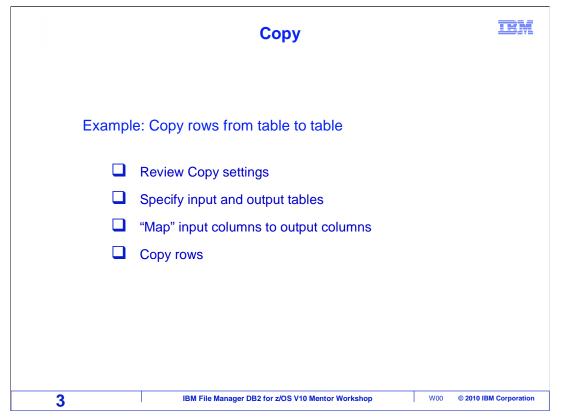


This is the tutorial for the DB2[®] feature of IBM's File Manager for z/OS[®], one of the IBM zSeries[®] problem determination tools.

	File Manager DB2 version 10 tutorial	IBM
 File Manager 	r DB2 utilities	
Print		
Object list		
• Copy		
Export and	d import	
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In this section you will see how to use the File Manager DB2 Copy utility. You can use it to copy data from a DB2 table or view to another table. You can perform a simple copy, where all of the rows are copied from one table to another that has the same column definitions.

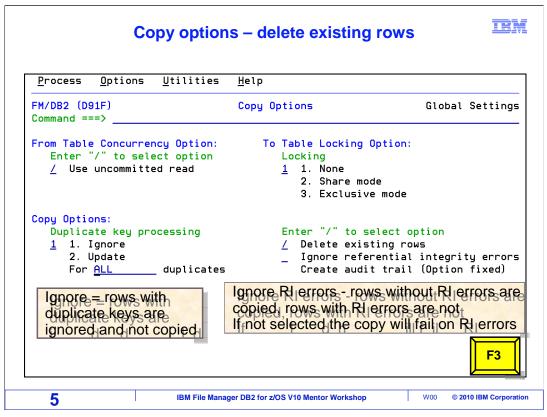
You can also specify selection criteria, so that only certain rows are copied based on data values. If the output table has different columns than the input, you can use something called "column mapping" to control which input column is copied to each output column. You can even create data to populate new columns or change data during the copy.



In this example, the copy utility will be used to copy data from one table to another. The output table will have some column names that are different than the input table, so "column mapping" will be performed to specify which input column is copied to each output column.

	Select Copy utility options	TBM
Process	Options Utilities Help	
FM/DB2 (13 . Print settings	
Command	2. FM/DB2 system options	
	3. Job card specifications	
1 Print	4. Compiler language selection	
2 Objec	COBOL compiler specifications	
З Сору	HLASM compiler specifications	
4 Objec	PL/I compiler specifications	
5 Privi	8. Temporary Data Set Allocations	
6 Impor	9. Output Data Set Allocations	
7 Expor	10. Trace options	
8 Creat	11. ISPF settings	
9 Utili	12. Editor options	
10 Audit	13. Copy utility options	
11 Print	Object list utility options	
	15. Export utility options	
	16. DB2 LOAD utility options	
	17. DB2 Utility LISTDEF options	
	18. DB2 Utility OPTIONS options	
	19. DB2 Utility TEMPLATE options	
	20. DB2 Unload utility options	
		Enter
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Before copying for the first time, review the Copy options settings. There are several ways to get to the Options panels. One way is to position the cursor on the Options selection at the top of the screen. Select 13 "Copy utility options" on the pull-down menu by entering 13 in the input field. Press Enter.



The Copy Options panel is displayed. These settings affect how data is copied. First, we will look at the "Duplicate key processing" option. If the output table already contains data, this controls what happens when there are duplicate key values in any input rows. "Ignore" means that rows with duplicate keys are ignored and not copied. Update is the opposite, and File Manager attempts to update the output table with data from the input row.

Be sure that the "Delete existing rows" option is set the way you need it. When it is selected, all the rows in the output table are deleted before any input rows are copied. That is great if it is what you want to do, but it is bad if that is not your intention.

"Ignore referential integrity errors" lets you copy the rows that do not have RI errors, but the rows that do have RI errors are not copied. If this option is off, then the Copy utility fails if it encounters an RI error.

If the "Create audit trail" setting is turned on, File Manager automatically creates a new audit log file every time you do a copy. If you do not plan to print reports from File Manager audit logs, then turn this option off. PF3 to exit.

	Select Copy		IBM
<u>Process</u> Optio FM/DB2 (D91F) Command === 3	ns <u>U</u> tilities <u>H</u> elp Utility Functions		
	Print DB2 table or view Create and drop DB2 objects Copy data within DB2 Display and process DB2 object lists Manage DB2 privileges Import sequential or VSAM data into DB2 Export DB2 data to sequential or VSAM data Create DB2 test data DB2 utility job generation Print audit trail report Browse FM/DB2 print data set	set	Enter
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Starting from the utilities menu, select option 3 for Copy. Press Enter.

Specify the 'from' table					
<u>P</u> rocess <u>O</u> p	otions <u>U</u> ti	lities <u>H</u> el	p		
FM/DB2 (D91F) Command ===>		Сор	y Utility		
From DB2 Obje			D		(
		5513		se <u></u> Space	
Name		MP			
Copy coun	t <u>f</u>		Number of rou	ws to copy	
From Template	.				
	name				
Member .]				
Decession O					
Processing Op Template (Enter "/" "f	A"lways to selec	tontion
3 1. Abov			Edit temp	-	operon
2. Prev			Copy pane		
3. Gene	erate from t	able			
4. Gene	erate/Replac	e			
F1=Help	F2=Split	F3=Exit	F4=Expand	F6=Select	F7=B Enter
F8=Forward	F9=Swap	F10=Left	F11=Right	F12=Cancel	

On the "Copy Utility" panel, specify the input in the "from DB2 object" fields. You can specify a table, a view, or an alias of a table or a view. You can specify the number of rows to copy in the "copy count" field. Specify "ALL", as in this example, to copy all rows. If you need to copy only certain rows based on data values, you can select the "edit template" option, and in the template you can specify selection criteria to control which rows are copied.

If you already have a template that you want to re-use that selects rows, you can specify it in the template "data set name" and "member" fields, and specify option 1 (for above) in the "template usage field". If you do not plan to use an existing template, specify option 3 (generate from table) in the "template usage" option. Option 3 has been selected here. Press Enter to continue.

Specify the 'to' table Edit mapping will be performed						
<u>P</u> rocess <u>O</u>	ptions <u>U</u> t	ilities	<u>H</u> elp			
COPY Command ===>	From TSS13.	EMP				
		TSS13 EMP4			ase Space	
	name					
	usage ve		6	Edit copy	olate mapping	t option
F1=Help F8=Forward				F4=Expand F11=Right		F7=B. Enter
8		IBM File Mana	ger DB2 for z	OS V10 Mentor Wo	rkshop W00	© 2010 IBM Corporat

Next, specify the name of the output table in the "to DB2 object" fields. If the input and output tables both have the same column names, data will be copied automatically based on the column names.

In this example, the output table has some different column names from the input, so the "edit template mapping" option is selected with a slash. Press Enter.

Template mapping Edit two columns								
Process (FM/DB2 (D91F Command ===)	*	•	plate	e Mapp	bing		Line 1 of Scroll <u>PA</u>	
To From	TSS13.EMP4 TSS13.EMP							
Cmd CL# To (NI	CL#	From Column	n name	Datatype	N]
		CH (6) CH (12)	NN	1	EMPNO		CH (6)	N
2 30B		VC(12)	NN	2	FIRSTNME		VC (12)	N
/ MTD1		CH(1)	NN	_	MIDINIT		CH(1)	N
E 5 LAST		VC (15)	NN	-	LASTNAME		VC (15)	N
6 WORK	DEPT	СН (3)			WORKDEPT		CH (3)	
7 PHO	IENO	CH (4)		6	PHONENO		CH (4)	
8 HIRE 9 EDLE	DATE	DATE		7	HIREDATE		DATE	
9 EDLE	VEL	SMINT		9	EDLEVEL		SMINT	
10 SEX		CH(1)			SEX		CH(1)	
11 BIRT		DATE			BIRTHDATE			
12 SALA		DEC (9,2)			SALARY		DEC	r
F1=Help	F2=Split	F3=Exi				5=RFind	F6=R Ente	•
F7=Up	F8=Down	F9=Swa	р	+12=	Cancel			
9		IBM File Manager		r 7/05 \/1	0 Montor Workshor		W00 © 2010 IBM Corp	orati

Since the "edit template mapping" option was selected, the "template mapping" panel is displayed. Use this panel to map columns to each other, and to overlay or scramble the data in selected columns during the copy operation.

On the left side of the screen, all of the output columns are shown. On the right side are columns from the input table that have been mapped to output columns. By default, columns with the same name are automatically mapped to each other. For example, a column named EMPNO has been automatically mapped, which is denoted by EMPNO being displayed side by side on both the left and the right column.

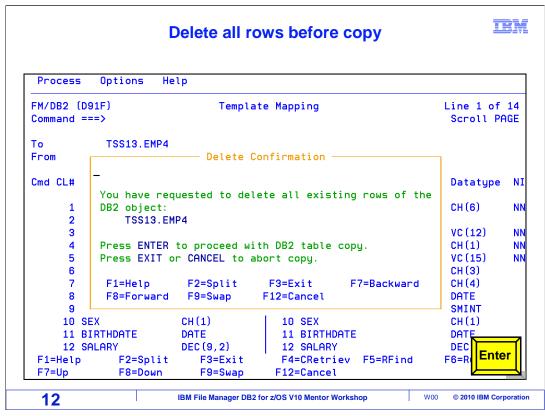
Output column named JOBTITLE is not mapped. In this example there is no column in the input table with the same name. To map a field with a different name from the input table to the output table, change the mapping with an S line command. Use an E line command to change data by editing the column. E line commands were entered next to the JOBTITLE and LASTNAME columns. Press Enter.

	Enter scramble option	IBM
<u>Process Options Ut</u> :	ilities <u>H</u> elp	
FM/DB2 (D91F) Command ===>	Column Attributes	
	More:	+
Fixed Attributes:		
Column name Lf		
	ARCHAR (15)	
Use Attributes:		
Heading Output width		
Create Attributes:		
Filler		
Data will be scrambled in the output table		
Repeat user pattern _	YES or NO	
Scrambling Options:		
Scramble Type Ei	nter "/" to select option	
1. Random 2. Repeatable Dan	Value Column In Out	
3. Translate		
	F3=Exit F4=CRetriev F7=Backward F8=F	F3
F9=Swap F10=Action		
10		
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The "column attributes" panel is displayed for the LASTNAME column. In this example, the data will be scrambled. "1" (for random scrambling) is specified in the "scramble type" option. Scrambling might be needed if there is sensitive information in the input table. For example, creating a test table from a production table, it might be necessary to scramble things like customer names, addresses, and identification numbers. Notice that there are different scrambling algorithms to choose from, random, repeatable, and translate. Press F3.

E	nter fill pattern for new column	E
<u>P</u> rocess <u>O</u> ptions	Itilities <u>H</u> elp	
FM/DB2 (D91F)	Column Attributes	
Command ===>		
		More: H
Fixed Attributes:		
Column name		
	CHARACTER (12)	
Use Attributes:		
Heading		
Output width	Dete will b	e created in
Create Attributes:		
Filler	the output	table
Action		
Start character		
Pattern	<u>'New Employee'</u>	
Repeat user pattern	uES or NO	
Scrambling Options:		
	Enter "/" to select option	
_ 1. Random	_ Value Column In	Out
2. Repeatable Dsn		
3. Translate		upped EX-E
	F3=Exit F4=CRetriev F7=Back	ward F8=F
F9=Swap F10=Acti	ons F12=Cancel	
4.4	IBM File Manager DB2 for z/OS V10 Mentor Workshop	W00 © 2010 IBM Corpora
11	IBW File Manager DB2 for 2/03 V to Mentor Workshop	

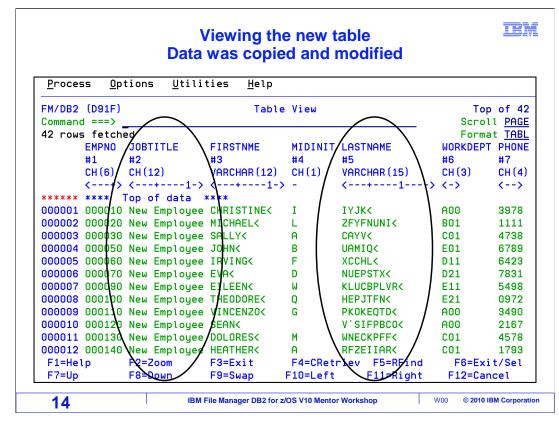
The "column attributes" panel is displayed for the JOBTITLE column. A text string 'New Employee' is specified in the "Pattern" field. The value of this column will be replaced with this text string in every row that is copied. Since this is a new field, File Manager will be creating data in the field during the copy. Press F3.



You may recall that an option called "delete existing rows" was selected on the "copy options" panel. This pop-up panel is displayed if that option is on, and it warns that all existing rows in the output table will be deleted if you continue. If you do not want to delete existing rows, press EXIT or CANCEL to cancel the copy. The "delete existing rows" "copy options" panel has to be changed before returning to this function. Enter is pressed to continue.

Copy completed					
<u>P</u> rocess <u>O</u> p	tions <u>U</u> ti	lities <u>H</u> el	p		
FM/DB2 (D91F) Command ===>		Сор	y Utility	42	row(s) copied
From DB2 Obje					
				se <u> </u>	
	\cdot \cdot \cdot \cdot \cdot \underline{I}		+ Table S	Space	(optional
Name	· · · · <u>E</u>	MP			
Copy count	<u>A</u>	LL	Number of rou	ws to copy	
From Template	et -				
	· · · · · _				
Processing Op	tions:				
Template u				A"lways to sel	ect option
<u>3</u> 1. Abov			_ Edit temp		
2. Prev			Copy pane	l values	
	rate from t				
	rate/Replac		Ed-Evened	EG=Coloct	EZ-Paskuand
			F4=Expand F11=Right		г/-раскшаго
ro-rorward	гэ-эмар	F10=Left	PII-Right	Fiz-cancel	
13	1	BM File Manager DB2	for z/OS V10 Mentor Wor	kshop Wo	00 © 2010 IBM Corporat

A message is displayed in the right corner of the screen indicating that 42 rows were copied.

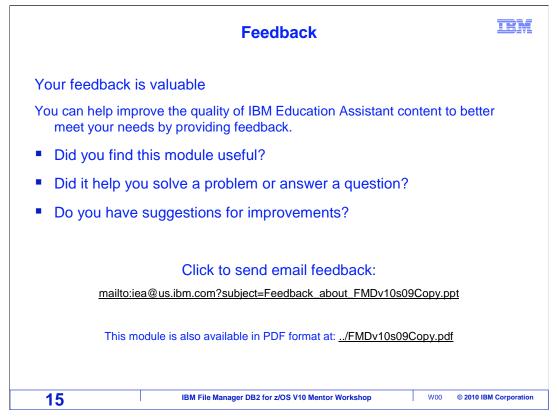


Navigate to the view utility, and specify the name of the output table. Press Enter.

The table is fetched in view.

The EMPNO column was copied from the input table without changes. The JOBTITLE rows contain the value "New Employee", as specified in the template mapping panels. Data values in the LASTNAME column have been scrambled.

This is the end of the section, using the File Manager DB2 copy utility.



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