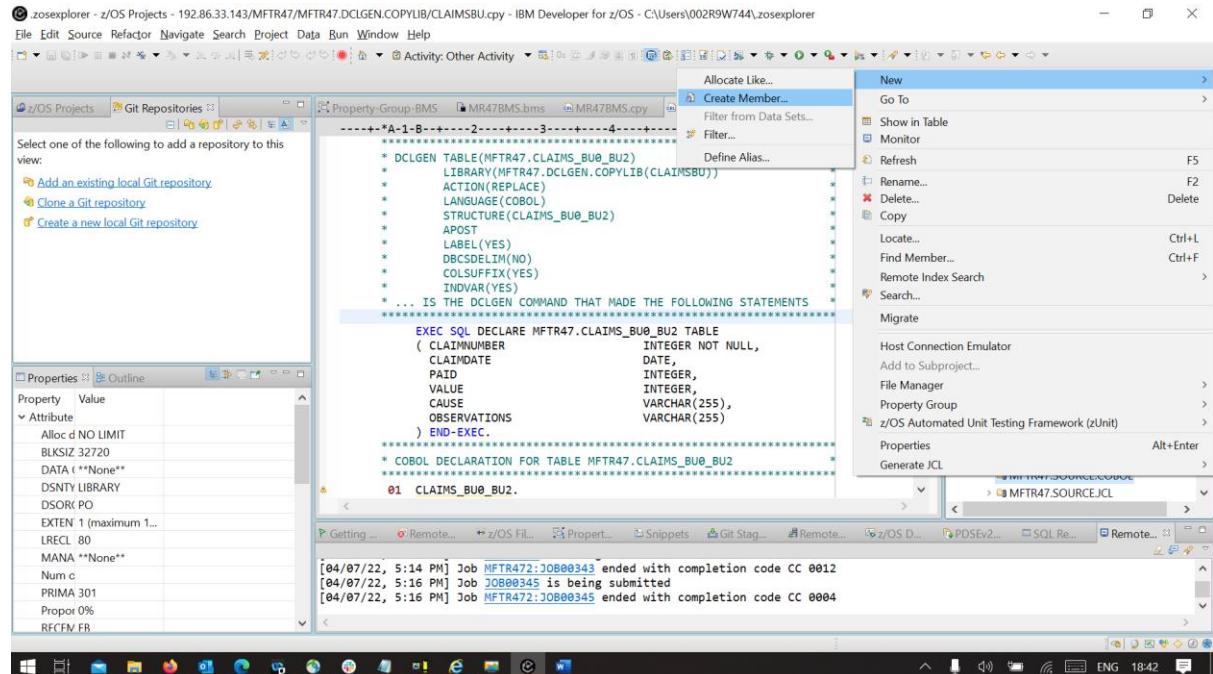
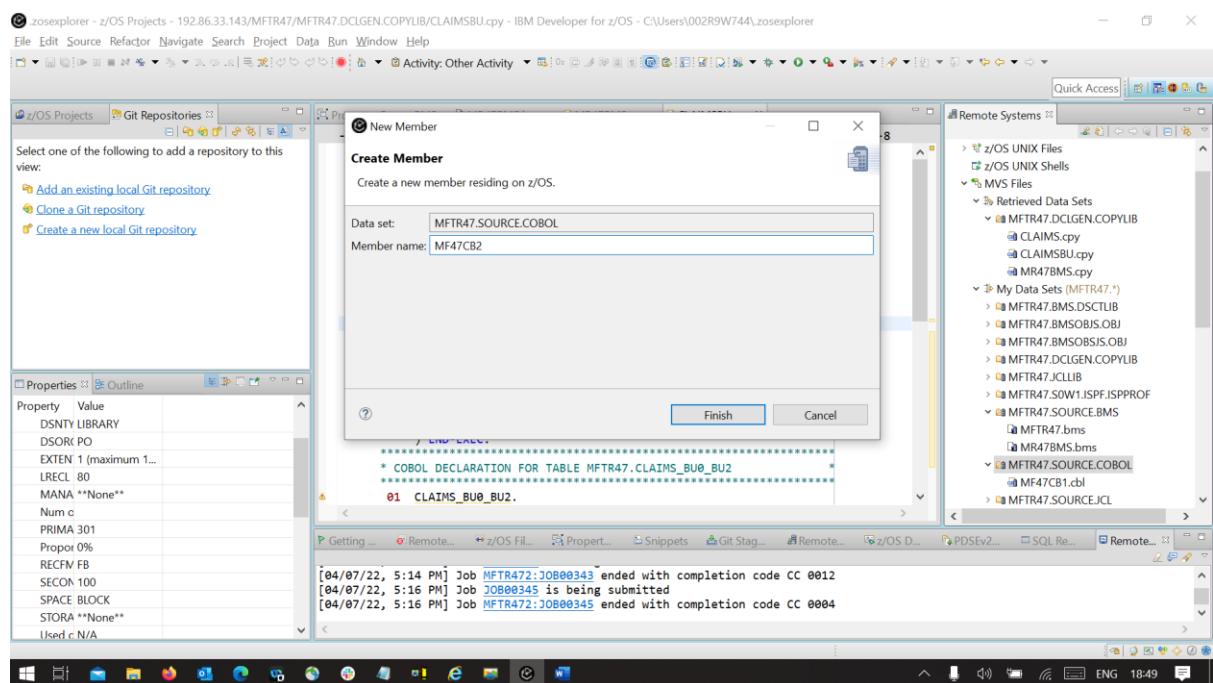
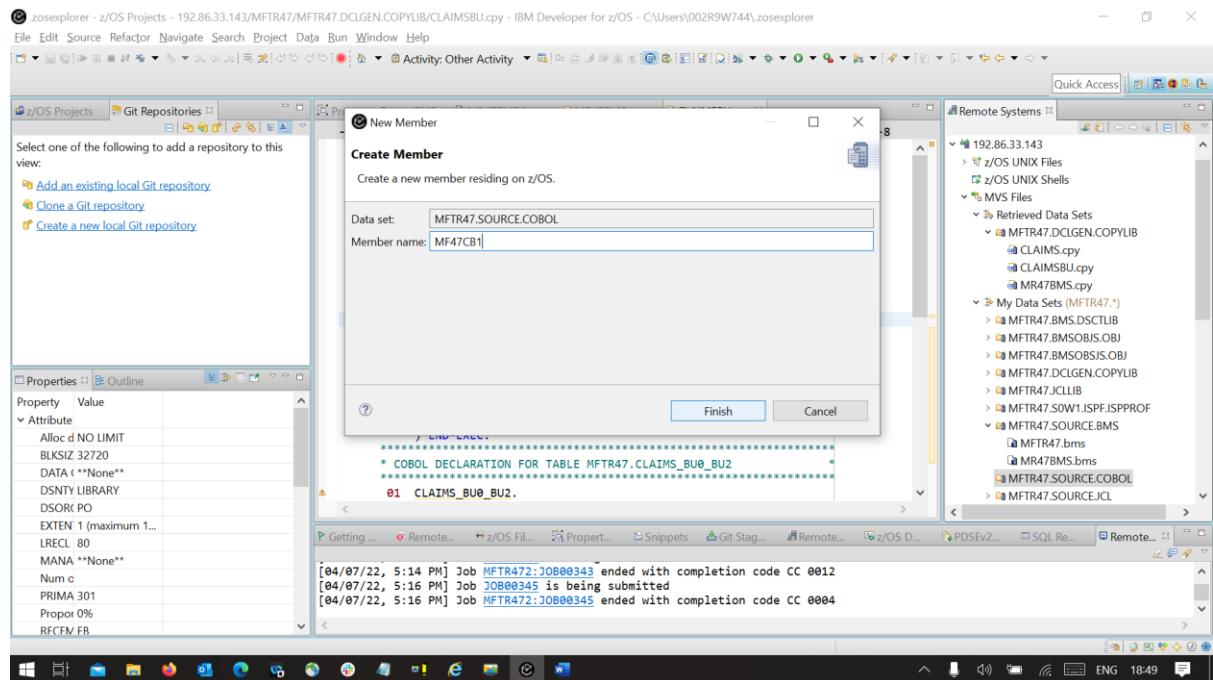


Create 3 tier COBOL program (i.e., Frontend, Business logic, Data interaction) Business logic program should have following validations:

- a) All numeric will validated
- b) All Dates need to be on past
- c) The Paid amount should be less or equal to total value

Create new PDS MFTR47.SOURCE.COBOL -> Right click on PDS to create 3 members MF47CB1, MF47CB2, MF47CB3





.zosexplorer - z/OS Projects - 192.86.33.143/MFTR47/MFTR47.DCLGEN.COPYLIB/CLAIMSBU.cpp - IBM Developer for z/OS - C:\Users\002R9W744\.zosexplorer

File Edit Source Refactor Navigate Search Project Data Run Window Help

Activity: Other Activity

z/OS Projects Git Repositories

Select one of the following to add a repository to this view:

- Add an existing local Git repository
- Clone a Git repository
- Create a new local Git repository

Property-Group-BMS MRA47BMS.bms MR47BMS.cpp CLAIMSBU.cpp

```
-----+*A-1-B-+--+2-+-+3-+-+4-+-+5-+-+6-+-+7-+-+8
* DCLGEN TABLE(MFTR47.CLAIMS_BU0_BU2)
*   LIBRARY(MFTR47.DCLGEN.COPYLIB(CLAIMSBU))
*   ACTION(REPLACE)
*   LANGUAGE(COBOL)
*   STRUCTURE(CLAIMS_BU0_BU2)
*   APOST
*   LABEL(YES)
*   DBCSDELIM(NO)
*   COLSUFFIX(YES)
*   INDDVAR(YES)
* ... IS THE DCLGEN COMMAND THAT MADE THE FOLLOWING STATEMENTS
EXEC SQL DECLARE MFTR47.CLAIMS_BU0_BU2 TABLE
( CLAIMNUMBER           INTEGER NOT NULL,
  CLAIDATE              DATE,
  PAID                  INTEGER,
  VALUE                 INTEGER,
  CAUSE                 VARCHAR(255),
  OBSERVATIONS          VARCHAR(255)
) END-EXEC.
* COBOL DECLARATION FOR TABLE MFTR47.CLAIMS_BU0_BU2
-----+*A-1-B-+--+2-+-+3-+-+4-+-+5-+-+6-+-+7-+-+8
01 CLAIMS_BU0_BU2.
```

Properties Outline

Property	Value

Remote Systems

MVS Files

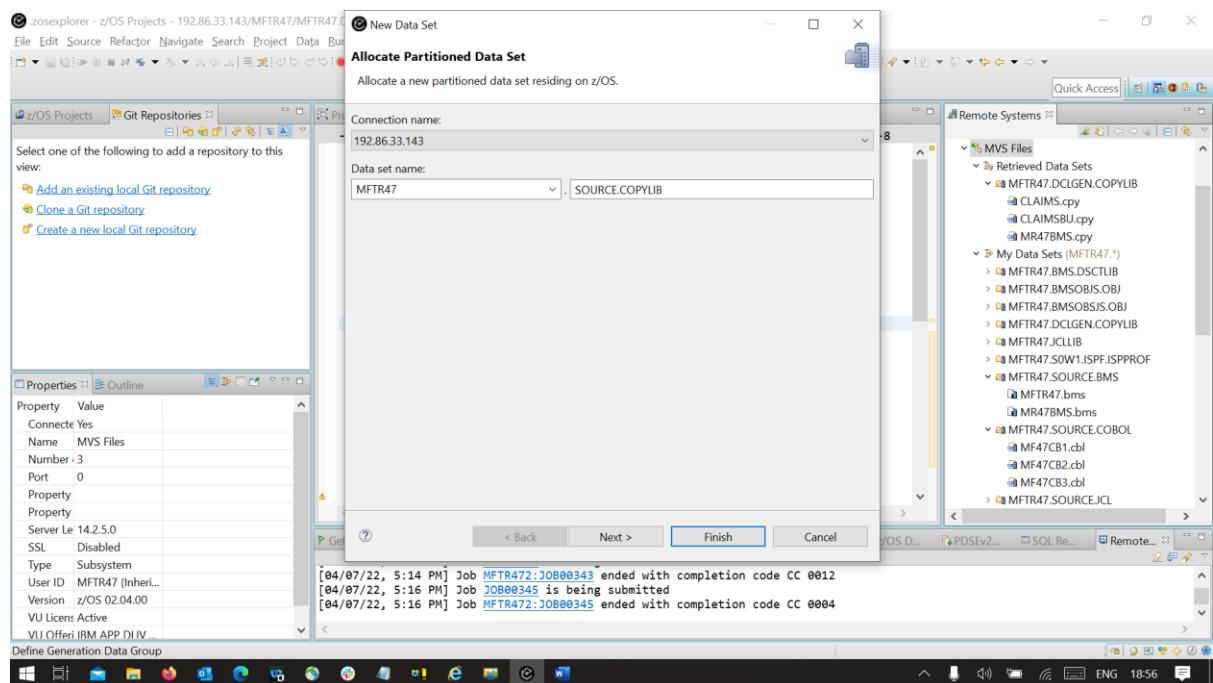
- Retrieved Data Sets
 - MFTR47.DCLGEN.COPYLIB
 - CLAIMS.cpp
 - CLAIMSBU.cpp
 - MR47BMS.cpp
- My Data Sets (MFTR47.*)
 - MFTR47.BMS.DSCTLIB
 - MFTR47.BMSOBSJS.OBJ
 - MFTR47.BMSOBSJS.OBJ
 - MFTR47.DCLGEN.COPYLIB
 - MFTR47.ICLIB
 - MFTR47.SOW1.ISPF.ISPPROF
 - MFTR47.SOURCE.BMS
 - MFTR47.bms
 - MR47BMS.bms
 - MFTR47.SOURCE.COBOL
 - MF47CB1.cbl
 - MF47CB2.cbl
 - MF47CB3.cbl
 - MFTR47.SOURCE.JCL

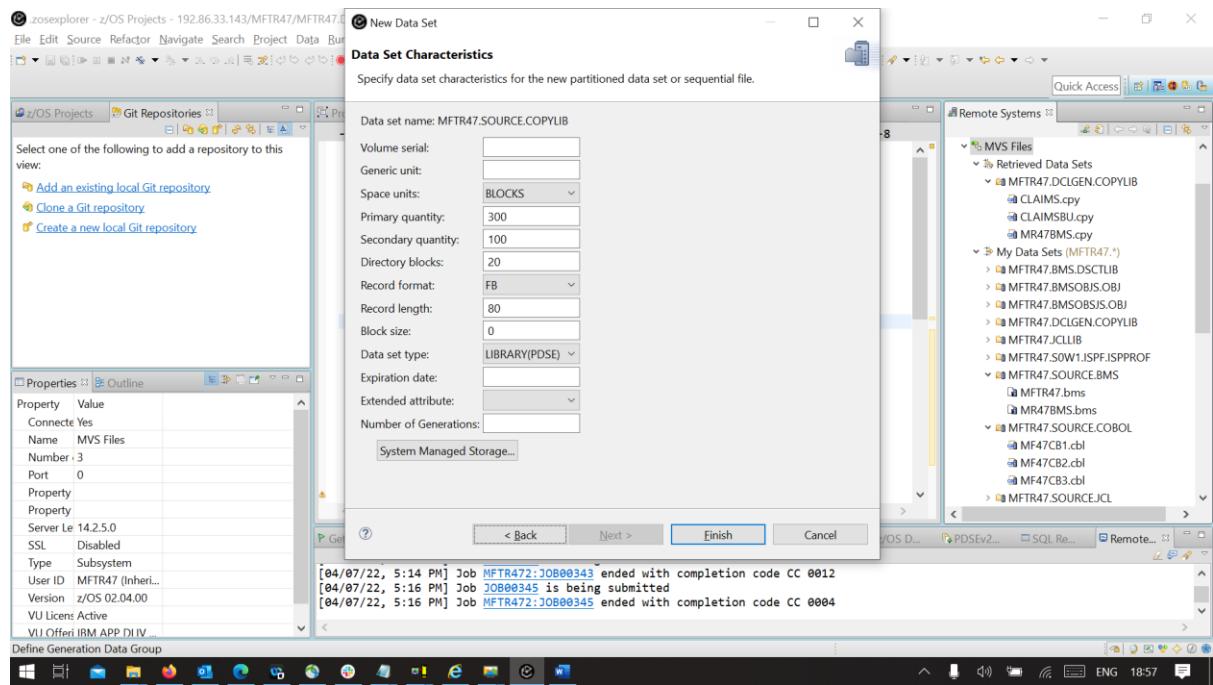
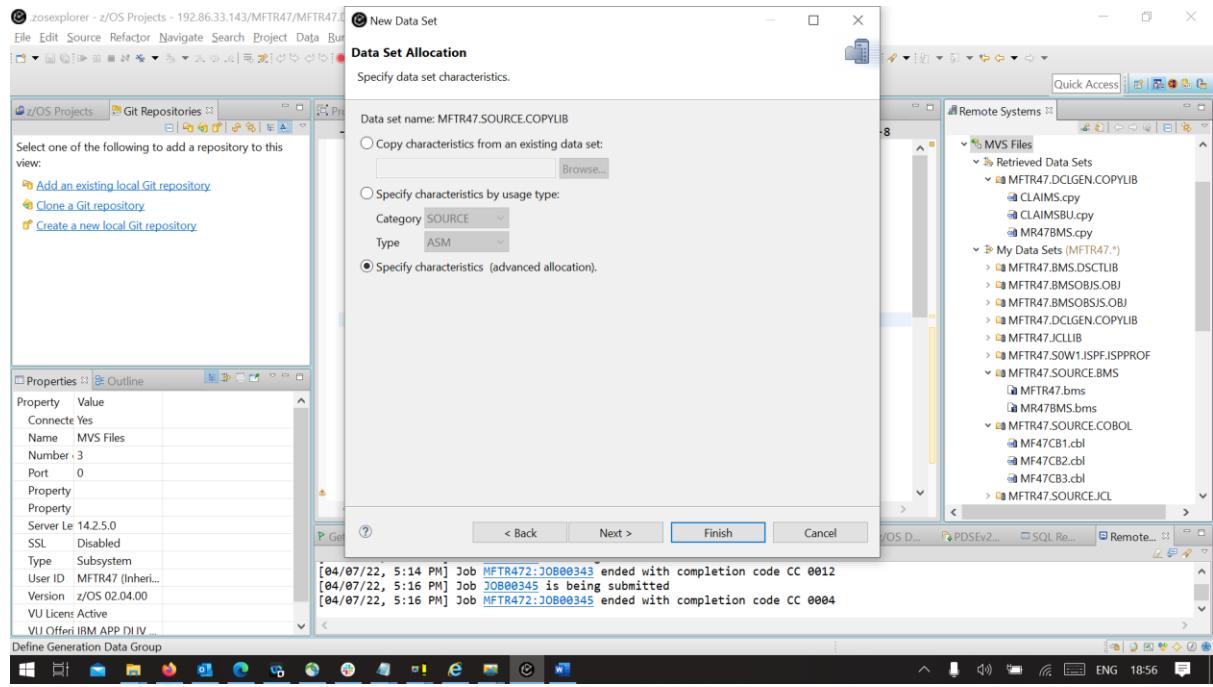
Getting Remote... z/OS File... Properties Snippets Git Stag... Remote... z/OS D... PDSEv2... SQL Re... Remote...

Writable Insert 13:73

[04/07/22, 5:14 PM] Job MFTR47:JOB00343 ended with completion code CC 0012
[04/07/22, 5:16 PM] Job 00800345 is being submitted
[04/07/22, 5:16 PM] Job MFTR47:JOB00345 ended with completion code CC 0004

ENG 18:50





zosexplorer - z/OS Projects - 192.86.33.143/MFTR47/MFTR47.DCLGEN.COPYLIB/CLAIMSBU.cpp - IBM Developer for z/OS - C:\Users\002R9W744\zosexplorer

File Edit Source Refactor Navigate Search Project Data Run Window Help

Activity: Other Activity

z/OS Projects Git Repositories

Select one of the following to add a repository to this view:

- Add an existing local Git repository
- Clone a Git repository
- Create a new local Git repository

Properties Outline

Property	Value
Attribute	Alloc d
BLKSIZ 0	
DATA t	
DSNTY	
DSOR	
EXTEN 1 (maximum 1)	
LRECL 0	
MANA	
Num c	
PRIMA 0	
Propor	
RFCFM	

Property-Group-BMS MR47BMS.bms MR47BMS.cpp CLAIMSBU.cpp

```
-----+*A-1-B-+-+2-+-+3-+-+4-+-+5-+-+6-+-+7-+-+8
* DCLGEN TABLE(MFTR47, CLAIMS_BU0_BU2)
*   LIBRARY(MFTR47.DCLGEN.COPYLIB(CLAIMSBU))
*   ACTION(REPLACE)
*   LANGUAGE(COBOL)
*   STRUCTURE(CLAIMS_BU0_BU2)
*   APOST
*   LABEL(YES)
*   DBCSDELIM(NO)
*   COLSUFFIX(YES)
*   INDDIV(YES)
* ... IS THE DCLGEN COMMAND THAT MADE THE FOLLOWING STATEMENTS
EXEC SQL DECLARE MFTR47.CLAIMS_BU0_BU2 TABLE
( CLAIMNUMBER           INTEGER NOT NULL,
  CLAIDATE              DATE,
  PAID                  INTEGER,
  VALUE                 INTEGER,
  CAUSE                 VARCHAR(255),
  OBSERVATIONS          VARCHAR(255)
) END-EXEC.
* COBOL DECLARATION FOR TABLE MFTR47.CLAIMS_BU0_BU2
01 CLAIMS_BU0_BU2.
```

Remote Systems

- MFTR47.DCLGEN.COPYLIB
 - CLAIMS.cpp
 - CLAIMSBU.cpp
 - MR47BMS.cpp
- My Data Sets (MFTR47.*)
 - MFTR47.BMS.DSCLIB
 - MFTR47.BMSOJS.OBJ
 - MFTR47.BMSOBSIS.OBJ
 - MFTR47.DCLGEN.COPYLIB
 - MFTR47.JCLIB
 - MFTR47.S0W1.ISPF.ISPPROF
- MFTR47.SOURCE.BMS
 - MFTR47.bms
 - MR47BMS.bms
- MFTR47.SOURCE.COBOL
 - MF47CB1.cbl
 - MF47CB2.cbl
 - MF47CB3.cbl
- MFTR47.SOURCE.COPYLIB
- MFTR47.SOURCE.JCL
- My Favorites

Getting... Remote... z/OS File... Properties Snippets Git Stag... Remote... z/OS D... PDSEv2... SQL Re... Remote...

[04/07/22, 5:14 PM] Job MFTR47:JOB00343 ended with completion code CC 0012
[04/07/22, 5:16 PM] Job JOB00345 is being submitted
[04/07/22, 5:16 PM] Job MFTR47:JOB00345 ended with completion code CC 0004

z/OS D... PDSEv2... SQL Re... Remote...

Windows Taskbar: ENG 18:57

zosexplorer - z/OS Projects - 192.86.33.143/MFTR47/MFTR47.DCLGEN.COPYLIB/CLAIMSBU.cpp - IBM Developer for z/OS - C:\Users\002R9W744\zosexplorer

File Edit Source Refactor Navigate Search Project Data Run Window Help

Activity: Other Activity

z/OS Projects Git Repositories

Select one of the following to add a repository to this view:

- Add an existing local Git repository
- Clone a Git repository
- Create a new local Git repository

Properties Outline

Property	Value
Attribute	Alloc d
BLKSIZ 0	
DATA t	
DSNTY	
DSOR	
EXTEN 1 (maximum 1)	
LRECL 0	
MANA	
Num c	
PRIMA 0	
Propor	
RFCFM	

Property-Group-BMS MR47BMS.bms MR47BMS.cpp CLAIMSBU.cpp

```
-----+*A-1-B-+-+2-+-+3-+-+4-+-+5-+-+6-+-+7-+-+8
* DCLGEN TABLE(MFTR47, CLAIMS_BU0_BU2)
*   LIBRARY(MFTR47.DCLGEN.COPYLIB(CLAI
*   ACTION(REPLACE)
*   LANGUAGE(COBOL)
*   STRUCTURE(CLAIMS_BU0_BU2)
*   APOST
*   LABEL(YES)
*   DBCSDELIM(NO)
*   COLSUFFIX(YES)
*   INDDIV(YES)
* ... IS THE DCLGEN COMMAND THAT MADE THE FOLLOWING STATEMENTS
EXEC SQL DECLARE MFTR47.CLAIMS_BU0_BU2 TABLE
( CLAIMNUMBER           INTEGER NOT NULL,
  CLAIDATE              DATE,
  PAID                  INTEGER,
  VALUE                 INTEGER,
  CAUSE                 VARCHAR(255),
  OBSERVATIONS          VARCHAR(255)
) END-EXEC.
* COBOL DECLARATION FOR TABLE MFTR47.CLAIMS_BU0_BU2
01 CLAIMS_BU0_BU2.
```

Allocate Like... Create Member...

New Go To

Show in Table Monitor

Refresh F5

Rename... Delete... Delete

Copy Ctrl+L

Locate... Find Member... Ctrl+F

Remote Index Search

Search... Migrate

Host Connection Emulator Add to Subproject...

File Manager Property Group

Properties Alt+Enter

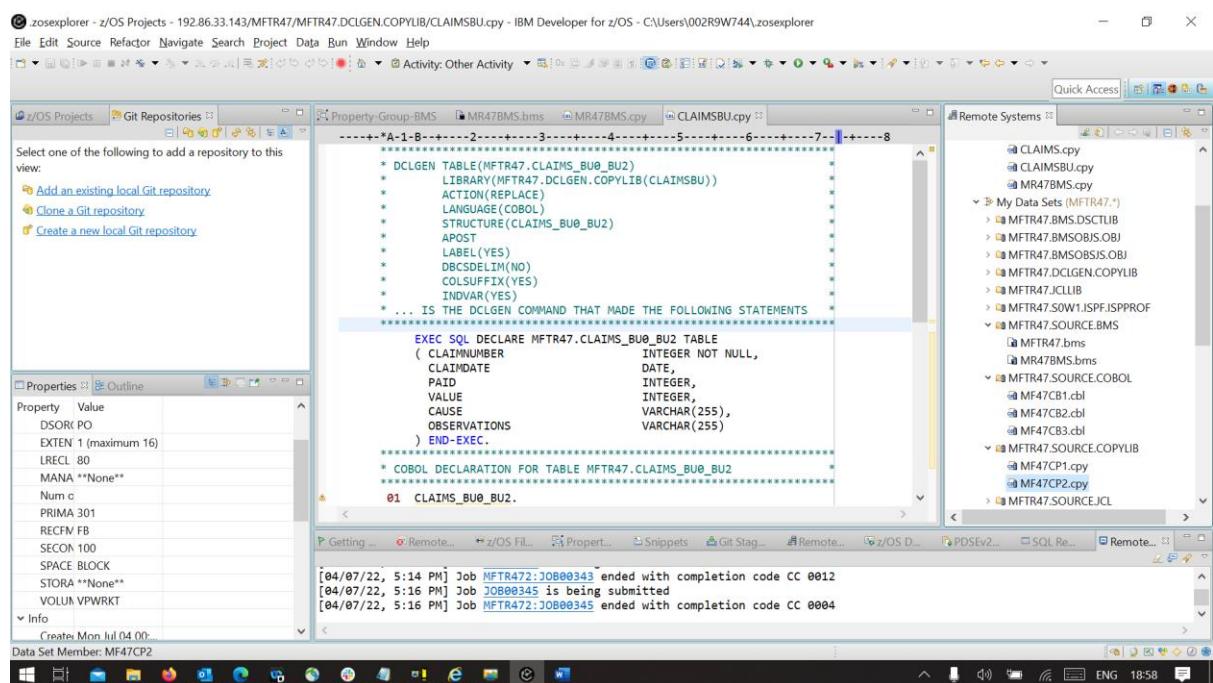
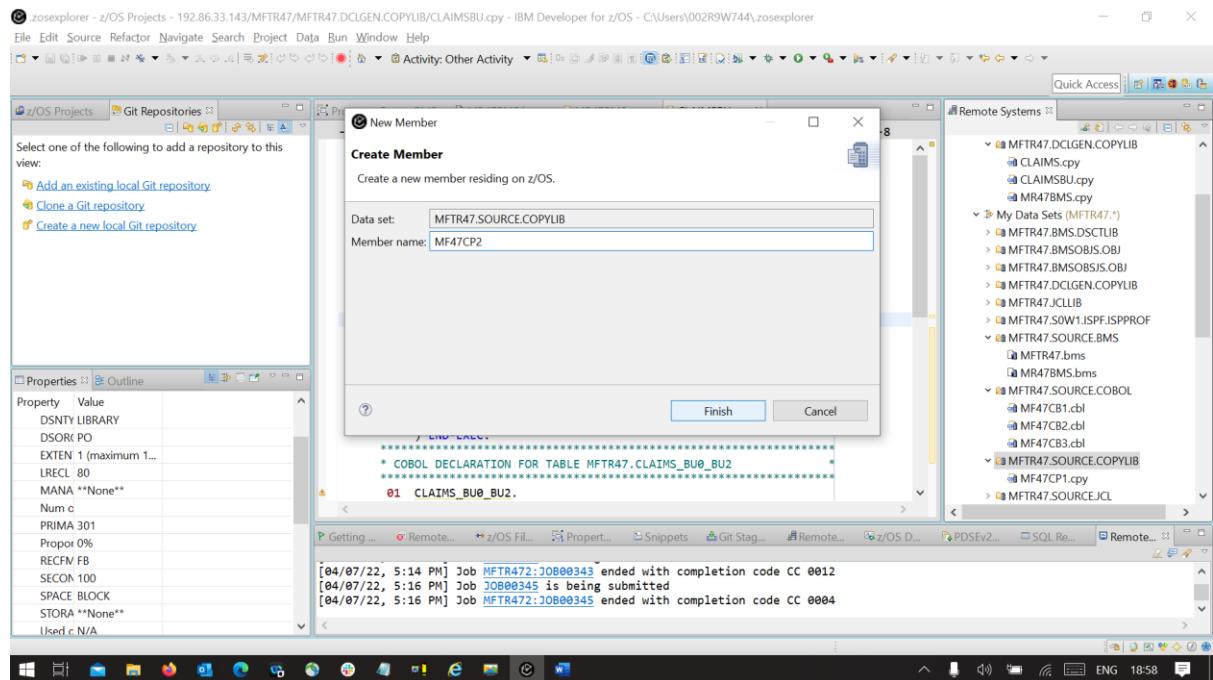
MFTR47.SOURCE.JCL My Favorites

Getting... Remote... z/OS File... Properties Snippets Git Stag... Remote... z/OS D... PDSEv2... SQL Re... Remote...

[04/07/22, 5:14 PM] Job MFTR47:JOB00343 ended with completion code CC 0012
[04/07/22, 5:16 PM] Job JOB00345 is being submitted
[04/07/22, 5:16 PM] Job MFTR47:JOB00345 ended with completion code CC 0004

z/OS D... PDSEv2... SQL Re... Remote...

Windows Taskbar: ENG 18:57



.zosexplorer - z/OS Projects - 192.86.33.143/MFTR47/MFTR47.SOURCE.COPYLIB/MF47CP1.cpy - IBM Developer for z/OS - C:\Users\002R9W744\.zosexplorer

File Edit Source Refactor Navigate Search Project Data Run Window Help

Activity: Other Activity

z/OS Projects Git Repositories

Select one of the following to add a repository to this view:

- Add an existing local Git repository
- Clone a Git repository
- Create a new local Git repository

Properties Outline

Property	Value
Basic Metrics	
Lines of code	130
Number of comm	23
Number of copyb	0
Number of date it	130
Number of lines	153
Complexity Metrics	
Cyclomatic compl	0
Halstead Metrics	
Difficulty level	0.0
Effort to implemen	0.0
Number of deliver	0.0

Property-Group-BMS M47BMS.bms MF47CP1.cpy

```
-----+*A-1-B---+--2---+---3---+---4---+---5---+---6---+---7---+-----8
* Created: 7 Jul, 2022 4:06:32 PM Asia/PUNE
* Generated by: IBM Explorer for z/OS
* ****
01 MR47BMSI.
 02 FILLER          PIC X(12).
*
 02 claimNumL      PIC S9(4) COMP.
 02 claimNumM      PIC X.
 02 FILLER        REDEFINES claimNumF.
 03 claimNumA      PIC X.
 02 FILLER        REDEFINES claimNumF.
 02 claimNumI      PIC X(9).
*
 02 claimDateL      PIC S9(4) COMP.
 02 claimDateM      PIC X.
 02 FILLER        REDEFINES claimDateA.
 03 claimDateA      PIC X.
 02 FILLER        REDEFINES claimDateI.
 02 claimDateI      PIC X(6).
*
 02 paidL          PIC S9(4) COMP.
 02 paidM          PIC X.
 02 FILLER        REDEFINES paidF.
 03 paidA          PIC X.
```

Remote Systems

My Data Sets (MFTR47.*)

- MFTR47.BMS.DSCLIB
- MFTR47.BMSOBJ.SOBJ
- MFTR47.BMSOBSJS.OBJ
- MFTR47.DCLGEN.COPYLIB
 - CLAIMS.cpy
 - CLAIMSBU.cpy
 - MR47BMS.cpy
- MFTR47.JCLLIB
- MFTR47.SOW1.ISPF.ISPPROF
- MFTR47.SOURCE.BMS
 - MFTR47.bms
 - MR47BMS.bms
- MFTR47.SOURCE.COBOL
 - MF47CB1.cbl
 - MF47CB2.cbl
 - MF47CB3.cbl
- MFTR47.SOURCE.COPYLIB
 - MF47CP1.cpy
 - MF47CP2.cpy
- MFTR47.SOURCE.JCL

Getting... Remote... z/OS Fil... Property... Snippets Git Stag... Remote... z/OS D... PDS... SQL Re... Remote...

Writable Insert 1:1

.zosexplorer - z/OS Projects - 192.86.33.143/MFTR47/MFTR47.SOURCE.COPYLIB/MF47CP2.cpy - IBM Developer for z/OS - C:\Users\002R9W744\.zosexplorer

File Edit Source Refactor Navigate Search Project Data Run Window Help

Activity: Other Activity

z/OS Projects Git Repositories

Select one of the following to add a repository to this view:

- Add an existing local Git repository
- Clone a Git repository
- Create a new local Git repository

Properties Outline

Property	Value
Basic Metrics	
Lines of code	130
Number of comm	23
Number of copyb	0
Number of date it	130
Number of lines	153
Complexity Metrics	
Cyclomatic compl	0
Halstead Metrics	
Difficulty level	0.0
Effort to implemen	0.0
Number of deliver	0.0

Property-Group-BMS M47BMS.bms MF47CP1.cpy MF47CP2.cpy

```
-----+*A-1-B---+--2---+---3---+---4---+---5---+---6---+---7---+-----8
* DCLGEN TABLE(MFTR47.CLAIMS_BU0_BU2)
*   LIBRARY(MFTR47.DCLGEN.COPYLIB(CLAIMSBU))
*   ACTION(REPLACE)
*   LANGUAGE(COBOL)
*   STRUCTURE(CLAIMS_BU0_BU2)
*   APOST
*   LABEL(YES)
*   DBCSDELIM(NO)
*   COLSUFFIX(YES)
*   INDOVAR(YES)
* ... IS THE DCLGEN COMMAND THAT MADE THE FOLLOWING STATEMENTS
*****
EXEC SQL DECLARE MFTR47.CLAIMS_BU0_BU2 TABLE
( CLAIMNUMBER           INTEGER NOT NULL,
  CLAIMDATE              DATE,
  PAID                   INTEGER,
  VALUE                  INTEGER,
  CAUSE                  VARCHAR(255),
  OBSERVATIONS           VARCHAR(255)
 ) END-EXEC.
*****
* COBOL DECLARATION FOR TABLE MFTR47.CLAIMS_BU0_BU2
*
01 CLAIMS_BU0_BU2.
```

Remote Systems

My Data Sets (MFTR47.*)

- MFTR47.BMS.DSCLIB
- MFTR47.BMSOBJ.SOBJ
- MFTR47.BMSOBSJS.OBJ
- MFTR47.DCLGEN.COPYLIB
 - CLAIMS.cpy
 - CLAIMSBU.cpy
 - MR47BMS.cpy
- MFTR47.JCLLIB
- MFTR47.SOW1.ISPF.ISPPROF
- MFTR47.SOURCE.BMS
 - MFTR47.bms
 - MR47BMS.bms
- MFTR47.SOURCE.COBOL
 - MF47CB1.cbl
 - MF47CB2.cbl
 - MF47CB3.cbl
- MFTR47.SOURCE.COPYLIB
 - MF47CP1.cpy
 - MF47CP2.cpy
- MFTR47.SOURCE.JCL

Getting... Remote... z/OS Fil Property... Snippets Git Stag... Remote... z/OS D... PDS... SQL Re... Remote...

Writable Insert 1:1

MF47CB1-

.zosexplorer - z/OS Projects - 192.86.33.143/MFTR47/MFTR47.SOURCE.COBOL/MF47CB1.cbl - IBM Developer for z/OS - C:\Users\002R9W744\.zosexplorer

File Edit Source Refactor Navigate Search Project Data Run Window Help

Activity: Other Activity

z/OS Projects Git Repositories

Select one of the following to add a repository to this view:

- Add an existing local Git repository
- Clone a Git repository
- Create a new local Git repository

Property-Group-BMS MF47CB1.cbl

```

-----+*A-1-B-+-+--2-+-+--3-+-+--4-+-+--5-+-+--6-+-+--7-|---+--8
  IDENTIFICATION DIVISION.
  PROGRAM-ID. MF47CB1.
  ENVIRONMENT DIVISION.
  DATA DIVISION.
  WORKING-STORAGE SECTION.
    COPY MF47CP1.
    01 WS-ERROR-FLAG      PIC X(01) VALUE SPACES.
      88 ERROR-FLAG-YES   VALUE 'Y'.
      88 ERROR-FLAG-NO    VALUE 'N'.
  PROCEDURE DIVISION.
 0000-MAINPROG.
    MOVE LOW-VALUES TO MF47BMSI.
    MOVE LOW-VALUES TO MF47BMSO.
    PERFORM 1000-SEND-MAP.
    PERFORM 2000-RECEIVE-MAP.
    PERFORM 2500-VALIDATE.
    PERFORM 3000-PROCESS.
    PERFORM 4000-ENDPROG.

1000-SEND-MAP.
  EXEC CICS SEND
    MAP('MF47BMS')
    MAPSET('MF47BMS')
    FROM((MF47BMSO))
    ERASE
  END-EXEC.

2000-RECEIVE-MAP.
  EXEC CICS RECEIVE
    MAP('MF47BMS')
    MAPSET('MF47BMS')
    INTO(MF47BMSI)
  END-EXEC.

2500-VALIDATE.
  IF OPTION1 IS GREATER THAN 2 THEN
    MOVE 'ENTER A VALID OPTION' TO MSG0
    MOVE 'Y'                   TO WS-ERROR-FLAG
  END-IF.

3000-PROCESS.
  IF ERROR-FLAG-YES
    CONTINUE
  ELSE
    CALL 'MF47CB2' USING MF47BMSI
                           MF47BMSO
  END-IF.
  PERFORM 1000-SEND-MAP.

4000-ENDPROG.
  EXEC CICS RETURN

```

Properties Outline

Property	Value
Basic Metrics	
Lines of code	48
Number of comm	0
Number of copyb	1
Number of data it	3
Number of lines	48
Complexity Metrics	
Cyclomatic compl	5
Halstead Metrics	
Difficulty level	7.88
Effort to implement	1223.17
Number of deliver	0.05

Remote Systems

- My Data Sets (MFTR47.*)
 - MFTR47.BMS.DSCTLIB
 - MFTR47.BMSOBJ.S.OBJ
 - MFTR47.BMSOBJ.S.OBJ
 - MFTR47.DCLGEN.COPYLIB
 - CLAIMS.cpy
 - CLAIMSBU.cpy
 - MR47BMS.cpy
 - MFTR47.ICLIB
 - MFTR47.SOW1.ISPF.ISPPROF
 - MFTR47.SOURCE.BMS
 - MFTR47.bms
 - MR47BMS.bms
 - MFTR47.SOURCE.COBOL
 - MF47CB1.cbl
 - MF47CB2.cbl
 - MF47CB3.cbl
 - MFTR47.SOURCE.COPYLIB
 - MF47CP1.cpy
 - MF47CP2.cpy
 - MFTR47.SOURCE.JCL

Getting Remote... z/OS File... Properties Snippets Git Stag... Remote... z/OS D... PDS... SQL Re... Remote...

Writable Insert 18:34

Windows Taskbar: File Explorer, Mail, Internet Explorer, Task View, Taskbar Icons, Taskbar Buttons, Taskbar Notifications, Taskbar Clock (ENG 19:47)

.zosexplorer - z/OS Projects - 192.86.33.143/MFTR47/MFTR47.SOURCE.COBOL/MF47CB1.cbl - IBM Developer for z/OS - C:\Users\002R9W744\.zosexplorer

File Edit Source Refactor Navigate Search Project Data Run Window Help

Activity: Other Activity

z/OS Projects Git Repositories

Select one of the following to add a repository to this view:

- Add an existing local Git repository
- Clone a Git repository
- Create a new local Git repository

Property-Group-BMS MF47CB1.cbl MF47CB2.cbl MF47CB3.cbl

```

-----+*A-1-B-+-+--2-+-+--3-+-+--4-+-+--5-+-+--6-+-+--7-|---+--8
  MAPSET('MF47BMS')
  FROM((MF47BMSO))
  ERASE
END-EXEC.

2000-RECEIVE-MAP.
  EXEC CICS RECEIVE
    MAP('MF47BMS')
    MAPSET('MF47BMS')
    INTO(MF47BMSI)
  END-EXEC.

2500-VALIDATE.
  IF OPTION1 IS GREATER THAN 2 THEN
    MOVE 'ENTER A VALID OPTION' TO MSG0
    MOVE 'Y'                   TO WS-ERROR-FLAG
  END-IF.

3000-PROCESS.
  IF ERROR-FLAG-YES
    CONTINUE
  ELSE
    CALL 'MF47CB2' USING MF47BMSI
                           MF47BMSO
  END-IF.
  PERFORM 1000-SEND-MAP.

4000-ENDPROG.
  EXEC CICS RETURN

```

Properties Outline

Property	Value
Basic Metrics	
Lines of code	48
Number of comm	0
Number of copyb	1
Number of data it	3
Number of lines	48
Complexity Metrics	
Cyclomatic compl	5
Halstead Metrics	
Difficulty level	7.88
Effort to implement	1223.17
Number of deliver	0.05

Remote Systems

- My Data Sets (MFTR47.*)
 - MFTR47.BMS.DSCTLIB
 - MFTR47.BMSOBJ.S.OBJ
 - MFTR47.BMSOBJ.S.OBJ
 - MFTR47.DCLGEN.COPYLIB
 - CLAIMS.cpy
 - CLAIMSBU.cpy
 - MR47BMS.cpy
 - MFTR47.ICLIB
 - MFTR47.SOW1.ISPF.ISPPROF
 - MFTR47.SOURCE.BMS
 - MFTR47.bms
 - MR47BMS.bms
 - MFTR47.SOURCE.COBOL
 - MF47CB1.cbl
 - MF47CB2.cbl
 - MF47CB3.cbl
 - MFTR47.SOURCE.COPYLIB
 - MF47CP1.cpy
 - MF47CP2.cpy
 - MFTR47.SOURCE.JCL

Getting Remote... z/OS File... Properties Snippets Git Stag... Remote... z/OS D... PDS... SQL Re... Remote...

Writable Insert 18:34

Windows Taskbar: File Explorer, Mail, Internet Explorer, Task View, Taskbar Icons, Taskbar Buttons, Taskbar Notifications, Taskbar Clock (ENG 19:52)

MF47CB2-

.zosexplorer - z/OS Projects - 192.86.33.143/MFTR47/MFTR47.SOURCE.COBOL/MF47CB2.cbl - IBM Developer for z/OS - C:\Users\002R9W744\.zosexplorer

File Edit Source Refactor Navigate Search Project Data Run Window Help

Activity: Other Activity

z/OS Projects Git Repositories

Select one of the following to add a repository to this view:

- Add an existing local Git repository
- Clone a Git repository
- Create a new local Git repository

Properties Outline

Property Value

Basic Metrics

- Lines of code 67
- Number of comm 0
- Number of copyb: 1
- Number of data it: 9
- Number of lines 67

Complexity Metrics

- Cyclomatic compl 12

Halstead Metrics

- Difficulty level 12.6
- Effort to implement 7238.44
- Number of deliver 0.19

Property-Group-BMS MF47CB1.cbl MF47CB2.cbl

```

-----+*A-1-B-+-+2-+-+3-+-+4-+-+5-+-+6-+-+7-|-----8
      IDENTIFICATION DIVISION.
      PROGRAM-ID. MF47CB2.
      ENVIRONMENT DIVISION.
      DATA DIVISION.
      WORKING-STORAGE SECTION.
      01 WS-PGM-VAR.
         05 WS-CURR-DATE          PIC X(16).
         05 WS-CLAIM-DATE.        PIC X(4).
            10 WS-YYYY             PIC X(4).
            10 WS-MM               PIC X(2).
            10 WS-DD               PIC X(2).
      01 WS-ERROR-FLAG          PIC X(01) VALUE SPACES.
         88 ERROR-FLAG-YES       VALUE 'Y'.
         88 ERROR-FLAG-NO        VALUE 'N'.
      LINKAGE SECTION.
      COPY MF34CP1.
      PROCEDURE DIVISION USING MF47BMSI
                           MF47BMSO.
      0000-MAINPROG.
         PERFORM 1000-VALIDATE-DATA.
         IF ERROR-FLAG-NO
            CALL 'MF47CB3' USING MF47BMSI
                           MF47BMSO
         END-IF.
         GOBACK.
      1000-VALIDATE-DATA.
      INITIALIZE WS-ERROR-FLAG.
      IF OPTION1 = '1'
         IF CLNRBR IS NUMERIC
            MOVE 'N' TO WS-ERROR-FLAG
         ELSE
            MOVE 'Y' TO WS-ERROR-FLAG
            MOVE 'ENTER VALID CLAIM NO.' TO MSG0
         END-IF
      ELSE
         IF OPTION1 = '2'
            MOVE 'N'                 TO WS-ERROR-FLAG
            IF CLNRBR IS NUMERIC
               MOVE CLMDTT(1:4)  TO WS-YYYY
               MOVE CLMDTT(6:2)  TO WS-MM
               MOVE CLMDTT(8:2)  TO WS-DD
               MOVE FUNCTION CURRENT-DATE TO WS-CURR-DATE
               IF WS-CLAIM-DATE > WS-CURR-DATE(1:8)
                  MOVE 'Y' TO WS-ERROR-FLAG
                  MOVE 'CLAIM DATE SHOULD BE PAST' TO MSG0
               ELSE
                  IF PAIDI IS NUMERIC
                     IF VALUEII IS NUMERIC
                        MOVE DATA1 - VALUEII
                     END-IF
                  END-IF
               END-IF
            END-IF
         END-IF
      END-IF.
      
```

Remote Systems

My Data Sets (MFTR47.*)

- MFTR47.BMS.DSCTLIB
- MFTR47.BMSOBJS.OBJ
- MFTR47.BMSOBJS.OBJ
- MFTR47.DCLGEN.COPYLIB
 - CLAIMS.cpp
 - CLAIMSBU.cpp
 - MR47BMS.cpp
- MFTR47.ICLIB
 - MFTR47.S0W1.ISPF.ISPPROF
- MFTR47.SOURCE.BMS
 - MFTR47.bms
 - MR47BMS.bms
- MFTR47.SOURCE.COBOL
 - MF47CB1.cbl
 - MF47CB2.cbl
 - MF47CB3.cbl
- MFTR47.SOURCE.COPYLIB
 - MF47CP1.cpp
 - MF47CP2.cpp
- MFTR47.SOURCE.JCL

Getting Remote... z/OS File... Properties Snippets Git Stag... Remote... z/OS D... PDS... SQL Re... Remote...

Writable Insert 1:1

Windows Taskbar: ENG 19:47

.zosexplorer - z/OS Projects - 192.86.33.143/MFTR47/MFTR47.SOURCE.COBOL/MF47CB3.cbl - IBM Developer for z/OS - C:\Users\002R9W744\.zosexplorer

File Edit Source Refactor Navigate Search Project Data Run Window Help

Activity: Other Activity

z/OS Projects Git Repositories

Select one of the following to add a repository to this view:

- Add an existing local Git repository
- Clone a Git repository
- Create a new local Git repository

Properties Outline

Property Value

Basic Metrics

- Lines of code 67
- Number of comm 0
- Number of copyb: 1
- Number of data it: 9
- Number of lines 67

Complexity Metrics

- Cyclomatic compl 12

Halstead Metrics

- Difficulty level 12.6
- Effort to implement 7238.44
- Number of deliver 0.19

Property-Group-BMS MF47CB1.cbl MF47CB2.cbl

```

-----+*A-1-B-+-+2-+-+3-+-+4-+-+5-+-+6-+-+7-|-----8
      IDENTIFICATION DIVISION.
      PROGRAM-ID. MF47CB3.
      ENVIRONMENT DIVISION.
      DATA DIVISION.
      WORKING-STORAGE SECTION.
      01 WS-PGM-VAR.
         05 WS-CURR-DATE          PIC X(16).
         05 WS-CLAIM-DATE.        PIC X(4).
            10 WS-YYYY             PIC X(4).
            10 WS-MM               PIC X(2).
            10 WS-DD               PIC X(2).
      01 WS-ERROR-FLAG          PIC X(01) VALUE SPACES.
         88 ERROR-FLAG-YES       VALUE 'Y'.
         88 ERROR-FLAG-NO        VALUE 'N'.
      LINKAGE SECTION.
      COPY MF34CP1.
      PROCEDURE DIVISION USING MF47BMSI
                           MF47BMSO.
      0000-MAINPROG.
         PERFORM 1000-VALIDATE-DATA.
         IF ERROR-FLAG-NO
            CALL 'MF47CB3' USING MF47BMSI
                           MF47BMSO
         END-IF.
         GOBACK.
      1000-VALIDATE-DATA.
      INITIALIZE WS-ERROR-FLAG.
      IF OPTION1 = '1'
         IF CLNRBR IS NUMERIC
            MOVE 'N' TO WS-ERROR-FLAG
         ELSE
            MOVE 'Y' TO WS-ERROR-FLAG
            MOVE 'ENTER VALID CLAIM NO.' TO MSG0
         END-IF
      ELSE
         IF OPTION1 = '2'
            MOVE 'N'                 TO WS-ERROR-FLAG
            IF CLNRBR IS NUMERIC
               MOVE CLMDTT(1:4)  TO WS-YYYY
               MOVE CLMDTT(6:2)  TO WS-MM
               MOVE CLMDTT(8:2)  TO WS-DD
               MOVE FUNCTION CURRENT-DATE TO WS-CURR-DATE
               IF WS-CLAIM-DATE > WS-CURR-DATE(1:8)
                  MOVE 'Y' TO WS-ERROR-FLAG
                  MOVE 'CLAIM DATE SHOULD BE PAST' TO MSG0
               ELSE
                  IF PAIDI IS NUMERIC
                     IF VALUEII IS NUMERIC
                        MOVE DATA1 - VALUEII
                     END-IF
                  END-IF
               END-IF
            END-IF
         END-IF
      END-IF.
      
```

Remote Systems

My Data Sets (MFTR47.*)

- MFTR47.BMS.DSCTLIB
- MFTR47.BMSOBJS.OBJ
- MFTR47.BMSOBJS.OBJ
- MFTR47.DCLGEN.COPYLIB
 - CLAIMS.cpp
 - CLAIMSBU.cpp
 - MR47BMS.cpp
- MFTR47.ICLIB
 - MFTR47.S0W1.ISPF.ISPPROF
- MFTR47.SOURCE.BMS
 - MFTR47.bms
 - MR47BMS.bms
- MFTR47.SOURCE.COBOL
 - MF47CB1.cbl
 - MF47CB2.cbl
 - MF47CB3.cbl
- MFTR47.SOURCE.COPYLIB
 - MF47CP1.cpp
 - MF47CP2.cpp
- MFTR47.SOURCE.JCL

Getting Remote... z/OS File... Properties Snippets Git Stag... Remote... z/OS D... PDS... SQL Re... Remote...

Writable Insert 1:1

Windows Taskbar: ENG 19:52

Slack TME CollaborationHUB Manan Agarwal Yes, we are now creating Spufi as prescribed

MF47CB3-

.zosexplorer - z/OS Projects - 192.86.33.143/MFTR47/MFTR47.SOURCE.COBOL/MF47CB3.cbl - IBM Developer for z/OS - C:\Users\002R9W744\.zosexplorer

File Edit Source Refactor Navigate Search Project Data Run Window Help

Activity: Other Activity

z/OS Projects Git Repositories

Select one of the following to add a repository to this view:

- Add an existing local Git repository
- Clone a Git repository
- Create a new local Git repository

Properties Outline

Property	Value
Basic Metrics	
Lines of code	96
Number of comm.	2
Number of copyb.	3
Number of data it.	5
Number of lines	98
Complexity Metrics	
Cyclomatic compl.	7
Halstead Metrics	
Difficulty level	15.22
Effort to implement	8904.45
Number of deliver.	0.2

Property-Group-BMS MF47CB1.cbl MF47CB2.cbl MF47CB3.cbl

```

-----+*A-1-B-+-+2-+-+3-+-+4-+-+5-+-+6-+-+7-|---+8
      IDENTIFICATION DIVISION.
      PROGRAM-ID. MF47CB3.
      ENVIRONMENT DIVISION.
      DATA DIVISION.
      WORKING-STORAGE SECTION.
      01 WS-MSG.
          10 WS-MSG1          PIC X(35).
          10 WS-SQLC          PIC -9(3).
          01 WS-SQLN          PIC S9(3).
          01 WS-CLMNBR         PIC S9(9).
      EXEC SQL
          INCLUDE SQLCA
      END-EXEC.
      EXEC SQL
          INCLUDE MF47CP2
      END-EXEC.
      LINKAGE SECTION.
      COPY MF47CP1.
      PROCEDURE DIVISION USING MF47BMSI
                           MF47BMSO.
      0000-MAINLINE.
          EVALUATE OPTIONI
              WHEN '1'
                  PERFORM 1000-GET-DATA
              WHEN '2'

```

Remote Systems

My Data Sets (MFTR47.*)

- MFTR47.BMS.DSCTLIB
- MFTR47.BMSOBJS.OBJ
- MFTR47.BMSOBJS.OBJ
- MFTR47.DCLGEN.COPYLIB
 - CLAIMS.cpp
 - CLAIMSBU.cpp
 - MR47BMS.cpp
- MFTR47.ICLIB
- MFTR47.SOW1.ISPF.ISPPROF
- MFTR47.SOURCE.BMS
 - MFTR47.bms
 - MR47BMS.bms
- MFTR47.SOURCE.COBOL
 - MF47CB1.cbl
 - MF47CB2.cbl
 - MF47CB3.cbl
- MFTR47.SOURCE.COPYLIB
 - MF47CP1.cpp
 - MF47CP2.cpp
- MFTR47.SOURCE.JCL

Getting Remote... z/OS File... Properties Snippets Git Stag... Remote... z/OS D... PDS... SQL Re... Remote...

Writable Insert 1:1

[04/07/22, 5:14 PM] Job MFTR47:JOB00343 ended with completion code CC 0012
[04/07/22, 5:16 PM] Job JOB00345 is being submitted
[04/07/22, 5:16 PM] Job MFTR47:JOB00345 ended with completion code CC 0004

ENG 19:47

.zosexplorer - z/OS Projects - 192.86.33.143/MFTR47/MFTR47.SOURCE.COBOL/MF47CB3.cbl - IBM Developer for z/OS - C:\Users\002R9W744\.zosexplorer

File Edit Source Refactor Navigate Search Project Data Run Window Help

Activity: Other Activity

z/OS Projects Git Repositories

Select one of the following to add a repository to this view:

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- Clone a Git repository
- Create a new local Git repository

Properties Outline

Property	Value
Basic Metrics	
Lines of code	96
Number of comm.	2
Number of copyb.	3
Number of data it.	5
Number of lines	98
Complexity Metrics	
Cyclomatic compl.	7
Halstead Metrics	
Difficulty level	15.22
Effort to implement	8904.45
Number of deliver.	0.2

Property-Group-BMS MF47CB1.cbl MF47CB2.cbl MF47CB3.cbl

```

-----+*A-1-B-+-+2-+-+3-+-+4-+-+5-+-+6-+-+7-|---+8
      :CLAIMS_PAID,
      :CLAIMS_CAUSE,
      :CLAIMS_OBSERVATIONS
      FROM MFTR47.CLAIMS_BUB_BU2
      WHERE CLAIMNUMBER = :CLAIMS_CLAIMNUMBER
END-EXEC.
IF SQLCODE = 0
    MOVE FUNCTION DISPLAY-OF(CLAIMDATE) TO CLMDTO
    MOVE FUNCTION DISPLAY-OF(CAUSE) TO CAUSEO
    MOVE FUNCTION DISPLAY-OF(OBSERVATIONS) TO OBSERO
    MOVE PAID OF CLAIMS TO PAIDO
    MOVE VALUE2 OF CLAIMS TO VALUE10
ELSE
    IF SQLCODE = 100
        MOVE 'CLAIM NOT FOUND' TO MSGO
    ELSE
        MOVE 'SQL ERROR IN FETCH' TO MSGO
        MOVE 'SQL ERROR IN FETCH:' TO WS-MSG1
        MOVE SQLCODE TO WS-SQLN
        MOVE WS-SQLN TO WS-SQLC
        MOVE WS-MSG TO MSGO
    END-IF
END-IF.
2000-UPDATE-DATA.
    MOVE CLMNBR(4:7) TO WS-CLMNBR

```

Remote Systems

My Data Sets (MFTR47.*)

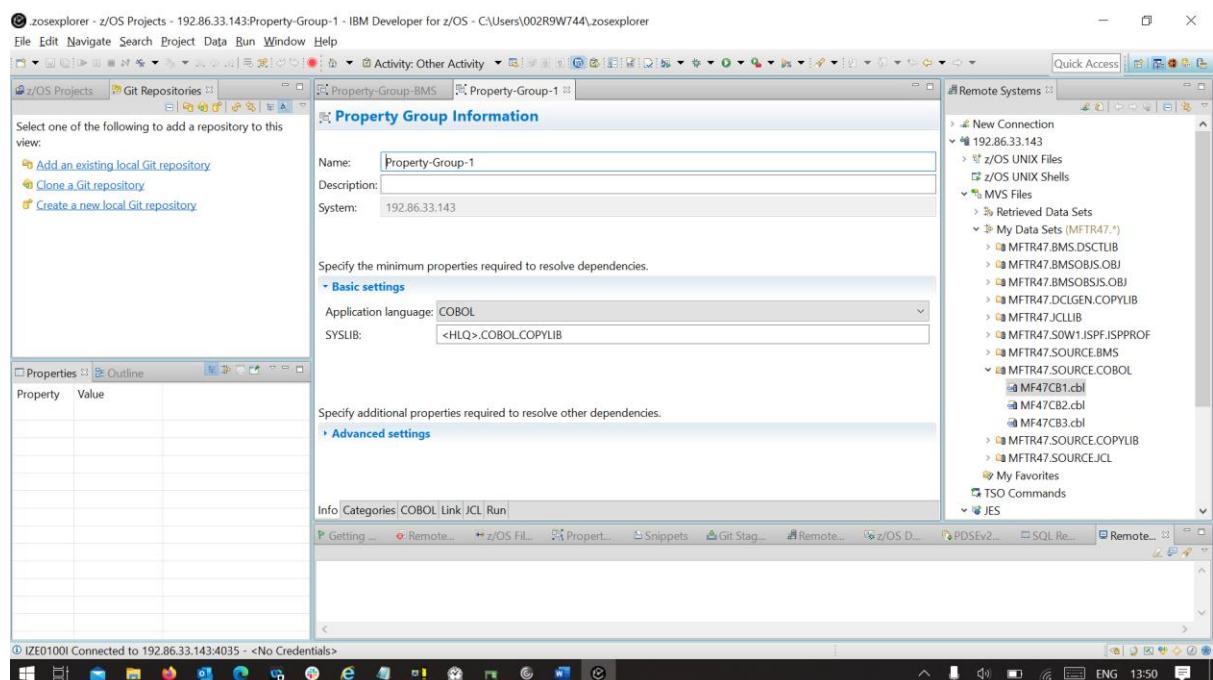
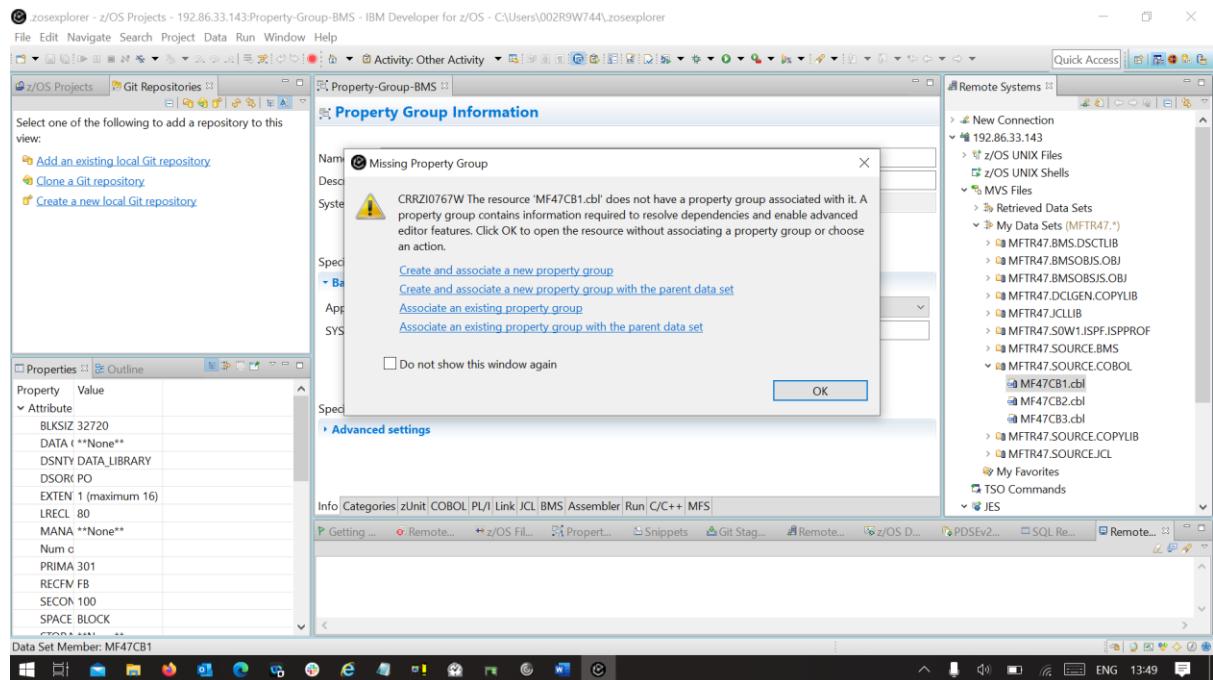
- MFTR47.BMS.DSCTLIB
- MFTR47.BMSOBJS.OBJ
- MFTR47.BMSOBJS.OBJ
- MFTR47.DCLGEN.COPYLIB
 - CLAIMS.cpp
 - CLAIMSBU.cpp
 - MR47BMS.cpp
- MFTR47.ICLIB
- MFTR47.SOW1.ISPF.ISPPROF
- MFTR47.SOURCE.BMS
 - MFTR47.bms
 - MR47BMS.bms
- MFTR47.SOURCE.COBOL
 - MF47CB1.cbl
 - MF47CB2.cbl
 - MF47CB3.cbl
- MFTR47.SOURCE.COPYLIB
 - MF47CP1.cpp
 - MF47CP2.cpp
- MFTR47.SOURCE.JCL

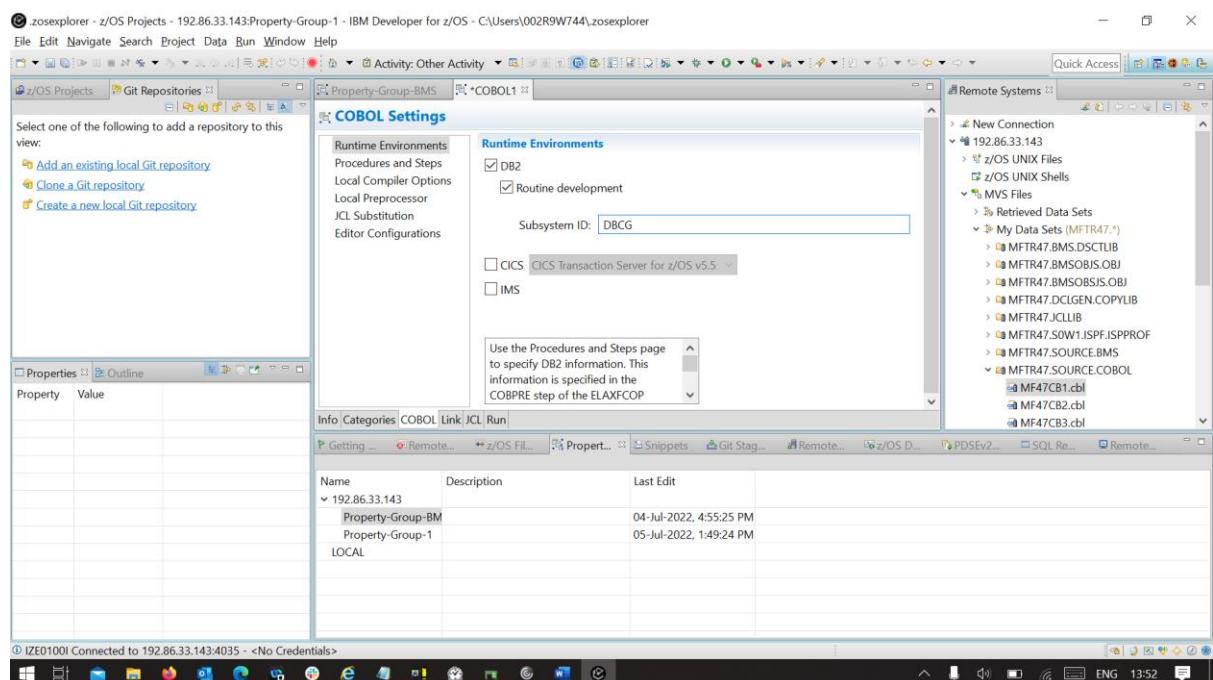
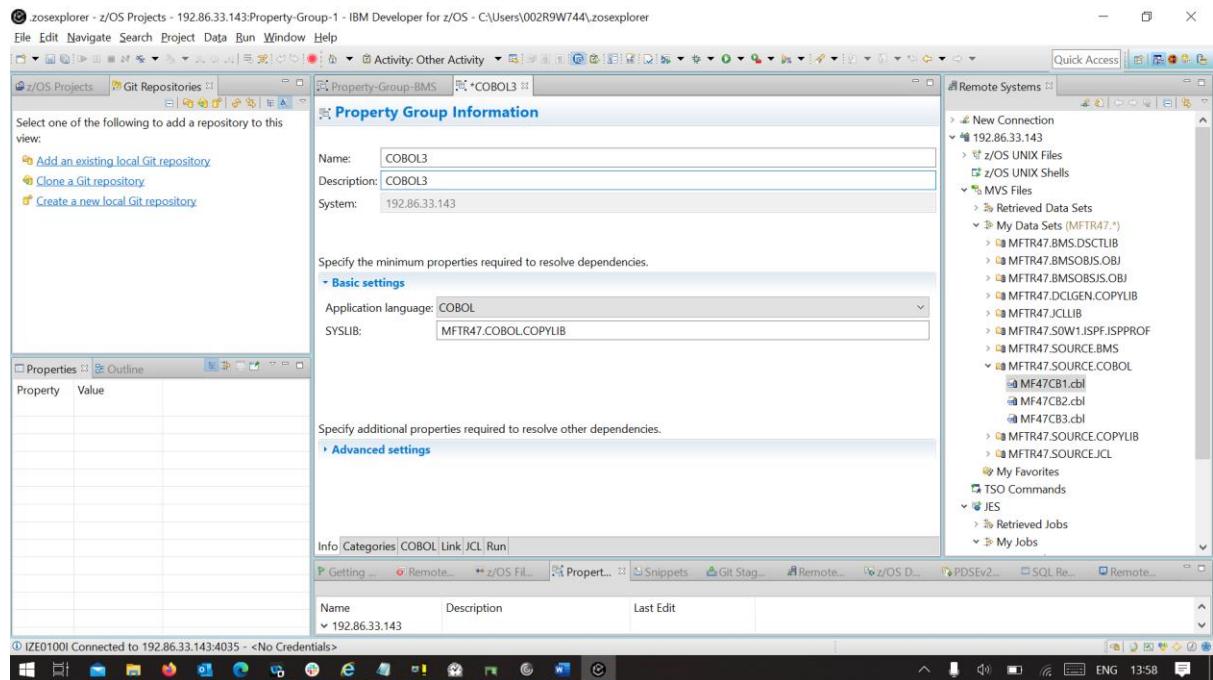
Getting Remote... z/OS File... Properties Snippets Git Stag... Remote... z/OS D... PDS... SQL Re... Remote...

Writable Insert 1:1

[04/07/22, 5:14 PM] Job MFTR47:JOB00343 ended with completion code CC 0012
[04/07/22, 5:16 PM] Job JOB00345 is being submitted
[04/07/22, 5:16 PM] Job MFTR47:JOB00345 ended with completion code CC 0004

ENG 19:52

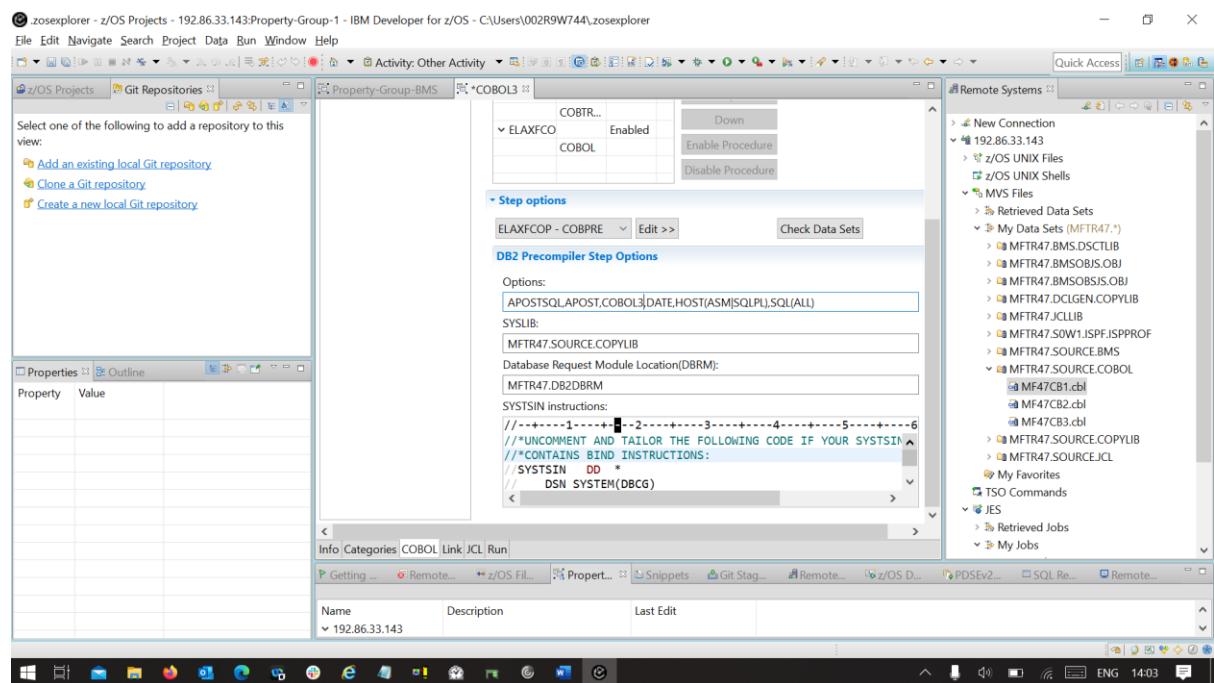
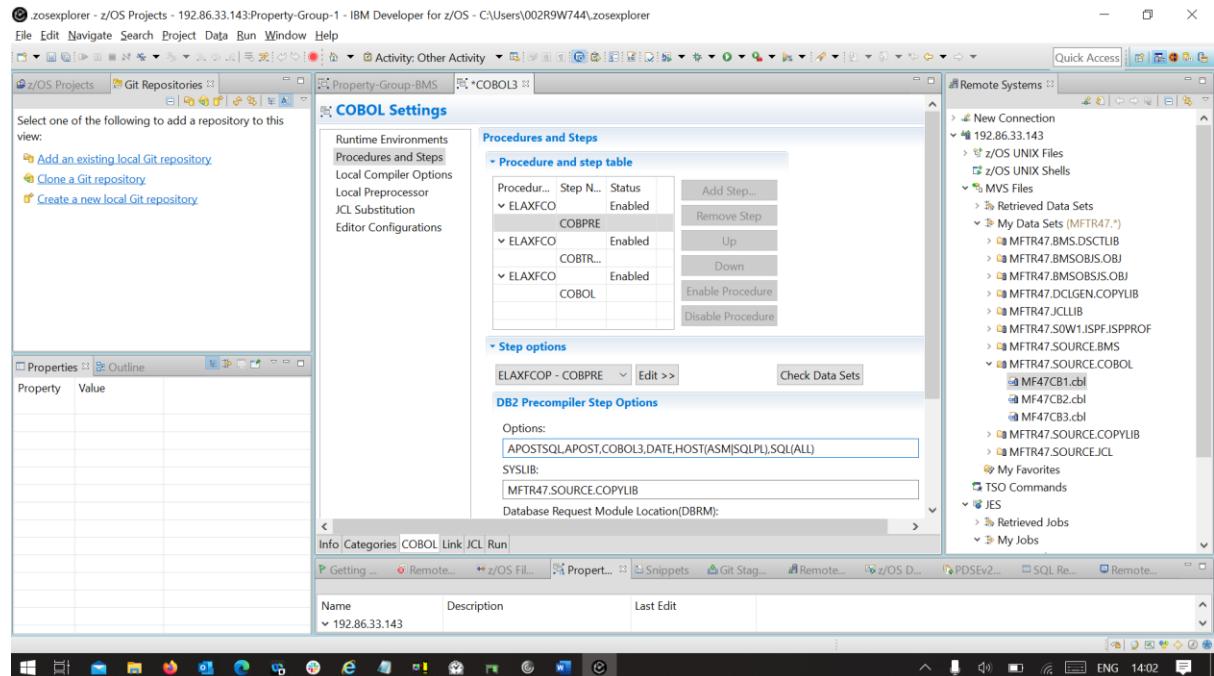


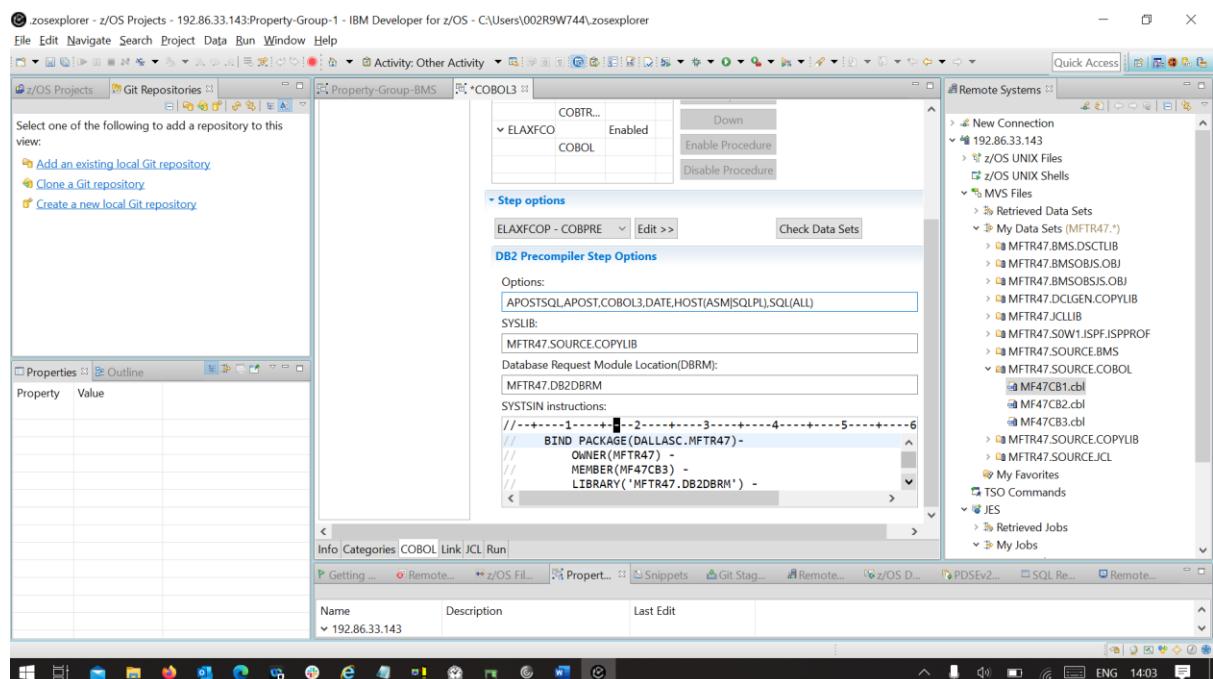
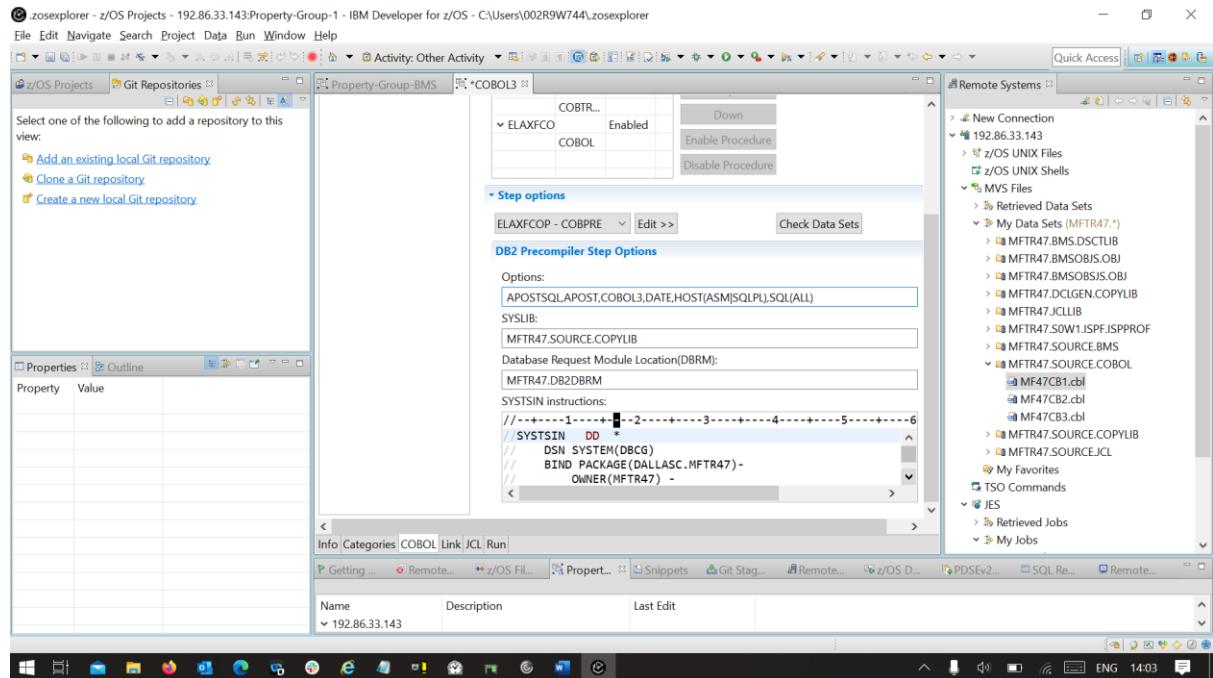


Click on Step Options -> COBPRE -> Options:

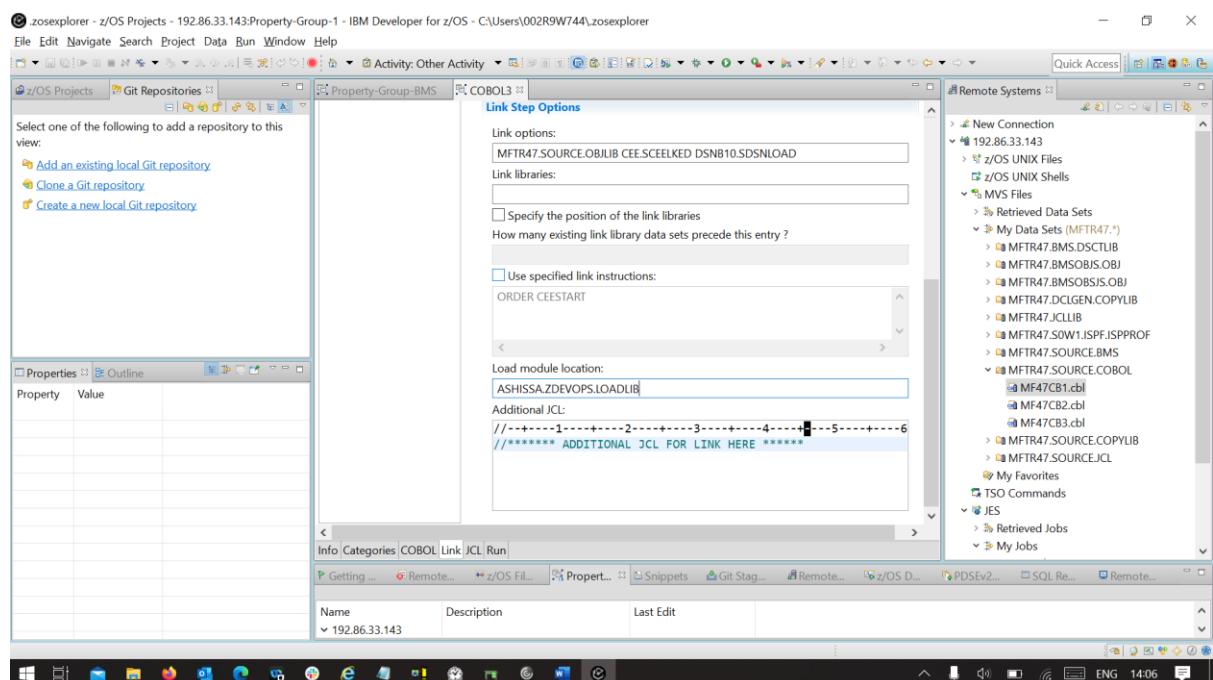
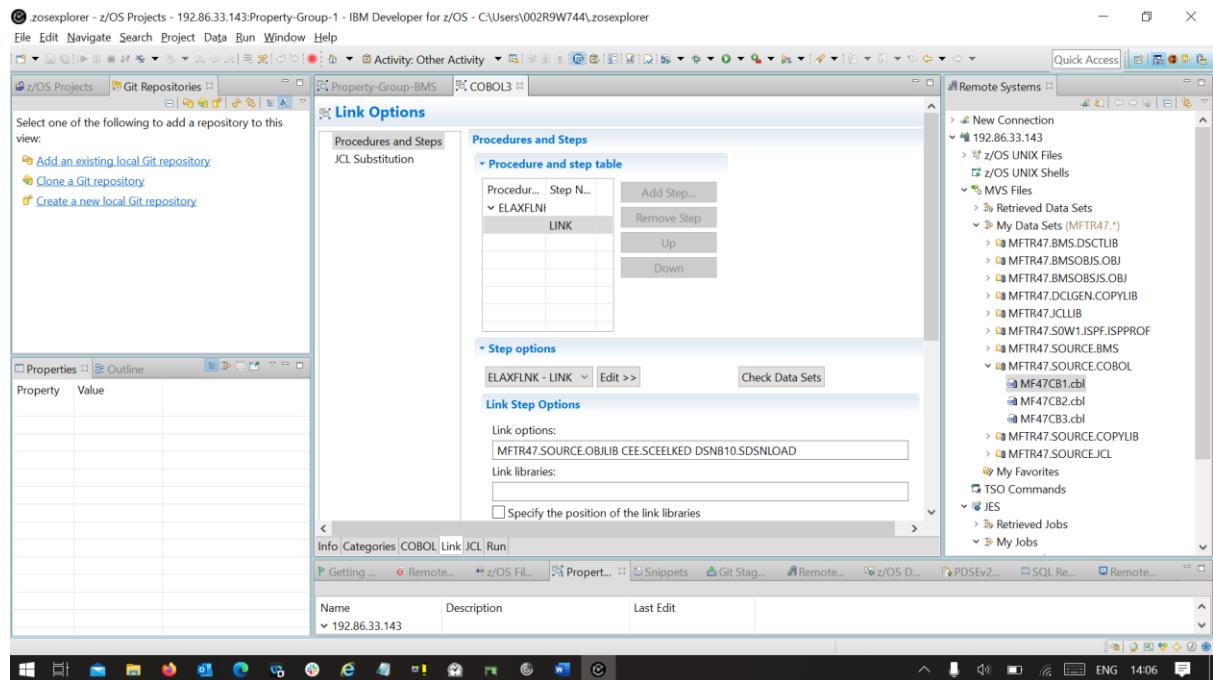
APOSTSQL,APOST,COBOL3,DATE,HOST(ASM|SQLPL),SQL(ALL) SYSLIB: MFTR47.SOURCE.COPYLIB
DBRM: MFTR47.DB2DBRM (create this PDS) SYSTIN Instructions: //STEPLIB DD
DSN=DSNB10.SDSNLOAD,DISP=SHR

```
//SYSTSIN DD * DSN SYSTEM(DBCG) BIND PACKAGE(DALLASC.MFTR47) – OWNER(MFTR47) –
MEMBER(MF47CB3) – LIBRARY('MFTR47.DB2DBRM')- ACTION(REP) – VALIDATE(BIND) BIND
PLAN(MF47CB3) – PKLIST(DALLASC.MFTR47.*) END /
```

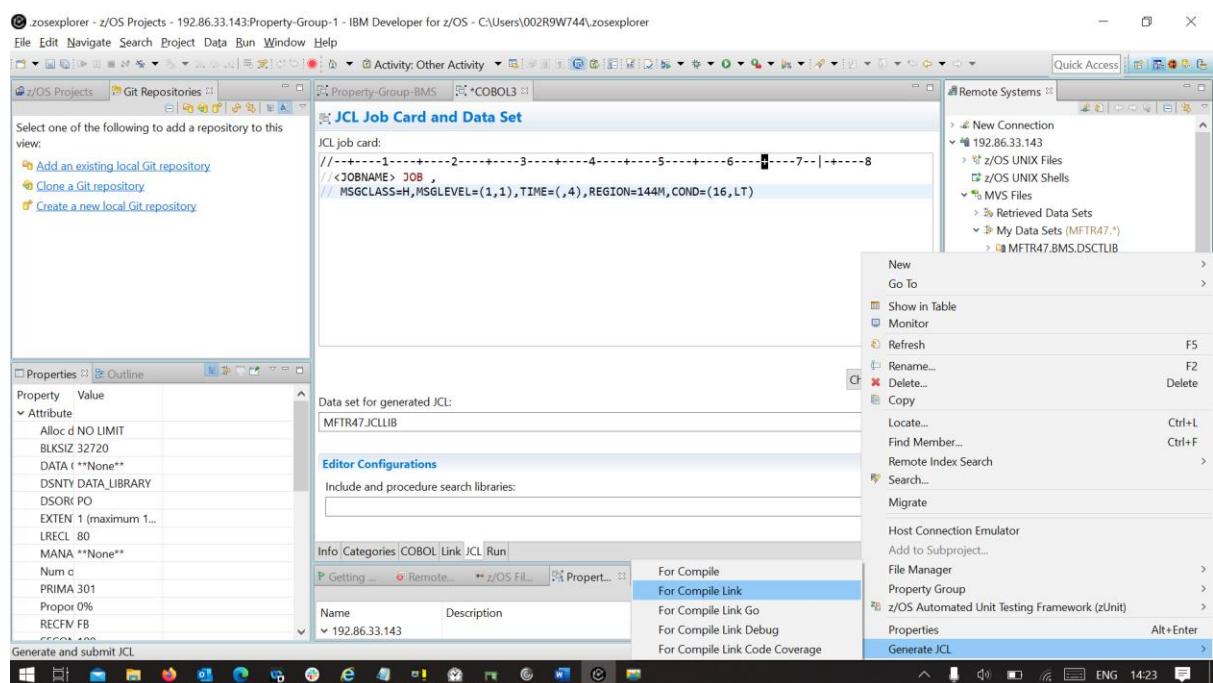
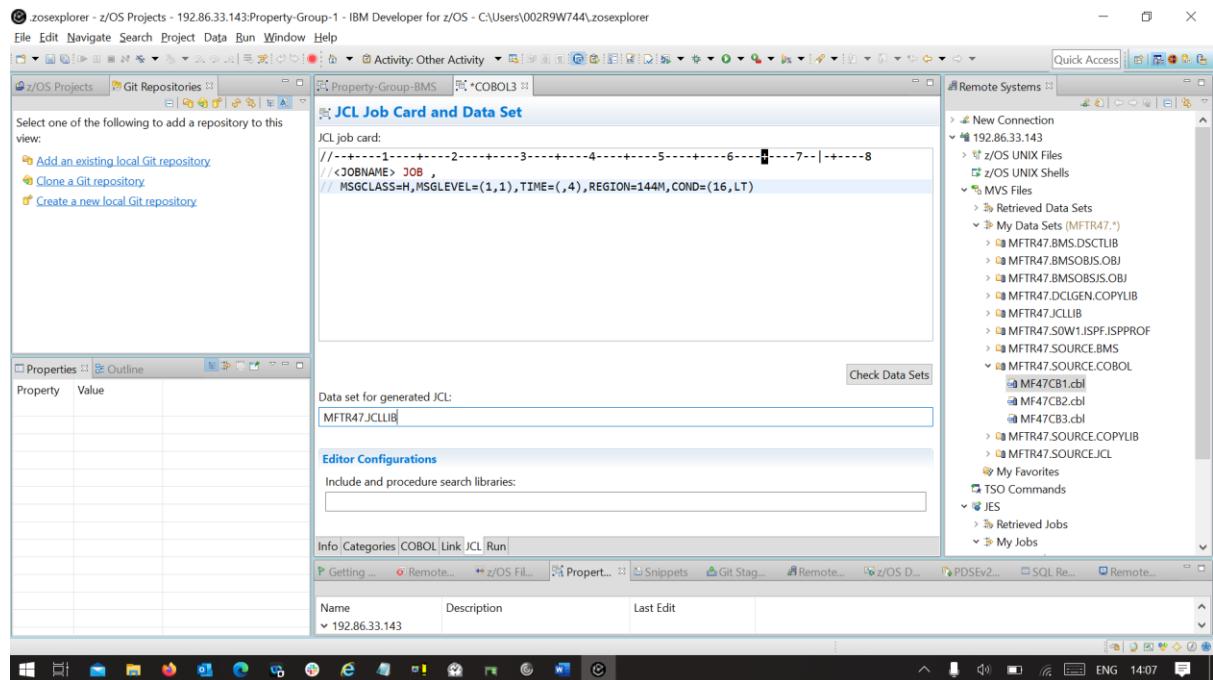


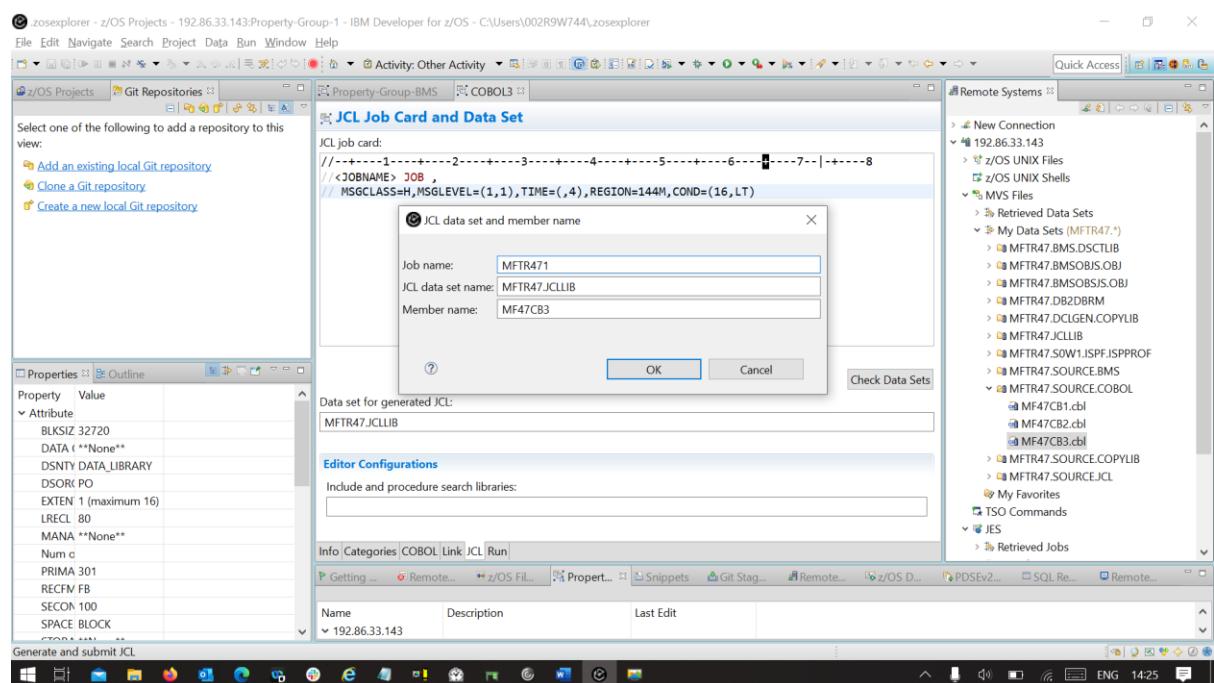
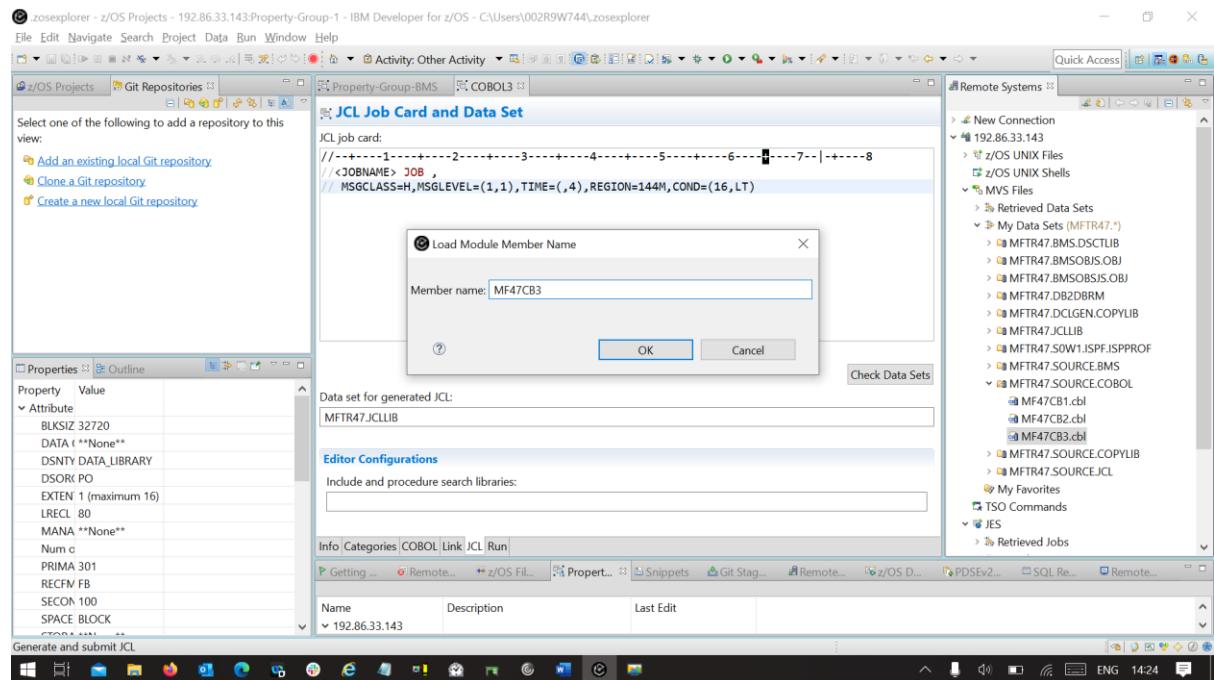


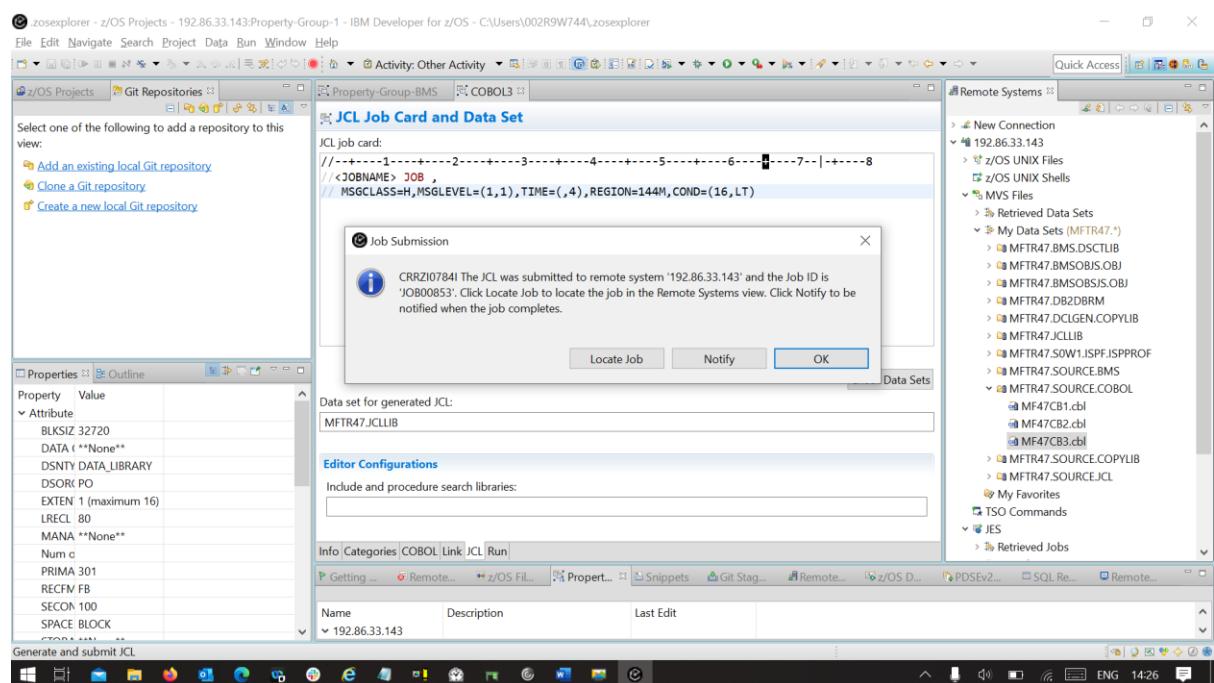
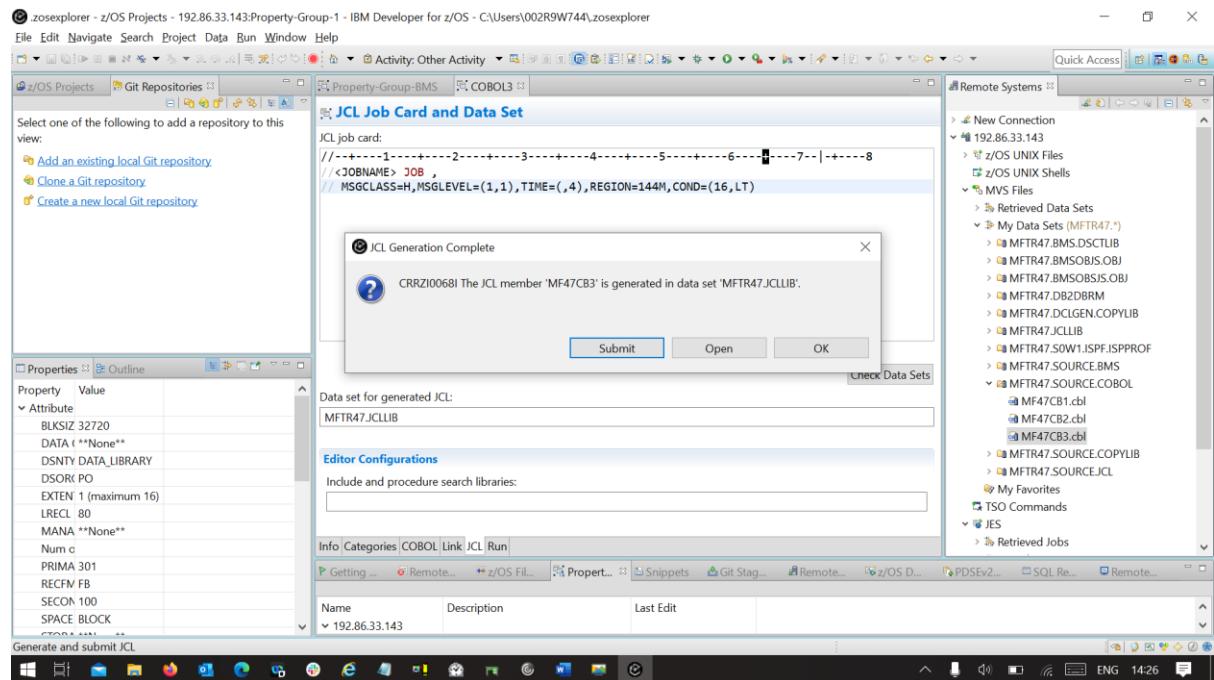
LINK tab - Click on Step Options and select ELAXFLNK-LINK Link libraries: MFTR47.SOURCE.OBJLIB
 CEE.SCEELKED DSNB10.SDSNLOAD Load module location: ASHSSA.ZDEVOPS.LOADLIB

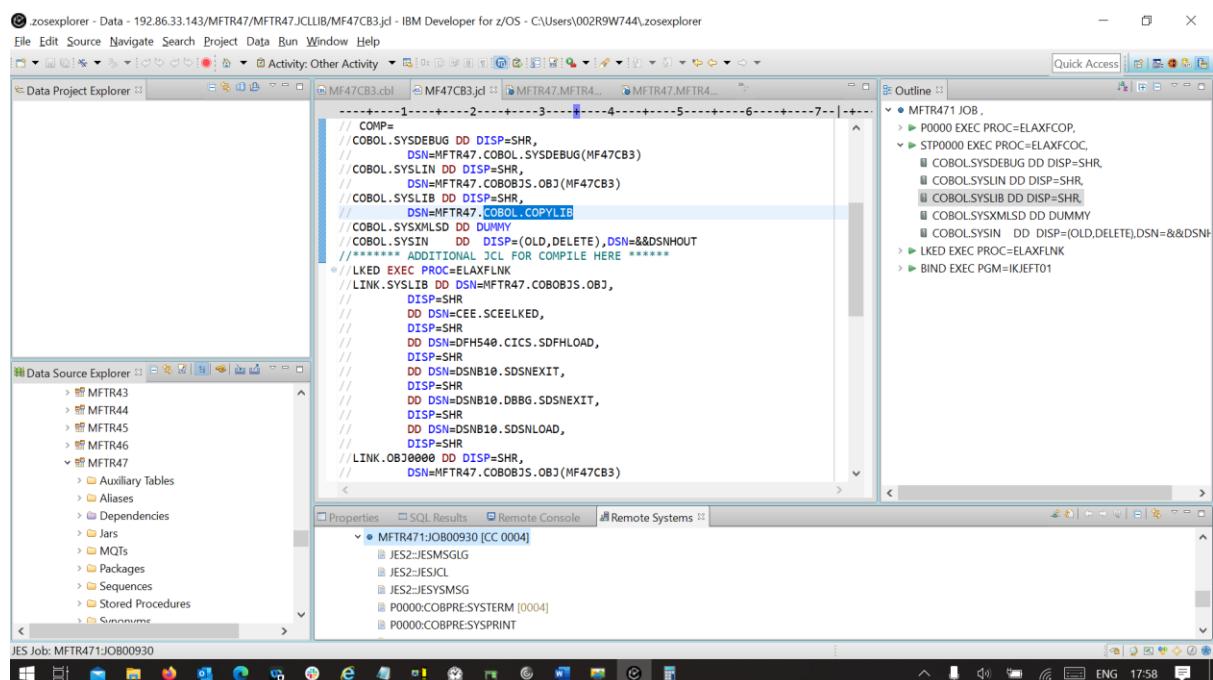
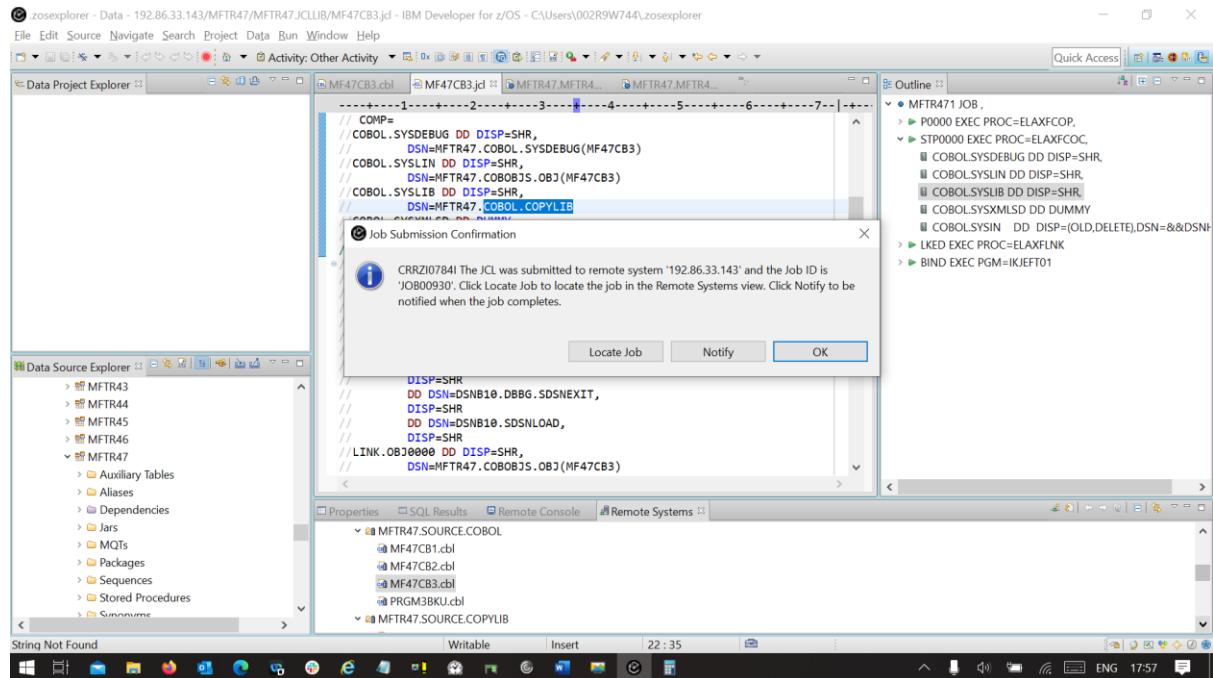


JCL tab - Dataset for generated JCL: MFTR47.JCLLIB









JCL

The screenshot shows the IBM Developer for z/OS interface. The main window displays a COBOL source code file named MF47CB3.cbl. The code includes various EXEC and PARM statements, such as P0000 EXEC PROC=ELAXFCOP and STP0000 EXEC PROC=ELAXFCOC, along with DBRMSDSN and DBRMMEM definitions. The Outline view on the right shows the hierarchical structure of the JCL, including jobs like MFR471 JOB and P0000 EXEC. The Data Project Explorer on the left lists database connections for MFR43 through MFR47, including Auxiliary Tables, Aliases, Dependencies, Jars, MQTs, Packages, Sequences, Stored Procedures, and Synonyms. The Data Source Explorer panel shows the same connection details. The bottom status bar indicates the job ID JES Job: MFTR471JOB0930.

The screenshot shows the zoseplorer IDE interface. The top menu bar includes File, Edit, Source, Navigate, Search, Project, Data, Run, Window, Help, and a Quick Access button. The left sidebar contains the Data Project Explorer (MFTR4CB3.cbl) and Data Source Explorer (MFTR43, MFTR44, MFTR45, MFTR46, MFTR47). The main workspace displays the COBOL source code for MFTR47.JCLLIB/MFTR47.CB3.jd. The code includes various DD statements for DISPL=SHR, COPYVLB, and DISPL=DUMMY, as well as EXEC PROC=ELAXFLNK and BIND PGM=PKIEFT01 statements. The right sidebar shows the Outline view with sections for MFTR471 JOB, P0000 EXEC PROC=ELAXFCOP, STP0000 EXEC PROC=ELAXFCOC, COBOLSYSLIB DD DISPL=SHR, COBOLSYSDEBUG DD DISPL=SHR, COBOLSYSIN DD DISPL=SHR, COBOLSYSLIB DD DISPL=SHR, COBOLSYSMLS DD DUMMY, COBOLSYSIN DD DISPL=(OLD,DELETE), DSN=&&DSNHOUT, LKED EXEC PROC=ELAXFLNK, and BIND EXEC PGM=PKIEFT01. The bottom navigation bar includes TSO Commands, JES, Retrieved Jobs, and a selected item MFTR471.JOB00930 [CC 0004]. The status bar at the bottom shows JES Job: MFTR471.JOB00930 and system icons.

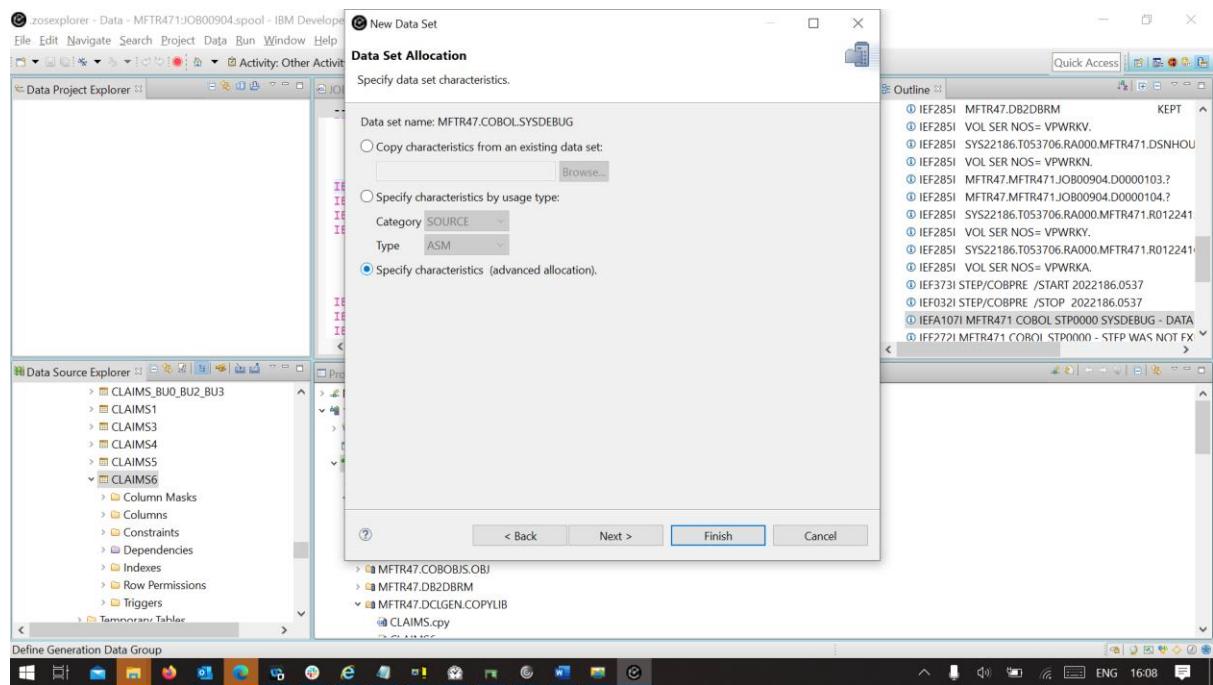
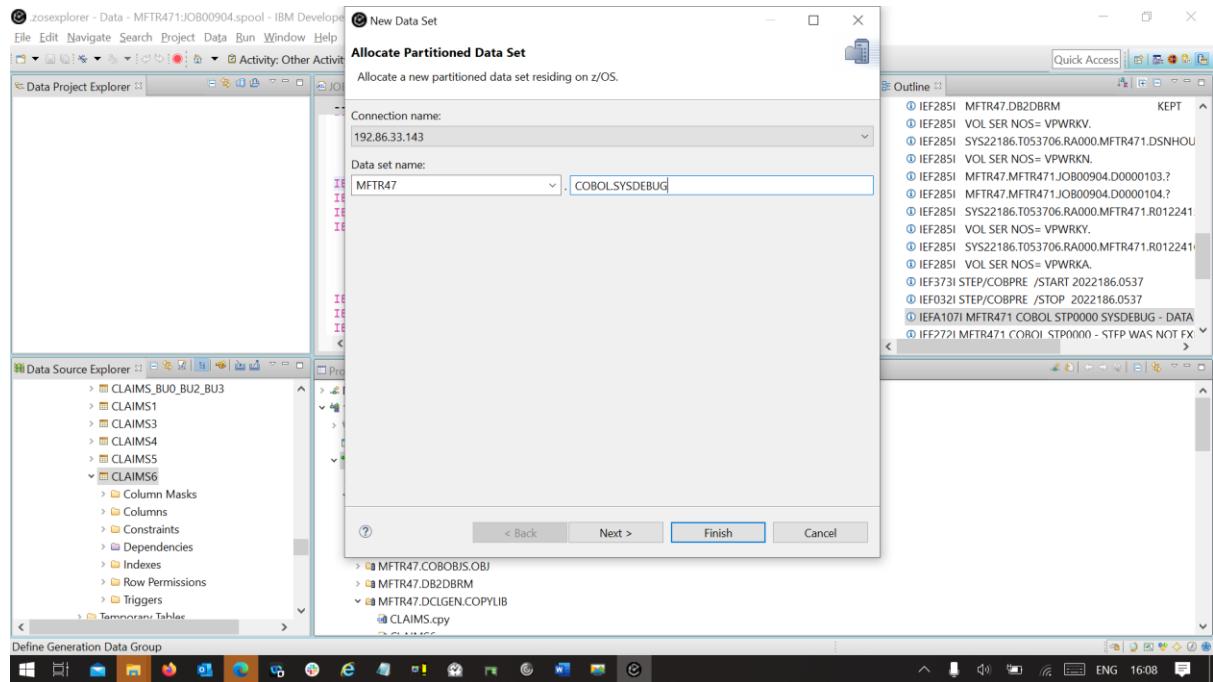
The screenshot shows the IBM Developer for z/OS interface with the following details:

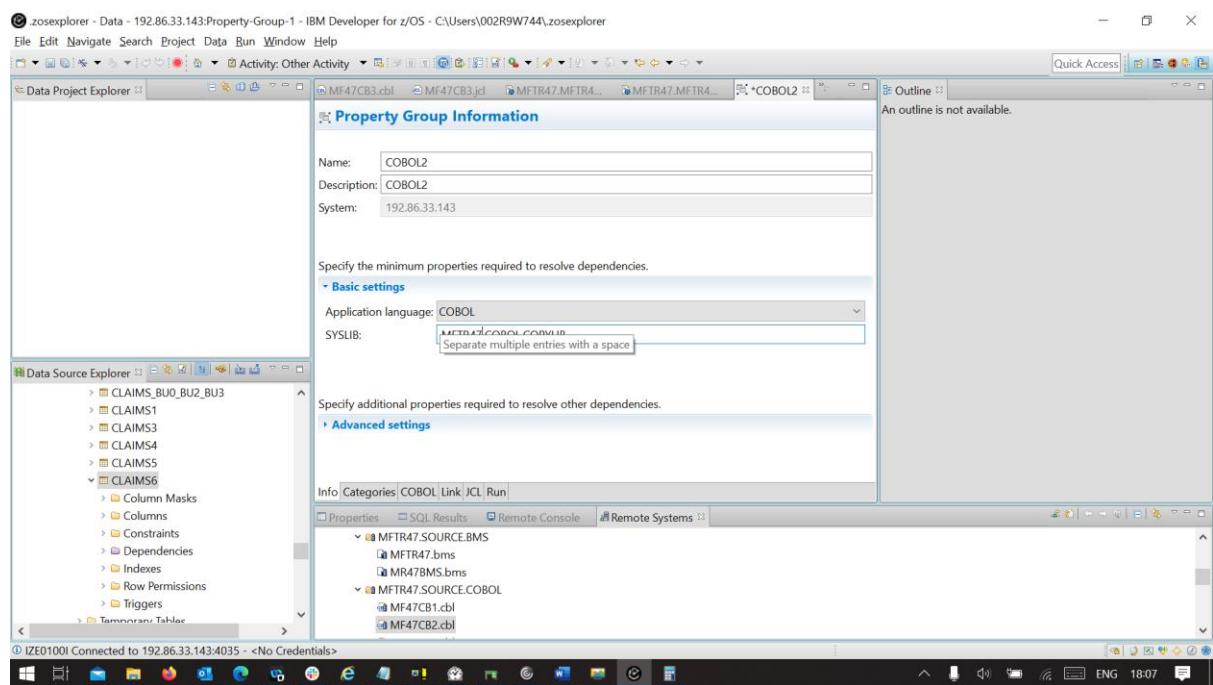
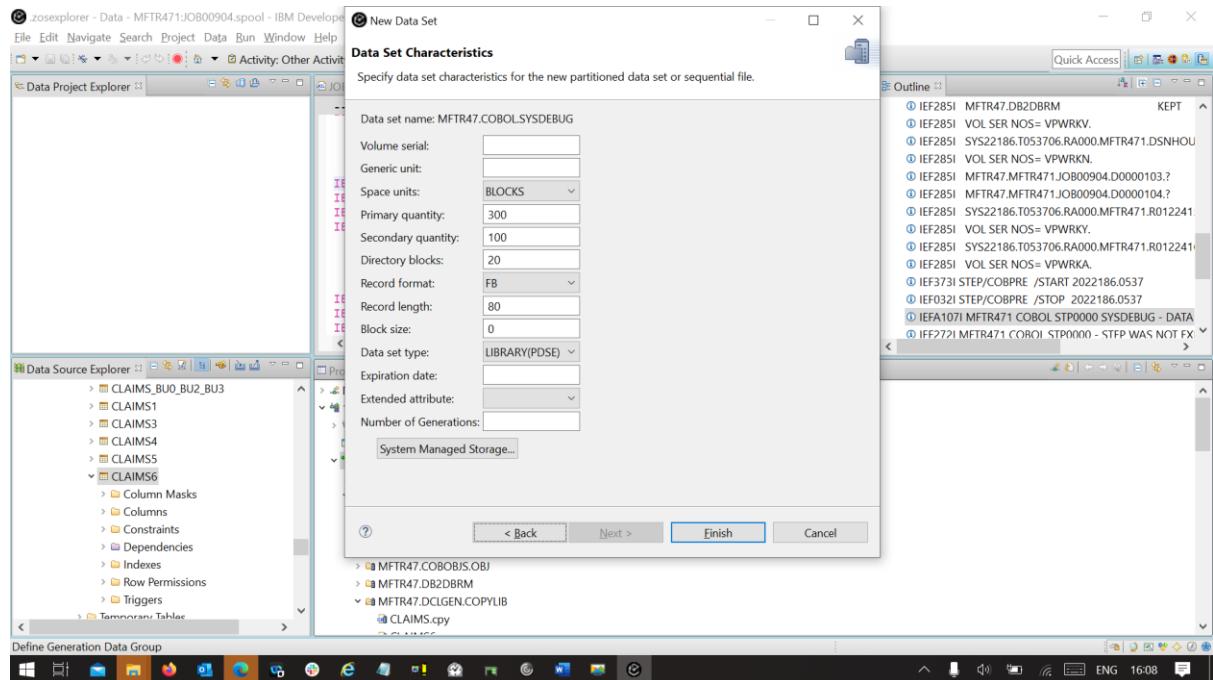
- Title Bar:** .zoseplorer - Data - 192.86.33.143/MFTR47/MFTR47.JCLLIB/MF47CB3.jd - IBM Developer for z/OS - C:\Users\002R9W744\zoseplorer
- Menu Bar:** File Edit Source Navigate Search Project Data Run Window Help
- Panels:**
 - Data Project Explorer:** Shows the project structure with MF47CB3.jcl as the active file.
 - Outline:** Displays the hierarchical structure of the JCL code, including sections like MFTR471 JOB, P0000 EXEC, and various DD statements.
 - Properties:** Shows TSO Commands and JES sections, with MFTR471.JOB00930 [CC 0004] selected.
- Status Bar:** JES Job: MFTR471.JOB00930
- Taskbar:** Shows the Windows taskbar with various application icons.

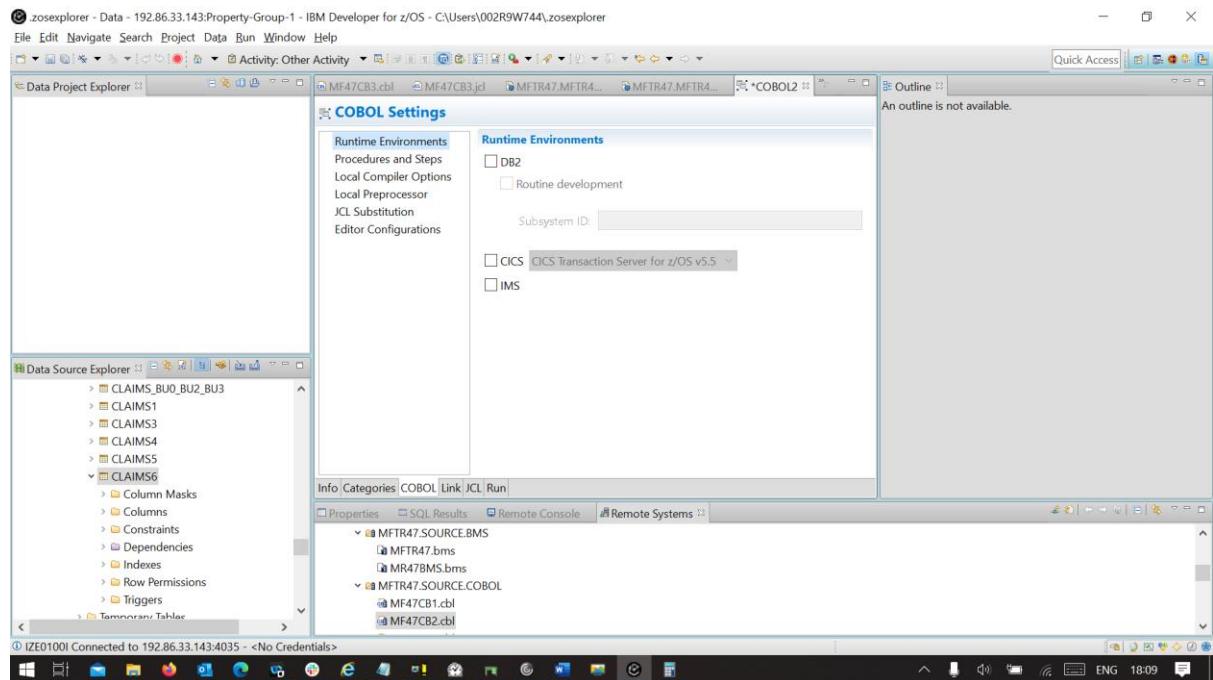
The screenshot shows the IBM Developer for z/OS interface. The main window displays a JCL code editor with the following content:

```
//***** ADDITIONAL JCL FOR LINK HERE *****
* BIND EXEC PGM=IKJEFT01
* SYSPRINT DD SYSOUT=*
* SYSTSPPRT DD SYSOUT=*
* STEPLIB1B DD DSN=MFR47.DB2DBRM,DISP=SHR
* STEPLIB1B DD DSN=DSNB10.SDSNLOAD,DISP=SHR
//*UNCOMMENT AND TAILOR THE FOLLOWING CODE IF YOUR SYSTSIN STATEMENT**
//*CONTAINING BIND INSTRUCTIONS:
//SYSSTIN DD *
      DSM SYSTEM(DBCG)
      BIND PACKAGE(DALLASC.MFR47)-
          OWNER(MFR47) -
          MEMBER(M47CB3) -
          LIBRARY('MFR47.DB2DBRM') -
          ACTION(REP) -
          VALIDATE(BIND)
      BIND PLAN(MF47CB3) -
      PKLLIST(DALLASC.MFR47.*)
END
//*
//**UNCOMMENT AND TAILOR THE FOLLOWING CODE IF YOUR SYSTSIN STATEMENT**
//*POINTS TO A DATA SET CONTAINING BIND INSTRUCTIONS
//*/SYSSTIN DD DSN=USERDL.BIND(MEMBER),DISP=SHR
//*
<
```

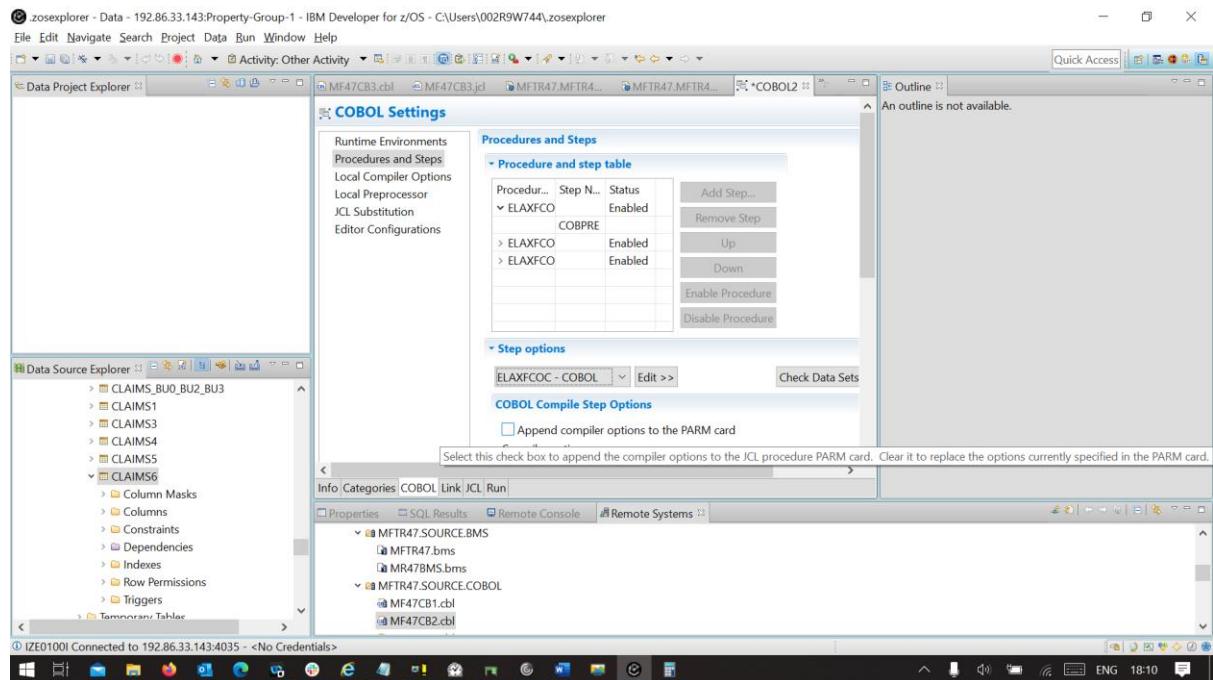
The right side of the interface shows an "Outline" view with a tree structure of jobs and their components. At the bottom, the "Properties" and "SQL Results" tabs are visible. The status bar at the bottom left shows the job identifier: JES Job: MFTR471:JOB00930.

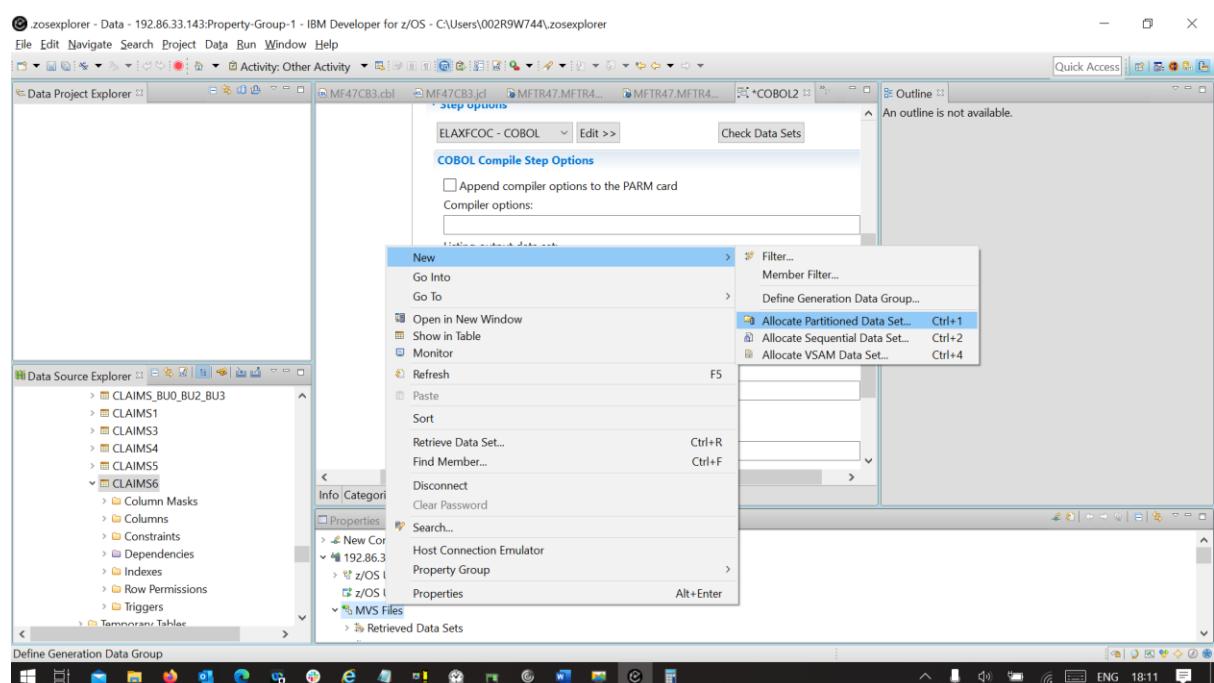
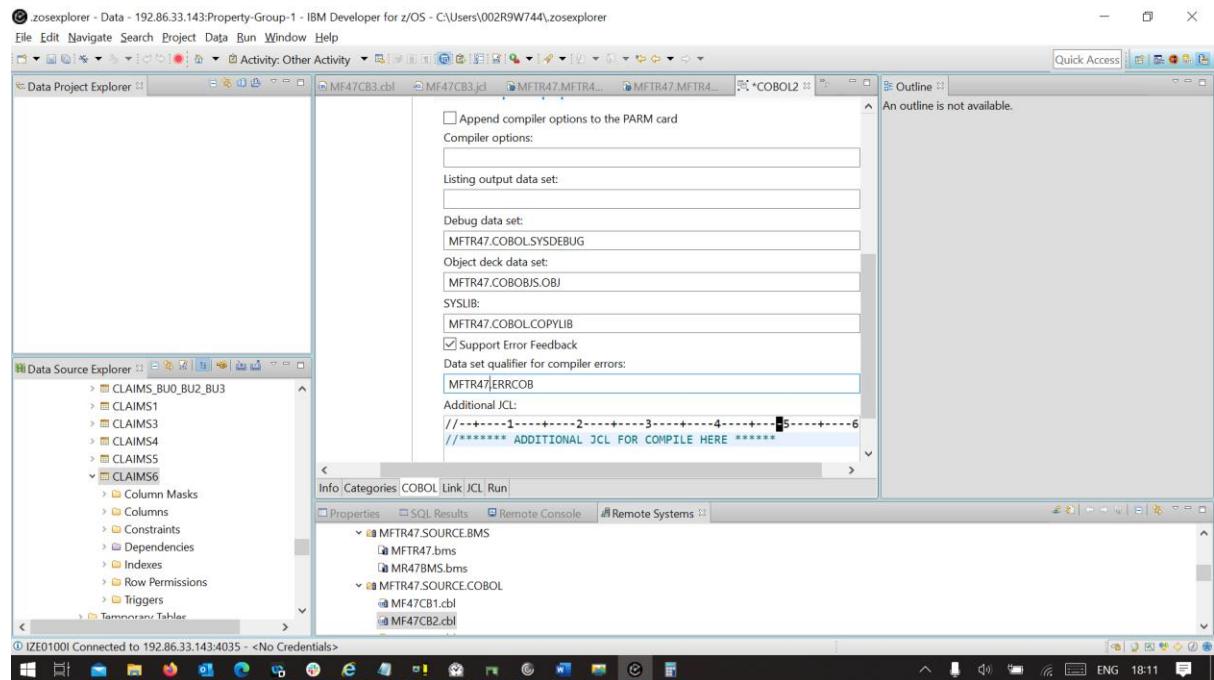


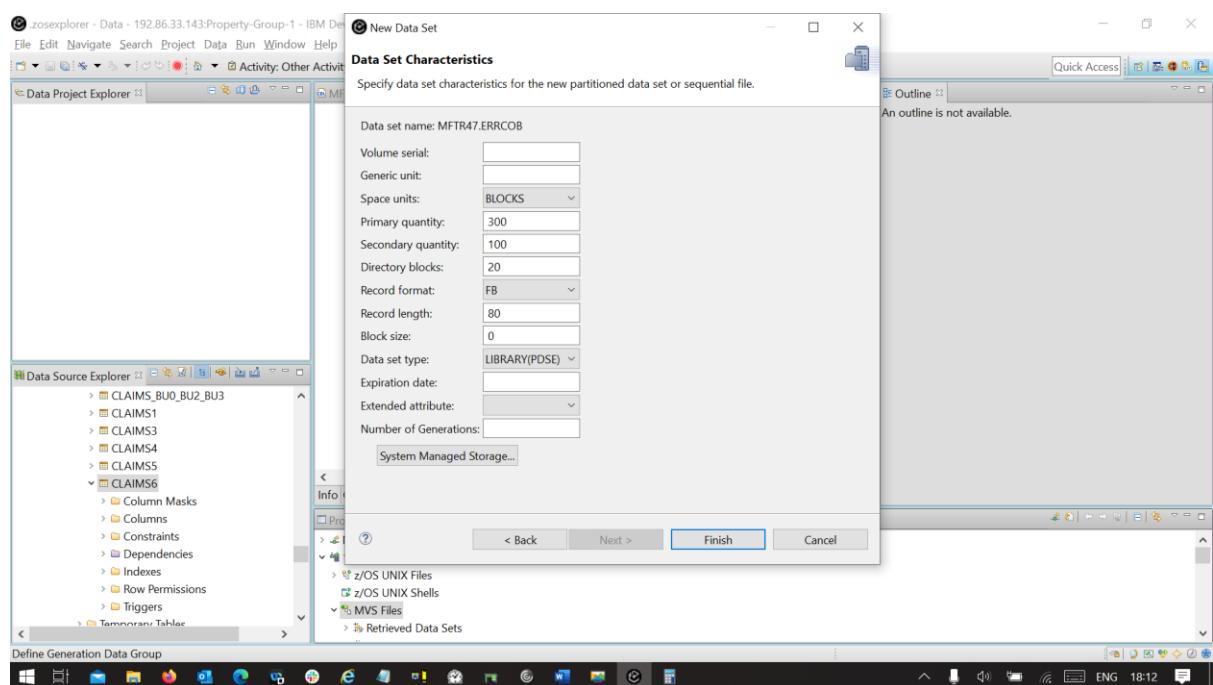
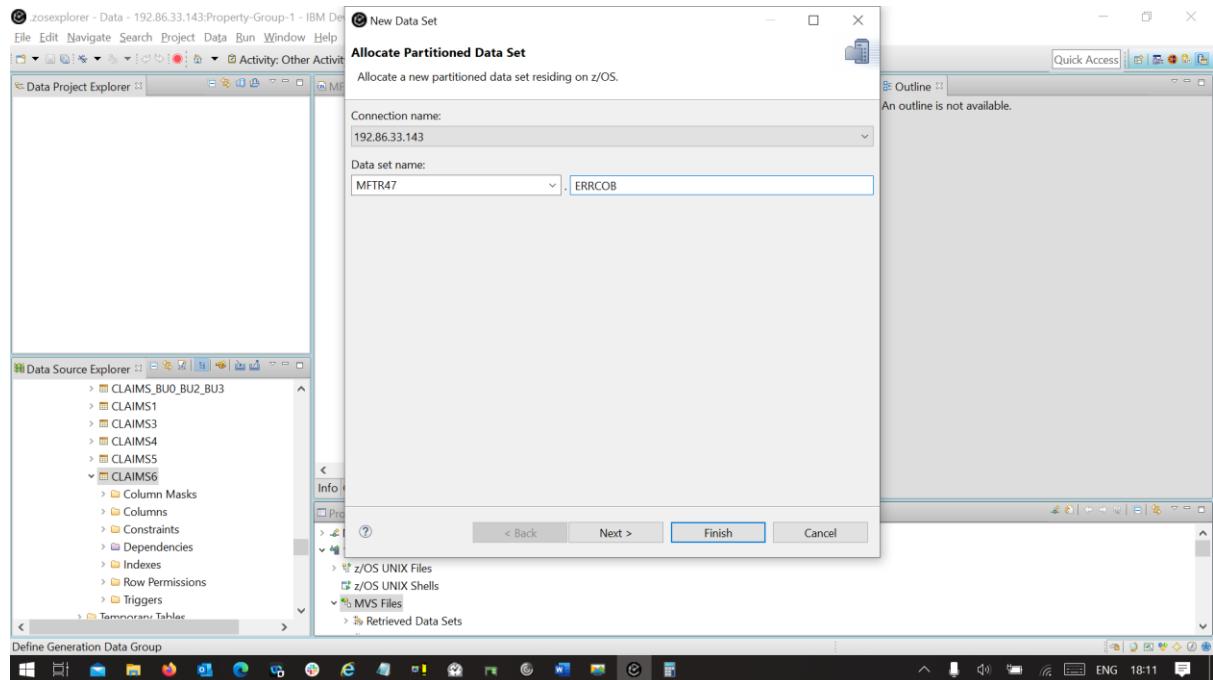




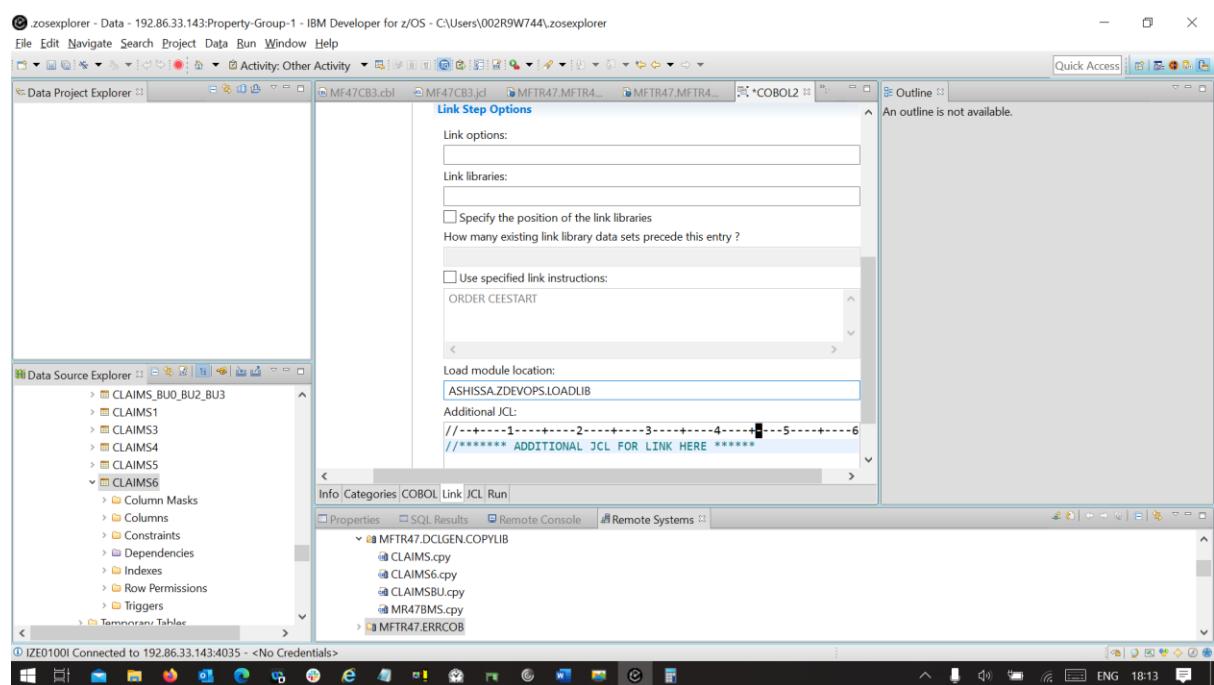
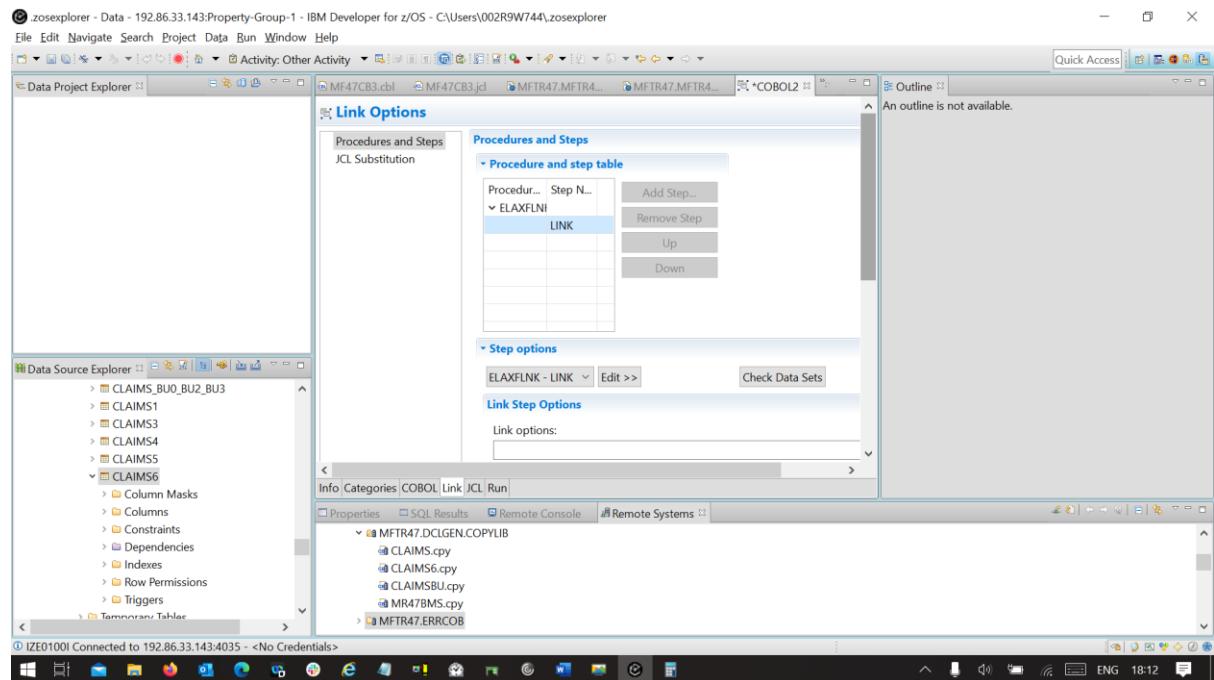
COBOL tab – Procedures and steps → Select ELAXFCOC and Under Step Options → Select ELAXFCOC – COBOL. -Compiler option, listing output dataset → Empty -Debug data set :
MFTR47.COBOL.SYSDEBUG -Object deck data set : **MFTR47.SOURCE.OBJLIB** -SYSLIB :
MFTR47.SOURCE.COPYLIB -Data set qualifier for compiler errors : **MFTR47.ERRCOB** (create)



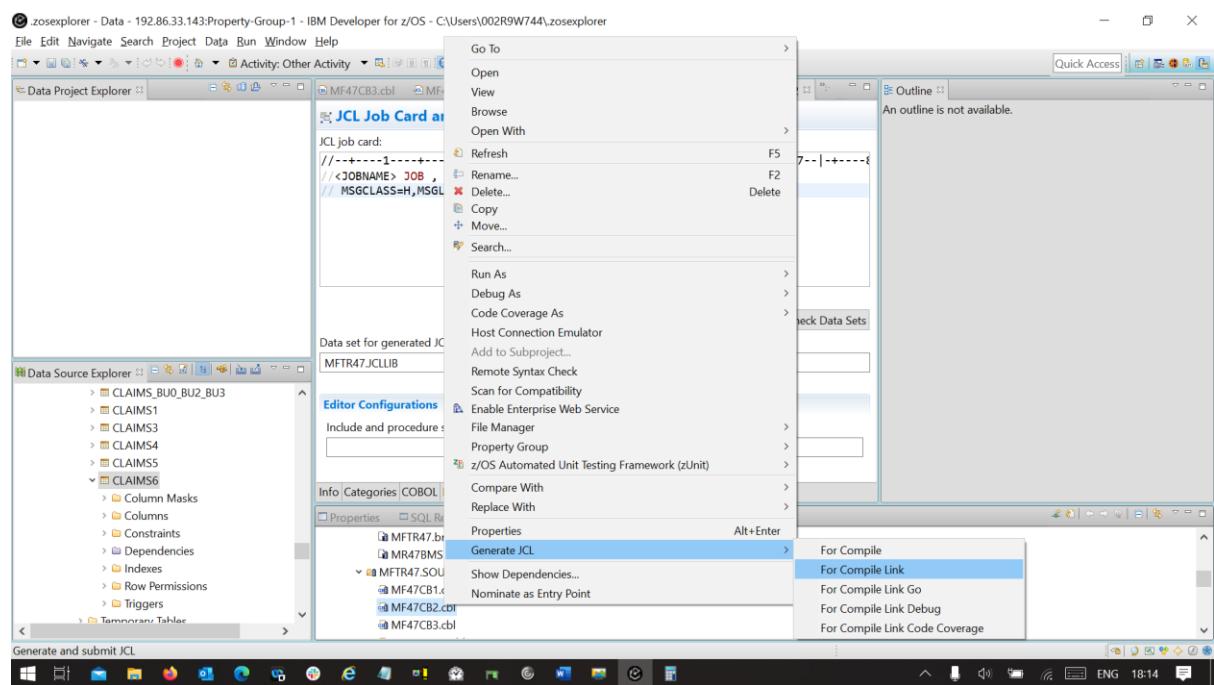
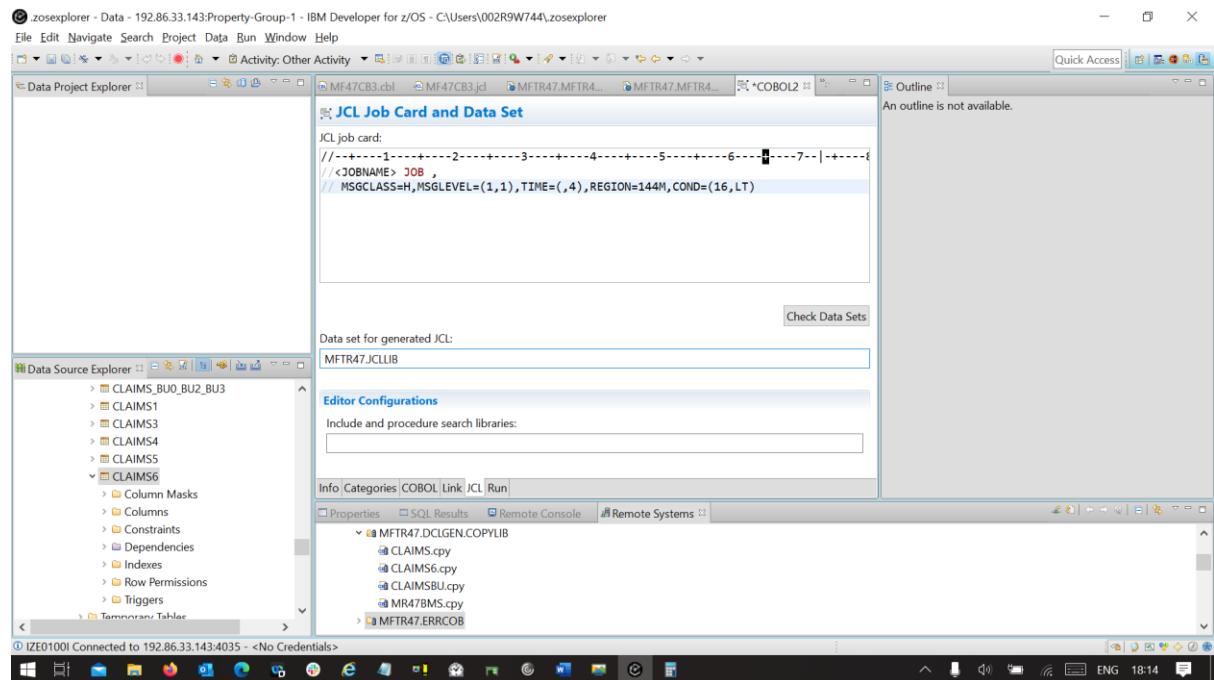


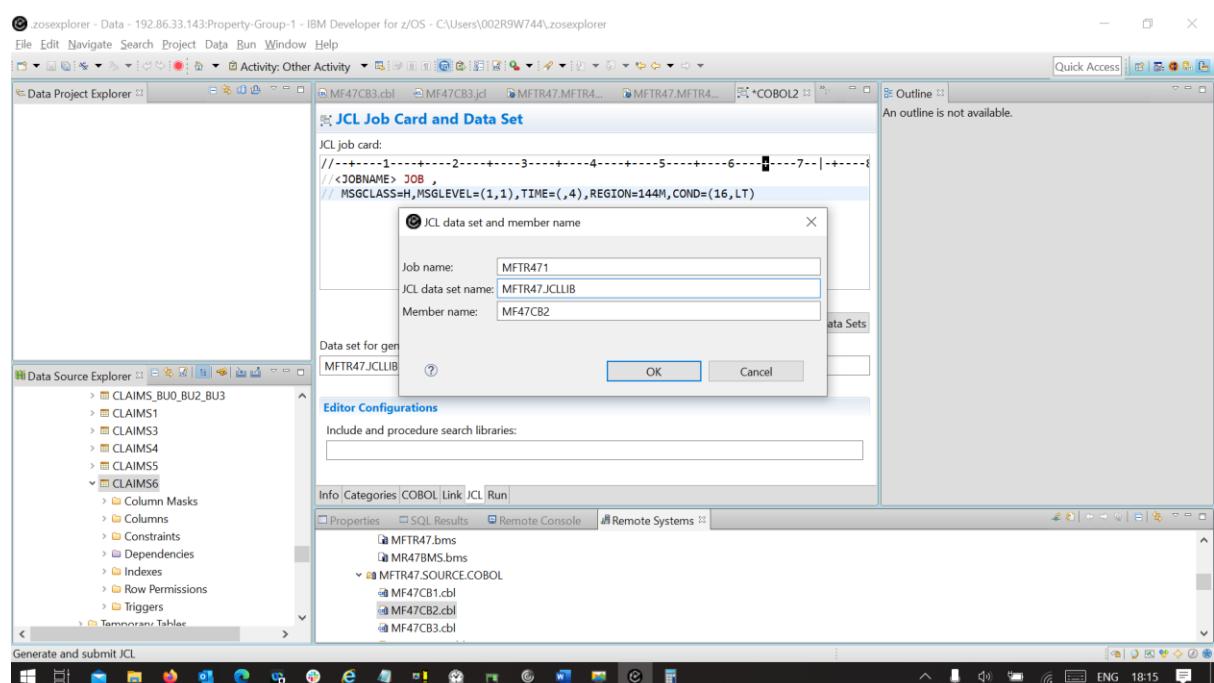
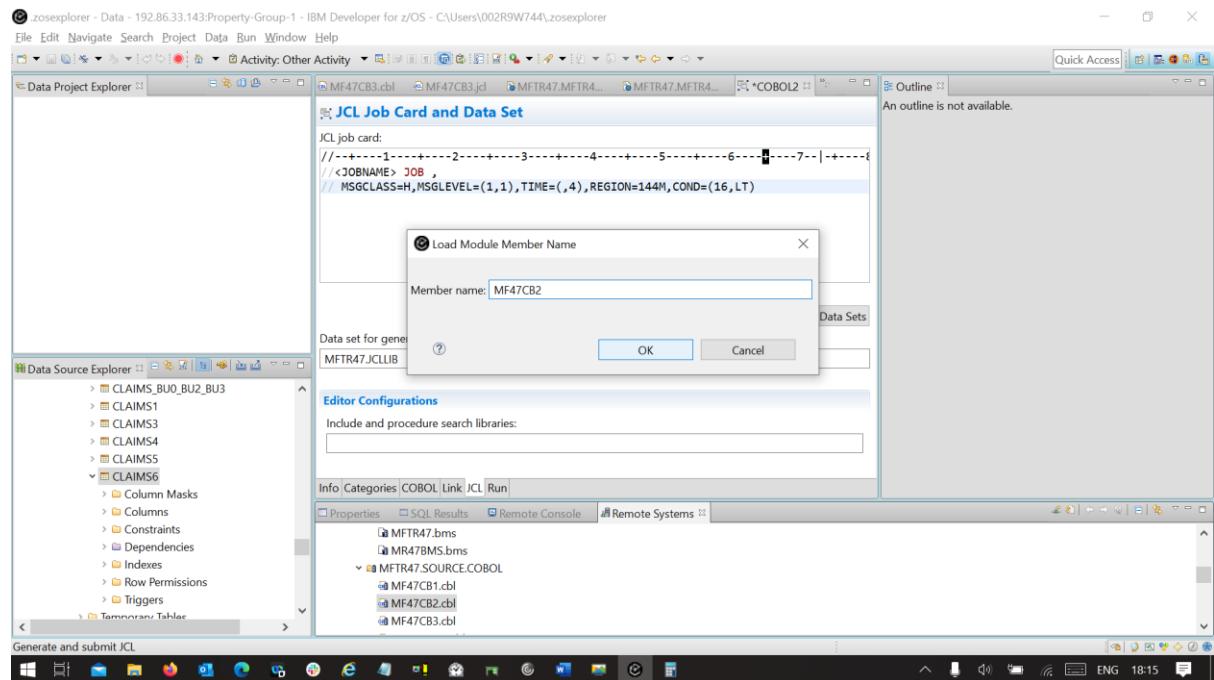


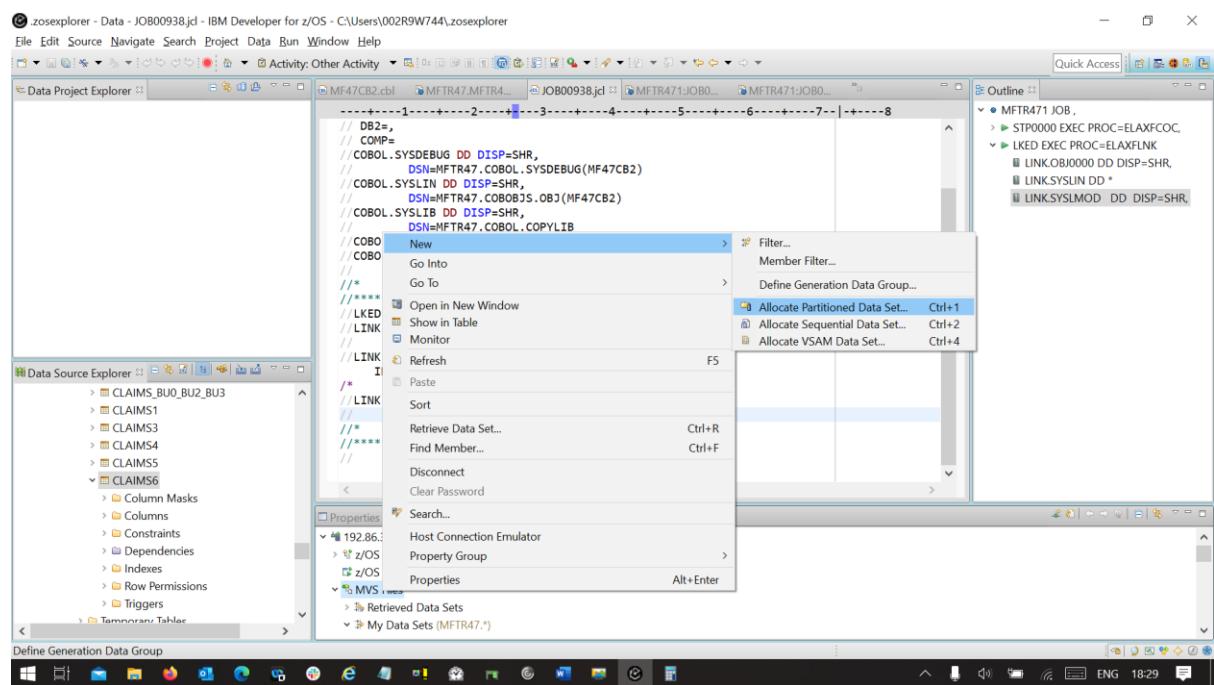
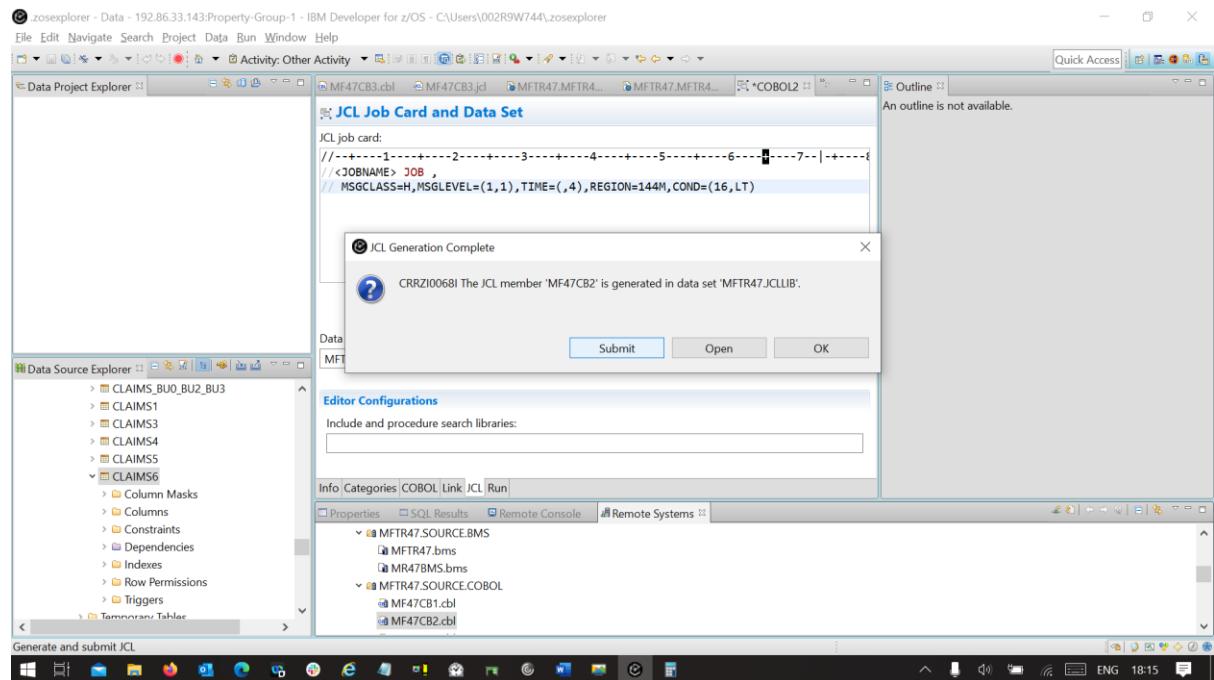
Link tab Procedures and steps → Select ELAXFLNK and under Step Options → Select ELAXFLNK - LINK.
-Link option, link libraries- empty -Load module location: ASHISSA.ZDEVOPS.LOADLIB



JCL tab - Dataset for generated JCL: MFTR47.JCLLIB







.zosexplorer - Data - 192.86.33.143/MFTR47.JCLLIB/MF47CB2.jcl - IBM Developer for z/OS - C:\Users\002R9W744\.zosexplorer

File Edit Source Navigate Search Project Data Run Window Help

Activity: Other Activity

Data Project Explorer

```

MF47CB3.jcl *COBOL2 MFTR47.MFTR4... MFTR47.MFTR4... MF47CB2.jcl MF47CB2.jcl
-----+-----+-----+-----+-----+-----+-----+-----+
// MFTR471 JOB ,
// MSGCLASS=H,MSGLEVEL=(1,1),TIME=(.,4),REGION=144M,COND=(16,LT)
//*
// STP0000 EXEC PROC=ELAXFCOC,
//   CICS=,
//   DB2=,
//   COMP=
// COBOL.SYSDEBUG DD DISP=SHR,
//   DSN=MFTR47.COBOL.SYSDI
// COBOL.SYSLIN DD DISP=SHR,
//   DSN=MFTR47.COB0BJ3.OBJ
// COBOL.SYSLIB DD DISP=SHR,
//   DSN=MFTR47.COBOL.COPYLIB
// COBOL.SYXMLSD DD DUMMY
// COBOL.SYSIN DD DISP=SHR,
//   DSN=MFTR47.SOURCE.COBOL
//*
//***** ADDITIONAL JCL FOR COMPILE HERE *****
// LKED EXEC PROC=ELAXFLNK
//   LINK.SYSLIB DD DSN=MFTR47.COB0BJ3.OBJ
//     DISP=SHR
//     DD DSN=CEE.SCEELKED,
//       DISP=SHR
//     DD DSN=Dfh540.CICS.SDFHLOAD,
//       DISP=SHR

```

Properties SQL Results Remote Console

MFTR47.ERRCOB MF47CB2.jcl MF47CB3.jcl MR47BMS.jcl MFTR47.LOAD

MFTR47.JCLLIB

Submit to 192.86.33.143 Ctrl+Alt+M

Preferences...

Quick Access

Outline

- MFTR471 JOB
 - STP0000 EXEC PROC=ELAXFCOC
 - LKED EXEC PROC=ELAXFLNK

Wrapped search

Writable

Windows Taskbar: ENG 18:40

Job executed successfully

.zosexplorer - Data - 192.86.33.143/MFTR47.JCLLIB/MF47CB2.jcl - IBM Developer for z/OS - C:\Users\002R9W744\.zosexplorer

File Edit Source Navigate Search Project Data Run Window Help

Activity: Other Activity

Data Project Explorer

```

MF47CB3.jcl *COBOL2 MFTR47.MFTR4... MFTR47.MFTR4... MF47CB2.jcl MF47CB2.jcl
-----+-----+-----+-----+-----+-----+-----+-----+
// MFTR471 JOB ,
// MSGCLASS=H,MSGLEVEL=(1,1),TIME=(.,4),REGION=144M,COND=(16,LT)
//*
// STP0000 EXEC PROC=ELAXFCOC,
//   CICS=,
//   DB2=,
//   COMP=
// COBOL.SYSDEBUG DD DISP=SHR,
//   DSN=MFTR47.COBOL.SYSDI(MF47CB2)
// COBOL.SYSLIN DD DISP=SHR,
//   DSN=MFTR47.COB0BJ3.OBJ(MF47CB2)
// COBOL.SYSLIB DD DISP=SHR,
//   DSN=MFTR47.COBOL.COPYLIB
// COBOL.SYXMLSD DD DUMMY
// COBOL.SYSIN DD DISP=SHR,
//   DSN=MFTR47.SOURCE.COBOL(MF47CB2)
//*
//***** ADDITIONAL JCL FOR COMPILE HERE *****
// LKED EXEC PROC=ELAXFLNK
//   LINK.SYSLIB DD DSN=MFTR47.COB0BJ3.OBJ
//     DISP=SHR
//     DD DSN=CEE.SCEELKED,
//       DISP=SHR
//     DD DSN=Dfh540.CICS.SDFHLOAD,
//       DISP=SHR

```

Properties SQL Results Remote Console

JES2:IESMSGJ L JES2:JESJCL L JES2:JESYMSG L STP0000:COBOLSYSPRINT [0000] L KED:LINKSYSPRINT [0000]

MFTR471:JOB00949 [CC 0000]

Remote Systems

Windows Taskbar: ENG 18:40

JCL – MF47CB2

.zosexplorer - Data - 192.86.33.143/MFTR47.JCLLIB/MF47CB2.jcl - IBM Developer for z/OS - C:\Users\002R9W744\.zosexplorer

```

Data Project Explorer : MF47CB3.jcl COBOL2 MFTR47.MFTR4... MFTR47.MFTR4... MF47CB2.jcl MF47CB2.jcl
Activity: Other Activity

MFTR471 JOB
// MSGCLASS=H, MSGLEVEL=(1,1), TIME=(.,4), REGION=144M,COND=(16,LT)
/*
// STP0000 EXEC PROC=ELAXFCOC,
//   CICS=,
//   DB2=,
//   COMP=
// COBOL.SYSDEBUG DD DISP=SHR,
//   DSN=MFTR47.COBOL.SYSDEBUG(MF47CB2)
// COBOL.SYSLIN DD DISP=SHR,
//   DSN=MFTR47.COB0BJ5.OBJ(MF47CB2)
// COBOL.SYSLIB DD DISP=SHR,
//   DSN=MFTR47.COBOL.COPYLIB
// COBOL.SYXMLSD DD DUMMY
// COBOL.SYSIN DD DISP=SHR,
//   DSN=MFTR47.SOURCE.COBOL(MF47CB2)
/*
***** ADDITIONAL JCL FOR COMPILE HERE *****
// LKED EXEC PROC=ELAXFLNK
//   LINK.SYSLIB DD DSN=MFTR47.COB0BJ5.OBJ,
//     DISP=SHR
//     DD DSN=CEE.SCEELKD,
//     DISP=SHR
//     DD DSN=DFH540.CICS.SDFHLOAD,
//     DISP=SHR
//     DD DSN=DSNB10.SDSNLOAD,
//     DISP=SHR
//     DD DSN=MFTR47.COB0BJ5.OBJ(MF47CB2)
/*
***** ADDITIONAL JCL FOR LINK HERE *****
// LINK.SYSLIN DD *
  INCLUDE OBJ0000
/*
// LINK.SYSLMOD DD DISP=SHR,
//   DSN=ASHIASSA.ZDEVOPS.LOADLIB(MF47CB2)
/*
***** ADDITIONAL JCL FOR LINK HERE *****
// 
```

Data Source Explorer : CLAIMS_BU0_BU2_BU3 CLAIMS1 CLAIMS3 CLAIMS4 CLAIMS5 CLAIMS6 Column Masks Columns Constraints Dependencies Indexes Row Permissions Triggers Temporary Tables

Properties SQL Results Remote Console Remote Systems

JES Job: MFTR471:JOB00949

.zosexplorer - Data - 192.86.33.143/MFTR47.JCLLIB/MF47CB2.jcl - IBM Developer for z/OS - C:\Users\002R9W744\.zosexplorer

```

Data Project Explorer : MF47CB3.jcl COBOL2 MFTR47.MFTR4... MFTR47.MFTR4... MF47CB2.jcl MF47CB2.jcl
Activity: Other Activity

MFTR471 JOB
// COBOL.SYXMLSD DD DUMMY
// COBOL.SYSIN DD DISP=SHR,
//   DSN=MFTR47.SOURCE.COBOL(MF47CB2)
/*
***** ADDITIONAL JCL FOR COMPILE HERE *****
// LKED EXEC PROC=ELAXFLNK
//   LINK.SYSLIB DD DSN=MFTR47.COB0BJ5.OBJ,
//     DISP=SHR
//     DD DSN=CEE.SCEELKD,
//     DISP=SHR
//     DD DSN=DFH540.CICS.SDFHLOAD,
//     DISP=SHR
//     DD DSN=DSNB10.SDSNLOAD,
//     DISP=SHR
//     DD DSN=MFTR47.COB0BJ5.OBJ(MF47CB2)
/*
***** ADDITIONAL JCL FOR LINK HERE *****
// LINK.SYSLIN DD *
  INCLUDE OBJ0000
/*
// LINK.SYSLMOD DD DISP=SHR,
//   DSN=ASHIASSA.ZDEVOPS.LOADLIB(MF47CB2)
/*
***** ADDITIONAL JCL FOR LINK HERE *****
// 
```

Data Source Explorer : CLAIMS_BU0_BU2_BU3 CLAIMS1 CLAIMS3 CLAIMS4 CLAIMS5 CLAIMS6 Column Masks Columns Constraints Dependencies Indexes Row Permissions Triggers Temporary Tables

Properties SQL Results Remote Console Remote Systems

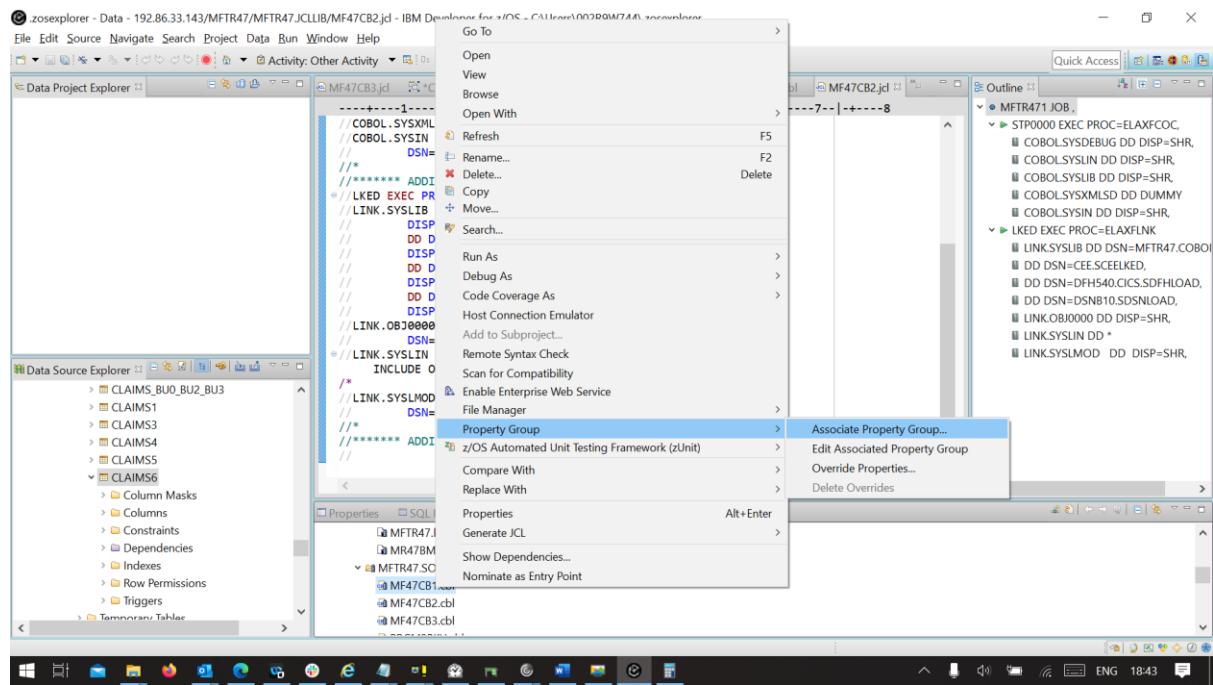
JES Job: MFTR471:JOB00949

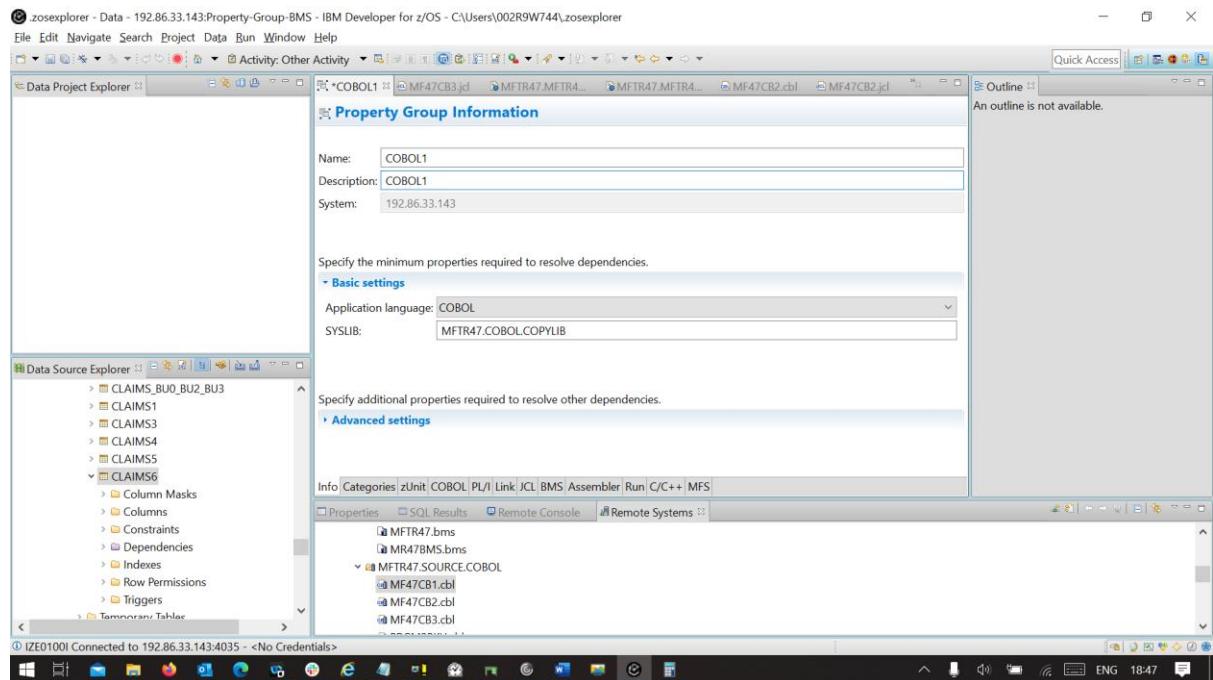
```

// COBOL.SYSXMLSD DD DUMMY
// COBOL.SYSIN DD DISP=SHR,
//      DSN=MFTR47.SOURCE.COBOL(MF47CB2)
// /*
// ***** ADDITIONAL JCL FOR COMPILE HERE *****
// LKED EXEC PROC=ELAXFLNK
// LINK.SYSLIB DD DSN=MFTR47.COBOBJJS.OBJ,
//      DISP=SHR
//      DD DSN=CEE.SCEELKED,
//      DISP=SHR
//      DD DSN=DFH540.CICS.SDFHLOAD,
//      DISP=SHR
//      DD DSN=DSNB10.SDSNLOAD,
//      DISP=SHR
// LINK.OBJ0000 DD DISP=SHR,
//      DSN=MFTR47.COBOBJJS.OBJ(MF47CB2)
// LINK.SYSLIN DD *
//      INCLUDE OBJ0000
// /*
// /LINK.SYSLMOD DD DISP=SHR,
//      DSN=ASHISSA.ZDEVOPS.LOADLIB(MF47CB2)
// /*
// ***** ADDITIONAL JCL FOR LINK HERE *****
// */

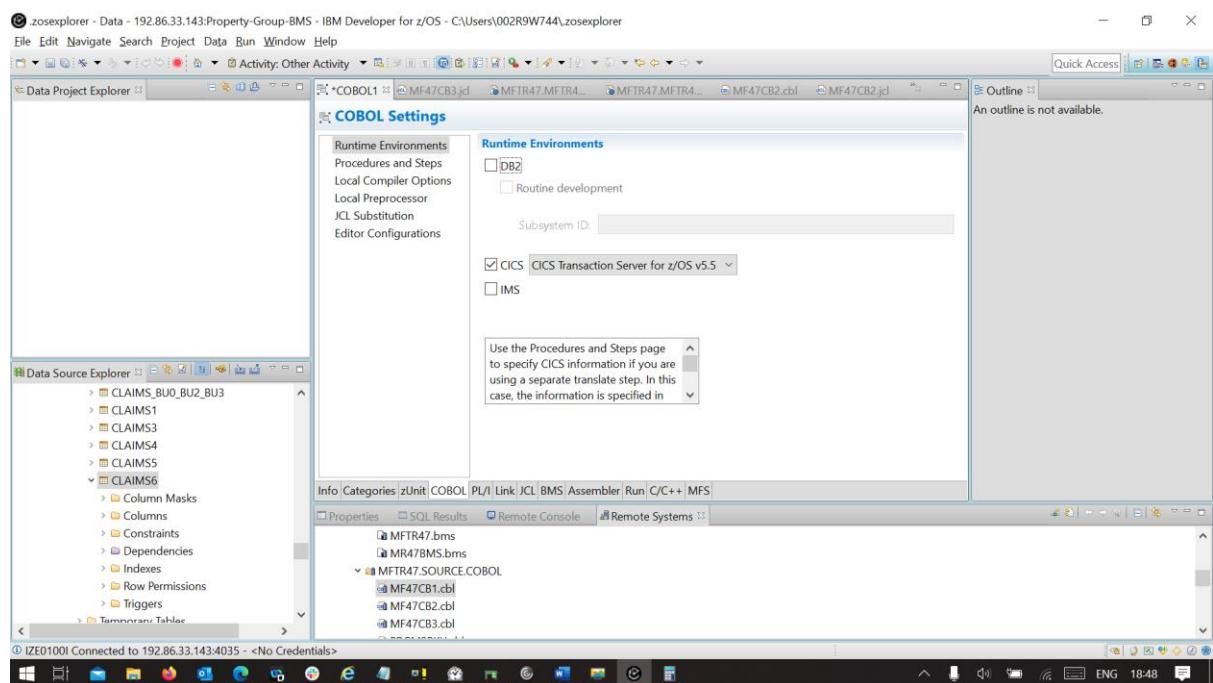

```

COBOL CICS Program: Frontend : MF47CB1 MF47CB1 in MVS FILE → right click → property group → Associate property group

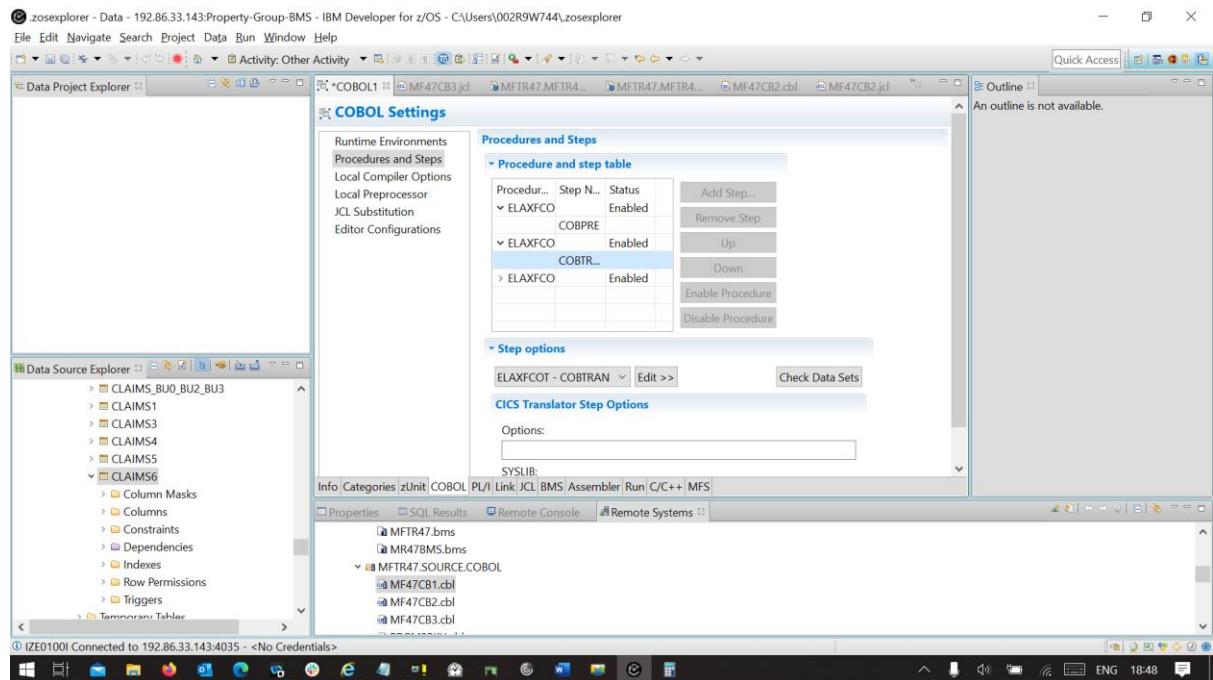




COBOL tab – Runtime environment → CICS

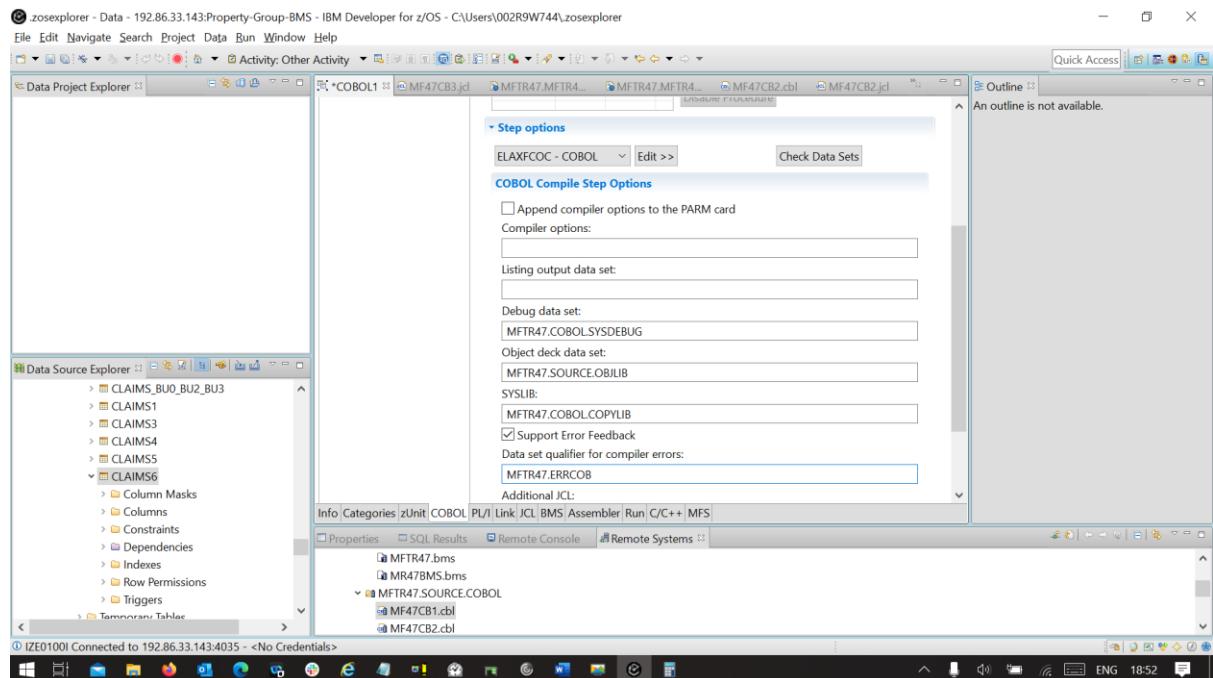


Procedures and steps → Enable ELAXFCOT and under Step Options → Select ELAXFCOT – COBTRAN. - Options – COBOL.APOST -SYSLIB - DFH540.CICS.SDFHCOB



Now under Step Options → Select ELAXFCOC – COBOL.

- Compiler option, listing output dataset → Empty
- Debug data set : MFTR34.COBOL.SYSDEBUG
- Object deck data set : MFTR34.SOURCE.OBJLIB
- SYSLIB : MFTR34.SOURCE.COPYLIB



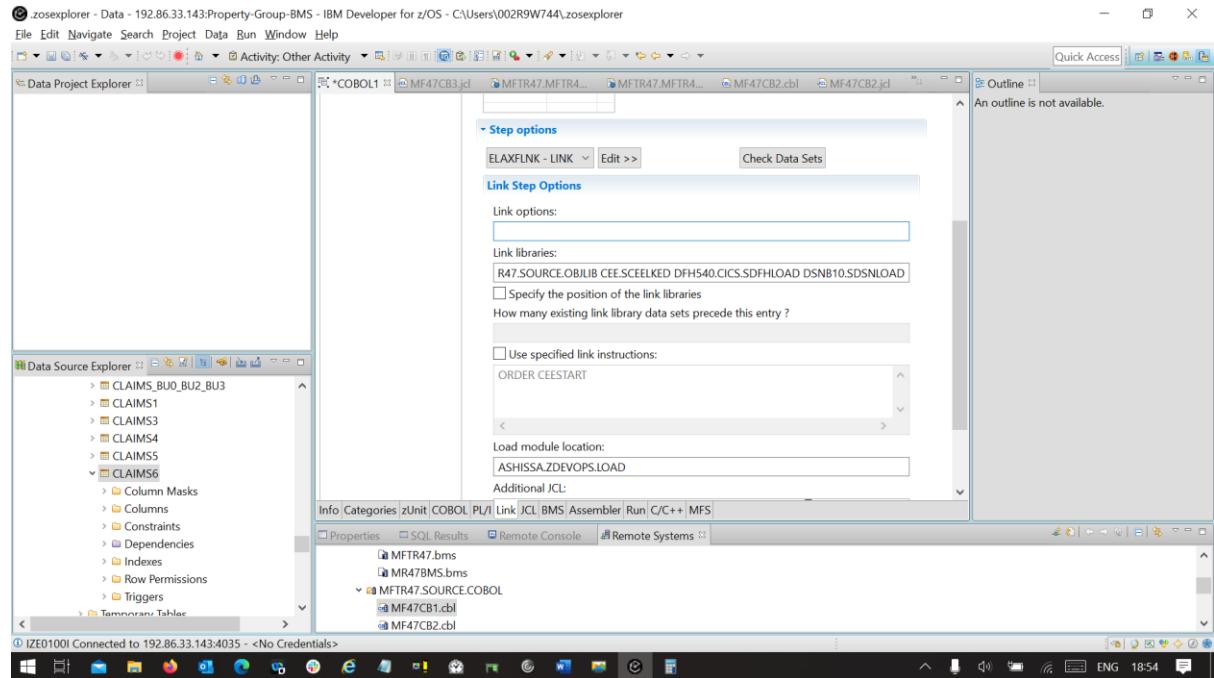
Link tab

Procedures and steps → Select ELAXFLNK and under Step Options → Select ELAXFLNK

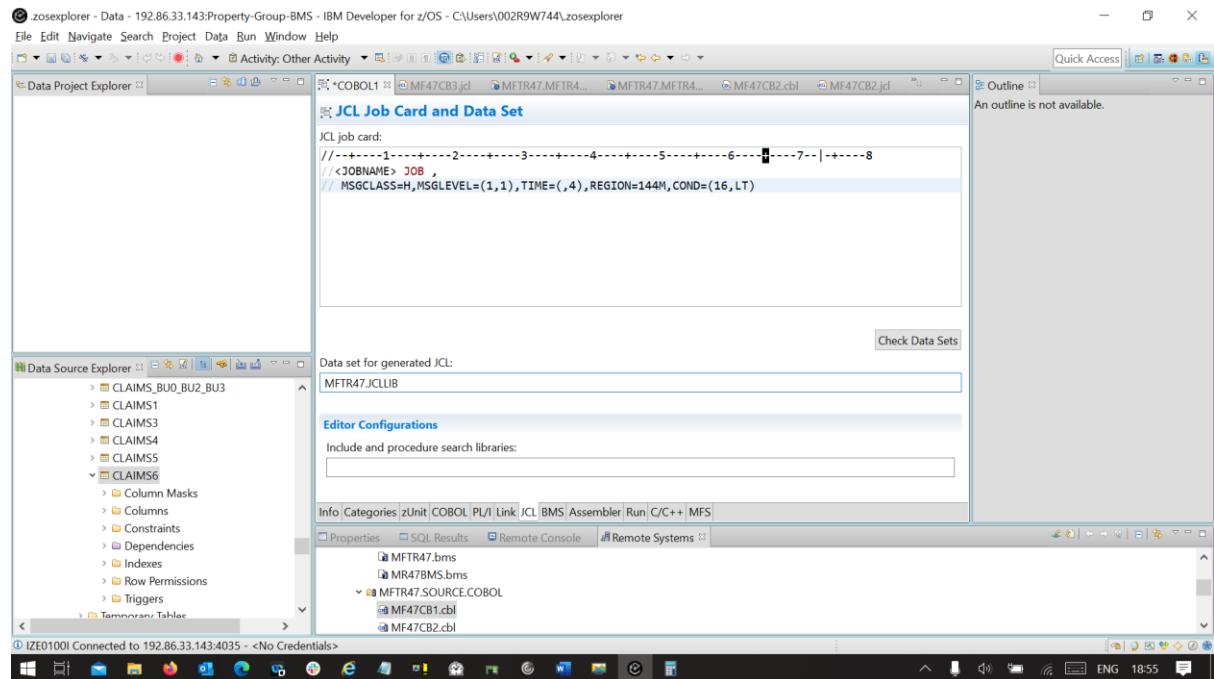
- LINK. -Link option: Empty

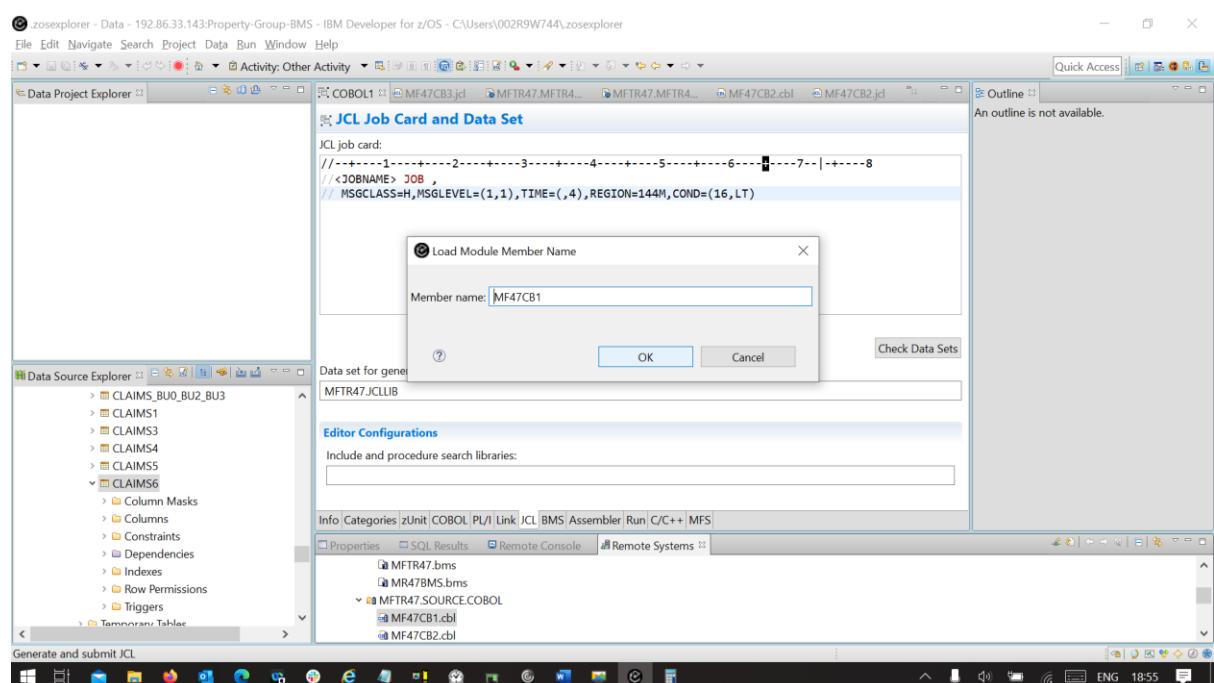
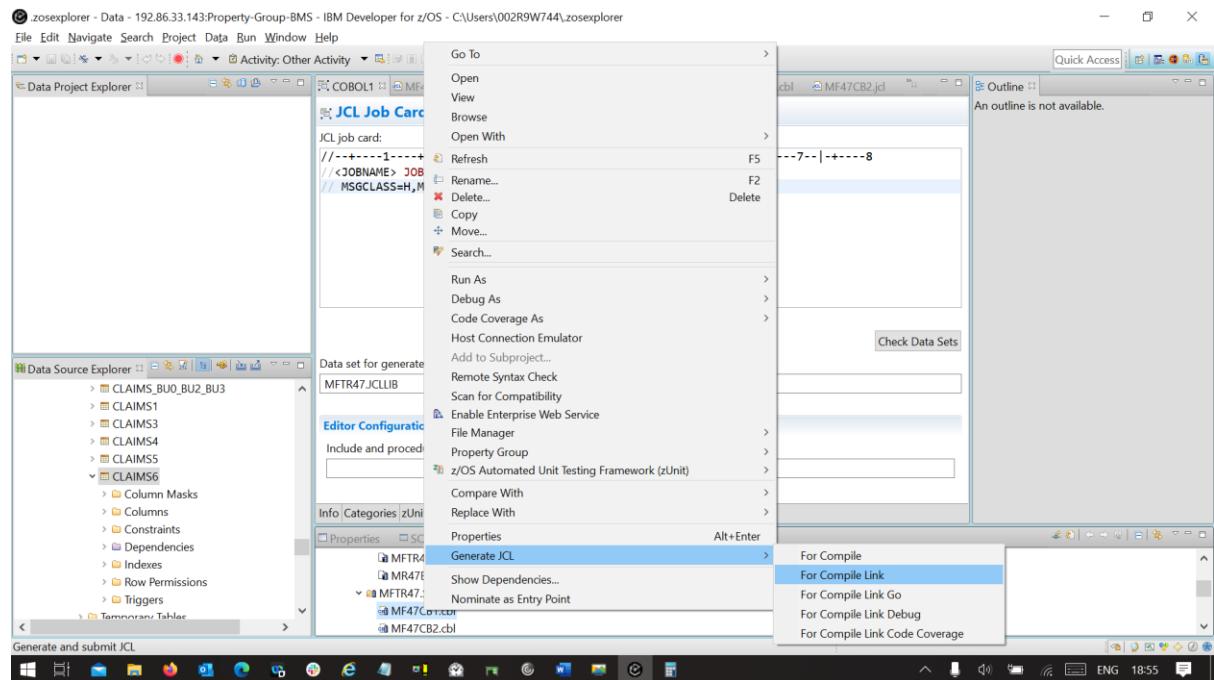
-link libraries: MFTR47.SOURCE.OBJLIB CEE.SCEELKED DFH540.CICS.SDFHLOAD DSNB10.SDSNLOAD

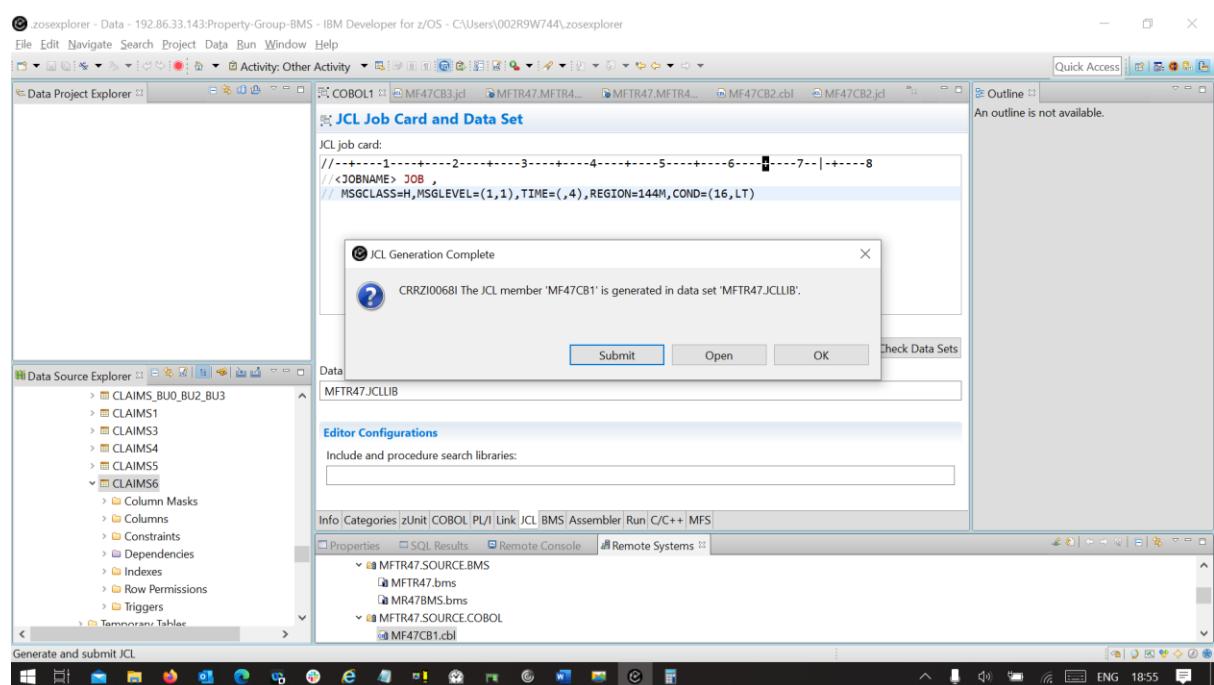
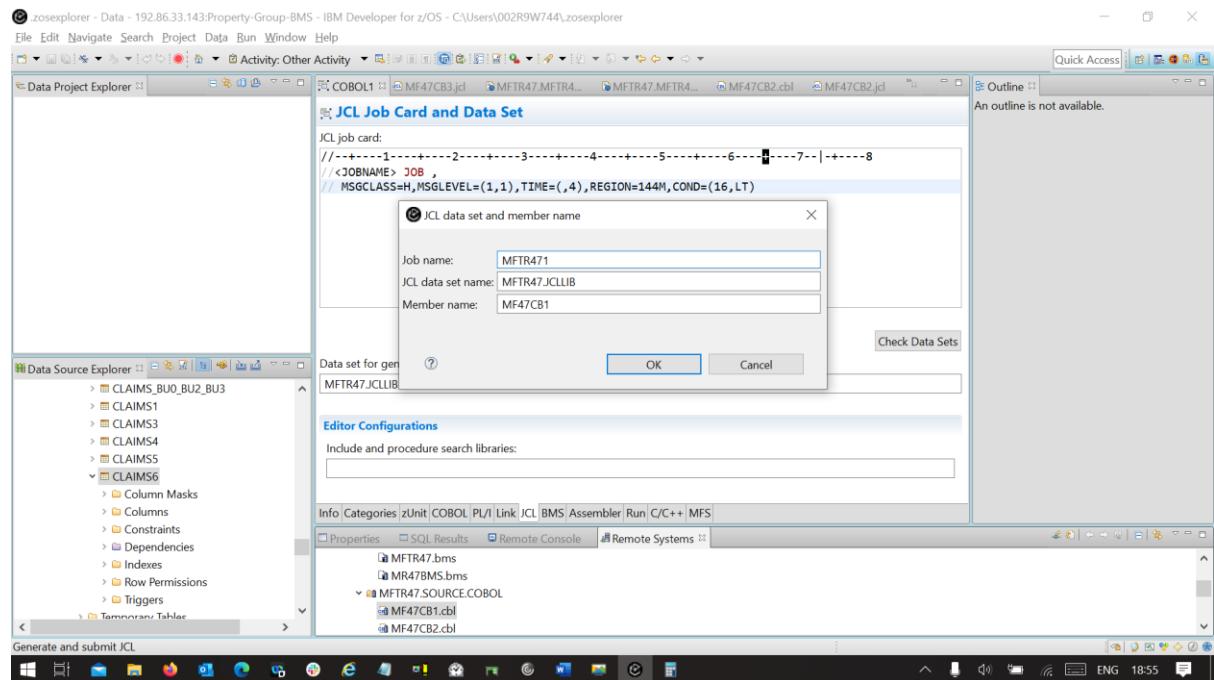
-Load module location: ASHISSA.ZDEVOPS.LOADLIB



JCL tab - Dataset for generated JCL: MFTR47.JCLLIB







JCL

.zosexplorer - z/OS Projects - 192.86.33.143/MFTR47/MFTR47.JCLLIB/MF47CB1.jcl - IBM Developer for z/OS - C:\Users\002R9W744\.zosexplorer

File Edit Source Navigate Search Project Data Run Window Help

Activity: Other Activity

z/OS Projects Git Repos... *MF47CB1.jcl MFTR47.MFTR4... MFTR47:JOB0... MFTR47.MFTR4... MFTR47:JOB0... CB1BAKUP.jcl

Select one of the following to add a repository to this view:

- Add an existing local Git repository
- Clone a Git repository
- Create a new local Git repository

Properties Outline

Property	Value
Data Token	
Device Name	
Execution No	SVSIES2
Flag Byte	
Hold Status	
Job Class	A
Job Entry Dat	2022/07/06 03:06:15
Job ID	JOB01294
Job Name	MFTR471
Job Owner	MFTR47
Job Phase	20

Getting Started Remote E... z/OS File... Property... Snippets Git Staging Remote S... z/OS Debug... PDSEv2 G... SQL Resu... Remote C...

*[06/07/22, 1:34 PM] Job MFTR471:JOB01293 ended with completion code ABEND S722
[06/07/22, 1:36 PM] Job JOB01294 is being submitted
[06/07/22, 1:36 PM] Job MFTR471:JOB01294 ended with completion code CC 0004

Quick Access

Remote Systems

- MF47CB2.cbl
- MF47CB3.cbl
- PRGM2KU.cbl
- PRGM3BKU.cbl
- MFTR47.SOURCE.COPYLIB
- MFTR47.SOURCE.JCL
- MFTR47.SOURCE.LISTING
- MFTR47.SOURCE.OBJLIB
- MFTR47.SOW1.SPLOG1.LIST
- My Favorites
- TSO Commands
- JES
- Retrieved Jobs
 - MFTR471:JOB01294 [CC 0004]
 - JES2:JESMSG
 - JES2:ESICL
 - JES2:ESIMSG
 - T0000:COBTRAN:SYSPRINT [0004]
 - STP0000:COBOL:SYSPRINT [0000]
 - LKD:LINKSYSPRINT [0000]
 - MFTR471:JOB01291 [ABEND S722]

JES Job: MFTR471:JOB01294

Windows Taskbar: ENG 13:37

.zosexplorer - z/OS Projects - 192.86.33.143/MFTR47/MFTR47.JCLLIB/MF47CB1.jcl - IBM Developer for z/OS - C:\Users\002R9W744\.zosexplorer

File Edit Source Navigate Search Project Data Run Window Help

Activity: Other Activity

z/OS Projects Git Repos... *MF47CB1.jcl MFTR47.MFTR4... MFTR47:JOB0... MFTR47.MFTR4... MFTR47:JOB0... CB1BAKUP.jcl

Select one of the following to add a repository to this view:

- Add an existing local Git repository
- Clone a Git repository
- Create a new local Git repository

Properties Outline

Property	Value
Data Token	
Device Name	
Execution No	SVSIES2
Flag Byte	
Hold Status	
Job Class	A
Job Entry Dat	2022/07/06 03:06:15
Job ID	JOB01294
Job Name	MFTR471
Job Owner	MFTR47
Job Phase	20

Getting Started Remote E... z/OS File... Property... Snippets Git Staging Remote S... z/OS Debug... PDSEv2 G... SQL Resu... Remote C...

*[06/07/22, 1:34 PM] Job MFTR471:JOB01293 ended with completion code ABEND S722
[06/07/22, 1:36 PM] Job JOB01294 is being submitted
[06/07/22, 1:36 PM] Job MFTR471:JOB01294 ended with completion code CC 0004

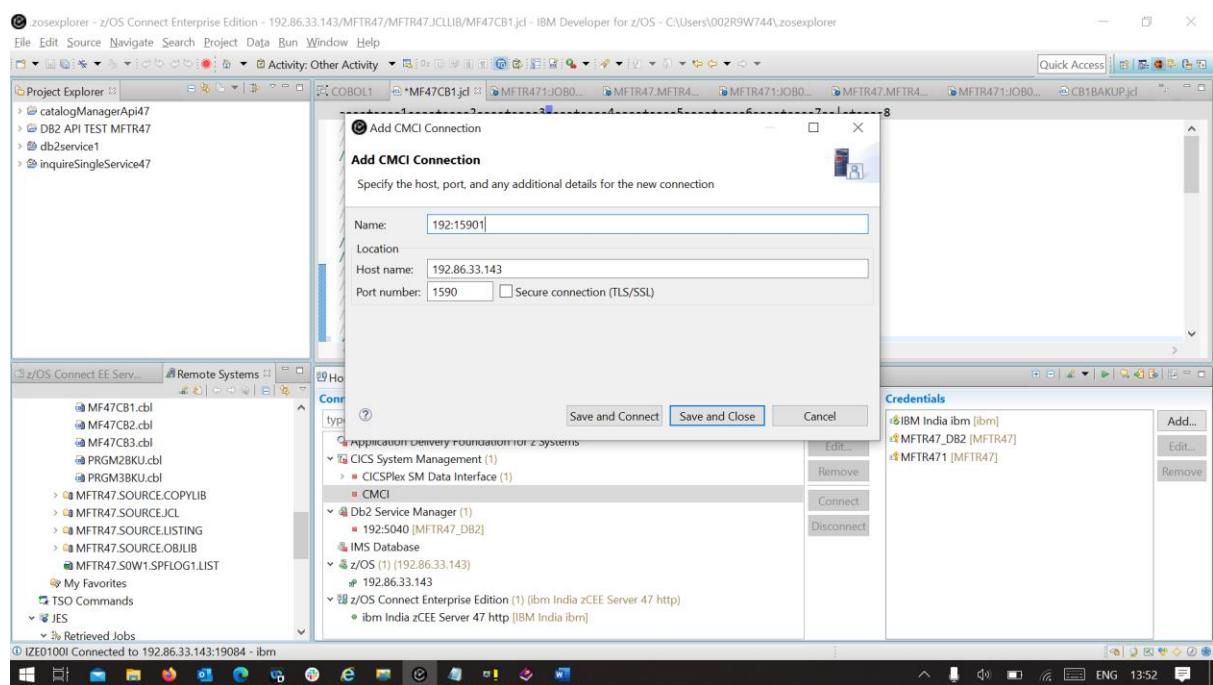
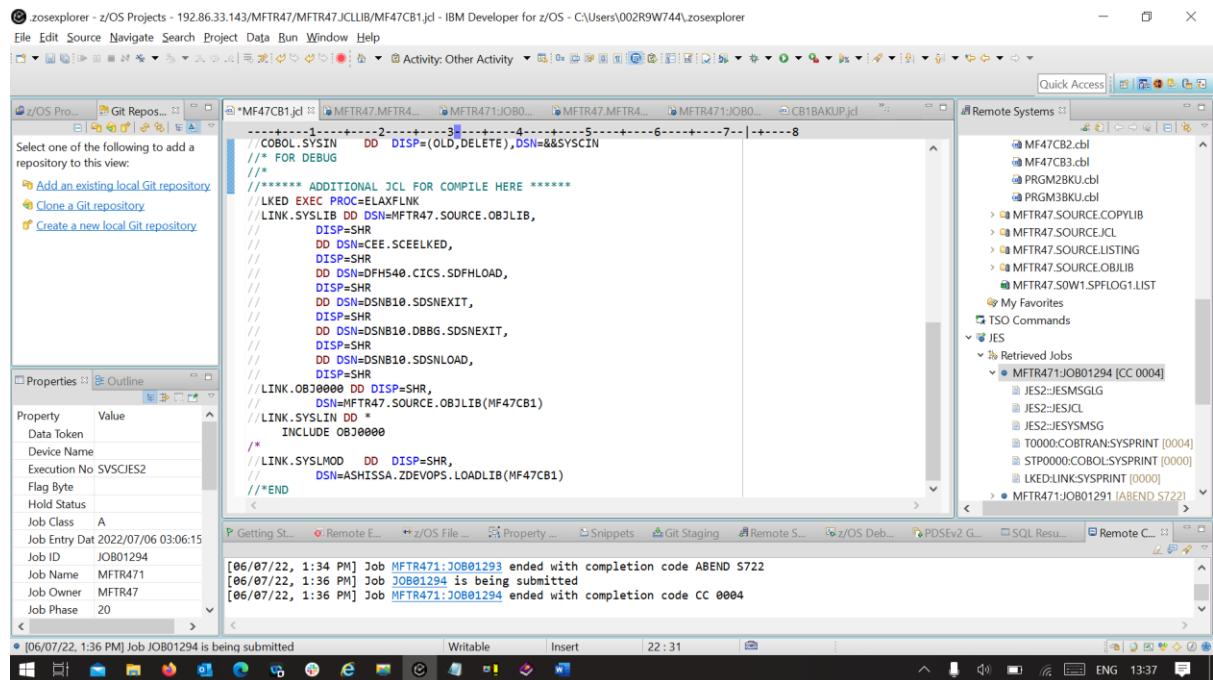
Quick Access

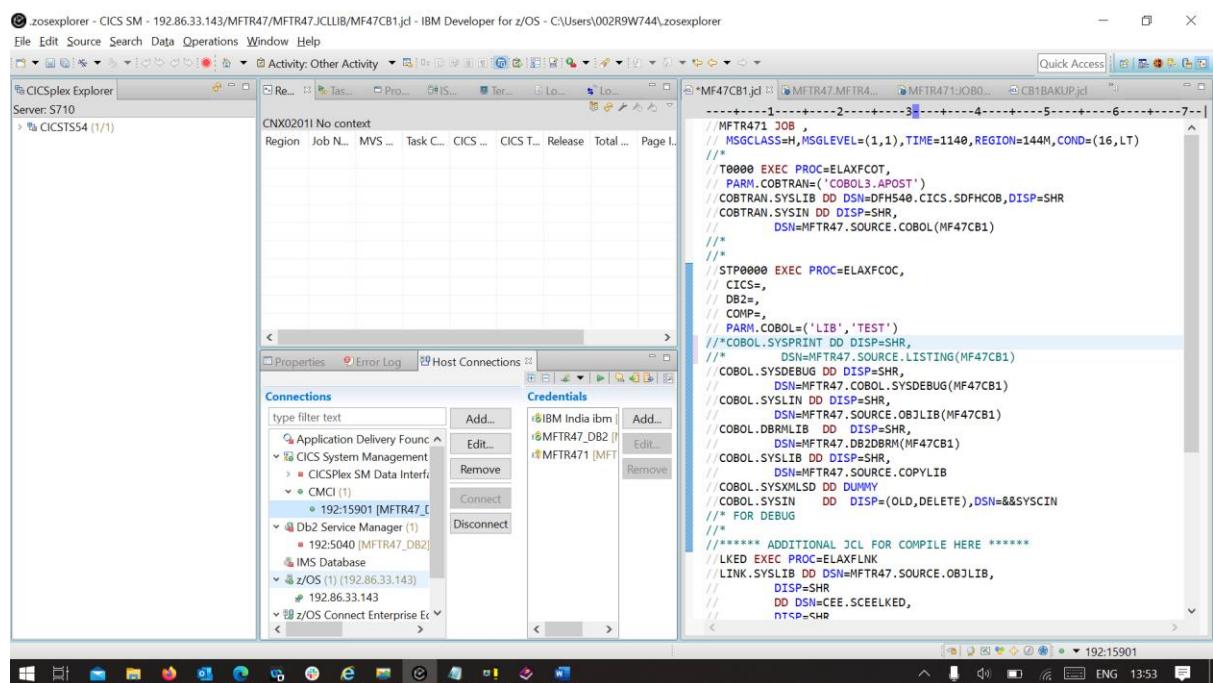
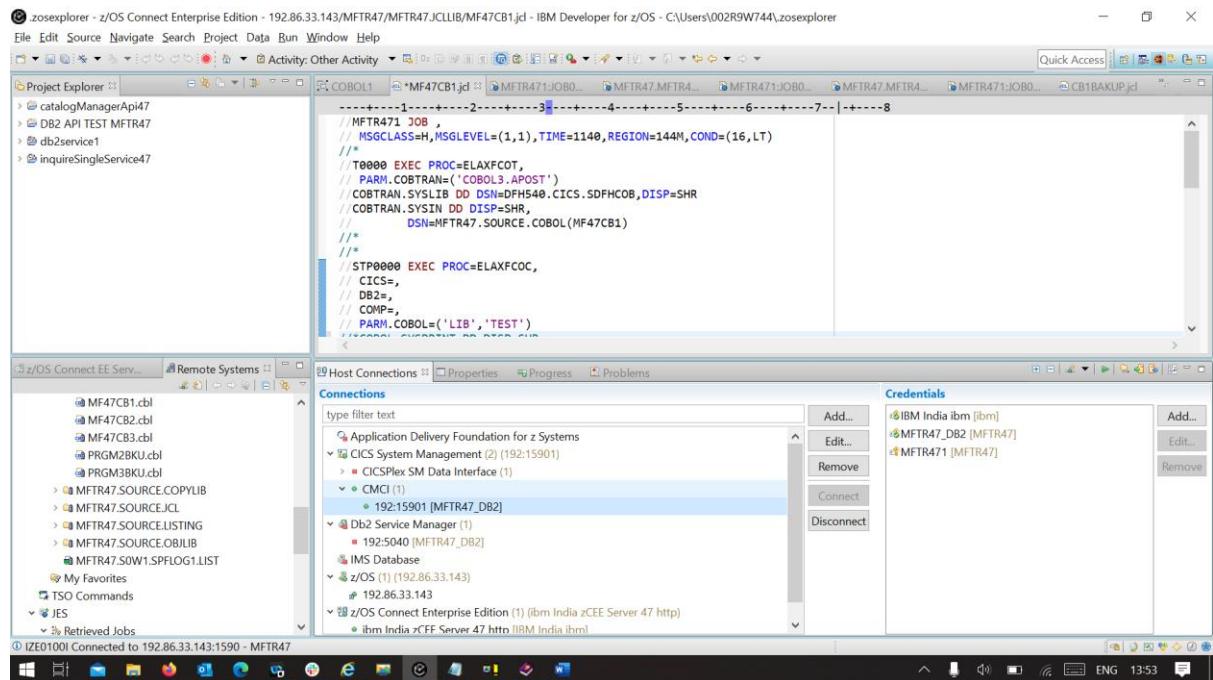
Remote Systems

- MF47CB2.cbl
- MF47CB3.cbl
- PRGM2KU.cbl
- PRGM3BKU.cbl
- MFTR47.SOURCE.COPYLIB
- MFTR47.SOURCE.JCL
- MFTR47.SOURCE.LISTING
- MFTR47.SOURCE.OBJLIB
- MFTR47.SOW1.SPLOG1.LIST
- My Favorites
- TSO Commands
- JES
- Retrieved Jobs
 - MFTR471:JOB01294 [CC 0004]
 - JES2:JESMSG
 - JES2:ESICL
 - JES2:ESIMSG
 - T0000:COBTRAN:SYSPRINT [0004]
 - STP0000:COBOL:SYSPRINT [0000]
 - LKD:LINKSYSPRINT [0000]
 - MFTR471:JOB01291 [ABEND S722]

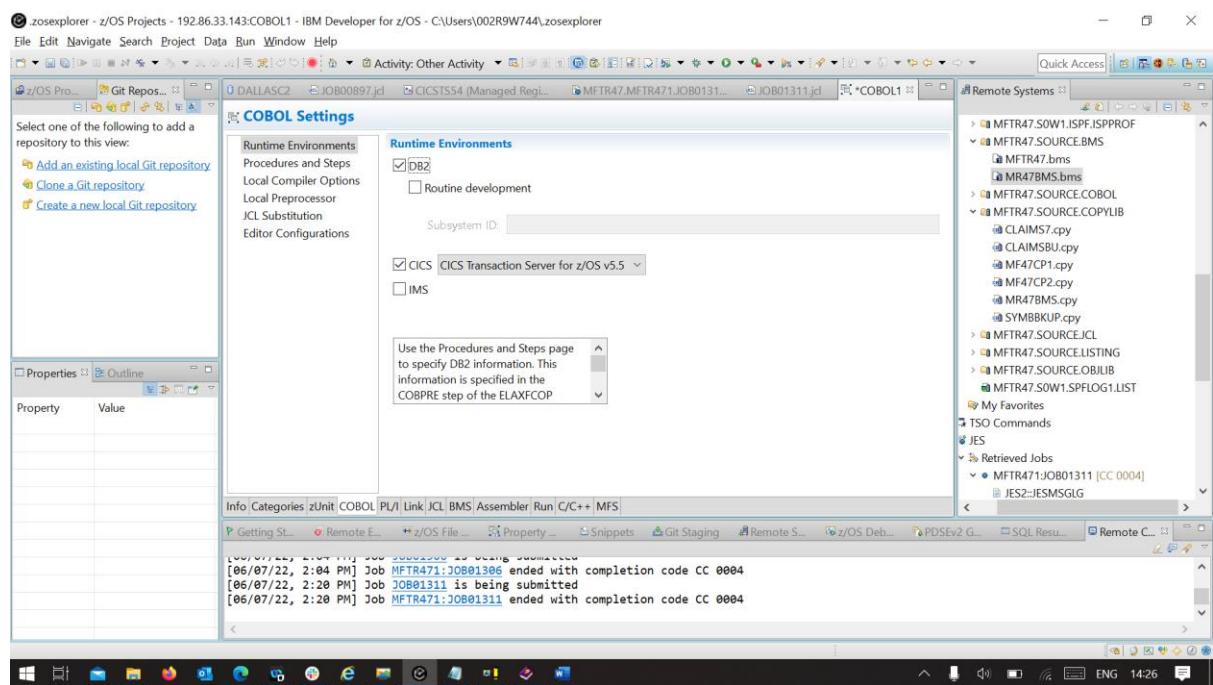
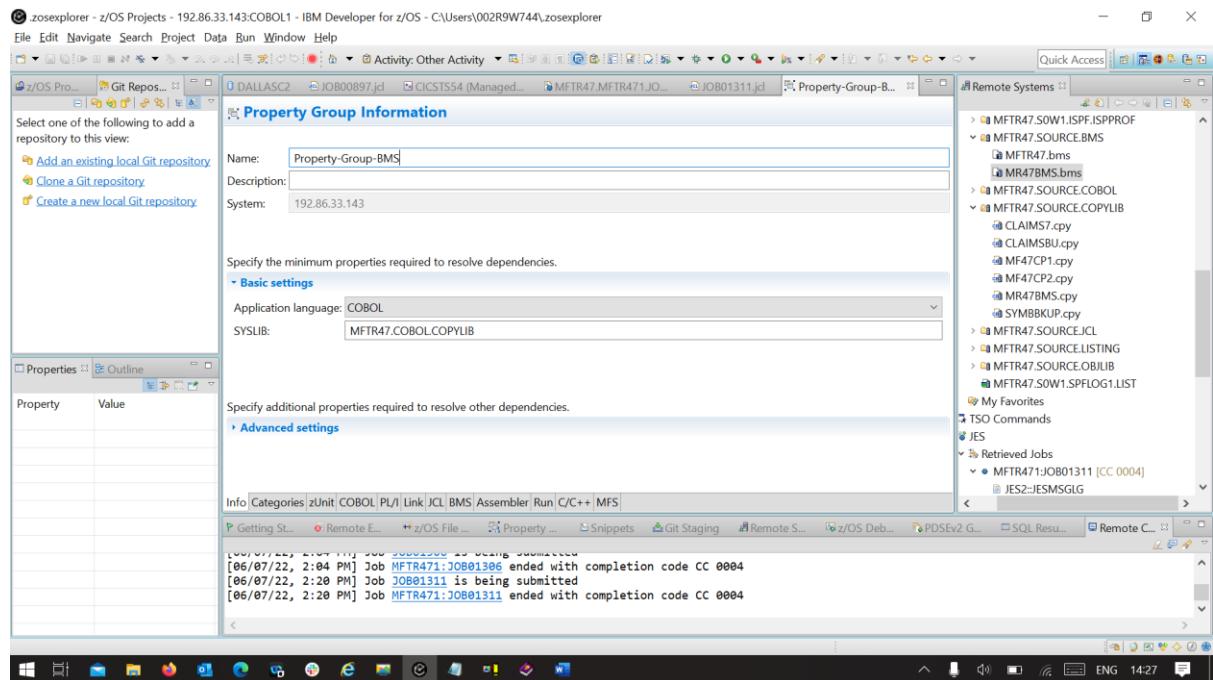
[06/07/22, 1:36 PM] Job JOB01294 is being submitted

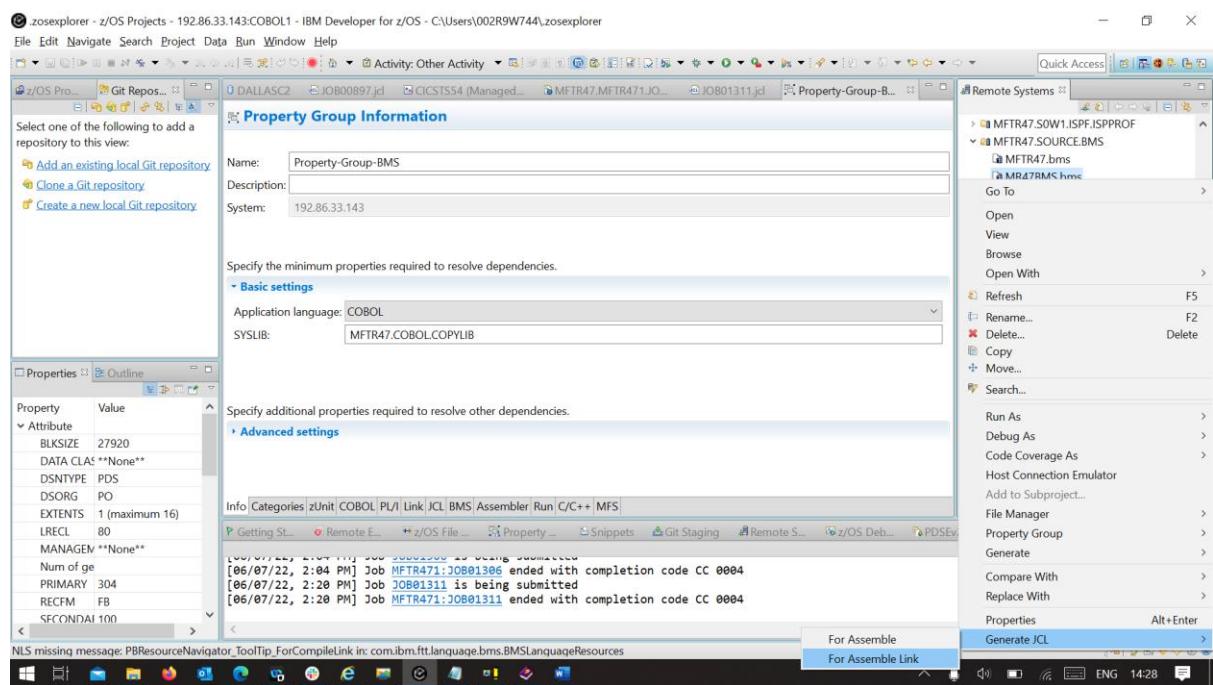
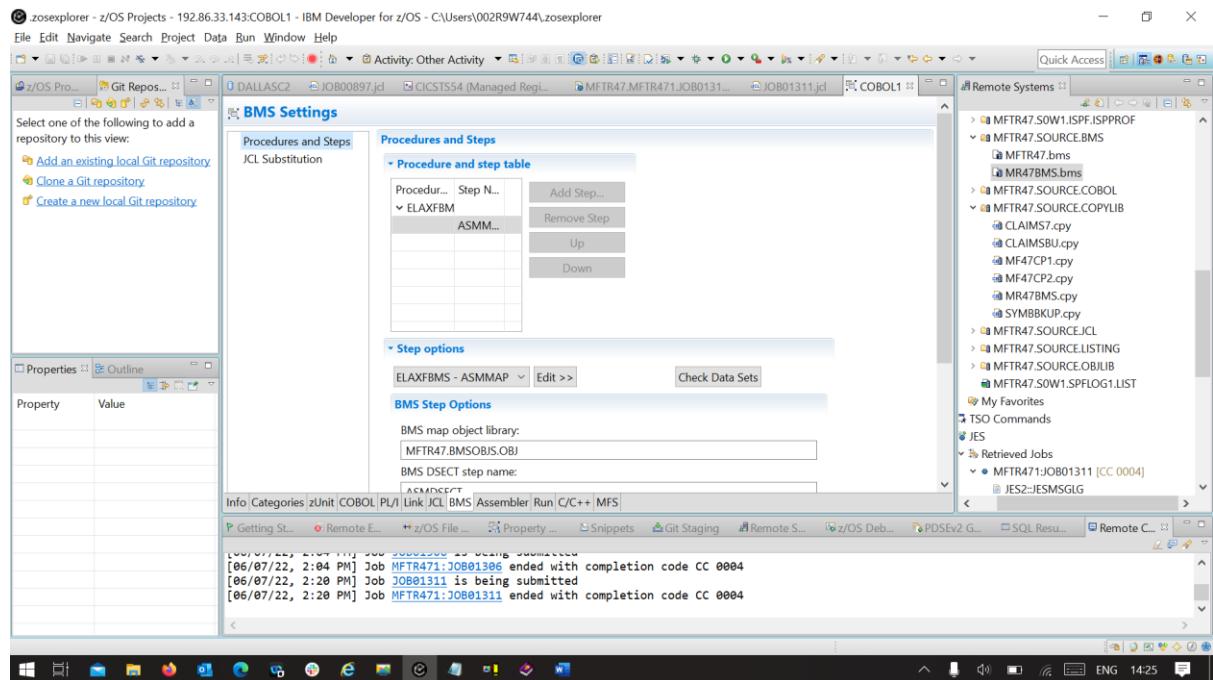
Windows Taskbar: ENG 13:37

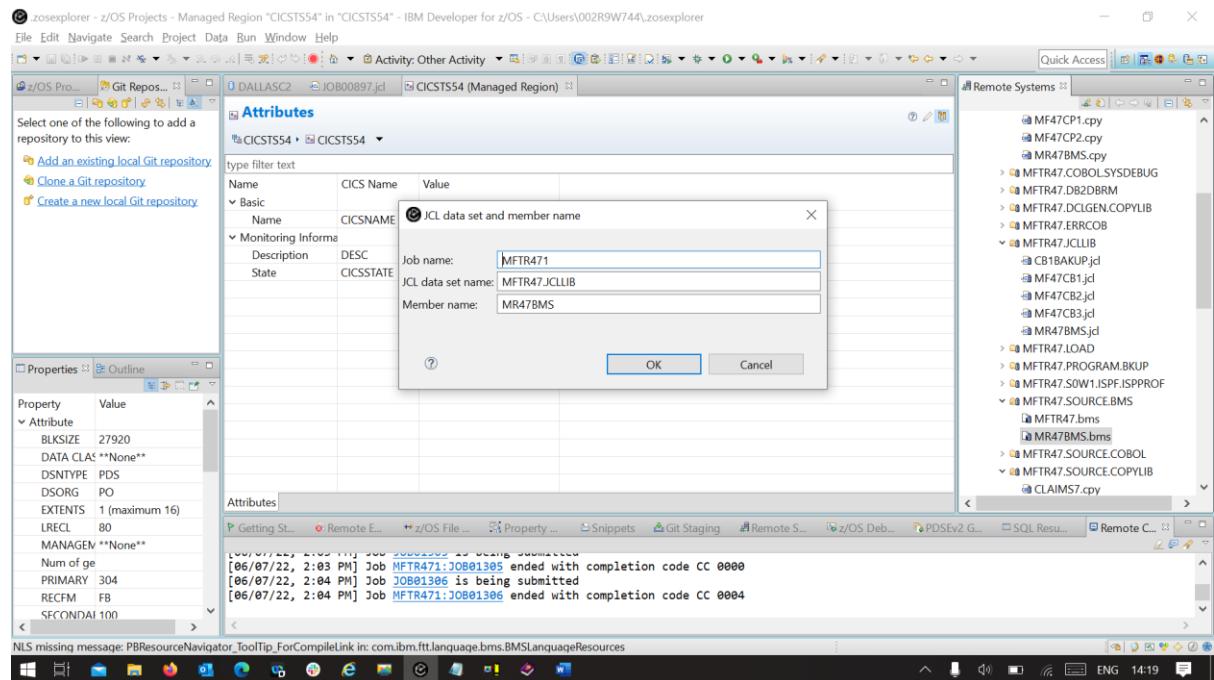




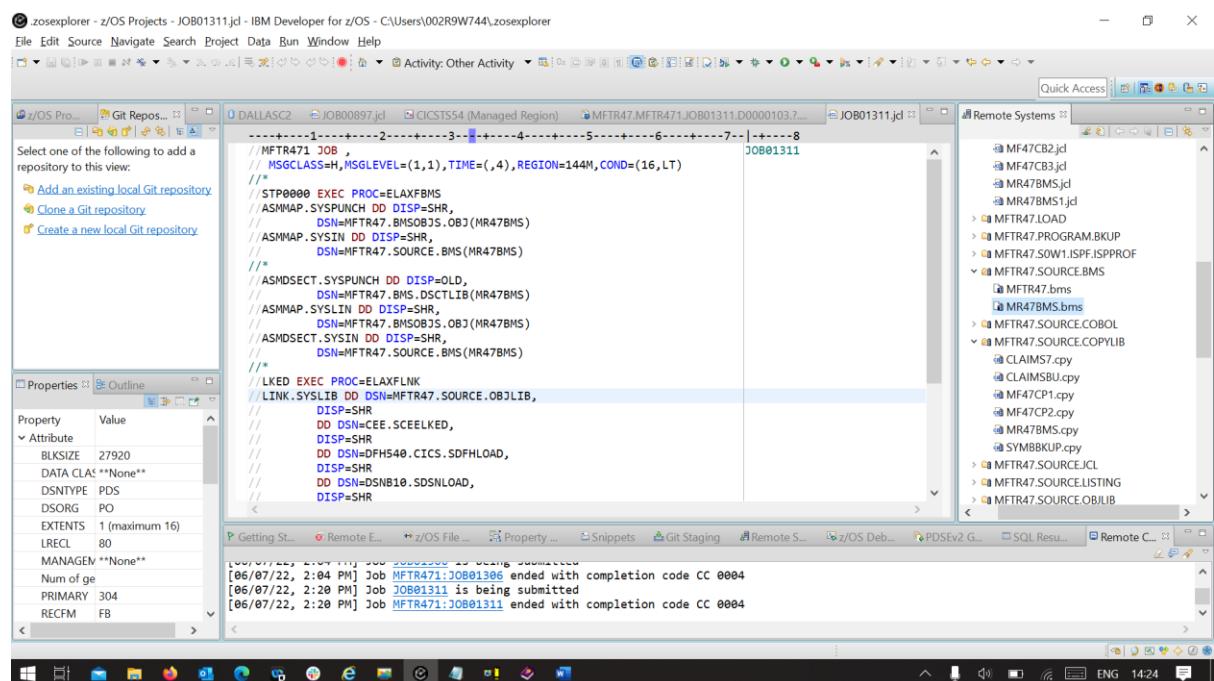
BMS MAP ASSEMBLE LINK







JCL



.zosexplorer - z/OS Projects - JOB01311.jcl - IBM Developer for z/OS - C:\Users\002R9W744\.zosexplorer

File Edit Source Navigate Search Project Data Run Window Help

Activity: Other Activity

DALLASC2 JOB00897.jcl CICSTS54 (Managed Region) MFT47.MFTR471.JOB01311.D0000103.?... JOB01311.jcl

Select one of the following to add a repository to this view:

- Add an existing local Git repository
- Clone a Git repository
- Create a new local Git repository

Properties

Property	Value
Attribute	
BLKSIZE	27920
DATA CLAS	**None**
DSNTYPE	PDS
DSORG	PO
EXTENTS	1 (maximum 16)
LRECL	80
MANAGEN	**None**
Num of ge	
PRIMARY	304
RECFM	FB

Code View

```

// ASMMAP.SYSLIN DD DISP=SHR,
//   DSN=MFTR47.BMSOBJ5.OBJ(MR47BMS)
// ASMDSECT.SYSLIN DD DISP=SHR,
//   DSN=MFTR47.SOURCE.BMS(MR47BMS)
/*
LKED EXEC PROC=ELAXFLNK
LINK.SYSLIB DD DSN=MFTR47.SOURCE.OBJLIB,
  DISP=SHR
  DD DSN=CEE.SCEELKED,
  DISP=SHR
  DD DSN=DFHS40.CICS.SDFHLOAD,
  DISP=SHR
  DD DSN=DSNB10.SDSNLOAD,
  DISP=SHR
/LINK.OBJ0000 DD DISP=SHR,
  DSN=MFTR47.BMSOBJ5.OBJ(MR47BMS)
LINK.SYSLIN DD *
  INCLUDE OBJ0000
/*
LINK.SYSLMOD DD DISP=SHR,
  DSN=ASHISSA.ZDEVOPS.LOAD(MR47BMS)
***** ADDITIONAL JCL FOR LINK HERE *****
//
```

Output

```

[06/07/22, 2:04 PM] Job MFTR471:JOB01306 ended with completion code CC 0004
[06/07/22, 2:04 PM] Job JOB01311 is being submitted
[06/07/22, 2:04 PM] Job MFTR471:JOB01311 ended with completion code CC 0004

```

Quick Access

Remote Systems

- MF47CB2.jd
- MF47CB3.jd
- MR47BMS.jd
- MR47BMS1.jd
- MFT47LOAD
- MFT47.PROGRAM.BKUP
- MFT47.S0W1.ISPF.ISPPROF
- MFT47.SOURCE.BMS
 - MFT47.bms
 - MR47BMS.bms
- MFT47.SOURCE.COLOL
- MFT47.SOURCE.COPYLIB
 - CLAIMS7.cpp
 - CLAIMSB1.cpp
 - MF47CP1.cpp
 - MF47CP2.cpp
 - MR47BMS.cpp
 - SYMBBKUP.cpp
- MFT47.SOURCE.JCL
- MFT47.SOURCE.LISTING
- MFT47.SOURCE.OBJLIB

Job executed successfully

.zosexplorer - z/OS Projects - JOB01311.jcl - IBM Developer for z/OS - C:\Users\002R9W744\.zosexplorer

File Edit Source Navigate Search Project Data Run Window Help

Activity: Other Activity

DALLASC2 JOB00897.jcl CICSTS54 (Managed Region) MFT47.MFTR471.JOB01311.D0000103.?... JOB01311.jcl

Select one of the following to add a repository to this view:

- Add an existing local Git repository
- Clone a Git repository
- Create a new local Git repository

Properties

Property	Value
Data Token	
Device Name	
Execution No	SVSCJES2
Flag Byte	
Hold Status	
Job Class	A
Job Entry Date	2022/07/06 03:50:02
Job ID	JOB01311
Job Name	MFTR471
Job Owner	MFTR47
Job Phase	20

Code View

```

// ASMMAP.SYSLIN DD DISP=SHR,
//   DSN=MFTR47.BMSOBJ5.OBJ(MR47BMS)
// ASMDSECT.SYSLIN DD DISP=SHR,
//   DSN=MFTR47.SOURCE.BMS(MR47BMS)
/*
LKED EXEC PROC=ELAXFLNK
LINK.SYSLIB DD DSN=MFTR47.SOURCE.OBJLIB,
  DISP=SHR
  DD DSN=CEE.SCEELKED,
  DISP=SHR
  DD DSN=DFHS40.CICS.SDFHLOAD,
  DISP=SHR
  DD DSN=DSNB10.SDSNLOAD,
  DISP=SHR
/LINK.OBJ0000 DD DISP=SHR,
  DSN=MFTR47.BMSOBJ5.OBJ(MR47BMS)
LINK.SYSLIN DD *
  INCLUDE OBJ0000
/*
LINK.SYSLMOD DD DISP=SHR,
  DSN=ASHISSA.ZDEVOPS.LOAD(MR47BMS)
***** ADDITIONAL JCL FOR LINK HERE *****
//
```

Output

```

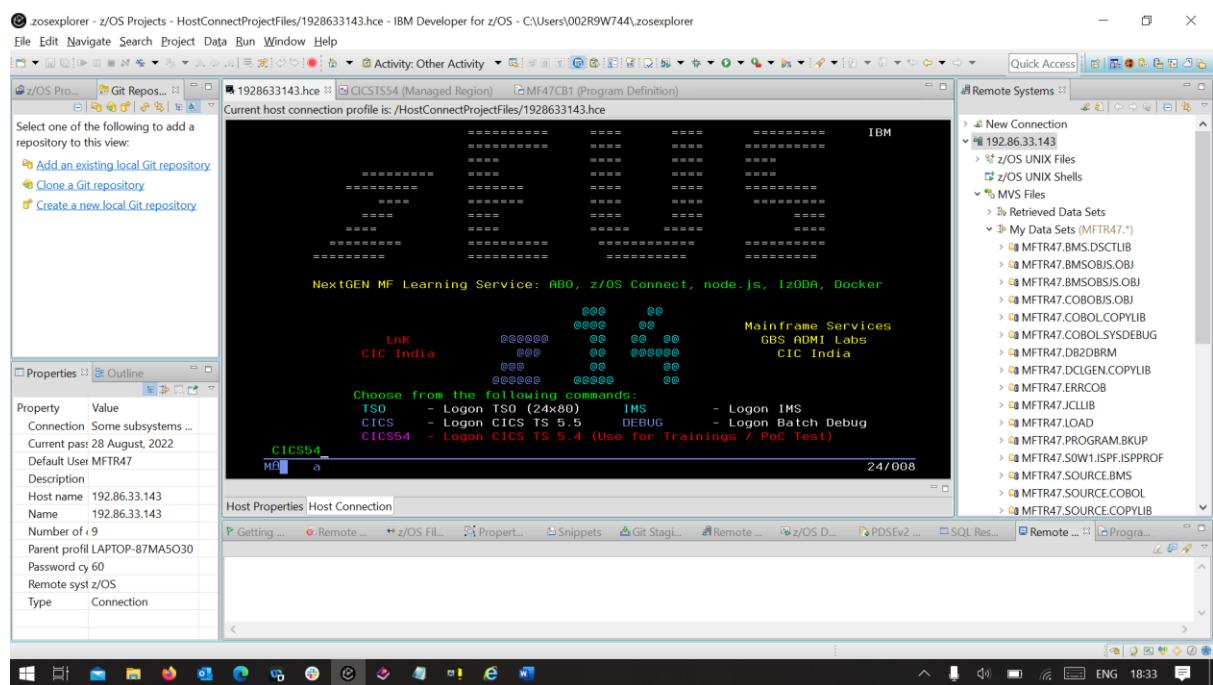
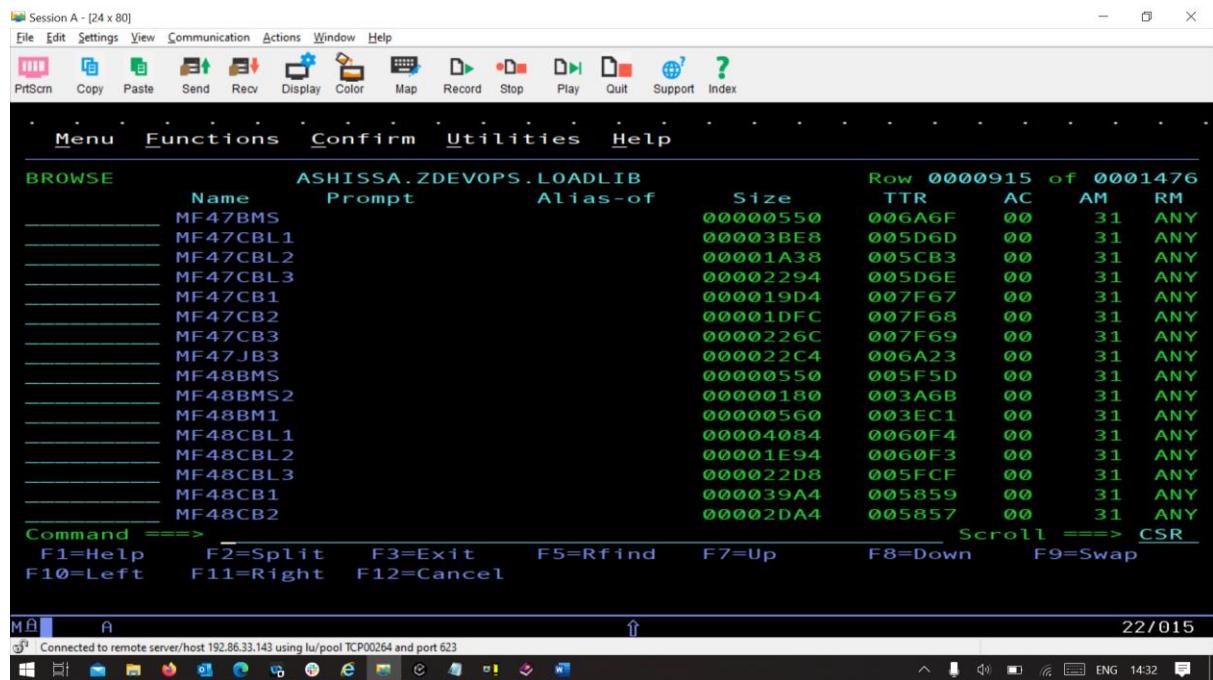
[06/07/22, 2:04 PM] Job MFTR471:JOB01306 is being submitted
[06/07/22, 2:04 PM] Job MFTR471:JOB01306 ended with completion code CC 0004
[06/07/22, 2:04 PM] Job JOB01311 is being submitted
[06/07/22, 2:04 PM] Job MFTR471:JOB01311 ended with completion code CC 0004

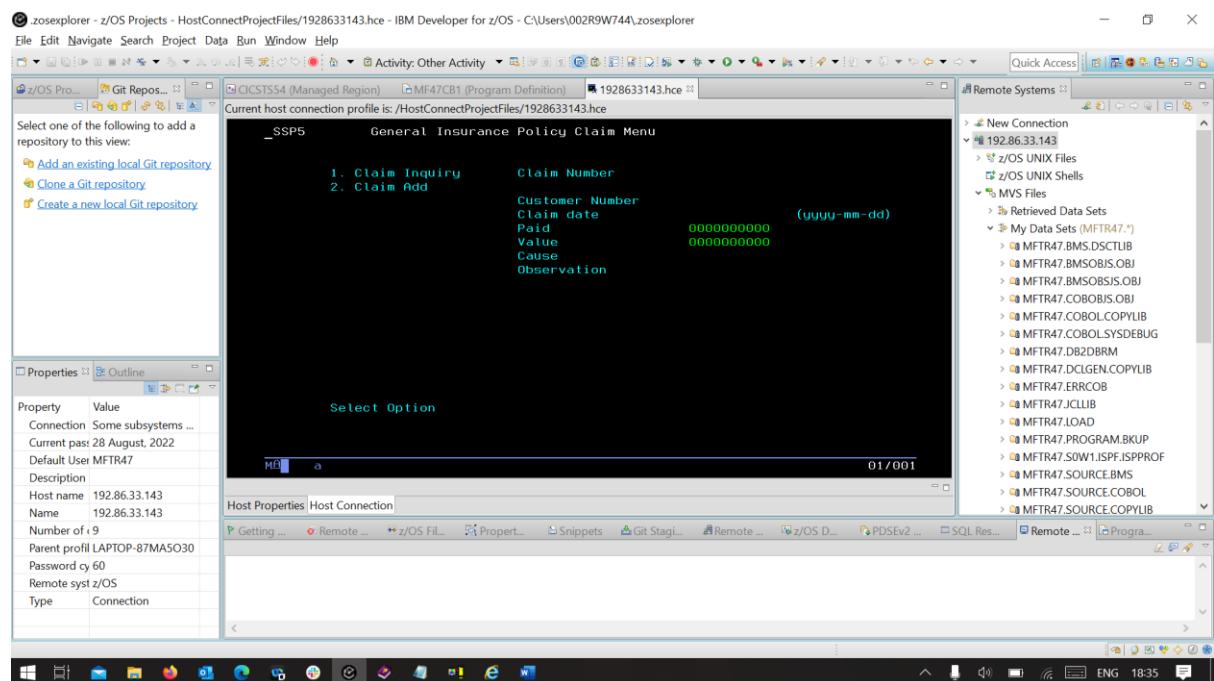
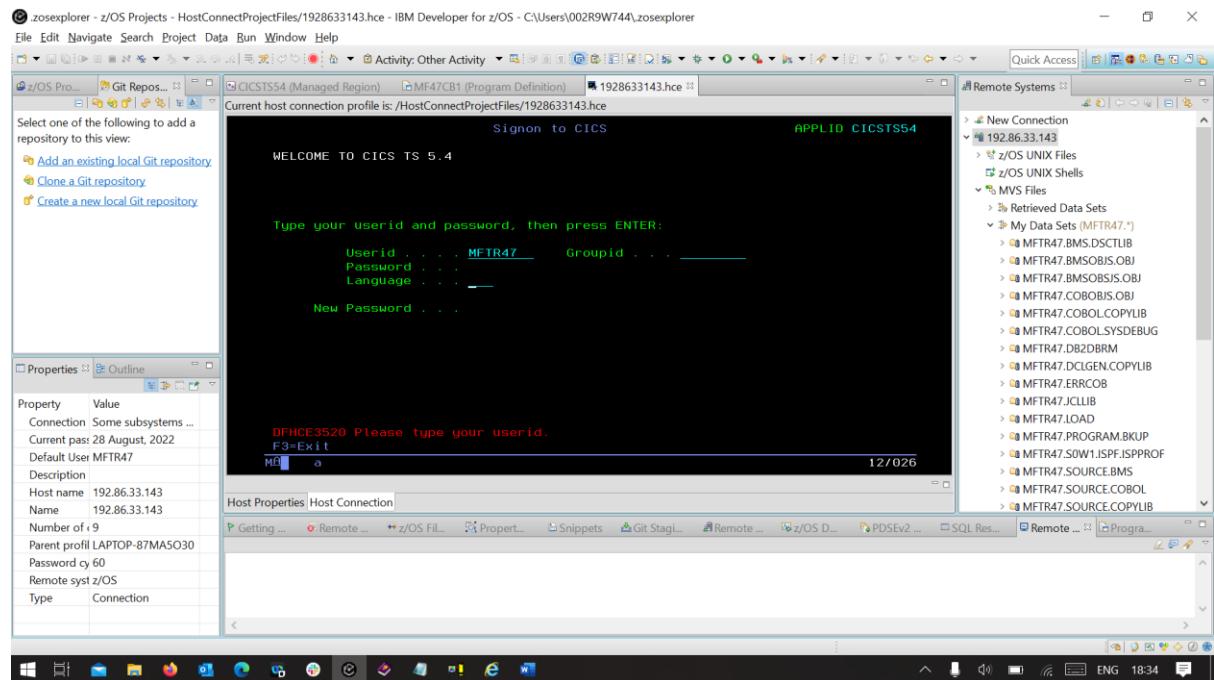
```

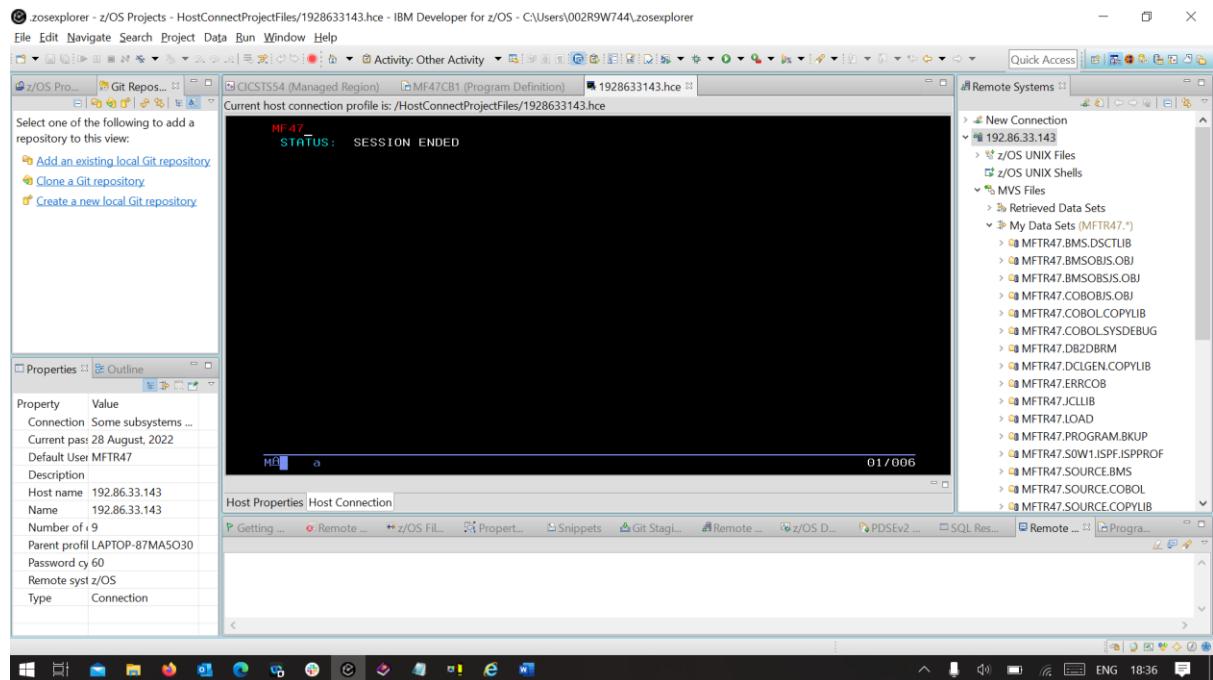
Quick Access

Remote Systems

- MF47CP2.cpp
- MR47BMS.cpp
- SYMBBKUP.cpp
- MFT47.SOURCE.JCL
- MFT47.SOURCE.LISTING
- MFT47.SOURCE.OBJLIB
 - MFT47.S0W1.SPLOG1.LIST
- My Favorites
- TSO Commands
- JES
- Retrieved Jobs
 - MFT471:JOB01311 [CC 0004]
 - JES2-JESMSGLG
 - JES2-JESJCL
 - JES2-JESYSMSG
 - STP0000:ASMMAP:SYSPRINT [0004]
 - STP0000:ASMDSECT:SYSPRINT [0004]
 - LKED:LINK:SYSPRINT [0000]
 - MFT471:JOB01301 [CC 0004]
 - MFT471:JOB01300 [CC 0000]
 - MFT471:JOB01294 [CC 0004]







CEDA INSTALL GROUP(MF47BMS)

CEDA INSTALL GROUP(MFXXBMS)

CEDA INSTALL PROGRAM(MFXXCB1) GROUP(MFXXBMS)

CEDA INSTALL TRANSACTION(MFXX) GROUP(MFXXBMS)

CEDA INSTALL MAP(MFXXBMS) GROUP(MFXXBMS)

