



# SE16H-Join Tables



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## How to Create Inner Joins between tables using SE16H

The case: we have a PO that contains 4 line items, they have Account Assignment (A) for Asset, so we want to Execute the PO number , line items, Company Code ,the asset code, Asset description , Material Document Number , Movement type , All of these information in one Table like this photo.

EKPO: Display of Entries Found

Search in Table: EKPO Purchasing Document Item  
 Number of hits: 4  
 Runtime: 0 Maximum no. of hits: 500

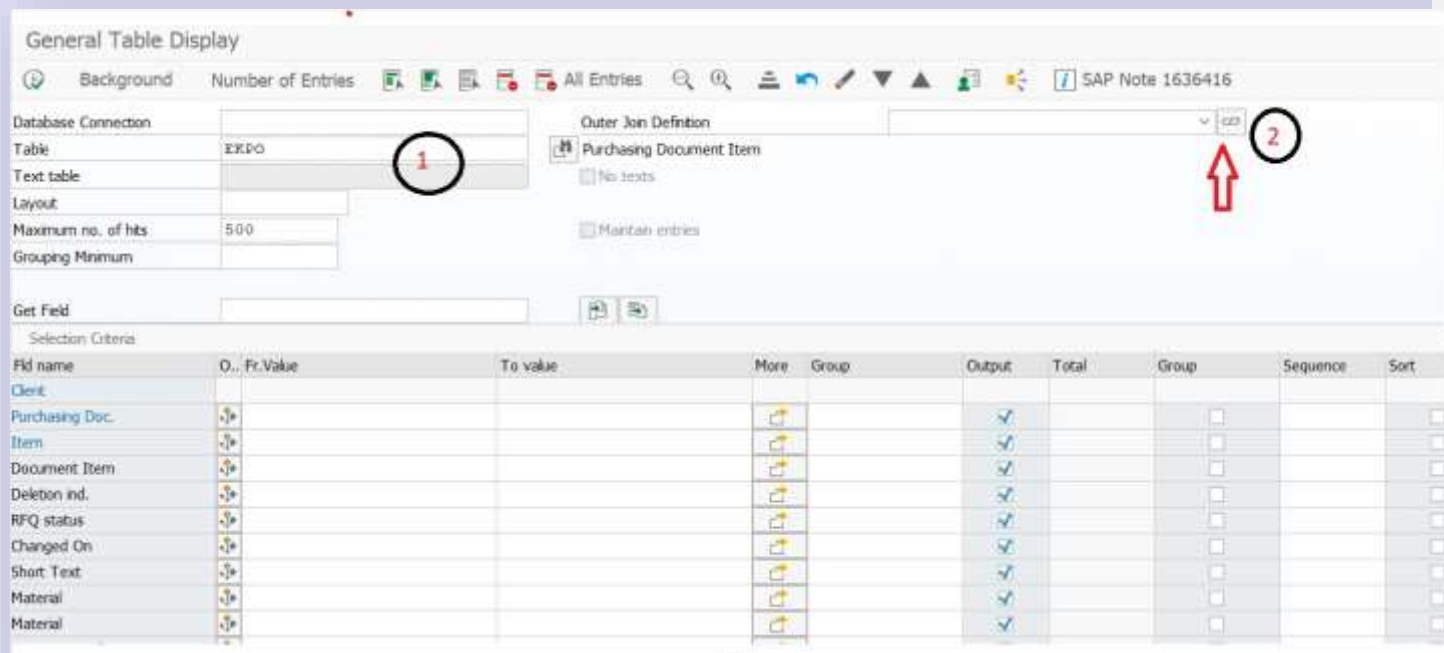
Insert Column

Purchasing Do.	Item	CoCode	Asset	Asset Description	Mat. Doc.	Item MVT	Plant	No.Entries
4600000027	10	EG10	55000177	شاشه سامسونج 65 بوصة	5000000077	1 101	KA17	1
4600000027	20	EG10	55000178	شاشه سامسونج 65 بوصة	5000000077	2 101	KA17	1
4600000027	30	EG10	59001117	بلاى ستيشن شامل الاكسسورات	5000000077	3 101	KA17	1
4600000027	40	EG10		بلاى ستيشن شامل الاكسسورات	5000000077	4 101	KA17	1

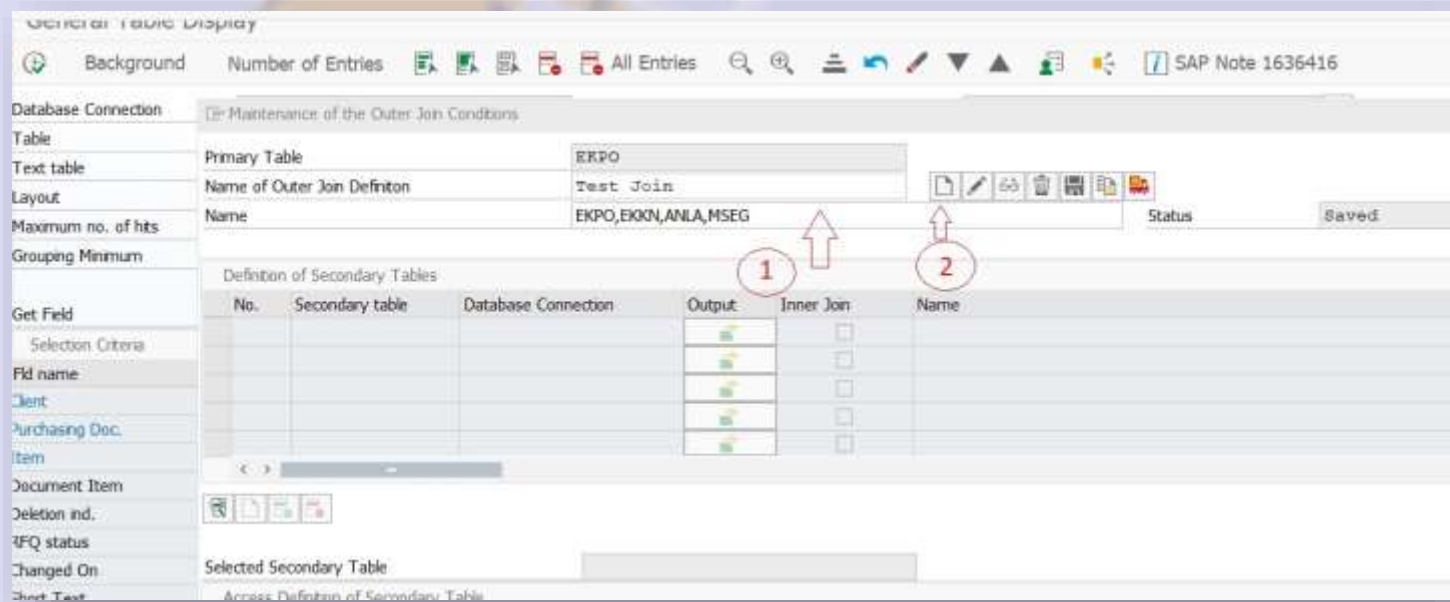
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### Steps:

- 1- Go to Se16h, type the main table [EKPO] (1), then click on the icon of maintain relationships of the outer join (2).



2- Enter a name and a description for the join (1) then create (2).



- 3- We will enter the first JOIN table (EKKN), and press on the output to select the fields we want to execute.


Maintenance of the Outer Join Conditions

Primary Table: EKPO

Name of Outer Join Defintion: TEST\_JOIN

Name: EKPO,EKKN,ANLA,MSEG

Status: Changed/not saved

No.	Secondary table	Database Connection	Output	Inner Join	Name
	EKKN			<input type="checkbox"/>	Account Assignment in Purchasing Document

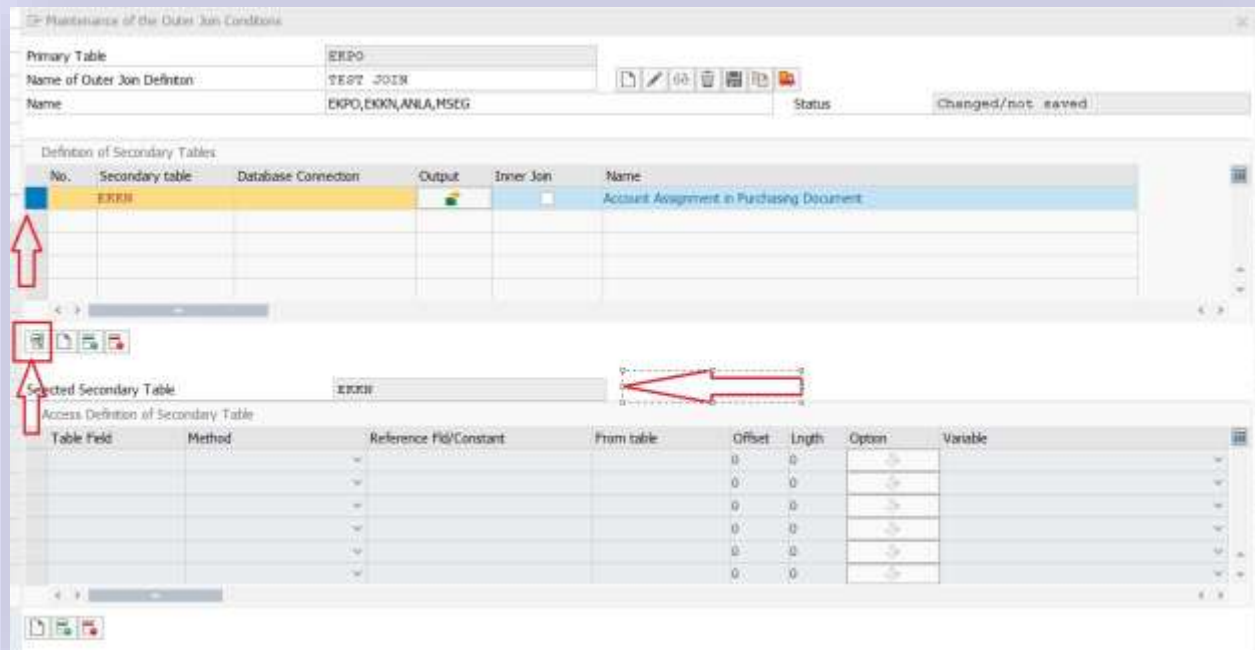
Two red arrows point to the 'EKKN' cell in the 'Secondary table' column and the 'Output' icon in the 'Output' column.

- 4- We will select the Asset Number field (ANLN1) then execute.

Definition of Output Fields

Field Name	Description	Display	Aggregation
MANDT	Client	<input type="checkbox"/>	No Aggregation
EBELN	Purchasing Document	<input type="checkbox"/>	No Aggregation
EBELP	Item	<input type="checkbox"/>	No Aggregation
ZBKKN	Seq. No. of Account Assgmt.	<input type="checkbox"/>	No Aggregation
LOEKZ	Deletion Indicator	<input type="checkbox"/>	No Aggregation
AEDAT	Created on	<input type="checkbox"/>	No Aggregation
KFLAG		<input type="checkbox"/>	No Aggregation
MENGE	Quantity	<input type="checkbox"/>	No Aggregation
VPROZ	Distribution (%)	<input type="checkbox"/>	No Aggregation
NETWR	Net Order Value	<input type="checkbox"/>	No Aggregation
SAKTO	G/L Account	<input type="checkbox"/>	No Aggregation
GSBER	Business Area	<input type="checkbox"/>	No Aggregation
KOSTL	Cost Center	<input type="checkbox"/>	No Aggregation
PROJN	not in use	<input type="checkbox"/>	No Aggregation
VBELN	SD Document	<input type="checkbox"/>	No Aggregation
VBELP	Item	<input type="checkbox"/>	No Aggregation
VETEN	Schedule line number	<input type="checkbox"/>	No Aggregation
KZBRB	Gross reqrmts ind.	<input type="checkbox"/>	No Aggregation
ANLN1	Asset	<input checked="" type="checkbox"/>	No Aggregation
ANLN2	Sub-number	<input type="checkbox"/>	No Aggregation
AUFNR	Order	<input type="checkbox"/>	No Aggregation
WEMPF	Goods recipient	<input type="checkbox"/>	No Aggregation
ABLAD	Unloading Point	<input type="checkbox"/>	No Aggregation
KOKRS	Controlling Area	<input type="checkbox"/>	No Aggregation
XBKST		<input type="checkbox"/>	No Aggregation
XBAUF	Post to order	<input type="checkbox"/>	No Aggregation
XBPRO	Post to project	<input type="checkbox"/>	No Aggregation
EREKZ	Final Invoice	<input type="checkbox"/>	No Aggregation
KSTRG	Cost Object	<input type="checkbox"/>	No Aggregation

- 5- Select the Line of table then press on the icon in the square to add table for join creation, you will see that the table name appears downside in the selected secondary table field.



6- Now press on the create icon (page left down) to add the fields we want to use to get the data from the joined table.

Hint: this point is the like the spec we give to the ABAPER to get the data , in a simple way , we have a po number in EKKO , to get the right asset number for a specific line item in po , we want to enter EKKN table with PO number and PO line item number , so we will use the fields EBELN & EBELP as our primary keys here to the right data without any duplication.

Also, you can use the fields here as a constant Value to filter.



Primary Table: EKPO

Name of Outer Join Definition: TEST JOIN

Name: EKPO,EKKN,ANLA,MSEG

Status: Changed/not saved


Definition of Secondary Tables

No.	Secondary table	Database Connection	Output	Inner Join	Name
	EKKN			<input type="checkbox"/>	Account Assignment in Purchasing Document

Selected Secondary Table: EKKN

Access Definition of Secondary Table

Table Field	Method	Reference Fld/Constant	From table	Offset	Lngh	Option	Variable
				0	0		



Primary Table: EKPO

Name of Outer Join Definition: TEST JOIN

Name: EKPO,EKKN,ANLA,MSEG

Status: Changed/not saved


Definition of Secondary Tables

No.	Secondary table	Database Connection	Output	Inner Join	Name
1	EKKN			<input checked="" type="checkbox"/>	Account Assignment in Purchasing Document

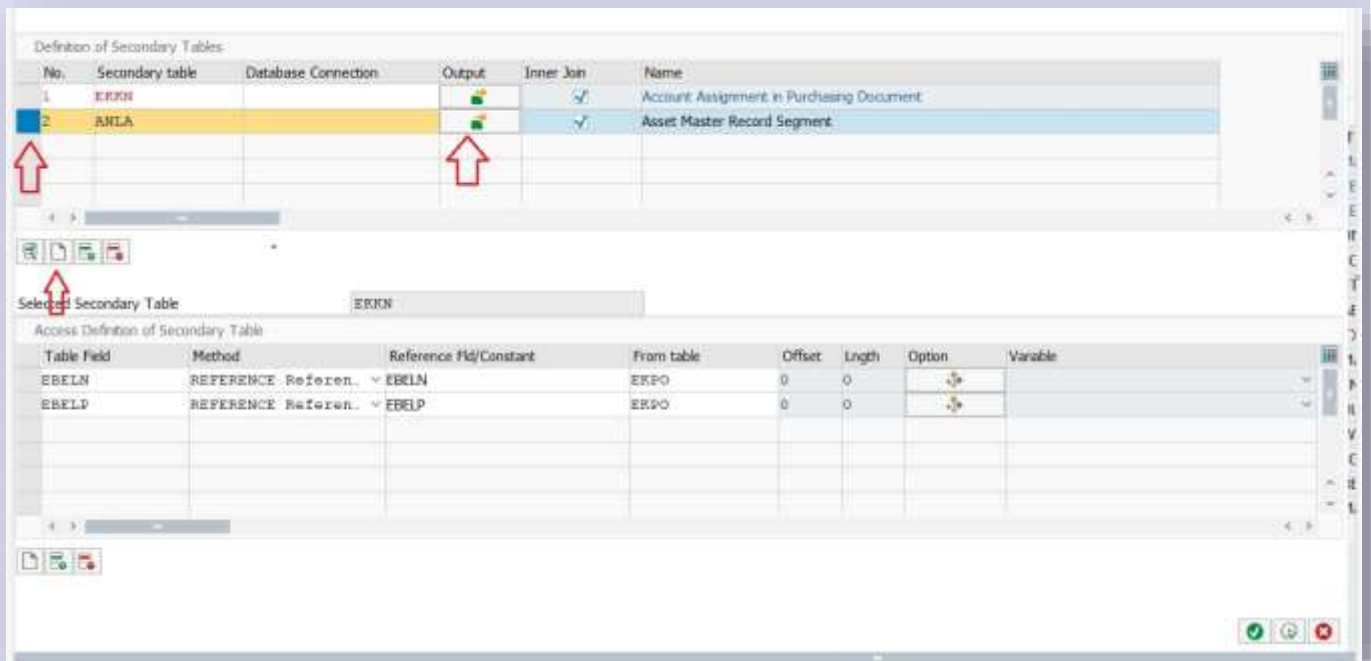
Selected Secondary Table: EKKN

Access Definition of Secondary Table

Table Field	Method	Reference Fld/Constant	From table	Offset	Lngh	Option	Variable
EBELN	REFERENCE Refecon...	EBELN	EKPO	0	0		
EBELP	REFERENCE Refecon...	EBELP	EKPO	0	0		



- 7- We will add a new join table (ANLA) Asset master record table to get the description of the Asset number.



No.	Secondary table	Database Connection	Output	Inner Join	Name
1	ERJ01			<input checked="" type="checkbox"/>	Account Assignment in Purchasing Document
2	ANLA			<input checked="" type="checkbox"/>	Asset Master Record Segment

Table Field	Method	Reference Fld/Constant	From table	Offset	Length	Option	Variable
EBELN	REFERENCE Reforen.	EBELN	ERJ01	0	0		
EBELP	REFERENCE Reforen.	EBELP	ERJ01	0	0		

- 8- We will select the Description field from ANLA output then execute.





Definition of Output Fields

Fid Name	Description	Display	Aggregation
FLURN	Plot Number	<input type="checkbox"/>	No Aggregation
FIAMT	Tax Office	<input type="checkbox"/>	No Aggregation
STADT	Municipality	<input type="checkbox"/>	No Aggregation
GRUND	Reason for Man. Val.	<input type="checkbox"/>	No Aggregation
FEINS	Area Unit	<input type="checkbox"/>	No Aggregation
GRUFL	Area	<input type="checkbox"/>	No Aggregation
INVNR	Inventory Number	<input type="checkbox"/>	No Aggregation
VBUND	Trading Partner No.	<input type="checkbox"/>	No Aggregation
SPRAS	Language Key	<input type="checkbox"/>	No Aggregation
TXT50	Description	<input checked="" type="checkbox"/>	No Aggregation
TXA50	Additional Description	<input type="checkbox"/>	No Aggregation
XLTXID	Long Text Exists	<input type="checkbox"/>	No Aggregation
XVERID	Long Text Exists	<input type="checkbox"/>	No Aggregation
XTCHID	Techn.View Long Text	<input type="checkbox"/>	No Aggregation
XKALID	Langbxt.:C-Acc.View	<input type="checkbox"/>	No Aggregation
XHERID	Long Text Exists	<input type="checkbox"/>	No Aggregation
XLEAID	Long Text Exists	<input type="checkbox"/>	No Aggregation
LEAFT	Leasing company	<input type="checkbox"/>	No Aggregation
LVDAT	Agreement Date	<input type="checkbox"/>	No Aggregation
LKDAT	Notice Date	<input type="checkbox"/>	No Aggregation
LEABG	Lease start date	<input type="checkbox"/>	No Aggregation
LEJAR	Lease Length	<input type="checkbox"/>	No Aggregation



9- Like we did in the pervious steps , we will select the table line and add the fields.

Maintenance of the Outer Join Conditions

Primary Table: EKPO  
 Name of Outer Join Definiton: TEST\_JOIN  
 Name: EKPO,EKKN,ANLA,MSEG  
 Status: Changed/not saved

Definition of Secondary Tables

No.	Secondary table	Database Connection	Output	Inner Join	Name
	EKKN			<input type="checkbox"/>	Account Assignment in Purchasing Document
1	ANLA			<input type="checkbox"/>	Asset Master Record Segment

Selected Secondary Table: ANLA

Access Definiton of Secondary Table

Table Field	Method	Reference Fk/Constant	From table	Offset	Length	Option	Variable
				0	0		
				0	0		
				0	0		
				0	0		
				0	0		
				0	0		

Name: EKPO,EKKN,ANLA,MSEG  
 Status: Changed/not saved

Definition of Secondary Tables

No.	Secondary table	Database Connection	Output	Inner Join	Name
	EKKN			<input type="checkbox"/>	Account Assignment in Purchasing Document
1	ANLA			<input type="checkbox"/>	Asset Master Record Segment

Selected Secondary Table: ANLA

Access Definiton of Secondary Table

Table Field	Method	Reference Fk/Constant	From table	Offset	Length	Option	Variable
				0	0		

- 10- We will enter the ANLA table with the Asset number (ANLN1) and the Company code (BUKRS) , to get the description of the Asset number.

[-] Maintenance of the Outer Join Conditions

Primary Table: ERPO  
 Name of Outer Join Definition: TEST JOIN  
 Name: EKPO,EKKN,ANLA,MSEG Status: Changed/not saved


Definition of Secondary Tables

No.	Secondary table	Database Connection	Output	Inner Join	Name
	EREN			<input type="checkbox"/>	Account Assignment in Purchasing Document
1	ANLA			<input type="checkbox"/>	Asset Master Record Segment

Selected Secondary Table: ANLA

Access Definition of Secondary Table

Table Field	Method	Reference Id/Constant	From table	Offset	Length	Option	Variable
ANLN1	REFERENCE Referen.	ANLN1	EREN	0	0		
BUKRS	REFERENCE Referen.	BUKRS	ERPO	0	0		



- 11- We will add a new join table (MSEG) to get the Material Document numbers and the movement type.

Background: Number of Entries, Maintenance of the Outer Join Conditions

Database Connection: Maintenance of the Outer Join Conditions

Table: Primary Table

Text table: Name of Outer Join Definition

Layout: Name

Maximum no. of hits

Grouping Minimum

Get Field

Selection Criteria

No.	Secondary table	Database Co.
1	EKKO	
2	MSEG	

Definition of Secondary Tables

No.	Secondary table	Database Co.
1	EKKO	
2	MSEG	

Definition of Output Fields

Fld Name	Description	Display	Aggregation
MANDT	Client	<input type="checkbox"/>	No Aggregation
MBUNR	Material Document	<input checked="" type="checkbox"/>	No Aggregation
MJAHR	Material Doc. Year	<input type="checkbox"/>	No Aggregation
ZZILE	Material Doc. Item	<input checked="" type="checkbox"/>	No Aggregation
LINE_ID	Identifikation	<input type="checkbox"/>	No Aggregation
PARENT_ID	Parent line ID	<input type="checkbox"/>	No Aggregation
LINE_DEPTH	Hierarchy level	<input type="checkbox"/>	No Aggregation
MAA_ORZFI	Original Line Item	<input type="checkbox"/>	No Aggregation
BWART	Movement type	<input checked="" type="checkbox"/>	No Aggregation
XAUTO	Item automatically created	<input type="checkbox"/>	No Aggregation
MATNR	Material	<input type="checkbox"/>	No Aggregation
WERKS	Plant	<input checked="" type="checkbox"/>	No Aggregation
LGORT	Storage location	<input type="checkbox"/>	No Aggregation
CHARG	Batch	<input type="checkbox"/>	No Aggregation
INSMK	Stock Type	<input type="checkbox"/>	No Aggregation



12- We will enter MSEG table with PO number, PO item line and Company Code.

Maintenance of the Outer Join Conditions

Primary Table: EKPO

Name of Outer Join Definition: TEST JOIN

Name: EKPO,EKKO,ANLA,MSEG

Status: Saved

Definition of Secondary Tables

No.	Secondary table	Database Connection	Output	Inner Join	Name
1	ERRN		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Account Assignment in Purchasing Document
2	ANLA		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Asset Master Record Segment
3	MSEG		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Document Segment: Material

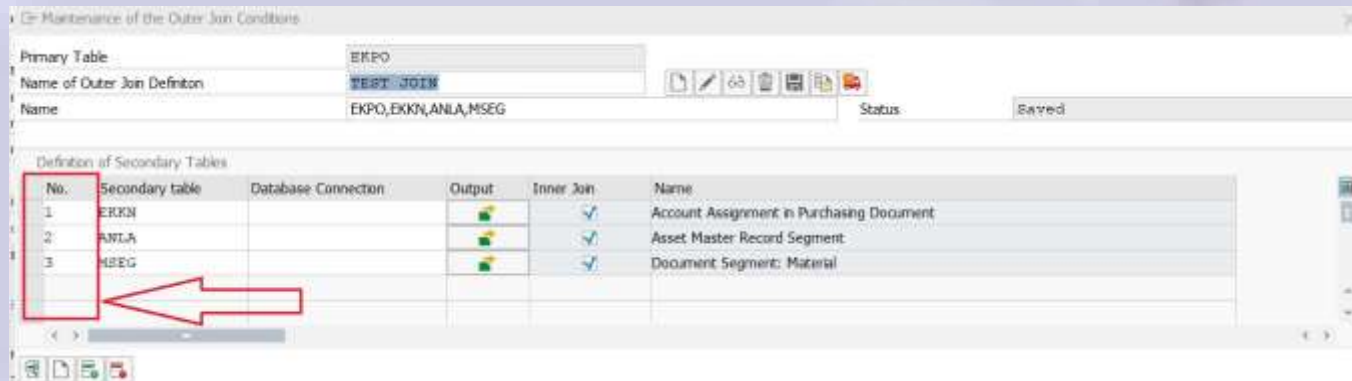
Selected Secondary Table: MSEG

Access Definition of Secondary Table

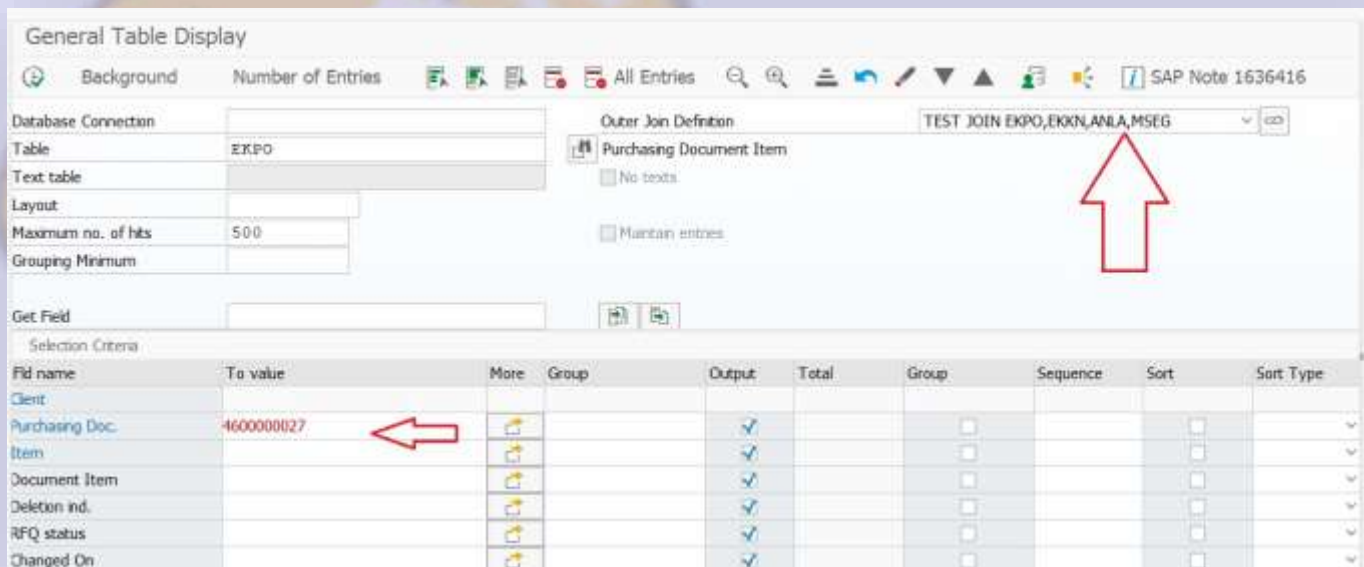
Table Field	Method	Reference Fld/Constant	From table	Offset	Lngh	Option	Variable
EBELN	REFERENCE	EBELN	EKPO	0	0	<input type="checkbox"/>	
EBELP	REFERENCE	EBELP	EKPO	0	0	<input type="checkbox"/>	
BUKRS	REFERENCE	BUKRS	EKPO	0	0	<input type="checkbox"/>	

Hint:

Make sure of the Sequence number for the joined tables before saving.



13- Make sure you have selected the outer joined you saved, you can execute now.



Executed table:

EKPO: Display of Entries Found

Search in Table: EKPO Purchasing Document Item

Number of hits: 4

Runtime: 0 Maximum no. of hits: 500

Insert Column: [ ]

Purchasing Do.	Item	CoCode	Asset	Asset Description	Mat. Doc.	Item MvT	Plant	No.Entries
4600000027	10	EG10	55000177	شاشه سامسونج 65 بوضه	5000000077	1 101	KA17	1
4600000027	20	EG10	55000178	شاشه سامسونج 65 بوضه	5000000077	2 101	KA17	1
4600000027	30	EG10	59001117	بلاي ستيشن شامل الاكسسورات	5000000077	3 101	KA17	1
4600000027	40	EG10		بلاي ستيشن شامل الاكسسورات	5000000077	4 101	KA17	1

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