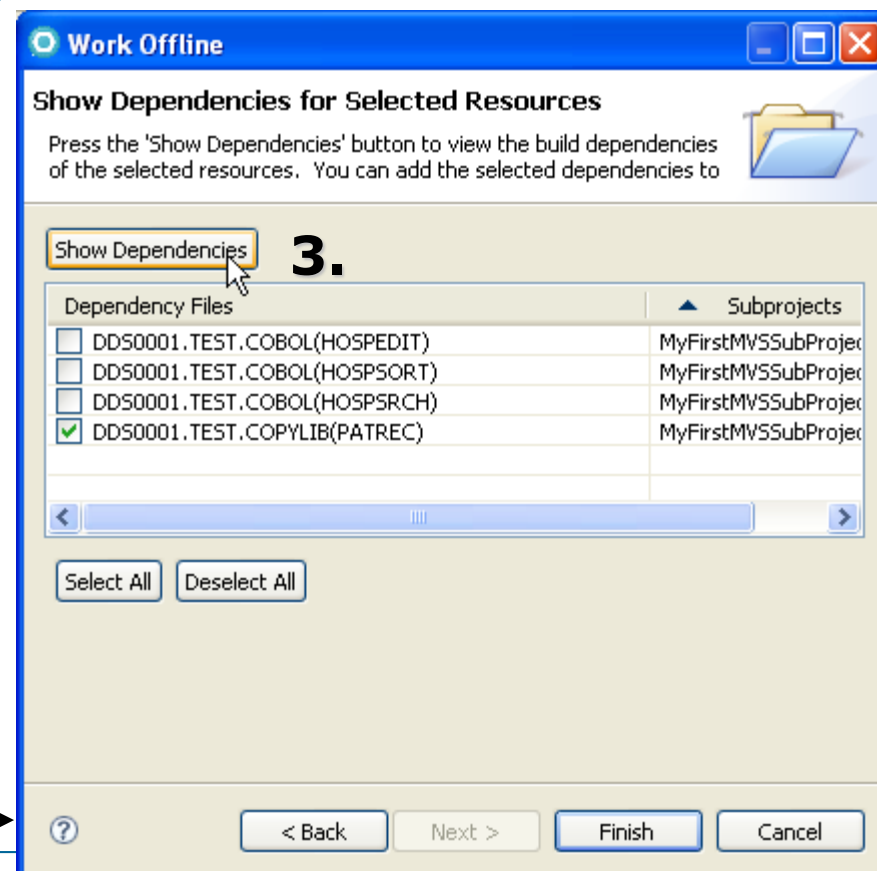
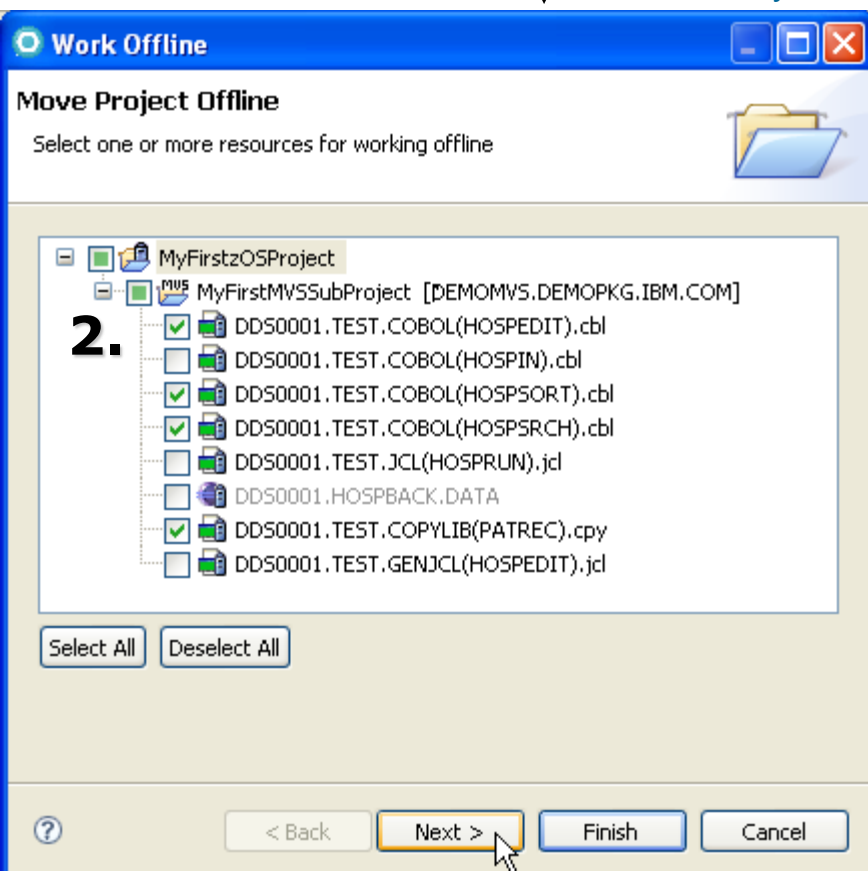


Working Offline (1 of 5)

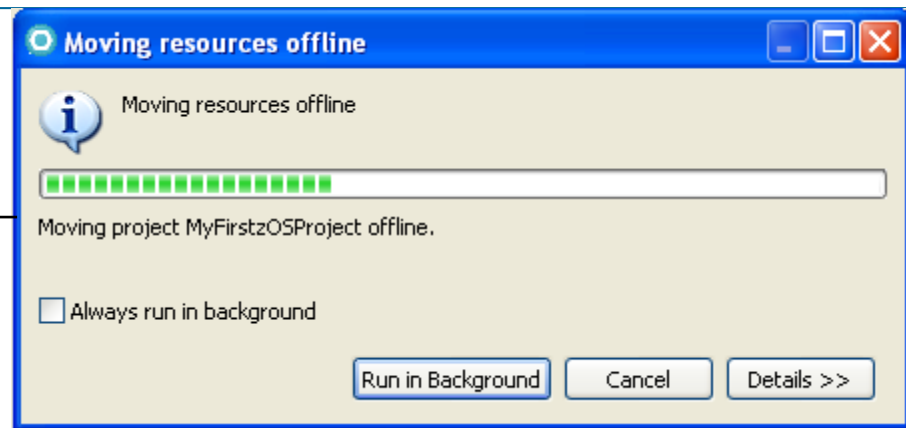
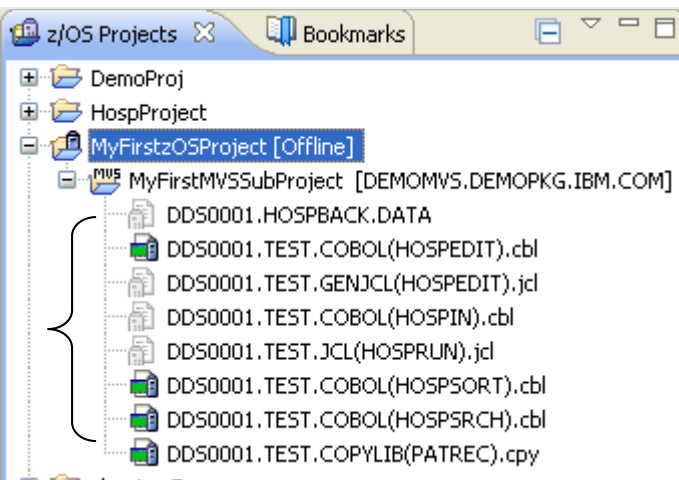
Steps:

1. Right-click over the z/OS Project and select Work Offline...
2. Select the resources you want copied to your workstation
3. Click Show Dependencies, and select dependent resources to be added

It is important that you select Copybooks. RDz can only resolve references to variables in copybooks if those copybooks are added to your offline Project.



Working Offline (2 of 5)



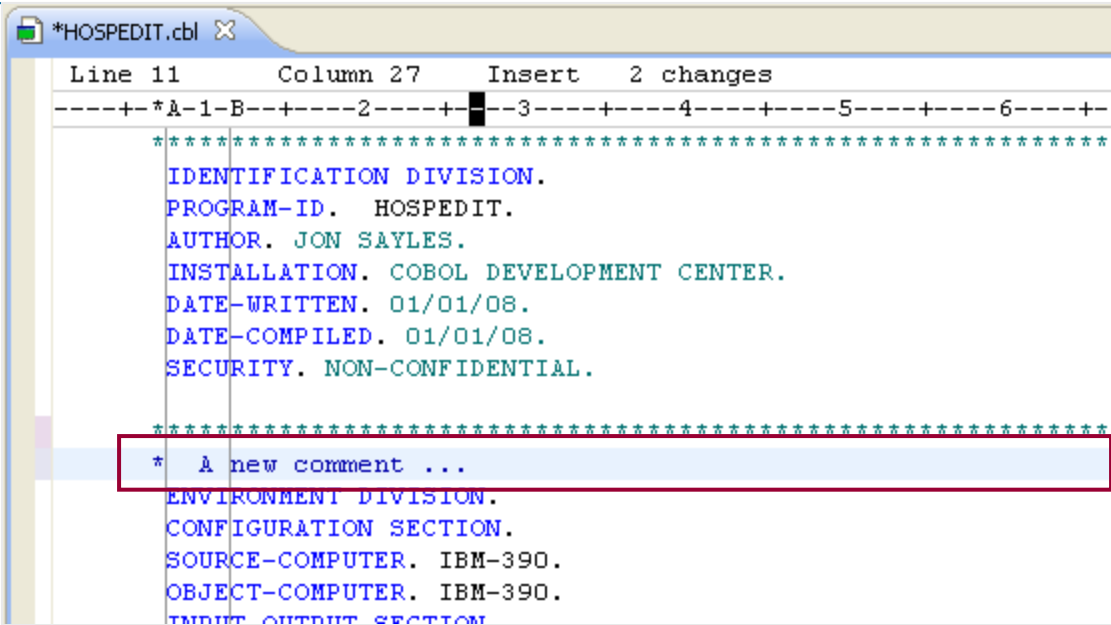
RDz will

- Copy the selected files to your workstation
- Place any non-copied resources into a disabled and inaccessible state
 - ▶ See grayed-out entries above
- Mark the z/OS project as [Offline]

Working Offline (3 of 5)

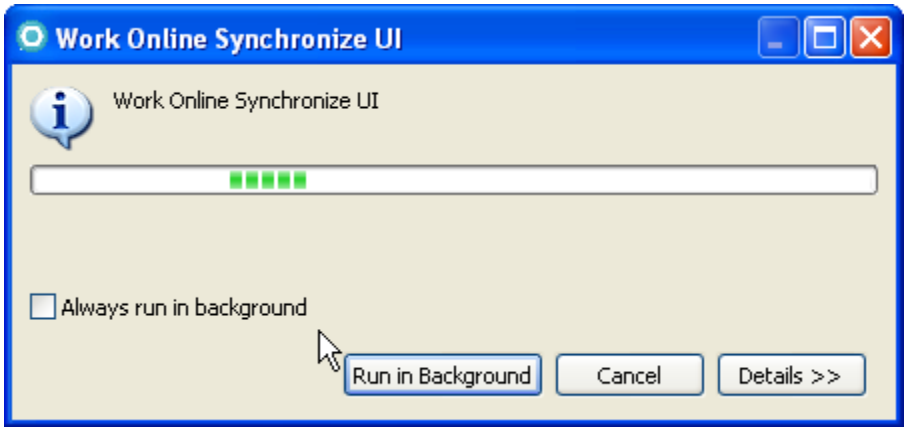
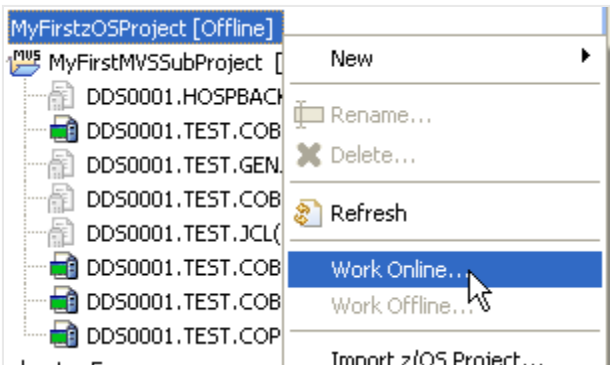
Assume now that you:

- Have edited your source (offline)
- Saved your code changes
- ...and want to synchronize your offline Subproject and code modifications with the associated z/OS datasets



- From z/OS Projects

- ▶ Select the Offline Project
- ▶ From the Context menu, select Work Online (this starts a job to synchronize your code)



Return to Online State (4 of 5)

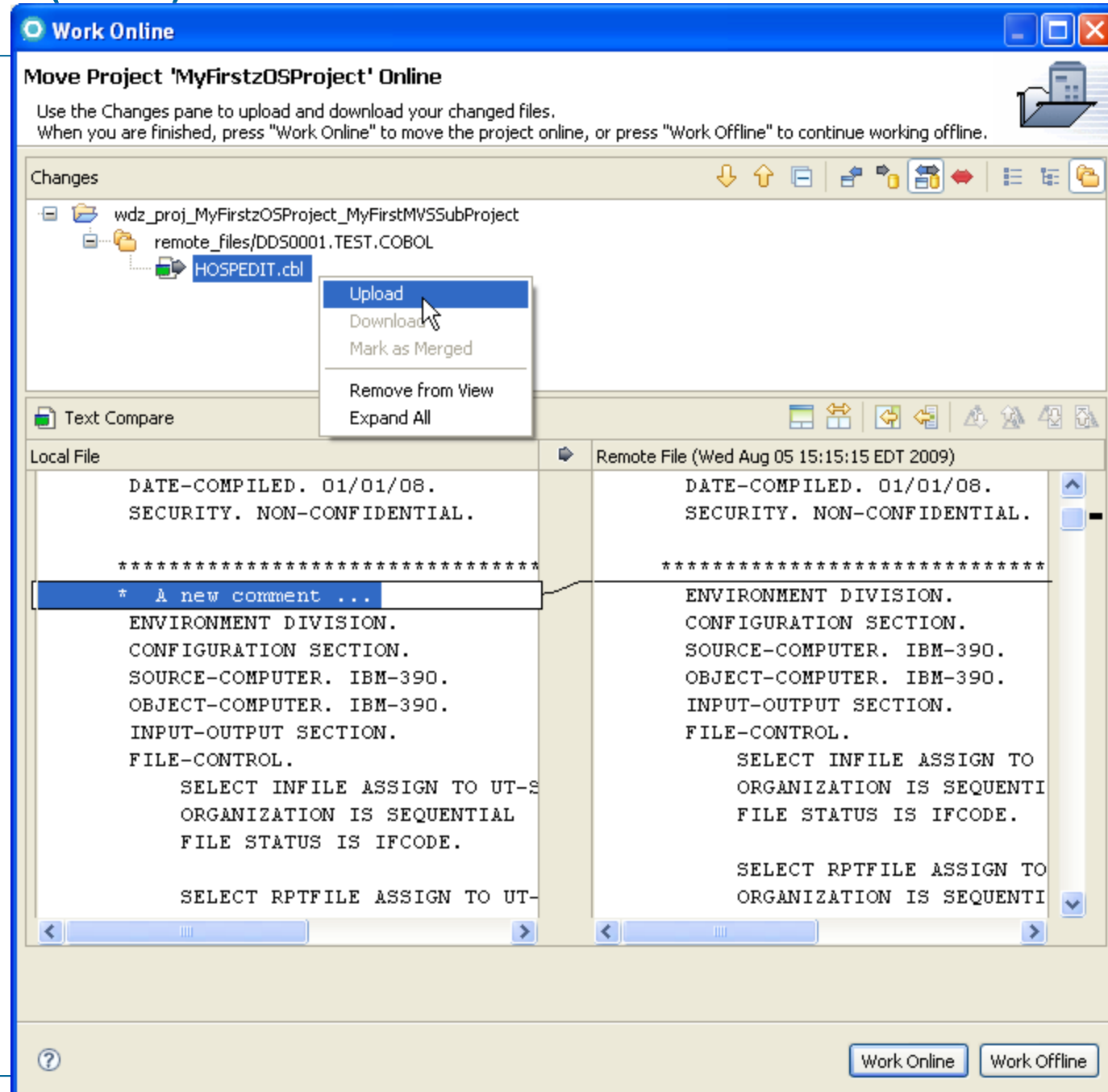
Verify change dialog:

- RDz detects all source lines that have been changed while offline. A wizard/dialog allows you to:

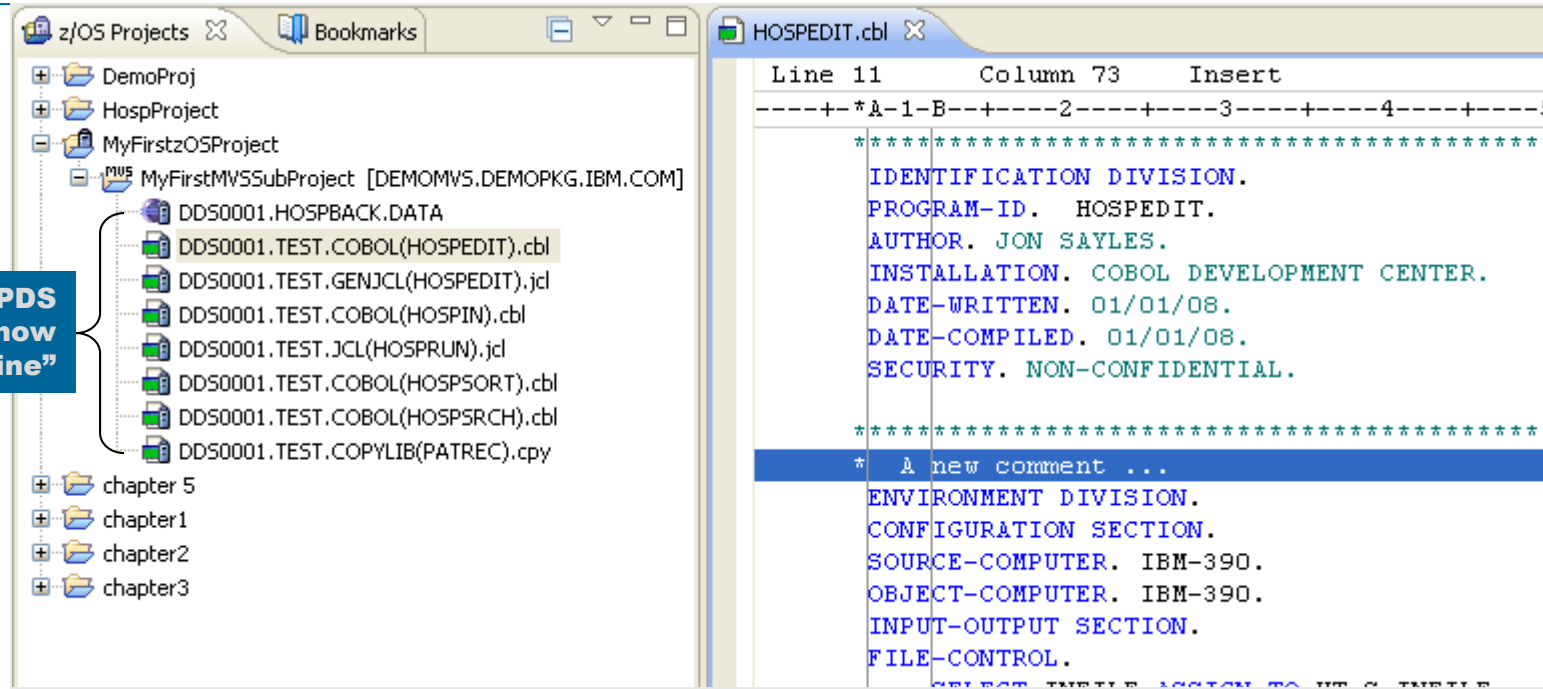
- ▶ Compare each delta
- ▶ Accept (Upload) the change
- ▶ Write over the change (move the code from z/OS to the workstation copy)
- ▶ Do nothing (in case you want to continue to work Offline)

- When you're finished, click: **Work Online**

- ▶ RDz resolves all of your edit and source control decisions
- ▶ Copies your original Subproject resources from z/OS to your PC
- ▶ Puts the project in an Online state



Subproject Returned to Online State (5 of 5)



The screenshot displays the z/OS Projects interface on the left and the HOSPEDIT.cbl editor on the right. The project tree on the left shows a hierarchy starting with 'MyFirstzOSProject', which contains 'MyFirstMVSSubProject [DEMOMVS.DEMOPKG.IBM.COM]'. This subproject contains several datasets and PDS members, including 'DD50001.HOSPBK.DATA' and 'DD50001.TEST.COBOL(HOSPEDIT).cbl'. A blue callout box points to these members with the text 'Datasets / PDS members now back "online"'. The editor on the right shows the source code of HOSPEDIT.cbl, which includes a header section with fields like 'PROGRAM-ID', 'AUTHOR', 'DATE-WRITTEN', and 'DATE-COMPILED', followed by an 'ENVIRONMENT DIVISION' and 'CONFIGURATION SECTION'.

z/OS Projects

- DemoProj
- HospProject
- MyFirstzOSProject
 - MyFirstMVSSubProject [DEMOMVS.DEMOPKG.IBM.COM]
 - DD50001.HOSPBK.DATA
 - DD50001.TEST.COBOL(HOSPEDIT).cbl
 - DD50001.TEST.GENJCL(HOSPEDIT).jcl
 - DD50001.TEST.COBOL(HOSPIN).cbl
 - DD50001.TEST.JCL(HOSPRUN).jcl
 - DD50001.TEST.COBOL(HOSPSORT).cbl
 - DD50001.TEST.COBOL(HOSPSRCH).cbl
 - DD50001.TEST.COPYLIB(PATREC).cpy
 - chapter 5
 - chapter1
 - chapter2
 - chapter3

HOSPEDIT.cbl

Line	Column	Insert
11	73	
-----+---A-1-B-----2-----3-----4-----5-----		

IDENTIFICATION DIVISION.		
PROGRAM-ID. HOSPEDIT.		
AUTHOR. JON SAYLES.		
INSTALLATION. COBOL DEVELOPMENT CENTER.		
DATE-WRITTEN. 01/01/08.		
DATE-COMPILED. 01/01/08.		
SECURITY. NON-CONFIDENTIAL.		

* A new comment ...		
ENVIRONMENT DIVISION.		
CONFIGURATION SECTION.		
SOURCE-COMPUTER. IBM-390.		
OBJECT-COMPUTER. IBM-390.		
INPUT-OUTPUT SECTION.		
FILE-CONTROL.		
COPY-BOOK TABLE LOCATION TO THE COPY-BOOK TABLE		

Optional Topic - Opening the same file from different Subprojects

You can create different MVS Subprojects to the same or to different LPARs for the different kinds of tasks you do each day

And you can have the same program "assigned to" more than one MVS Subproject.

