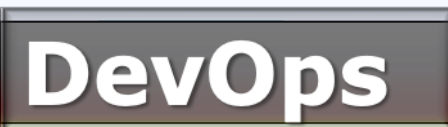# IBM Developer for z Systems – for ISPF Developers

Module 5 – Remote Systems – MVS Dataset Access & Organization

DevOps

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UNIT

The IDz Workbench

Topics:

- Accessing and Organizing MVS Datasets
- z/OS File Mapping and Property Groups
- **Miscellaneous Remote Systems Capabilities**

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Other Remote Systems Context Menu Features

- When you have successfully setup your Property Group and associated it with MVS Files experiment with these options

  - ▶ **Show Dependencies**
    - **DDS0001.TEST.COBOL(TRTMNT)**

  - ▶ **Compare With**
    - **DDS0001.TEST.COBOL(IDAT1)** and IDAT1OS

  - ▶ **Replace With**
    - Open **IDAT1** and make a trivial source change
    - Close and Save your change
    - Try out Replace With ➔ Local History…

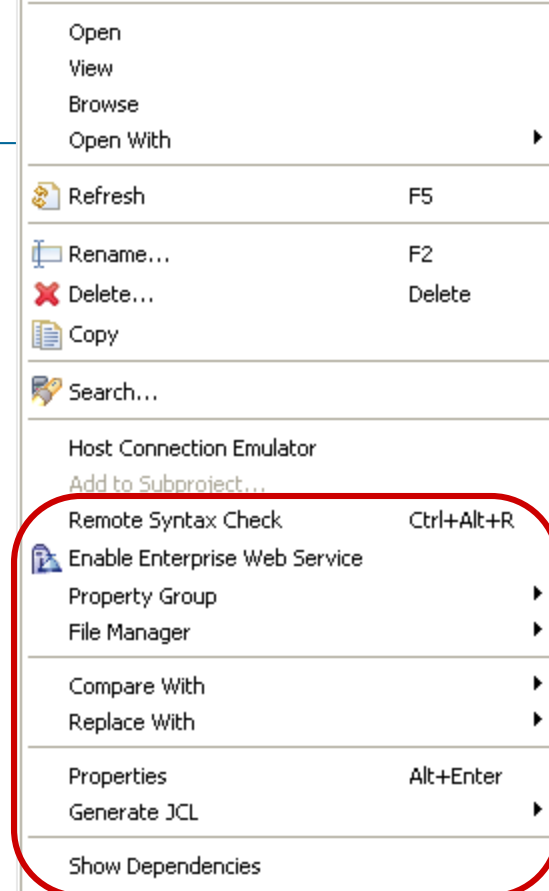 - ▶ **Generate JCL**
    - Generate compile/link JCL for **TRTMNT**
    - Submit and Locate the Job
    - Double-click the Job (in JES Retrieved Datasets) to open the spool file in the editor

  - ▶ **Remote Syntax Check**
    - **IDAT1**

  - ▶ **Individual program Search**
    - **DDS0001.TEST.COBOL(BNCHS601)** use Regular expression: (MOVE.*PATIENT-ID)
      - Find all lines with MOVE and PATIENT-ID on them

Open	
View	
Browse	
Open With	▶
Refresh	F5
Rename…	F2
Delete…	Delete
Copy	
Search…	
Host Connection Emulator	
Add to Subproject…	
Remote Syntax Check	Ctrl+Alt+R
Enable Enterprise Web Service	
Property Group	▶
File Manager	▶
Compare With	▶
Replace With	▶
Properties	Alt+Enter
Generate JCL	▶
Show Dependencies	

Content strings: (MOVE.*PATIENT-ID) ☑ Regular expression

Remote Syntax Check

- Right-Click over a program in Remote Systems and select: **Remote Syntax Check**

- This will:
  - ‣ Invoke your mainframe compiler
  - ‣ Populate the Remote Error List view with hyper-linked lines that contain syntax errors


```
---+-*A-1-B--+----2----+----3----+----4----+----5----+----6----+----7--|-+----8
000063          SUBTRACT 1 FROM TAPARM
000064          CALL 'ATCDEM3'
000065       END-PERFORM
000066
000067    * THIS IF ALWAYS FALSE
000068       IF TAPARM2 = 0
000069          PERFORM PROCA
000070       END-IF
000071
000072    * THIS PERFORM EXECUTED
000073       PERFORM WITH TEST BEFORE UNTIL TAPARM2 = 0
000074          SUBTRACT 1 FROM TAPARM2
000075       END-PERFORM
000076    *  STOP RUN
000077       .
000078
000079       PROCA.
```
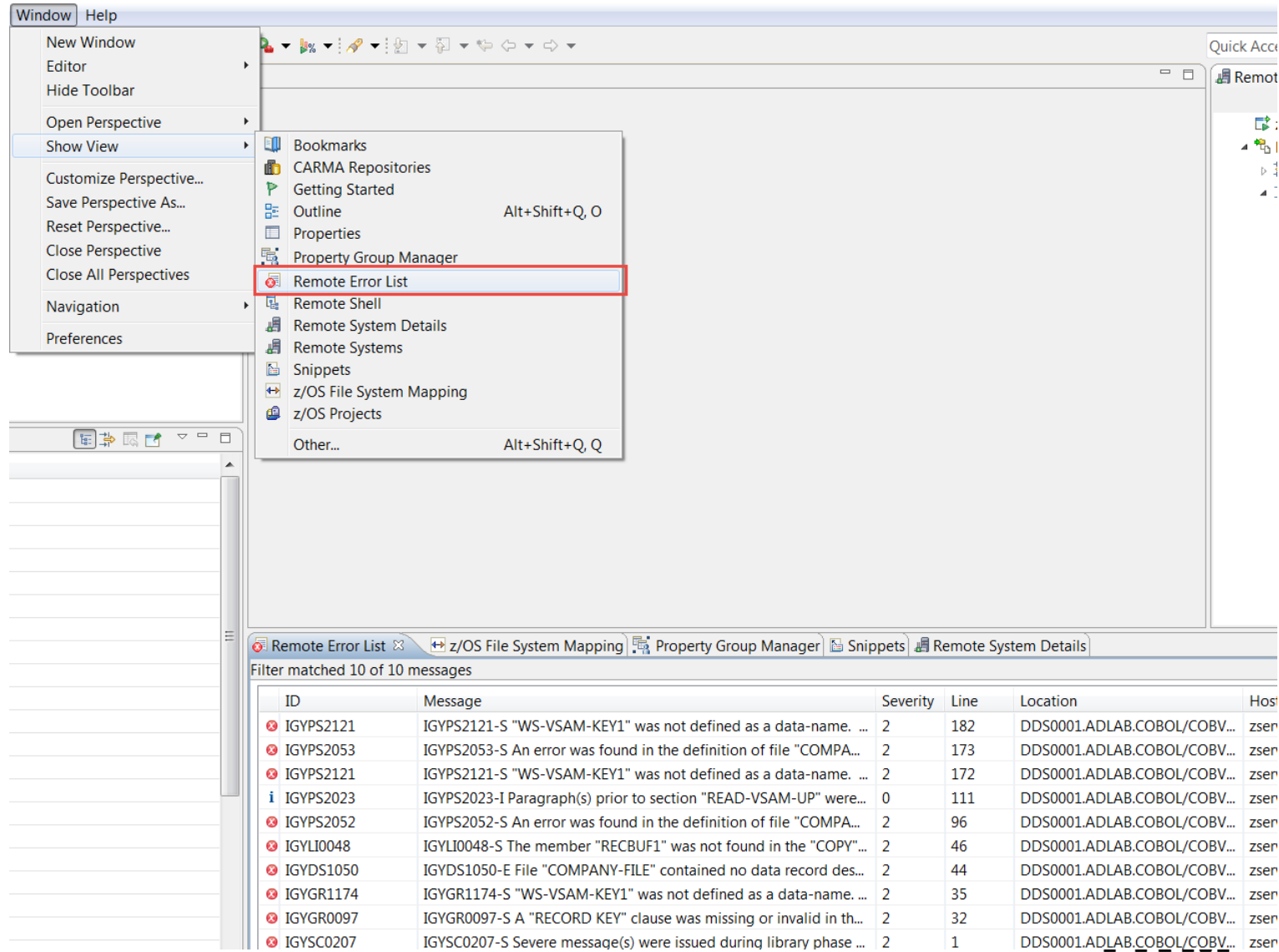
Double-click an error-message. This opens the source file to the syntax problem discovered by the mainframe compiler.

ID	Message	Severity	Line	Location	Host Name	▼ Date
⊗ IGYPS2121	IGYPS2121-S "TAPARM" was not defined as a data-name. The statement was discarded.			DDS0001.ADLAB.COBOL/ATCDE…	zserveros	Sep 19, 2016 1:32:13

Viewing Remote Syntax Check Errors

- In order to view any errors discovered by Remote Syntax Check – you must explicitly open the Remote Error List view. This is done from: Window ➔ Show View ➔

Browse Load Module

- ## Using IDz you can:
  - ▸ **Browse a load module**
  - ▸ **Scroll and search**
  - ▸ **Open multiple load modules in multiple windows**
  - ▸ **View in Hex**
  - ▸ **Filter and exclude lines**

System z Data File Editor

Tree view (left panel):
- MVS Files
  - Retrieved Data Sets
  - My Data Sets (USER170.*)
    - USER170.PARTSUP.COBOL
    - USER170.SPF.ISPPROF
    - USER170.TEST.COBOL
    - USER170.TEST.COPYLIB
    - USER170.TEST.JCL
    - USER170.TEST.LISTING
    - USER170.TEST.LOAD
    - USER170.TEST.OBJ
    - USER170.TEST.SYSDEBU(
    - USER170.EQUIP
    - USER170.NETRC
    - USER170.PATINS
    - USER170.PATINS2.REPR(
    - USER170.PATINS3.REPR(
    - USER170.PATMASTR
    - USER170.PATMASTR.REF
    - USER170.PATPERSN
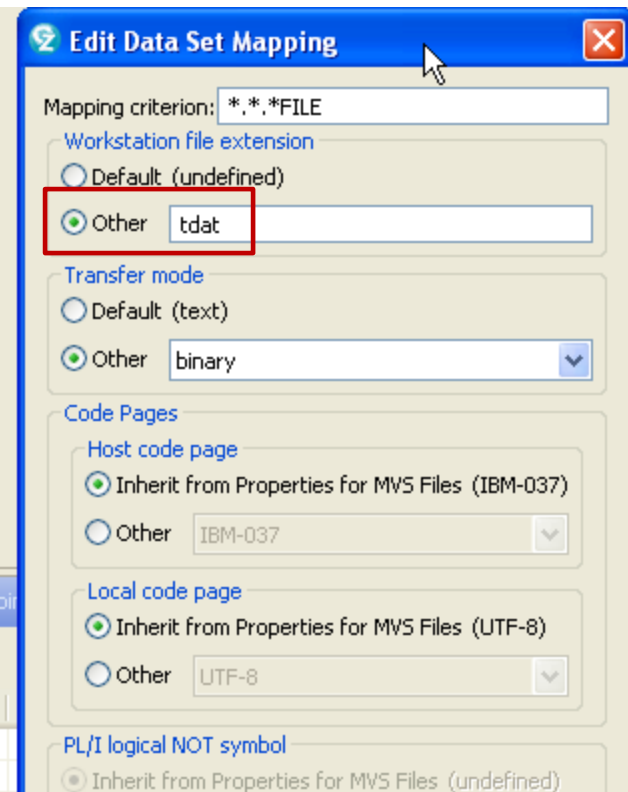   - USER170.TEST.CUSTFILE
    - USER170.TEST.SAMFILE
    - USER170.TEST.VR

Context menu:
- Browse
- Open With ▶
  - System z Data Editor
  - Formatted Data Editor
  - System z LPEX Editor
  - Default Editor
- Refresh   F5
- Rename...   F2
- Delete...   Delete
- Copy
- Search...
- Migrate
- Host Connection Emulator
- Allocate Like...
- Add to Subproject...
- Property Group ▶
- File Manager ▶
- Compare With ▶
- Replace With ▶
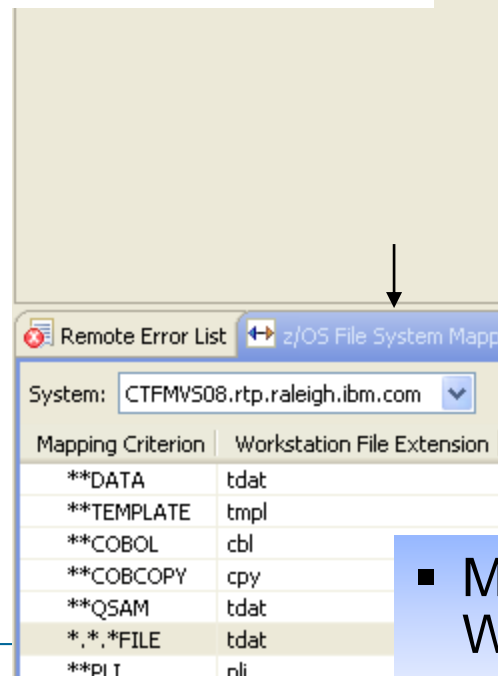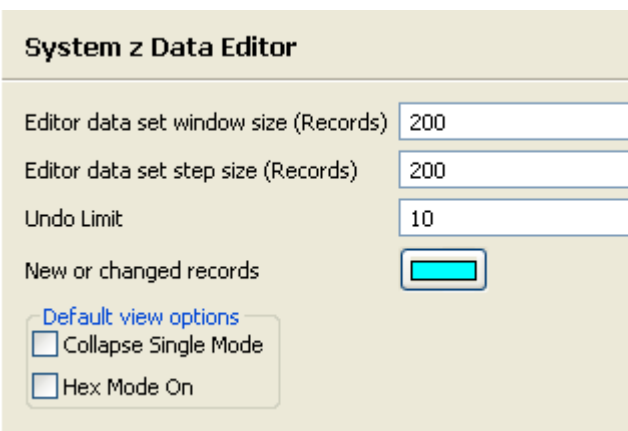- Properties   Alt+Enter
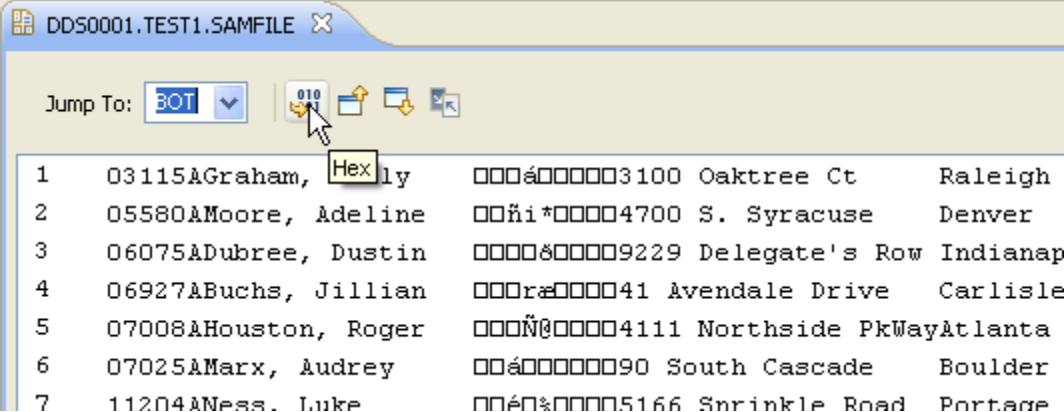
- You can edit **QSAM** (sequential) files – containing binary data
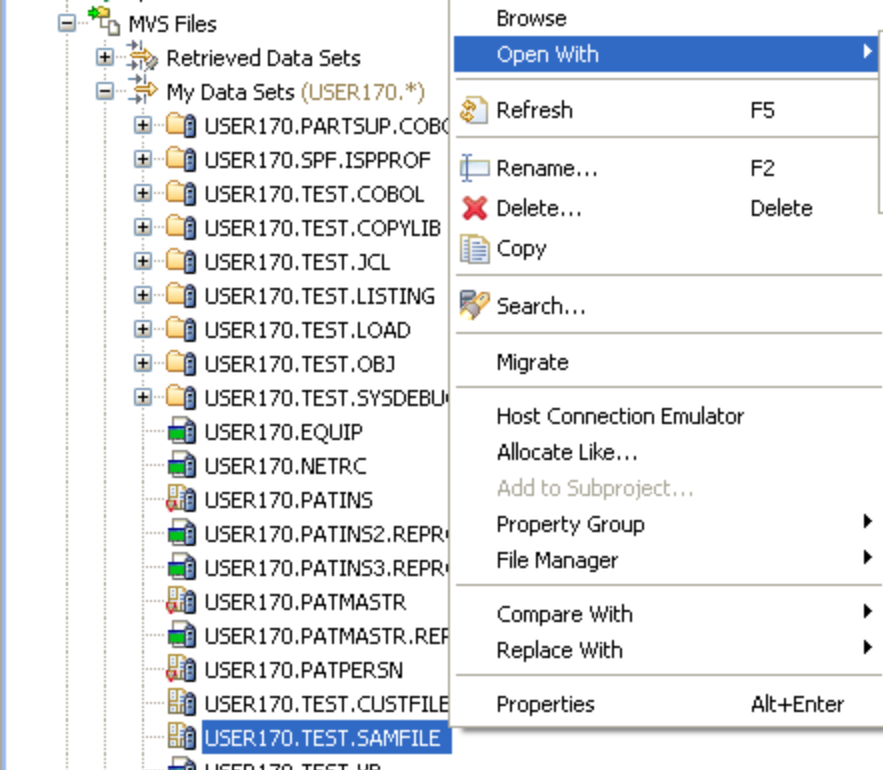
- Can configure certain Preferences:

System z Data Editor

Editor data set window size (Records)	200
Editor data set step size (Records)	200
Undo Limit	10
New or changed records	

Default view options
- ☐ Collapse Single Mode
- ☐ Hex Mode On

Edit Data Set Mapping

Mapping criterion: *.*.*FILE

Workstation file extension
- ○ Default (undefined)
- ● Other tdat

Transfer mode
- ○ Default (text)
- ● Other binary

Code Pages
Host code page
- ● Inherit from Properties for MVS Files (IBM-037)
- ○ Other IBM-037

Local code page
- ● Inherit from Properties for MVS Files (UTF-8)
- ○ Other UTF-8

PL/I logical NOT symbol
- ● Inherit from Properties for MVS Files (undefined)

Remote Error List | z/OS File System Mappin

System: CTFMVS08.rtp.raleigh.ibm.com

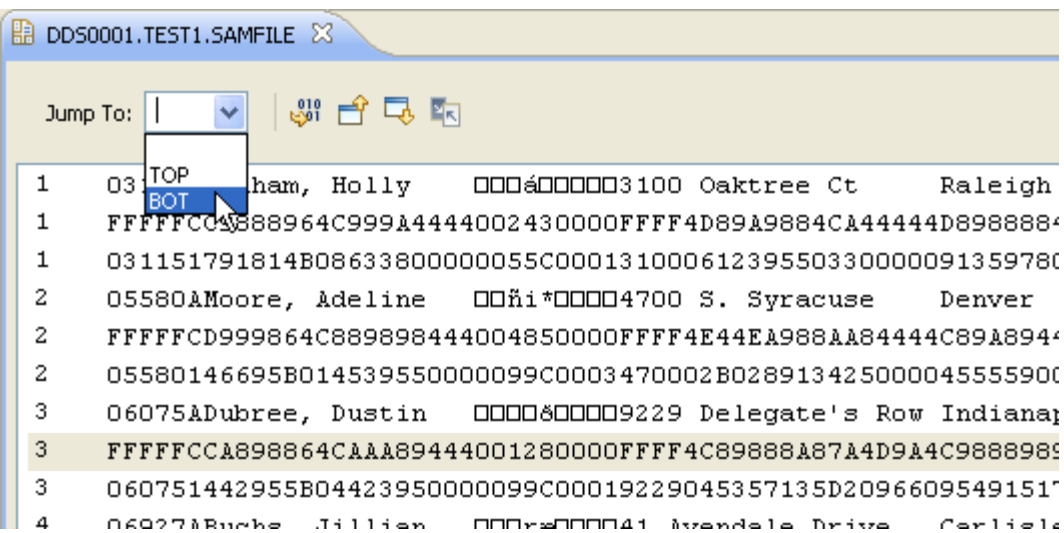| Mapping Criterion	Workstation File Extension
**DATA	tdat
**TEMPLATE	tmpl
**COBOL	cbl
**COBCOPY	cpy
**QSAM	tdat
..*FILE	tdat
**PLI	pli

- Must map file to **tdat** Workstation File Extension
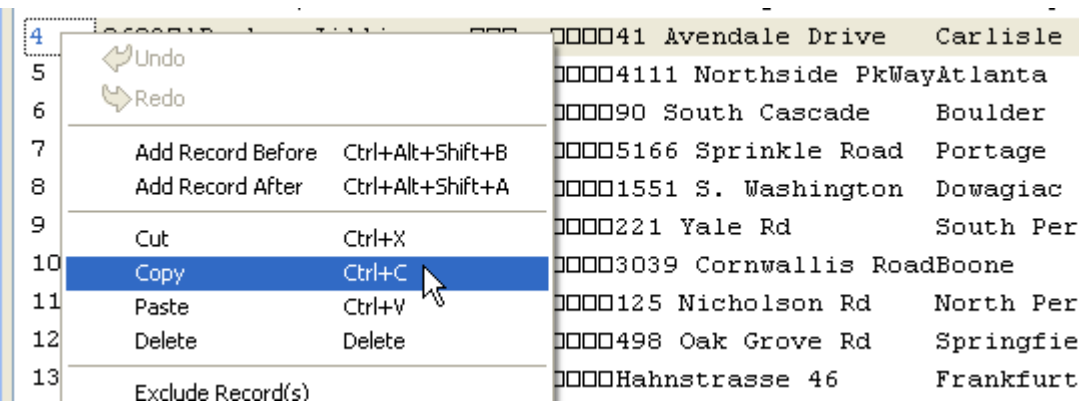
System z Data File Editor - Options
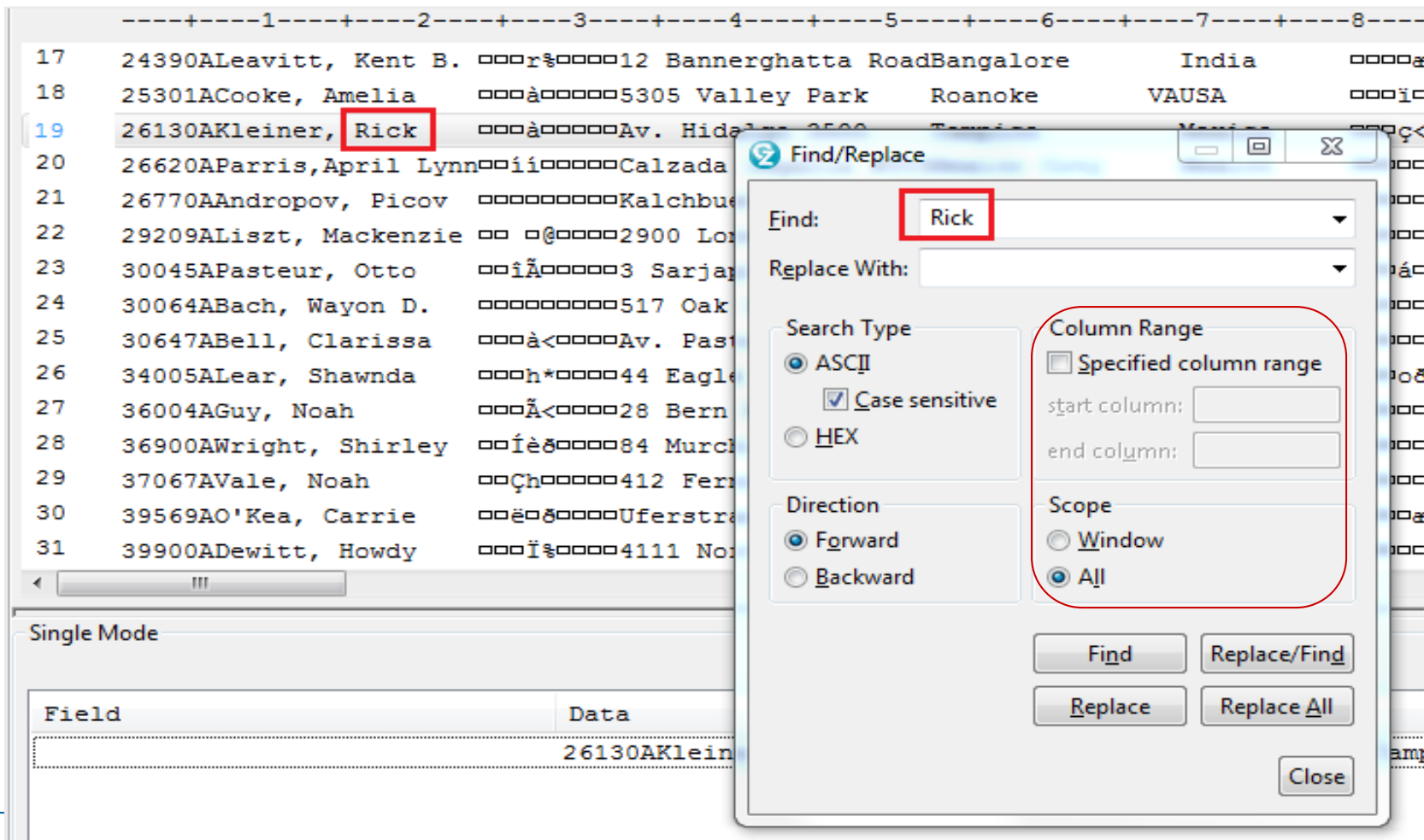

Full Screen

Hex Edit

Easy record navigation

Several standard record editing features

Find/Replace in System z Data File Editor

- You can search and/or replace data - in ASCII or **HEX**
    - Found word will be highlighted with light gray background color
- Can also search within a column range, within various record scope, forward/backward, etc.

Editing Data Files with Long LRECLs – IDz v14.1.1

- You may have data files with long LRECLs
- Prior to v14.1.1 – the Data File Editor was limited to 1,000 byte LRECLs
- Starting with v14.1.1 you can now edit files with long LRECLs
  - Use Jump To: to navigate thru the records within a file
  - Use the Move To: to navigate **within** a Record
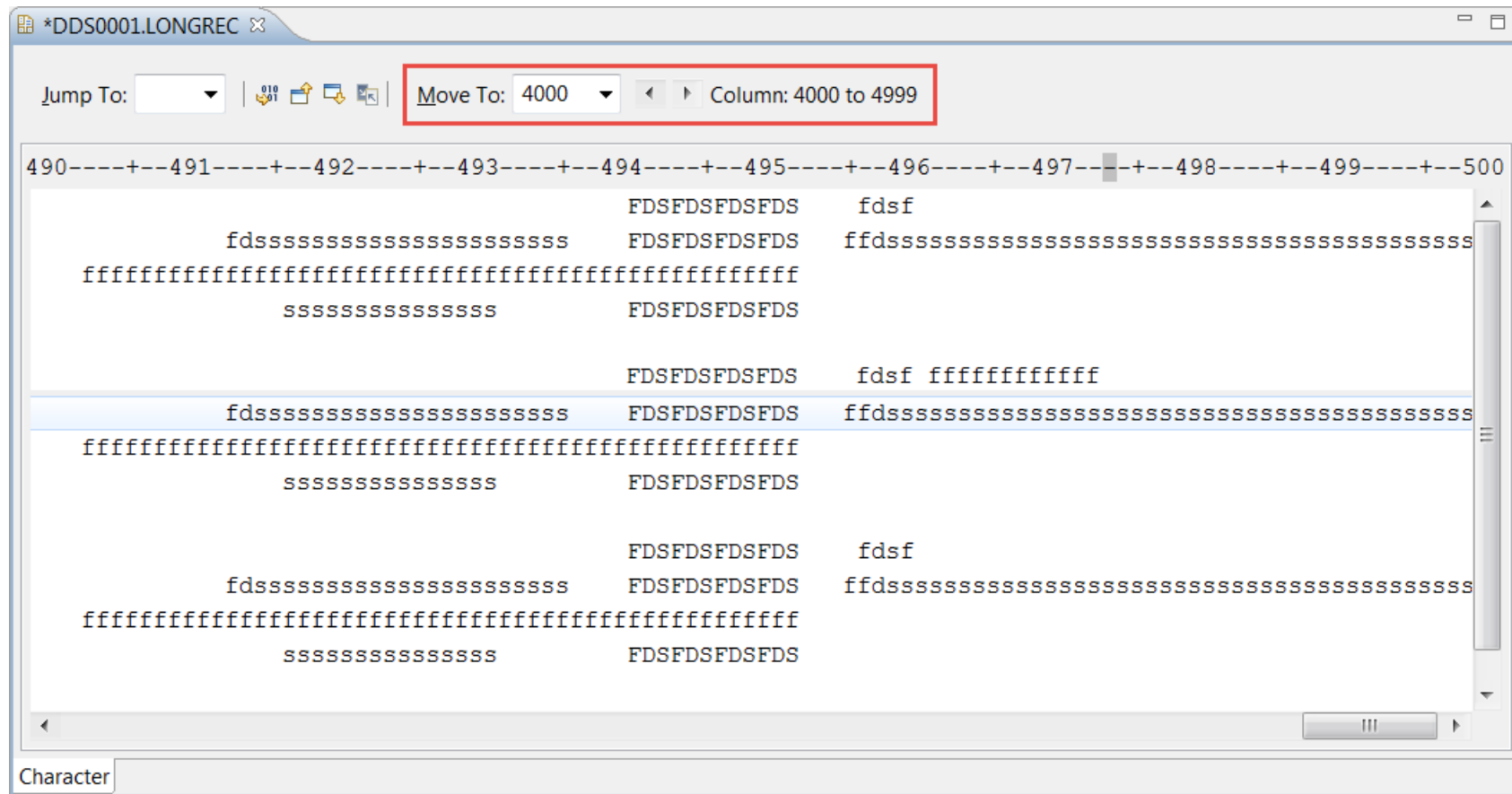
Change Password

- You can change your mainframe password anytime from the Remote Systems Context Menu

    ▸ Select your named **connection**

    ▸ Select **Change password**