

Creating Transactions



This chapter describes how to create transactions which are packaged as output data records containing Job On and Job Off data and sent to a disk file.

Task 8: Creating the JON_Tran (Job On) Transaction

When the user runs your application at the start of a job, data collected for the Job On transaction includes a constant value ("JOTRAN"), the worker's Badge ID Number, the Part Number, the Order Number, the date and the time.

To create the JON_Tran transaction

1. From the Object List, choose the JobOn screen, as illustrated next.

Object Manager		Viewport		- D ×
Object List				
Screen: JobOn	<u> </u>		Job Op	
Set Properties and Action: JobOn	s for Screen: 🔍 ^		000 01	-"
Name	JobOn	Badge	э 📃	
Comments				
Follow Cursor	False	Dent		
Viewport Size	16×20	Part		
Viewporting On	False			
Wrap at Edge	True	Ordei	r 🗌	
Message Line	50			- 11
Message Display Tin				
Properties (On Entry (On E	Exit/			

- 2. From the File menu, choose the New Transaction command. You will see the Transaction Editor dialog box, as illustrated next.
- 3. Notice there are three main parts to the Transaction Editor dialog box.
 - An area where you can enter a Constant Value.
 - A list of the Source Fields you have created.
 - An area where you can create a list of Transaction Fields.
- 4. Notice the two small buttons marked with the > symbol. One button moves the Constant Value into the Transaction Fields list and the other moves selected field(s) from the Source Fields list into the Transaction Fields list.
- 5. Notice the small button marked with the >> symbol. This moves ALL fields in the Source Fields list into the Transaction Fields list.

6. The two small buttons marked < and << remove (selected or ALL) fields from the Transaction Fields list.

Note: As a general rule, you may want to avoid using the >> button because it moves ALL the data fields over, and you may not need them all. Also, the fields will be in the same (alphabetic) order as they are in the Source Fields list. You may not want the fields in this order in the Transaction record.

Object Manager		- - ×	Transaction Editor		x
Object List			Constant Value:	Transaction Fields:	
Trans: Tran0		<u> </u>			-
Set Properties and Action	s for Trans:	< ^			1
TranÖ			Source Fields:	-	
Name	TranO	_	<date> <time></time></date>		
Transfer Direction	To Network		<vuid> JobOff.BadgeNo</vuid>		
Delineation	Delimiter		JobOff.OrderNo JobOff.PartNum		
Delimiter	,		JobOn.BadgeNo JobOn OrderNo		
Timeout	60000		JobOn.PartNum		
Padding Character					
Padding Direction					
Message					
Transmit Batch?	Try Before Tr	ansa			
	↓ <th></th> <th></th> <th></th> <th></th>				

7. The transaction default name, "Tran0," is shown in the Object List. Enter "JON_Tran" in the Name property to rename this transaction, as illustrated next.

Object Manager		Transaction Editor	x
Object List Trans: Tran0	-	Constant Value:	Fransaction Fields:
Set Properties and Action Tran0	ns for Trans: <	Source Fields:	
Name	JON_Tran		
Transfer Direction	To Network	JobOff.BadgeNo	
Delineation	Delimiter	JobOff.OrderNo JobOff.PartNum	
Delimiter	,	JobOn.BadgeNo JobOn OrderNo	
Timeout	60000	JobOn.PartNum	
Padding Character			
Padding Direction			
Message			
Transmit Batch?	Try Before Transa		
	K (Timeout /		



8. In the Transaction Editor dialog box, enter "JOTRAN" as the Constant Value. Click the Constant Value's small button marked with > to move the value you entered into the Transaction Fields list, as illustrated next.

Note: The value, JOTRAN, as the first output data item in a transaction record, identifies the data record as a Job On type of transaction.

Object Manager		<u>- </u>	Transaction Editor		X	ĸ
Object List Trans: JON_Tran Set Properties and Action	ns for Trans:	▼	Constant Value: JOTRAN	$\mathbf{\Sigma}$	Transaction Fields: JOTRAN	
JON_Tran Name	JON_Tran		Source Fields: (DATE) (TIME) (VID)]		
Transfer Direction Delineation	To Network Delimiter		JobOff.BadgeNo JobOff.OrderNo JobOff.PartNum	>		
Delimiter Timeout	, 60000		JobOn.BadgeNo JobOn.OrderNo JobOn.PartNum	>>		
Padding Character Padding Direction				<		
Message Transmit Batch?	Try Before Ti	ransa(<<		

9. In the list of Source Fields, highlight the JobOn.BadgeNo, JobOn.OrderNo, and JobOn.PartNum fields, as illustrated next. (Hold down the **Ctrl** key or **Shift** key on your keyboard while you select multiple fields.)

)bject Manager			Transaction Editor		
Object List			Constant Value:		Transaction Fields:
Trans: JON_Tran			JOTBAN		JOTRAN
Set Properties and Actio	ns for Trans:				
JON_Tran			Source Fields:	_	
Name	JON_Tran		<date> <time></time></date>		
Transfer Direction	To Network		<void> JobOff.BadgeNo</void>		
Delineation	Delimiter		JobOff.OrderNo JobOff PartNum		
Delimiter	,		JobOn.BadgeNo		
Timeout	60000		JobOn.PartNum		
Padding Character					
Padding Direction					
Message					
Transmit Batch?	Try Before T	ransa			
	AK / Timeout /	<u> </u>			
(*******) (*******) (***					

10. Click the Source Fields button marked with > to move the highlighted fields into the list of Transaction Fields.

Note: Another method is to grab the highlighted Source Fields with the mouse and drag them into the Transaction Fields list. Alternatively, you can just double-click on the items in the Source Fields list.

11. Notice that, for this tutorial exercise, the data fields shown in the previous illustration are in the wrong order in the Transaction Fields list.

Note: The JobOn and JobOff screens were designed to show the data fields ordered (top to bottom) as Badge ID, Part Number, and then Order Number. This is also shown in the Job On Transaction Process illustration shown in Chapter 1. This order is also shown in the Example Output part of Chapter 5.

12. The data fields in the Transaction Fields list should be in the same order as they are shown on the JobOn and JobOff screens, not in alphabetic order. To correct this, click to highlight JobOn.PartNum in the Transaction Fields list, as illustrated next.

Object Manager		Transaction Editor		×
Object List Trans: JON_Tran Set Properties and Action JobOn.PartNum	s for TransField: <	Constant Value: JOTRAN Source Fields:		Fransaction Fields: JOTRAN JobOn.BadgeNo JobOn.OrderNo JobOn.PattNum
Override Delineation Delimiter Padding Character Padding Direction Length Formatting ASCII Convert Convert Bytes	False	 <date></date> <time></time> <vuid></vuid> JobOff.BadgeNo JobOff.OrderNo JobOff.PartNum JobOn.BadgeNo JobOn.OrderNo JobOn.PartNum 	> >> < <	

13. Use your mouse to drag the highlighted JobOn.PartNum field to its correct place, up above the JobOn.OrderNo field, as illustrated next.



Object Manager		_ D ×	Transaction Editor		×
Object List			Constant Value:		Transaction Fields:
Set Properties and Action JobOn.PartNum	ns for TransField:	<	JOTRAN Source Fields:		JOTRAN JobOn. BadgeNo JobOn. PartNum JobOn. OrderNo
Override	False		<time></time>		
Delineation			<vuid> JobOff.BadgeNo</vuid>		
Delimiter			JobOff.OrderNo JobOff.PartNum	Ĺ	
Padding Character			JobOn.BadgeNo JobOn OrderNo		
Padding Direction			JobOn.PartNum		
Length					
Formatting					
ASCII Convert					
Convert Bytes				<<	

14. Highlight the automatic <DATE> and <TIME> in the Source Fields list and drag or click the > button to move them over to the Transaction Fields list.

Note: You now have six items in the Transaction Fields list: JOTRAN, three data input fields (JobOn.BadgeNo, JobOn.PartNum, and JobOn.OrderNo) and the automatic Date and Time from the system. You will not change the current property settings (which may be default properties or your own previously set properties) for most of these fields. However, for Date, you will replace the default comma delimiter with a blank character, and you will omit a trailing comma after the Time data.

To adjust Date properties for the JON_Tran transaction

1. Highlight <DATE> in the Transaction Fields list. Notice the properties that are not grayed and may be set at this time. Notice Override = False.

Note: Override = False means that you do not want to override current property settings. Override = True means that you do want to override the current property settings. These current settings are defaults set at transaction level for all the fields in this transaction except the length of the transaction field which is inherited from the input field.

2. Double-click to set Override = True, as illustrated next. When you click to end that entry, notice that Delineation, Delimiter, Length, and Formatting properties may now be set or changed.

)bject Manager		- 🗆 🛛	Transaction Editor			×
Object List Trans: JON_Tran		-	Constant Value:		Transaction Fields:	
Set Properties and Action	is for TransField:	< <u>`</u>	JOTRAN Source Fields:		JUTRAN JobOn.BadgeNo JobOn.PartNum JobOn.OrderNo	
Override	True		<time></time>		<date> <time></time></date>	
Delineation	Delimiter		JobOff.BadgeNo			
Delimiter			JobOff.OrderNo JobOff.PartNum			
Padding Character			JobOn.BadgeNo			
Padding Direction			JobOn.PartNum	<u> </u>		
Length	10					
Formatting						
ASCII Convert						
Convert Bytes				~~		
					L	

- 3. The Delineation remains = Delimiter. (This means you will use a delimiter character following the Date field—to separate it from the Time field in the output record.) The default Delimiter property is a comma; you will change that Delimiter property.
- 4. Set the Delimiter to one space character. To do this, highlight the default comma and press the **space bar** on your keyboard once.
- 5. Length automatically changes to the default of 10. (The date's length can be changed, as needed for the Formatting you choose in the next step.)
- 6. Click Formatting to get its drop-down list, as illustrated next, and choose the MM-DD-YYYY format option (this date format is ten characters).

Object Manager 📃 🖬	Transaction Editor		×	C
Object List Trans: JON_Tran Set Properties and Actions for TransField: <date> Override MM/DD/YY Delineation MMDDYY Delimiter MM-DD-YY Padding Character MMDDYYY Padding Direction MM/DD/YYYY Formatting ▼ ASCII Convert Convert Bytes</date>	Constant Value: JOTRAN Source Fields: CDATE> <time> <void> JobOff. BadgeNo JobOff. OrderNo JobOff. PartNum JobOn. BadgeNo JobOn. PartNum</void></time>	> >> <	Transaction Fields: JOTRAN JobOn. BadgeNo JobOn. PartNum JobOn. OrderNo <date> <time></time></date>	



Object Manager		Transaction Editor		×
Object List		Constant Value:		Transaction Fields:
Trans: JON_Tran	•			JOTBAN
Set Properties and Actior	ns for TransField: < 🖍			JobOn.BadgeNo
<date></date>		Source Fields:		JobUn.PartNum JobOn.OrderNo
Override	True	<pre></pre>		<date> <time></time></date>
Delineation	Delimiter	<void> JobOff.BadgeNo</void>		
Delimiter		JobOff.OrderNo JobOff PartNum		
Padding Character		JobOn.BadgeNo		
Padding Direction		JobOn.PartNum		
Length	10			
Formatting	MM-DD-YYYY			
ASCII Convert				
Convert Bytes			<<	

7. Check the Date properties result with the next illustration.

To adjust Time properties for the JON_Tran transaction

- 1. Highlight <TIME> in the Transaction Fields list.
- 2. Double-click to set Override = True. This lets you override the default Delineation (Delimiter = comma).

Note: EZBuilder does not attach a trailing (Delimiter) comma after the last field in any transaction. However, we want to change the Delineation from Delimiter to Length. To change Delineation, we need to first set Override = True.

3. Double-click to set Delineation = Length. As soon as you end that entry, notice the Delimiter property (the comma) is automatically deleted and Delimiter becomes grayed.

Note: Time is the last field specified for the output record (see Transactions Fields list). The Delineation property of Length means the automatic carriage return that ends the record will occur immediately after the final character of the Time field is automatically filled, considering the Length and Formatting properties.

- 4. Length automatically changes to the default of 8. (The time's length can be changed, as needed for the Formatting you choose in the next step.)
- 5. From the Formatting property drop-down list, choose the HH:MM:SS format option (this time format is eight characters).
- 6. Check the Time properties result with the next illustration.

Dbject Manager	_		Transaction Editor			×
Object List Trans: JON_Tran		-	Constant ¥alue:		Transaction Fields:	_
Set Properties and Action <time></time>	ns for TransField: 🛛	<u> </u>	JOTRAN Source Fields:		JUTRAN JobOn.BadgeNo JobOn.PartNum JobOn.OrderNo	
Override	True				<time></time>	
Delineation	Length		JobOff.BadgeNo			
Delimiter			JobOff.OrderNo JobOff.PartNum			
Padding Character			JobOn.BadgeNo JobOn.OrderNo			
Padding Direction			JobOn.PartNum			
Length	8					
Formatting	HH:MM:SS					
ASCII Convert						
Convert Bytes				<<		

To adjust Transfer Direction for the JON_Tran transaction

Note: There is one more thing to do before you are finished with the JON_Tran transaction. The default Transfer Direction sends your transactions to the network. For this tutorial exercise, you need to tell EZBuilder that you want to send the transactions to a file.

1. Click the small ^ button to get the JON_Tran (parent screen) again, as illustrated next.

Object Manager		- - ×	Transaction Editor		×
Object List			Constant Value:		Transaction Fields:
Trans: JON_Tran		<u> </u>	JOTBAN		JOTRAN
Set Properties and Action JON_Tran	is for Trans:	< ^	Source Fields:		JobOn.BadgeNo JobOn.PartNum JobOn.OrderNo
Name	JON_Tran	-	<time></time>		<date> <time></time></date>
Transfer Direction	To Network		<vul> JobOff.BadgeNo </vul>		
Delineation	Delimiter		JobOff.OrderNo JobOff.PartNum		
Delimiter			JobOn.BadgeNo JobOn OrderNo		
Timeout	60000		JobOn.PartNum	~	
Padding Character					
Padding Direction					
Message					
Transmit Batch?	Try Before Tra	ansa			
	K (Timeout /	<u> </u>			



2. Click the Transfer Direction property and then its small button with the three dots to get the Transaction Direction Editor dialog box, as illustrated next. Notice the default Destination option is Port and the port to which a JON_Tran transaction is sent is Network.

Object Manager		Transaction Editor	x
Object List		Constant Value: Transaction Fields:	
Trans: JON_Tran		Transaction Direction Editor	
Set Properties and Actio JON_Tran	ns for Trans:	Please choose transaction direction and source or destination below. DrderNo	1
Name	JON_Tran	Direction	
Transfer Direction	To Network	○ Transaction From ○ Transaction To	
Delineation	Delimiter	Source/Destination	
Delimiter	,	© Port Network	
Timeout	60000		
Padding Character			
Padding Direction		○ Fi <u>e</u> ld	
Message			
Transmit Batch?	Try Before Tra	V OK X Cancel ? Help	
Properties (Success (N4	AK (Timeout /		

3. Click to change the Destination from the Port option to the File option. Enter the filename to which you want to send the transactions (the Job On and Job Off data). An example filename, JOFILE, is illustrated next.

Note: Make up a unique filename, perhaps "JOSMITH" for example.

)bject Manager		Transaction Editor	X
Object List		Constant Value: Transaction Fields:	
Trans: JON_Tran		Transaction Direction Editor	
Set Properties and Actio JON_Tran	ns for Trans:	Please choose transaction direction and source or destination below. DrderNo	
Name	JON_Tran	Direction E>	
Transfer Direction	To Network	○ Transaction <u>F</u> rom ○ Transaction <u>T</u> o	
Delineation	Delimiter	Source/Destination	
Delimiter	,	CPort Network	
Timeout	60000		
Padding Character			
Padding Direction		○ Fi <u>e</u> ld	
Message			
Transmit Batch?	Try Before Tra	V OK X Cancel ? Help	
	AK (Timeout /		

4. Click OK. Suppose, as shown in the previous illustration, you forgot that you must enter a drive letter first, and you enter only a filename (for example, JOFILE). The following message will be presented to remind you to enter the drive letter first.

Object Manager		Transaction Editor	×
Object List		Constant Value: Transaction Fields:	
Trans: JON_Tran		Transaction Direction Editor	
Set Properties and Action JON_Tran	is for Trans:	Please choose transaction direction and source or destination below. Destination below.	
Name	JON_Tran	Direction E>	
Transfer Direction	To Network	Transaction From © Transaction To	
Delineation	Delimiter		
Delimiter		File Name must have valid device letter on front	
Timeout	60000	√ <u>D</u> K	
Padding Character			
Padding Direction		C Field	
Message			
Transmit Batch?	Try Before Tr	a 🗸 <u>O</u> K 🗙 <u>C</u> ancel <u>?</u> <u>H</u> elp	
	K (Timeout /		

5. Click OK to close the reminder message. Enter the correct drive letter and filename for your output data file. For example, enter "C:JOFILE," as illustrated next.

Note: The drive letter: filename format is the only valid format for the TRAKKER Antares.

Note: The file named here will be located in the Output path that you specify in the Build Options dialog box in Chapter 5. The C drive is a Flash drive; the E drive is used if you plan to download to a RAM drive; the G drive is used as an extended storage drive. For file management and RAM drive details, see the EZBuilder Getting Started Guide.



Object Manager	I	Transaction Editor	×
Object List		Constant Value: Transaction Fields:	
Trans: JON_Tran		Transaction Direction Editor	
Set Properties and Action JON_Tran	ns for Trans:	Please choose transaction direction and source or destination below. DratNum DrderNo	1
Name	JON_Tran	Direction E>	
Transfer Direction	To Network	○ Transaction <u>F</u> rom ○ Transaction <u>T</u> o	
Delineation	Delimiter	Source/Destination	
Delimiter	,	CPort Network	
Timeout	60000		
Padding Character			
Padding Direction		C Field	
Message		Select the source or destination for the transaction	
Transmit Batch?	Try Before Tra	V OK X Cancel ? Help	
Properties (Success (NA	K (Timeout /		

6. Click OK. The result of the previous Transfer Direction Editor steps is shown in the next illustration.

Object Manager			Transaction Editor		×
Object List Trans: JON Tran		-	Constant Value:	 Transaction Fields:	
Set Properties and Action JON_Tran	ns for Trans:	< ^	JOTRAN Source Fields:	JOTRAN JobOn.BadgeNo JobOn.PartNum JobOn.OrderNo	
Name	JON_Tran	-	<time></time>	<date> <time></time></date>	
Transfer Direction	To C:JOFILE		JobOff.BadgeNo		
Delineation	Delimiter		JobOff.OrderNo JobOff.PartNum		
Delimiter	,		JobOn.BadgeNo JobOn OrderNo		
Timeout	60000		JobOn.PartNum		
Padding Character					
Padding Direction					
Message					
Transmit Batch?					
	K (Timeout /	<u> </u>			
				I	

Note: You can remove items from the filenames list. If you need to remove an error filename, from the View menu, choose the Resource command. At the bottom of the View Resource dialog box, use the right arrow to get to the File Names page. Delete the unwanted filename from the File Names page.

7. You have completed Task 8. Save your file. Continue with Task 9.

Task 9: Creating the JOF_Tran (Job Off) Transaction

When the user runs your application at the end of a job, data collected for the Job Off transaction includes a constant value ("JOFTRAN"), the worker's Badge ID Number, the Part Number, the Order Number, the date and the time.

To create the JOF_Tran transaction

- 1. From the File menu, choose the New Transaction command.
- 2. Click to highlight "Tran0" (the default name) in the Name property, as illustrated next.

Object Manager		Transaction Editor		×
Object List		Constant Value:		Transaction Fields:
Trans: Tran0	•			
Set Properties and Action	is for Trans:			
TranÔ		Source Fields:	1	
Name	Tran0	<pre></pre>		
Transfer Direction	To Network	<void> JobOff.BadgeNo</void>		
Delineation	Delimiter	JobOff.OrderNo JobOff.PartNum		
Delimiter	,	JobOn.BadgeNo JobOn OrderNo		
Timeout	60000	JobOn.PartNum		
Padding Character				
Padding Direction			<u> </u>	
Message				
Transmit Batch?	Try Before Transa		<<	
	K/Timeout/			

3. Rename the transaction to "JOF_Tran" in the Name property, as illustrated next.



Object Manager		Transaction Editor	x
Object List Trans: JOF_Tran Set Properties and Action JOF_Tran	vs for Trans: <\^^	Constant Value: JOTRAN Source Fields:	Transaction Fields:
Name Transfer Direction Delineation Delimiter Timeout Padding Character Padding Direction Message	JOF_Tran To Network Delimiter , 60000	 <uates< li=""> <times< li=""> <voids< li=""> JobOff, BadgeNo JobOff, OrderNo JobOff, PartNum JobOn, BadgeNo JobOn, OrderNo JobOn, PartNum </voids<></times<></uates<>	>> >>
Transmit Batch?	Try Before Transau ▼ K (Timeout /		<<

Note: The next several steps are brief because they are similar to those you did for the JOTRAN transaction. Refer back to Task 8 for details or illustrations.

- 4. In the Transaction Editor dialog box, enter "JOFTRAN" as the Constant Value. Click the Constant Value's small button marked with > to move the "JOFTRAN" value into the Transaction Fields list. As the first field in the data record, "JOFTRAN" will identify the record as a Job Off transaction.
- 5. In Source Fields list, highlight the JobOff.BadgeNo, JobOff.OrderNo, and JobOff.PartNum fields to be the next three fields in the record. (Hold down the **Ctrl** key or **Shift** key on your keyboard to highlight multiple fields.)
- 6. Drag the fields, or click the Source Fields > button, to move the highlighted fields into the Transaction Fields list.
- 7. In the Transaction Fields list, highlight the JobOff.PartNum field and use your mouse to drag it above the JobOff.OrderNo field. Release mouse.
- 8. In the Source Fields list, double-click <DATE> and then double-click <TIME> to quickly move these fields over to the Transaction Fields list.
- 9. Check to be sure you have six fields in the Transaction Fields list, as illustrated next.

Object Manager		Transaction Editor		×
Object List		Constant Value:		Transaction Fields:
Trans: JOF_Tran	<u> </u>	LIDETRAN		JOFTBAN
Set Properties and Action	ns for TransField: 🤇 🔨	Source Fields:		JobOff.BadgeNo JobOff.PartNum JobOff.OrderNo
Override	False 🔻	<time></time>		<date> <time></time></date>
Delineation		<vuid> JobOff.BadgeNo</vuid>		
Delimiter		JobOff.OrderNo JobOff.PartNum	Ĺ	
Padding Character		JobOn.BadgeNo		
Padding Direction		JobOn.PartNum		
Length				
Formatting				
ASCII Convert				
Convert Bytes			<<	

10. Like for the JON_Tran transaction that you completed earlier, the current properties remain as they are for all the Transaction Fields except the <DATE> and <TIME> fields. These two fields will be changed the same way as you changed them for the JON_Tran transaction.

To adjust Date properties for the JOF_Tran transaction

- 1. Highlight <DATE> in the Transaction Fields list to set the Date properties.
- 2. Double-click to set Override = True.
- 3. Change the Delimiter property from a comma to one blank character.
- 4. Choose the MM-DD-YYYY Formatting option.
- 5. Check the Date properties result with the next illustration.



Object Manager		\times	Transaction Editor			x
Object List Trans: JOF_Tran		┍	Constant Value:		Transaction Fields:	
Set Properties and Actio	ns for TransField: 🔇		JOFTRAN Source Fields:		JUFTHAN JobOff.BadgeNo JobOff.PartNum JobOff.OrderNo	
Override	True		<time></time>		<date> <time></time></date>	1
Delineation	Delimiter		<pre><vul> </vul></pre> JobOff.BadgeNo			
Delimiter			JobOff.OrderNo JobOff.PartNum			
Padding Character			JobOn.BadgeNo			
Padding Direction			JobOn.PartNum			
Length	10					
Formatting	MM-DD-YYYYY					
ASCII Convert						
Convert Bytes				<<		
]

To adjust Time properties for the JOF_Tran transaction

- 1. Highlight <TIME> in the Transaction Fields list.
- 2. Double-click to set Override = True.
- 3. Double-click to set Delineation = Length.
- 4. Choose the HH:MM:SS Formatting option (eight characters).
- 5. Check the Time properties result with the next illustration.

Object Manager		Transaction Editor			x
Object List Trans: JOF_Tran Set Properties and Action <time></time>	y s for TransField: <↑	Constant Value: JOFTRAN Source Fields:] >	Transaction Fields: JOFTRAN JobOff.BadgeNo JobOff.PartNum JobOff.OrderNo]
Override	True	<time> <void></void></time>		<date> <time></time></date>	
Delineation	Length	JobOff.BadgeNo JobOff.OrderNo	>		
Padding Character		JobOrr. ParcNum JobOn. BadgeNo JobOn. OrderNo			
Padding Direction		JobOn.PartNum			
Length	8				
Formatting	HH:MM:SS				
ASCII Convert					
Convert Bytes					
		1			

To adjust Transfer Direction for the JOF_Tran transaction

1. Click the small ^ button to make the JOF_Tran (parent screen) active again, as illustrated next. Notice the Transfer Direction property.

Object Manager		<u> </u>	Transaction Editor		×
Object List Trans: JOF Tran		-	Constant Value:		Transaction Fields:
Set Properties and Action JOF_Tran	ns for Trans:		JOFTRAN Source Fields:		JOFTRAN JobOff.BadgeNo JobOff.PartNum JobOff.OrderNo
Name	JOF_Tran	-	(TIME)		<time></time>
Transfer Direction	To Network		JobOff.BadgeNo		
Delineation	Delimiter		JobOff.OrderNo JobOff.PartNum		
Delimiter	,		JobOn.BadgeNo JobOn OrderNo		
Timeout	60000		JobOn.PartNum		
Padding Character					
Padding Direction					
Message					
Transmit Batch?	Try Before Tra	ansa		~~	
	K (Timeout /				

- 2. Click in the Transfer Direction property and click its small button to bring up the Transaction Direction Editor.
- 3. In this tutorial exercise, both JON_Tran and JOF_Tran transactions go into the same output file. Change the Destination from the Port option (showing "Network") to the File option, and name the same drive and file that you named for the JON_Tran transaction in Task 8, as shown in the next illustration. Click OK to close the Transaction Direction Editor dialog box.

Object Manager		Transaction Editor	X
Object List		Constant Value' Transaction Fields'	
Trans: JOF_Tran		Transaction Direction Editor	
Set Properties and Actio JOF_Tran	ns for Trans:	Please choose transaction direction and source or destination below. f.DratNum f.OrderNo	
Name	JOF_Tran	Direction E>	
Transfer Direction	To Network	C Transaction <u>F</u> rom © Transaction <u>T</u> o	
Delineation	Delimiter	Source/Destination	
Delimiter		CPort Network	
Timeout	60000		
Padding Character			
Padding Direction		C Field	
Message			
Transmit Batch?	Try Before Tr	a 🗸 <u>O</u> K 🗙 <u>C</u> ancel 孝 <u>H</u> elp	
Properties (Success (N/	AK (Timeout /		



Note: Later, when the program is run, there should be one JOTRAN (Job On) transaction for a specific job, followed by that job's JOFTRAN (Job Off) transaction. These will be followed by other pairs of JOTRAN and JOFTRAN transaction records as further jobs are finished. (See Chapter 5 for example output.)

4. You have completed Task 9. Save your file, and continue with Task 10.

Task 10: Finishing the Transactions

Before you can build and test your program, there is a little bit more work to do for both the Job On Screen and Job Off Screen that relates to the JON_Tran and JOF_Tran transactions that you just created.

As your program stands right now, the user will enter or scan the Badge ID Number, the Part Number, and the Order Number, in that order. The program still needs to be told that upon exiting the scan (or entering the last keystroke) of the Order Number (the last data field), all the gathered information must be packaged by the transaction and sent to the file.

To finish the Job On Transaction

Object Manager			Vie w port		
Object List					
Screen: JobOn		-		Tab Or	
Set Properties and Activ JobOn	ons for Screen:	< ^		100 doc	
Name	JobOn		Badge		
Comments					
Follow Cursor	False		Dent		
Viewport Size	16×20		Part		
Viewporting On	False				
Wrap at Edge	True		Order		
Message Line	50				
Message Display T	īn				
	in Exit/				

1. From the Object List, choose the Job On screen, as illustrated next.

2. In the Viewport, double-click the shaded data field labeled "Order." You should have the same result as illustrated next.

Object Manager			Vie	wport		
Object List			ſ			
Screen: JobOn		-			Job Op	
Set Properties and Action: JobOn.OrderNo	s for Field:	< ^			000 01	
Name	OrderNo	_		Badge		
Comments						
Display Attribute	INVERSE			- ·		
Row	10			Part		_
Column	9					
Length	9			Order	•	- U
Data Type	String					
Formatting						
Mask/Picture Clause						
	Entry (On Exit /	<u> </u>				

- 3. Notice the tabs at the bottom of the Object Manager window. The Properties tab is currently shaded (highlighted), as illustrated above. Click the On Exit tab, and the Validation dialog box will be presented to you.
- 4. In the Validation dialog box, click the (blank) Do Transaction property, then click the property's down arrow to see the two options, JOF_Tran and JON_Tran, as illustrated next.

Object Manager 📃 🛛	Vie	ewport		
Object List	, [
Screen: JobOn 🗸			Tab On	
Set Properties and Actions for Field: JobOn.OrderNo			565 OI	
Comments		Badge		
Logic Selection		-		
File Setup		Deet		
Found in File		Part		
Found in List				
Process		Order	•	
Do Transaction				
User Function JOF Tran JON_Tran				
Validation (On Val Fail (On Val Succeed / Properties (KeyPress (On Entry) On Exit /	-			



5. Choose the JON_Tran option for the Do Transaction property, as illustrated next. This tells EZBuilder that, when the user exits the Order data field, you want the program to generate a Job On transaction.

Note: In other words, when the user of your program finishes the scan or entering of the Order data, an output record is sent to the file. The record will start with the JOTRAN identifier to indicate it is a Job On Transaction. The record will also contain the Badge, Part, and Order data as well as Date and Time of transaction. (See Chapter 1 for an illustration of this process; see Chapter 5 for example data.)



To finish the Job Off Transaction

Note: These steps are similar to what you just did for the Job On screen. Refer back to the previous steps if you want illustrations of each step.

- 1. From the Object list, choose the Job Off screen.
- 2. In the Viewport, double-click the shaded data field labeled "Order."
- 3. At the bottom of the Object Manager window, click the On Exit tab to get the Validation dialog box.
- 4. In the Validation dialog box, click the (blank) Do Transaction property, then click the property's down arrow to see the two options, JOF_Tran and JON_Tran.
- 5. Choose the JOF_Tran option for the Do Transaction property, as illustrated next. This tells EZBuilder that, when the user exits the Order data field, you want the program to generate a Job Off transaction.

Note: In other words, when the user of your program finishes the scan or entering of the Order data, an output record is sent to the file. This record will start with the JOFTRAN identifier to indicate it is a Job Off Transaction. The record will also contain the Badge, Part, and Order data as well as Date and Time of transaction. (See Chapter 1 for an illustration of this process; see Chapter 5 for example data.)

Object Manager			Vie	wport		
Object List			Г			
Screen: JobOff		-			Tob Off	
Set Properties and Action: JobOff.OrderNo	s for Field:	< ^			000 011	
Comments				Badge		
Logic Selection						
File Setup				- ·		_
Found in File				Part		_
Found in List						
Process				Order	•	- U
Do Transaction	JOF_Tran					
User Function						
Validation (On Val Fail (Or Properties (KeyPress (On	n Val Succeed / Entry <u>\On Exit</u> /					

6. You have completed Task 10. Save your file. Continue with Task 11.

Task 11: Creating the CopyBadge Transaction

Note: This Task is optional, but it presents a good way you can save some user time when running this type of application. We recommend you complete this task.

To review the tutorial application: Upon starting a new job, the user scans a bar code or enters the letters "SFCLBR" (Start Factory Labor). This input data tells the terminal that a JobOn transaction is started and automatically sends the JOTRAN constant value into the JON_Tran Transaction Fields list.

The user then enters or scans the other Job On transaction data—the Badge ID Number, Part Number, and Order Number—in that order.

Following that, the job activity is performed by the user.

Upon ending the job, the user scans a bar code or enters the letters "EFCLBR" (End Factory Labor). This input data tells the terminal that a JobOff transaction is started and automatically sends the JOFTRAN constant value into the JOF_Tran Transaction Fields list. The user again enters or scans the (same) Badge ID Number, Part Number, and Order Number data, in that order.



Notice that for this tutorial exercise, with the exception of the SFCLBR and EFCLBR codes, the same three data fields are entered and scanned twice—at the start of a job and at the end of a job.

Suppose the same three data fields were automatically entered at the end of the job? The user saves time, having to only enter or scan the EFCLBR at the end of the job to generate the Job Off transaction. Not only does it save time, but it ensures accuracy as well—especially if data is keyed in by the worker.

This task will show you how to accomplish the automatic copying of data from one field (JobOn.BadgeNo) into another field (JobOff.BadgeNo). To save tutorial time, we will show you how to create only the CopyBadge transaction. You can apply the same methodology to create CopyPart and CopyOrder transactions, if you want.

To create the CopyBadge Transaction

- 1. From the Object List, choose the JobOn screen.
- 2. In the Viewport, double-click on the shaded BadgeNo data area to select it (get its handles) and to see its properties, as illustrated next.

Object Manager			Vie	ewport			_ 🗆 ×
Object List			ſ				
Screen: JobOn		•			Tah	0.5	
Set Properties and Action JobOn.BadgeNo	ms for Field:	< ^			000	011	
Name	BadgeNo	_		Badge	•		•
Comments							
Display Attribute	INVERSE						
Row	4			Part			_
Column	9						
Length	10			Order			
Data Type	String						_
Formatting							
Mask/Picture Claus	e						
	In Entry (On Exit /	<u> </u>					

- 3. At the bottom of the Object Manager window, click the On Exit tab.
- 4. On the Validation page, type "CopyBadge" in the Do Transaction property, as illustrated next. Do not end the entry yet; leave your cursor in the Do Transaction property field (see next step).

Dbject Manager 📃 🗖	🔀 Vi	ewport		
Object List	_			
Screen: JobOn	-		Tab Or	
Set Properties and Actions for Field:			JOD UN	-1
Comments		Badge	•	•
Logic Selection				
File Setup		Deet		_
Found in File		Part		_
Found in List				
Process		Order		
Do Transaction CopyBadge	┓			_
User Function				
Validation On Val Fail On Val Succeed				

5. Without first ending the entry, double-click on the "CopyBadge" text you just typed as the Do Transaction property. The CopyBadge transaction will be created (and shown in the Object List), and you will see the CopyBadge transaction properties in the Object Manager and the Transaction Editor dialog box, as illustrated next.

Object Manager	l	- - ×	Transaction Editor	X
Object List			Constant Value:	Transaction Fields:
Trans: CopyBadge		-		
Set Properties and Action	ns for Trans:	< ^		
CopyBadge			Source Fields:	_
Name	CopyBadge		<date> <time></time></date>	
Transfer Direction	To Network		<void> JobOff.BadgeNo</void>	
Delineation	Delimiter		JobOff.OrderNo JobOff.PartNum	
Delimiter			JobOn.BadgeNo JobOn.OrderNo	
Timeout	60000		JobOn.PartNum	
Padding Character				
Padding Direction				
Message				
Transmit Batch?	Try Before Tra	nsa		<<
	K (Timeout/			

Note: The constant value, JOFTRAN, will show in the Constant Value area (as previously illustrated) if you have continued your tutorial exercise without exiting at any time since entering that value. The Constant Value, like some other values, is a temporary value that is not saved when you exit EZBuilder. Therefore, some of



your screens may look slightly different because you will not see the temporary values on your screen unless you work straight through the exercise—as was done to capture the screen pictures for this document. Also, do not let the Constant Value "JOFTRAN" confuse you. The Constant Value is not part of the transaction you are now defining; only those objects you move into the Transaction Fields list become part of the current transaction you are defining.

- 6. In the Source Fields list, double-click JobOn.BadgeNo to move it to the Transaction Fields list.
- 7. Click the Transfer Direction property which has the default To Network, as illustrated next. See its small button with the three dots.

Object Manager		Transaction Editor		×
Object List		Constant Value:		Transaction Fields:
Trans: CopyBadge	<u> </u>			JobOn BadgeNo
Set Properties and Actior CopyBadge	is for Trans: <	Source Fields:		voboli.bddgene
Name	CopyBadge 🔺	<time></time>		
Transfer Direction	To Network	<void> JobOff.BadgeNo</void>		
Delineation	Delimiter	JobUlt.UrderNo JobOff.PartNum		
Delimiter	,	JobOn.BadgeNo JobOn OrderNo		
Timeout	60000	JobOn.PartNum	<u> </u>	
Padding Character				
Padding Direction				
Message				
Transmit Batch?	Try Before Transa		<<	
	K/(Timeout/			

- 8. Click the Transfer Direction property's small button with the dots to get the Transaction Direction Editor dialog box. This is where you tell EZBuilder where you want to automatically send the JobOn.BadgeNo data.
- 9. In the Transaction Direction Editor dialog box, choose the Destination option "Field." From the drop-down list for that option, choose the JobOff.BadgeNo field, as illustrated next.

Dbject Manager		Transaction Editor	×
Object List		Constant Value: Transaction Fields:	
Trans: CopyBadge		Transaction Direction Editor	
Set Properties and Actions for Trans: CopyBadge		Please choose transaction direction and source or destination below.	
Name	CopyBadge	Direction	
Transfer Direction	To Network	C Transaction From © Transaction <u>T</u> o	
Delineation	Delimiter	Source/Destination	
Delimiter	,	CPort Network	
Timeout	60000		
Padding Character			
Padding Direction		♥ Field JobOff.BadgeNo	
Message			
Transmit Batch?	Try Refore Trz	z 🗸 <u>O</u> K 🗙 <u>C</u> ancel 🧖 <u>H</u> elp	
	K (Timeout /	·	

10. Click OK to close the Transaction Direction Editor dialog box. Check your Transfer Direction property result with the next illustration.

Object Manager		Transaction Editor			×
Object List		Constant Value:		Transaction Fields:	
Trans. Copybauge		JOFTRAN	>	JobOn.BadgeNo	9
Set Properties and Action CopyBadge	is for Trans: 🔍 🐴	Source Fields:	1		
Name	CopyBadge 🔺				
Transfer Direction	To JobOff.BadgeN	JobOff.BadgeNo			
Delineation	Delimiter	JobOff.OrderNo JobOff.PartNum			
Delimiter	,	JobOn.BadgeNo JobOn.OrderNo			
Timeout	60000	JobOn.PartNum			
Padding Character					
Padding Direction					
Message					
Transmit Batch?					
	K/Timeout/				

11. Highlight the Delimiter property (the comma) and delete it, as illustrated next.



Object Manager		Transaction Editor	ĺ	×
Object List Trans: CopyBadge		Constant Value:	Transaction Fields:	
Set Properties and Action CopyBadge	ns for Trans: <	JOFTRAN Source Fields:	JobOn.BadgeNo	
Name	CopyBadge	<time></time>		
Transfer Direction	To JobOff.BadgeN	JobOff.BadgeNo		
Delineation	Delimiter	JobOff.OrderNo JobOff.PartNum		
Delimiter		JobOn.BadgeNo JobOn OrderNo		
Timeout	60000	JobOn.PartNum		
Padding Character				
Padding Direction				
Message				
Transmit Batch?	•			
	K/Timeout/			

Note: With the above method, when the user selects the Job On transaction from the Main Menu and enters the Badge ID Number into the JobOn.BadgeNo field, that data is automatically entered into the Job Off transaction's JobOff.BadgeNo field as well. If desired, you could also code Part Number and Order Number data to also automatically move from the JobOn data fields to their corresponding JobOff data fields.

There is one important thing to clean up. The copying occurs when the user enters data on the JobOn screen. However, when the user goes to the JobOff screen, the default is to clear all fields from a previous JobOff transaction (as typically desired). You must now go back to the Job Off screen and tell EZBuilder to stop that automatic clearing of the JobOff.BadgeNo data because you want it saved. The next few steps take care of that process for Badge ID Number data. However, if you have also coded Part Number and Order Number to be automatically entered into the JobOff transaction, you will want to do these next few steps for those fields as well.

12. From the Object List, go to the JobOff screen, as illustrated next.

)bject Manager		- - ×	Vie	ewport		
Object List						
Screen: JobOff		-			Tab Off	
Set Properties and Actio JobOff	ons for Screen:	< ^				-1
Name	JobOff			Badge		
Comments						
Follow Cursor	False			D 1		_
Viewport Size	16×20			Part		
Viewporting On	False					
Wrap at Edge	True			Order		
Message Line	50					_
Message Display T	іп					
NProperties On Entry O	n Exit/					

13. In the Viewport, double-click to select the Badge data field, as illustrated next.

Object Manager		- - ×	Vi	ewport		_ D ×
Object List						
Screen: JobOff		•			Tab Off	
Set Properties and Action JobOff.BadgeNo	s for Field:	< ^			300 011	
Name	BadgeNo	_		Badge		•
Comments				_		
Display Attribute	INVERSE					
Row	4			Part		_
Column	9					
Length	10			Order		
Data Type	String					
Formatting						
Mask/Picture Clause						
	1 Entry <u>(On Exit</u> /	_				

14. In the Object Manager, scroll down to near the bottom and locate the Clear on Screen Entry property. See the default is True, as illustrated below.

Object Manager			View	port			
Object List							
Screen: JobOff		-	Г		T - 1	055	
Set Properties and Action JobOff.BadgeNo	s for Field:	< ^	L		dou	OII	-
Set Case	No Change]]	Badge	•		•
Display Only	False						
Exit on Full	True			D +			_
Visible	True		1	Part			_
Clear on Screen Entr	True						
Insert/Overstrike?	0verstrike M	ode		Drder			
Valid Prefixes							
Prefix Required	None						
Strip Prefix	False						
	Entry (On Exit /	Ţ					

15. Double-click to change the Clear on Screen Entry property from True to False, as illustrated below.

Object Manager	-		Vie	wport		<u>- ×</u>
Object List			Г			
Screen: JobOff					Tab Off	
Set Properties and Action JobOff.BadgeNo	s for Field:				110 400	
Set Case	No Change			Badge		
Display Only	False					
Exit on Full	True			.		_
Visible	True			Part		_
Clear on Screen Entr	False	■				
Insert/Overstrike?	Overstrike Mode	.		Order		
Valid Prefixes						_
Prefix Required	None					
Strip Prefix	False					
	Entry (On Exit /	•				

Note: Repeat Steps 13 through 15 for Part and Order data fields if you had coded EZBuilder to automatically move their JobOn transaction data into the JobOff transaction fields.

16. You have finished Task 11. Save your file. Continue with Task 12.

Task 12: Creating "Toggle Screen" Capability

Note: This is an optional task for this tutorial.

The way the application is currently coded, the user views your Main Menu and presses F2 to go to the JobOn screen where data is captured at the start of a job. Then, the user presses Esc to return to the Main Menu where F3 can be pressed to take the user to the JobOff screen so data can be captured at the end of the job.

To make it more convenient for the user, this optional task will code your application so the user can go straight to the JobOff screen from the JobOn screen (without having to first return to the Main Menu), and also the user can go back to the JobOn screen straight from the JobOff screen. This is called "toggling between" or "chaining of" screens.

To create toggle capability from JobOff to JobOn screen

- 1. From the Object List, go to the JobOff screen.
- 2. In the Viewport, double-click to select the Order data field, as illustrated next.

Object Manager			Vie	ewport			
Object List							
Screen: JobOff		•			Joh	OFF	
Set Properties and Action JobOff.OrderNo	ns for Field:	< ^			000	011	_
Name	OrderNo	<u> </u>		Badge			
Comments							
Display Attribute	INVERSE			Deel			_
Row	10			Part			_
Column	9						
Length	9			Order	•		- H
Data Type	String						_
Formatting							
Mask/Picture Clause	;						
	n Entry (On Exit /	<u> </u>					

- 3. At the bottom of the Properties and Actions area, choose the On Exit tab, then choose the On Val Succeed tab.
- 4. Click to highlight the Navigation Choice property, as illustrated next.

Object Manager		- - ×	Vie	wport			<u> </u>
Object List			Г				
Screen: JobOff		•			Tah	<u> </u>	
Set Properties and Action JobOff.OrderNo	s for Field:	< ^			400	011	
Comments				Badge			
Message							
Веер	<success></success>			D +			_
File Setup				Part			_
Process							
Do Transaction				Order	•		- L
User Function							
Navigation Choice	<next field=""></next>						
Validation (On Val Fail) Properties (KeyPress (On	n Val Succeed/ Entry <u>\On Exit</u> /						

- 5. Click the Navigation Choice property's small button with the three dots to bring up the Navigation Selection dialog box.
- 6. In the Navigation Selection dialog box, select the Go to Field option and choose the JobOn.BadgeNo field from the drop-down list, as illustrated next.

Object Manager		Viewport
Object List		Navigation Selection
Screen: JobOff		
Set Properties and Actions for Field:		C <u>N</u> ext Field
JobOff.OrderNo	o for field.	C <u>C</u> urrent Field
Comments		C Previous Field
Message		. ● <u>G</u> o to Field JobOn.BadgeNo ▼
Веер	<success></success>	C Call Screen
File Setup		C <u>R</u> eturn From Call
Process		
Do Transaction		© Next Field
User Function		C Current Field
Navigation Choice	<next field=""></next>	C Return From Call
Validation (On Val Fail) Properties (KeyPress (On	n Val Succeed/ Entry <u>\On Exit</u> /	✓ OK X Cancel ? Help

7. Click OK to close the Navigation Selection dialog box.

To create toggle capability from JobOn to JobOff screen

- 1. From the Object List, go to the JobOn screen.
- 2. In the Viewport, double-click to select the Order data field.
- 3. At the bottom of the Properties and Actions area, choose the On Exit tab, then choose the On Val Succeed tab.
- 4. Click to highlight the Navigation Choice property.
- 5. Click the Navigation Choice property's small button with the three dots to bring up the Navigation Selection dialog box.
- 6. In the Navigation Selection dialog box, select the Go to Field option and choose the JobOff.BadgeNo field from the drop-down list, as illustrated next.

Object Manager		Viewport	×
Object List		Navigation Selection	
Screen: JobOn			
Set Properties and Actions for Field:		C <u>N</u> ext Field	
JobOn.OrderNo		C <u>L</u> urrent Field	
Comments		C Previous Field	
Message		⊙ <u>G</u> o to Field JobOff.BadgeNo ▼	
Веер	<success></success>	C Call Screen	
File Setup		C <u>R</u> eturn From Call	
Process			
Do Transaction		O Next Field	
User Function		O Current Field	
Navigation Choice	<next field=""></next>	C Return From Call	
Validation (On Val Fail) Properties (KeyPress (On	n Val Succeed/ Entry <u>\On Exit</u> /	✓ OK X Cancel ? Help	

- 7. Click OK to close the Navigation Selection dialog box.
- 8. You have completed Task 12. Save your file.

Chapter Summary

This chapter gave you exercises in creating transactions. It included the creation of Job On, Job Off, and CopyBadge transactions. You also learned how to format the system date and time for automatic date and time stamps, and you learned how to transfer the collected data to a disk file. You also learned how to transfer input data entered on one transaction (JobOn.BadgeNo) into another transaction's field (JobOff.BadgeNo) to be saved for output.

In addition, if you chose to do the optional Task 12, you also learned how to code the capability of toggling transactions; if so, be sure to test this capability during your testing process in Chapter 5.

The EZBuilder components covered up to this point in the tutorial are shaded in the next illustration. You now have finished everything you need to have EZBuilder generate your application program

When you are ready to build and test your application program, continue with Chapter 5. If you want, you can use the example data output provided in Chapter 5. Also, Chapter 5 provides information regarding downloading your application program to the terminal.



Tutorial Exercise Summary

EZB.005