



DS0655

Advanced Automated Data Collection



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Problem Definition

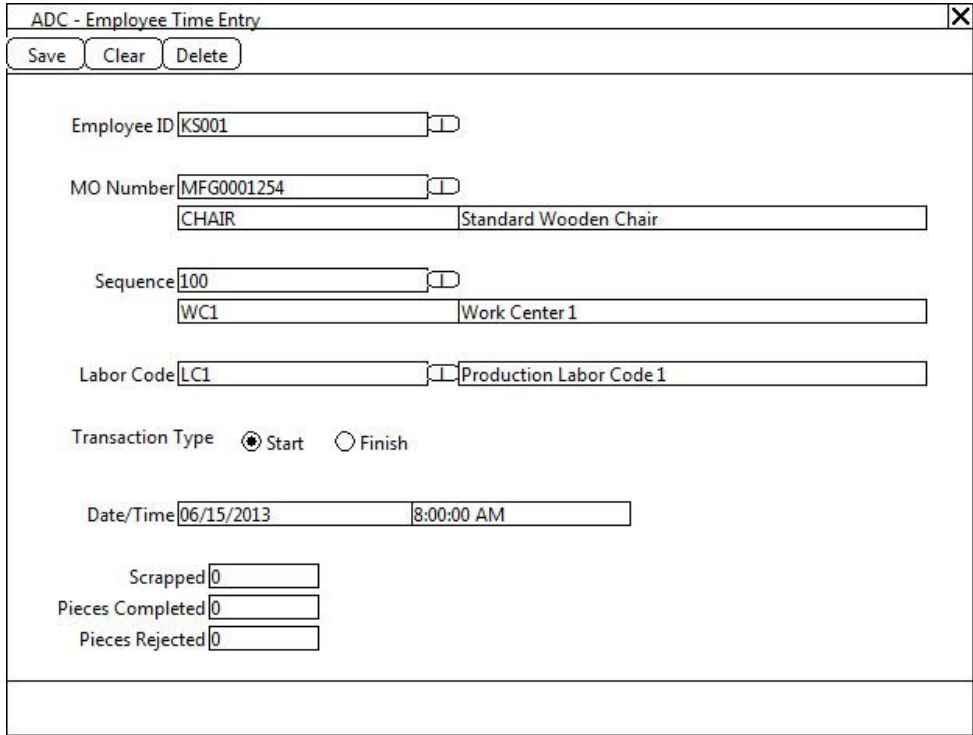
<i>Problem Definition</i>	CCDA
<p>ACME Co. is a leading manufacturer of custom engineered mechanical seals and welded metal bellows. ACME has a full line of component and cartridge seals that have been sealing the industry's most basic and challenging applications for over 30 years.</p> <p>ACME utilizes Dynamics GP as its ERP system. Employee labor time is tracked per Manufacturing Order sequence and entered into the system through the Automated Data Collection window. ACME requires the ability to view all labor transactions for a Manufacturing Order Sequence and update and correct those Employee labor records prior to submitting them.</p>	



Solution Overview

<i>Solution Overview</i>	CCDA
Please see the section entitled Design Features below.	

Design Features

Data Collection	CCDA
<p>Navigation: Transactions→Manufacturing→ADC Time Entry</p> <p>This window is used to enter Employee Labor Time against Manufacturing Order Sequences.</p> <div data-bbox="306 570 1272 1300">  </div>	

Field	Function
Save Button	Select the SAVE button to save the Time Entry record.
Clear Button	Select the CLEAR button to clear the Time Entry record.
Delete Button	Select the DELETE button to DELETE the entry.
Employee ID	Enter or select the Employee ID from the lookup.
MO Number	Enter or select the MO Number from the lookup.
Sequence	Enter or select the Sequence number from the lookup.
Labor Code	Enter or select a Labor Code from the lookup. The Labor Code will default to the MO Routing Sequence's Labor Code.
Transaction Type Radio Button	Select an option from the RADIO button. Options include START and FINISH.
Date/Time	Enter the Date and Time of the Start or Finish transaction.
Scrapped	This field is for reference only and is only editable during a Finish transaction. Enter the quantity scrapped.
Pieces Completed	This field is for reference only and is only editable during a Finish transaction. Enter the pieces completed.
Pieces Rejected	This field is for reference only and is only editable during a Finish transaction. Enter the pieces rejected.

The ADC – Employee Time Entry window is meant to replace the Automated Data Collection window within Dynamics GP while looking and functioning similarly. The window can be used to enter Direct Labor transactions only without the use of an ADC Device ID.

When the user enters the window, they will enter or select an Employee ID from the lookup.

The user will then enter or select and MO from the lookup. The MO's Item Number and Item Description will appear underneath the MO Number.

The user will then enter or select the Sequence Number from the lookup. The Work Center ID and Work Center description will populate underneath.

The Labor Code assigned to the Manufacturing Order's Routing Sequence will auto-populate. The user may update the Labor Code, if desired.

The Transaction Type Radio Button will function in the following manner:

- If a Start Transaction has NOT already been entered for the Employee ID, MO Number, and Sequence combination, the Radio Button will be set to Start. The Date/Time field's Date will auto-populate with the current date. No time will default.
- If a Start Transaction HAS already been entered for the Employee ID, MO Number, and Sequence combination, the Radio Button will be set to Start. The Date/Time date and time will auto-populate with the previously entered Start Date and Time. The Time field will appear with a green dot as a visual indicator. The user may do one of the following:
 1. Update the Start Date and Time, if necessary, and save the updated transaction.
 2. Switch the Radio Button to FINISH and enter the corresponding Finish Date and Time.

If the Start Date/Time and Finish Date/Time combination is GREATER THAN 24 hours, the user will be warned of the condition and unable to continue. The warning prompt will read:

"The time entered per transaction cannot be greater than 24 hours. Please re-enter the correct amount of time."

If the Start Date/Time and Finish Date/Time combination is LESS THAN 24 hours, the user will select the SAVE button to save the transaction.

When the SAVE button is clicked on a FINISH transaction, the ADC Transaction Review window will open. Please see the next section marked ADC Transaction Review below.

PLEASE NOTE: The following functionality has been removed as it is not required:

- Ability to track Labor Setup Time separate from Labor Time
- Ability to alter the Pay Code
- Ability to track ADC Device ID
- Ability to view Job Number

Controls

- Should a user try to select a Manufacturing Order number and Sequence that had previously been marked as Done, the user will be prompted to reopen the Sequence.
- Should a user try to select a Manufacturing Order number which is marked as Complete, the

user will be warned of the condition and allowed to continue.

- Should a user try to select a Manufacturing Order number which is marked as Closed, Hold, Quote/Estimate, Open or Cancelled, the user will be warned of the condition and unable to continue.

ADC Transaction Review	CCDA																																																							
<p>Navigation: Transactions→Manufacturing→ADC Transaction Review OR Transactions→Manufacturing→ADC Time Entry→ SAVE button on Finish Transaction</p> <p>This window is used to review and update Employee Labor Time against Manufacturing Order Sequences.</p> <div style="border: 1px solid black; padding: 5px;"> <div style="border-bottom: 1px solid black; padding-bottom: 5px;"> X ADC Transaction Review </div> <div style="padding: 5px;"> Done Clear </div> <div style="padding: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">MO Number</td> <td style="width: 25%; border: 1px solid black;">MFG0001254</td> <td style="width: 10%; text-align: center;"> <input type="button" value="↔"/> </td> <td style="width: 20%; border: 1px solid black;">CHAIR</td> <td style="width: 20%; border: 1px solid black;">Standard Wooden Chair</td> </tr> <tr> <td>Sequence</td> <td style="border: 1px solid black;">100</td> <td style="text-align: center;"> <input type="button" value="↔"/> </td> <td style="border: 1px solid black;">WC1</td> <td style="border: 1px solid black;">Work Center 1</td> </tr> </table> </div> <div style="padding: 5px;"> <table border="1" style="width: 100%; border-collapse: collapse; text-align: left;"> <thead> <tr> <th style="width: 15%;">Employee ID</th> <th style="width: 10%;">Labor Code <input type="button" value="↔"/></th> <th style="width: 10%;">Trans Type</th> <th style="width: 10%;">AC Date</th> <th style="width: 10%;">AC Time</th> <th style="width: 10%;">Trans Hours</th> <th style="width: 10%;">Pieces Completed</th> </tr> </thead> <tbody> <tr> <td>KS0001</td> <td>LC1</td> <td>Start</td> <td>06/10/2013</td> <td>8:00:00AM</td> <td></td> <td></td> </tr> <tr> <td>KS0001</td> <td>LC1</td> <td>Finish</td> <td>06/10/2013</td> <td>1:00:00PM</td> <td>5.00</td> <td>100</td> </tr> <tr> <td>BK0001</td> <td>LC1</td> <td>Start</td> <td>06/11/2013</td> <td>8:00:00AM</td> <td></td> <td></td> </tr> <tr> <td>BK0001</td> <td>LC1</td> <td>Finish</td> <td>06/11/2013</td> <td>10:15:00AM</td> <td>2.25</td> <td>50</td> </tr> </tbody> </table> </div> <div style="padding: 5px;"> <table style="width: 100%;"> <tr> <td style="width: 20%;">Total Transaction Hours</td> <td style="width: 10%; border: 1px solid black;">7.25</td> <td style="width: 20%; text-align: center;"><input type="button" value="Return to ADC Entry"/></td> <td style="width: 20%; text-align: center;"><input type="button" value="Mark Sequence Done"/></td> <td style="width: 20%; text-align: center;"><input type="button" value="Submit Time Entry"/></td> </tr> <tr> <td>Total Pieces</td> <td style="border: 1px solid black;">150</td> <td colspan="3"></td> </tr> </table> </div> </div>	MO Number	MFG0001254	<input type="button" value="↔"/>	CHAIR	Standard Wooden Chair	Sequence	100	<input type="button" value="↔"/>	WC1	Work Center 1	Employee ID	Labor Code <input type="button" value="↔"/>	Trans Type	AC Date	AC Time	Trans Hours	Pieces Completed	KS0001	LC1	Start	06/10/2013	8:00:00AM			KS0001	LC1	Finish	06/10/2013	1:00:00PM	5.00	100	BK0001	LC1	Start	06/11/2013	8:00:00AM			BK0001	LC1	Finish	06/11/2013	10:15:00AM	2.25	50	Total Transaction Hours	7.25	<input type="button" value="Return to ADC Entry"/>	<input type="button" value="Mark Sequence Done"/>	<input type="button" value="Submit Time Entry"/>	Total Pieces	150				
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<p><input type="button" value="↔"/> = Lookup Button</p>																																																								

Field	Function
Done Button	Select the DONE button to close the ADC Transaction Review window.
Clear Button	Select the CLEAR button to clear the window.
MO Number	Enter or select a Manufacturing Order from the lookup. When the window is accessed from the ADC – Time Entry window, the MO Number will auto-populate.
Sequence	Enter or select a Manufacturing Order Sequence Number from the lookup. When the window is accessed from the ADC – Time Entry window, the Sequence Number will auto-populate.
Employee ID	The Employee ID will display. This field is NOT editable.
Labor Code	The Labor Code will display. This field IS editable.
Trans Type	The Transaction Type will display. This field is a dropdown and IS editable.
AC Date	The AC Date will display. This field IS editable.
AC Time	The AC Time will display. This field IS editable.
Trans Hours	The Total time for the matched Start and Finish Date/Time will display. If a Finish Date/Time has not been entered, this field will appear blank. This field is NOT editable.
Pieces Completed	The Pieces Completed for the matched Start and Finish Date/Time will display. If a Finish Date/Time has not been entered, this field will appear blank. This field IS editable.
Total Transaction Hours	The Total Transaction Hours for the MO Sequence will display. This field is NOT editable.
Total Pieces	The Total Pieces for the MO Sequence will display. This field is NOT editable.
Return to ADC Time Entry Button	Selecting the RETURN TO ADC TIME ENTRY button will return the user to the ADC – Time Entry window. The MO Number and Sequence Number will auto-populate.
Mark Sequence as Done Button	Selecting the MARK SEQUENCE AS DONE button will mark the MO Sequence as complete.
Submit Time Entry	Selecting the SUBMIT TIME ENTRY button will submit any matched unprocessed time. After Time has been submitted, corrections MUST be made through the standard Data Collection Dynamics GP window.

The user may enter the window in two ways:

1. Navigating directly to the window through the Manufacturing Module
2. Selecting the SAVE button on a Finish Transaction from the ADC – Employee Time Entry Windows User

When the window is accessed in the 2nd manner, the MO Number and Sequence will auto-populate, as well as any entered and non-submitted Employee Time Entry Transactions.

The user may review the Manufacturing Order's Sequence Time Entry transactions and, if necessary, update the following fields:

- Labor Code
- Transaction Type
- AC Date
- AC Time
- Pieces Completed

When the user has finished reviewing the MO Sequences Time Entry transactions, the user may:

- Select the DONE button to close the window
- Select the RETURN TO ADC TIME ENTRY button to reopen ADC – Employee Time Entry window. The MO Number and MO Sequence will populate.
- Select the MARK SEQUENCE AS DONE button to mark the sequence as Done. Once the Sequence is marked as Done, standard Dynamics GP functionality surrounding Sequences Marked as Done will apply.
- Select the SUBMIT TIME ENTRY button to submit the unprocessed time. Only Records that are matched, meaning which have a Start and Finish Time less than 24 hours for the same Employee ID, will be submitted. When the user selects the SUBMIT TIME ENTRY button, they will be prompted with the following message if the Sequence has not been marked as Done, "Do you wish to mark the Sequence as Done?" Selecting YES will mark the Sequence as Done. Selecting NO will leave the Sequence as is.

Controls

- Updates to the AC Date and AC Time may not result in any matched set (Start Date/Time &

Finish Date/Time) being greater than 24 hours.

- Users may not enter additional Time Entry transactions through the ADC- Employee Time Entry window for the MO Number and MO Sequence while the ADC Transaction Review window is open for the same MO Number and MO Sequence.
- A Transaction Line may be deleted by selecting the Line Item and navigating to Edit→Delete Row.
- A Sequence will NOT be able to be marked as Done if any unmatched Transaction Records exist.
- After Time has been submitted, corrections MUST be made through the standard Data Collection GP window
- A warning will be placed on the MO Receipt window to warn the user if unprocessed time exists.
- A control will be placed on the MO Close window and the MO Edit Status window (with Close selected) to prevent an MO from being closed if it has unprocessed time.

<i>Assumptions/Requirements</i>	
<ul style="list-style-type: none">• Dynamics GP Manufacturing Routing Sequences must be set up to allow Actual Time Entry for Labor.• Unsubmitted Time Entries will NOT appear in the Standard Dynamics GP reports which detail Time Entries or Pieces Completed, Rejected or Scrapped. Table names can be provided so that data can be combined and analyzed through SRS Reports, SQL views, Smartlist Builder etc.	