



Property of WillowWare Incorporated

**DS0174**

**Recurring Billing**



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## Problem Definition

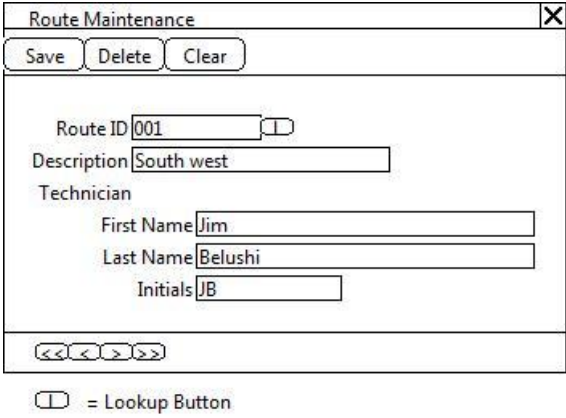
<b><i>Problem Definition</i></b>	<b>CCDA</b>
<p>ACMECO provides inspection and maintenance of fire and safety equipment. A customer signs-on for regular inspections, the frequency of which can vary from one customer to the next, and provides ACMECO with a list of assets that need to be inspected/maintained.</p> <p>Since a customer can have multiple physical locations, ACMECO needs to track the assets and service frequency separately for each location. All assets at one customer location are inspected with the same frequency, so there is one inspection frequency per customer location. For various reasons, the frequency can be changed from time to time (i.e. increasing to more frequent inspections).</p> <p>ACMECO assigns each location to a Route, and Technician is assigned to each Route.</p> <p>Before the start of each month, ACMECO generates all of the work orders for the next two months based on which customer sites have service due during that time period. Currently ACMECO manually reviews each customer record to see if service is due, then creates work orders if needed. Given the time required to perform this task manually, and the large number of such contracts, ACMECO can only maintain about two months of forward planning.</p> <p>This manual process is time-consuming, reduces the amount of forward planning ability, and is open to errors.</p> <p>The primary requirement is to save time, improve planning, and reduce errors by automating work order creation.</p>	



## Solution Overview

<b><i>Solution Overview</i></b>	<b>CCDA</b>
<p>The Recurring Billing module will have two main components.</p> <p>A new Inspection Maintenance window will enable the user to tracks the assets at each customer location, the inspection frequency, and the Route and Technician assigned to the location.</p> <p>A new Work Order Generator window will provide the ability to query the database for all sites needing inspection during a given time-frame, and to automatically generate all of the word orders (Sales Orders) needed to provide those inspections.</p>	

## Design Features

<b>Route Maintenance</b>	<b>CCDA</b>														
<p>A new window will be added to Dynamics GP called Route Maintenance. This window will be used to create and maintain Routes, and assign a Tech to a Route.</p> <p>Navigation: Cards &gt;&gt; Sales &gt;&gt; Route Maintenance.</p> 															
<table border="1"> <thead> <tr> <th>Field</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>Route ID</td> <td>10-character, upper case, alphanumeric field.</td> </tr> <tr> <td>Description</td> <td>Free entry field to provide descriptive information about the Route</td> </tr> <tr> <td>Technician Name</td> <td>First and Last Name are entered by the user</td> </tr> <tr> <td>Initials</td> <td>This field will be limited to 4 upper case characters only. To enforce consistency, no punctuation will be allowed (alpha-only).</td> </tr> <tr> <td>SAVE</td> <td>Save the record</td> </tr> <tr> <td>DELETE</td> <td>Checks if the Route ID is assigned to any Inspection Records (see next section). If it is, the user will be prompted, and will not be allowed to delete the record. Otherwise, the user will be asked to</td> </tr> </tbody> </table>	Field	Function	Route ID	10-character, upper case, alphanumeric field.	Description	Free entry field to provide descriptive information about the Route	Technician Name	First and Last Name are entered by the user	Initials	This field will be limited to 4 upper case characters only. To enforce consistency, no punctuation will be allowed (alpha-only).	SAVE	Save the record	DELETE	Checks if the Route ID is assigned to any Inspection Records (see next section). If it is, the user will be prompted, and will not be allowed to delete the record. Otherwise, the user will be asked to	
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	confirm, and then the record will be deleted.	
CLEAR	Clears the screen without saving changes.	

## Inspection Maintenance

CCDA

Each customer location (Customer Address) can have one Inspection Record. The Inspection Record will store the inspection frequency, route, and a list of the assets at that location.

Navigation: from the Customer Address Maintenance window >> Extras >> Additional >> Inspection Maintenance. Or directly via Cards >> Sales >> Inspection Maintenance.

X
Inspection Maintenance

Save
Delete
Clear

Customer Number

Name

Address ID

Route

Frequency

Month Due

Comments

Item Number	Description	Quantity
100XLG	Computer	1
256SDRAM	Memory	2
WIRE100	Multi-wire	8

Date	Description
12/1/2007	Acquired
3/15/2008	Suspended
8/1/2008	Re-started

= Lookup Button     = Inspection Record Notes

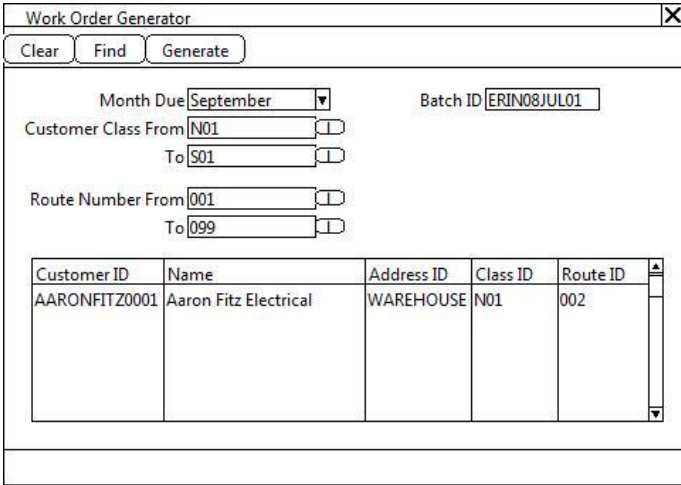
Field

Function

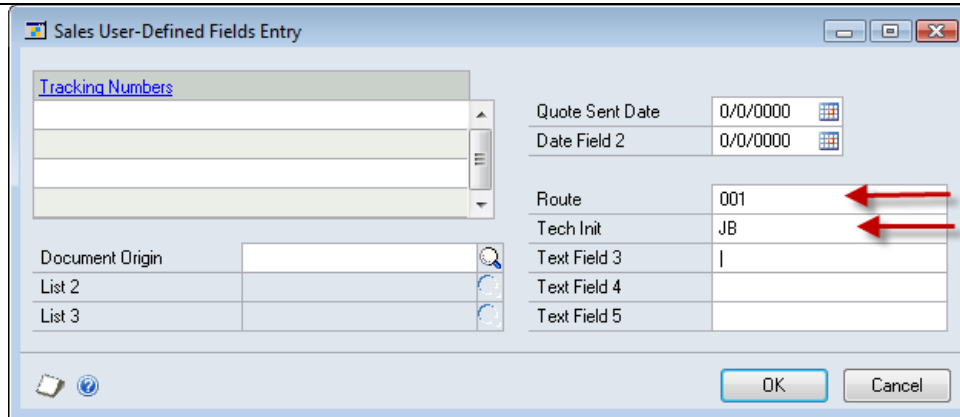
Customer Number	If Inspection Maintenance is opened from the Extras menu on Customer Address Maintenance, the Customer Number and Address ID will populate automatically. The user can also enter the Customer Number or select it from the Lookup.	
Name	Populates automatically. This is not editable.	
Address ID	Fill automatically if opened from Extras. Otherwise user can manually enter and ID or select from a Lookup. The scrolling buttons will allow moving to the Next/Previous Inspection Record for the selected Customer. It does not move through all Addresses for that customer.	
Frequency	Options are: <ul style="list-style-type: none"> <li>• Annual</li> <li>• Semi-Annual</li> <li>• Quarter</li> <li>• Trimester</li> <li>• Month</li> <li>• Never</li> </ul>	
Month Due	<p>Months of the year. This will initially be set by the user, and can always be changed. When Work Orders are generated this field will be incremented to the next Month Due, depending on the frequency setting.</p> <p>For example, the Frequency is Semi-Annual, and the Month Due is September. When Work Orders are generated in August, a Sales Order will be created for this Customer Address, listing all of their Assets as lines on the Order. The system will calculate the next Month Due as March.</p> <p>NOTE: If the user changes the Frequency, the Month due should me set by the user to the correct next Month Due. For example, if the Frequency is Semi-Annual and the Month Due is September, and the current month is July, and the Frequency is changed to Monthly the user should set the Month Due to August (or whenever they want monthly inspections to start).</p>	
Comments	Four 255-character fields for user notes.	
Assets Window	The scrolling window can store an unlimited number of Items. The	



	<p>Items and Quantities here become the Line Items on the Sales Order (Work Order).</p> <p>Item Number can be entered, or selected from a Lookup.</p> <p>Description populates automatically from the Item Master, but can be changed on this window. Changes here do not affect the Item Master.</p> <p>Quantity of the asset at the customer site.</p>	
Customer History window	<p>This scrolling window is used to track relevant dates in the customer history, such as acquired date, or cancelled date. An unlimited number of lines can be entered, The Description provides 255 characters of space to describe the event.</p> <p>When a new Inspection Record is created, the first History record will be automatically added with the description "Date Acquired". The Date will be set to the Created Date from the Customer Address Master.</p>	

<b>Work Order Generator</b>	<b>CCDA</b>										
<p>The Work Order Generator will search Inspection Records for inspections that are due, and automatically create all needed Sales Orders (Work Orders).</p> <p>Navigation: Transactions &gt;&gt; Sales &gt;&gt; Work Order Generator</p>  <p style="text-align: center;">☐ = Lookup Button</p> <table border="1" data-bbox="191 1078 1270 1357"> <thead> <tr> <th>Field</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>Month Due</td> <td>User Selects the Month Due for which they want to generate Work Orders</td> </tr> <tr> <td>Customer Class Range</td> <td>Optional. If values are provided, a sub-set of due Inspections will be selected based on Customer Class.</td> </tr> <tr> <td>Route Number Range</td> <td>Optional. If values are provided, a sub-set of due Inspections will be selected based on Route.</td> </tr> <tr> <td>Results Window</td> <td>This "list view" window (similar to the Smart List window), will display the results of the search. User can double-click on a line to</td> </tr> </tbody> </table>	Field	Function	Month Due	User Selects the Month Due for which they want to generate Work Orders	Customer Class Range	Optional. If values are provided, a sub-set of due Inspections will be selected based on Customer Class.	Route Number Range	Optional. If values are provided, a sub-set of due Inspections will be selected based on Route.	Results Window	This "list view" window (similar to the Smart List window), will display the results of the search. User can double-click on a line to	
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Results Window	This "list view" window (similar to the Smart List window), will display the results of the search. User can double-click on a line to										

	<p>open the Inspection Maintenance record for that location.</p> <p>User can also select a line, and delete it. This removes the record from the display, but does not affect the actual Inspection record.</p>	
CLEAR	Clears all entries and results	
FIND	Executes the search for due Inspections, and populates the results window.	
GENERATE	Prompts the user to confirm they are ready to generate Work Orders, then creates work orders for all of the displayed locations.	
Batch ID	This is not editable. When Sales Orders are created, the system-generated Batch ID will be displayed here. The user will be able to zoom to the batch by clicking on "Batch ID".	
<p><b>Generating Sales Order (Work Orders)</b></p> <p>One Sales Order will be created per Customer Address identified by the Work Order Generator.</p> <p>The Sales Order will be created for the Customer ID and Address ID (Ship To Address) located by the search. The Sales Order that is created automatically by the software will have the same settings you would see if you manually created a Sales Order. For example, the Order's Ship To Address information will default from the Customer's Ship To Address setup—information such as Salesperson, Territory and Tax Schedule ID.</p> <p>As each Sales Order is generated, the "Last Generated Date" on the Inspection Record will be updated. Regardless of the Inspection Frequency and next Month Due, the "Last Generated Date" will provide an backup tracking method to ensure all Inspection Records eventually addressed when auto-creating Work Orders during the year.</p>		



The Route will be populated into the SOP User Defined Text #1, and the Tech Initials into SOP User Defined Text #2.

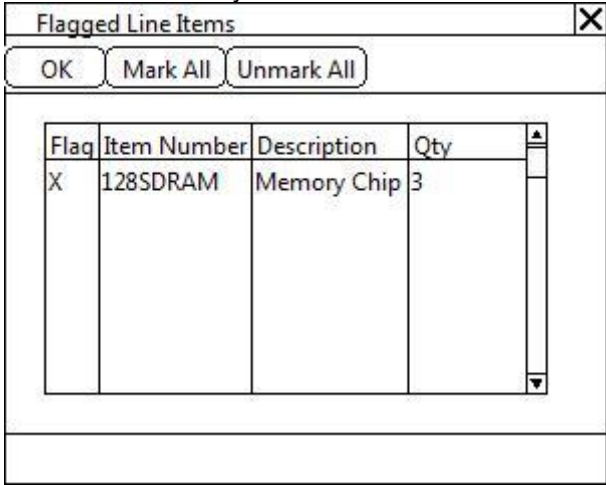
One sales line will be added per Asset from the Inspection Record. The Item Description and Quantity will also be used from the Inspection Record.

It is anticipated that most items will be non “Sales Inventory”, such as Service or Misc.

However, some Sales Inventory type items may be present. When these exist, depending on how the SOP Document Type is configured, the system may attempt to allocate inventory. If enough inventory is not present, those lines will have their Quantity entered into Quantity To Backorder.

The Batch ID will be generated as follows:

- First 4 characters of the User ID
- 2 digit DAY
- 3 character Month
- Incrementing 2 digit number. In the event that a user generates multiple batches in one day, this will increment from 01 to 02, 03, 04, etc.

<b>Flagged Line Items</b>	<b>CCDA</b>
<p>In some cases a tech will identify equipment at the customer site that needs additional service. They will take those items from the customer's site, leave loaners, and bring the equipment back to the shop for service.</p> <p>When the tech initially went to the customer site, they brought the original work order, which lists the items to be serviced. The parts/labor involved in servicing the defective units will be added to the Sales Order. When the tech returns to the customer's site with the repaired items, the Sales Order is printed again, but should show only the additional parts/labor.</p> <p>Flagging line items provides the ability to mark which items have been previously printed, and should not print on the re-print.</p> <p>Navigation: from Sales Transaction Entry &gt;&gt; Extras &gt;&gt; Additional &gt;&gt; Flag Line Items</p>  <p>The order of items in this window will match the scrolling window on Sales Transaction Entry.</p>	

Field	Function
Flag	This is the only editable field. User marks the checkbox of lines they do NOT want to print.
MARK ALL	Marks the Flag box on all lines
UNMARK ALL	Unmarks the Flag box on all lines.
OK	Closes the window.

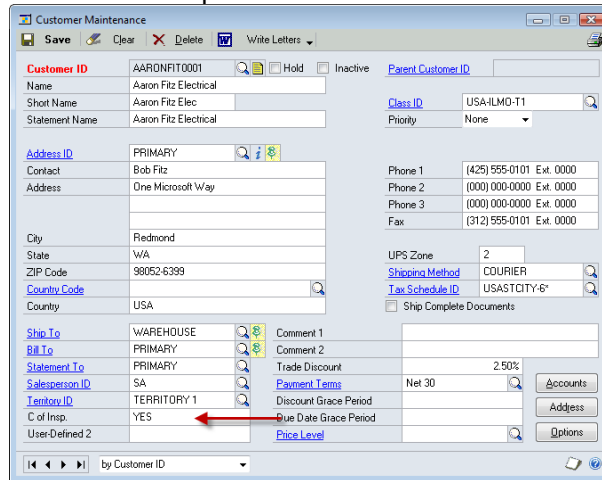
Flagging a line will place the letter “X” (capital X) into the Address 3 field on the flagged SOP Line. This will be used by a modified report to indicate which lines to hide (lines with an X in Address 3 are not shown).

When the Flagged Line Items window opens, it will shows as marked any line that has already been flagged, and allow removing the flag.

## Customer Maintenance

CCDA

The Customer Maintenance User Defined #1 field will be used to indicate whether or not a customer requires a Certificate of Inspection.



The screenshot shows a 'Customer Maintenance' window with the following fields and values:

- Customer ID:** AARONFIT0001
- Name:** Aaron Fitz Electrical
- Short Name:** Aaron Fitz Elec
- Statement Name:** Aaron Fitz Electrical
- Address ID:** PRIMARY
- Contact:** Bob Fitz
- Address:** One Microsoft Way
- City:** Redmond
- State:** WA
- ZIP Code:** 98052-6399
- Country Code:** USA
- Country:** USA
- Ship To:** WAREHOUSE
- Bill To:** PRIMARY
- Statement To:** PRIMARY
- Salesperson ID:** SA
- Territory ID:** TERRITORY 1
- C of Insp:** YES (highlighted with a red arrow)
- User-Defined 2:** YES
- Parent Customer ID:** (empty)
- Class ID:** USA-ILMD-T1
- Priority:** None
- Phone 1:** (425) 555-0101 Ext. 0000
- Phone 2:** (000) 000-0000 Ext. 0000
- Phone 3:** (000) 000-0000 Ext. 0000
- Fax:** (312) 555-0101 Ext. 0000
- UPS Zone:** 2
- Shipping Method:** COURIER
- Tax Schedule ID:** USASTCITY-6\*
- Trade Discount:** 2.50%
- Payment Terms:** Net 30
- Discount Grace Period:** (empty)
- Due Date Grace Period:** (empty)

The window will be modified so that the field only accepts Y, YES, N or NO (if lower case are entered they will be changed automatically to upper case). NOTE: this enhancement will be done with code, rather than a direct window modification, so there will be no changes needed in security, and no impact on future upgrades (or other modifications to this window).

NOTE: The Certificate of Inspection report is not addressed by the Recurring Billing modification. The document will be printed using a modified SOP Blank Packing Slip.

If Y or YES is in the Customer's User Defined #1 field, the Sales Document Print Options window will have the "Packing Slips" checkbox enabled. Otherwise the checkbox will be disabled. Also, the drop-down that shows the different type of Packing Slips will show the

"Blank Paper" option as "Cert. of Insp."

These changes to the Print Options window will only be activated when printing a single document. Batch Printing, or printing from Print Sales Documents will not have the same controls applied.