

# ACME Corporation Mobile Estimator Requirements for Quotation

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**Date:** 3/6/03

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## Executive Overview

ACME Corporation is a small business incorporated in the state of Kansas. ACME Corporation specializes in general contracting solutions and services. ACME Corporation is interested in a developing an software product to provide general contracting tools and services using mobile technology..

Due to the nature of the construction and contracting business, the application must be able be portable by handheld and mobile PC technology. The envisioned solution will also interact with server side ACME Corporation base software for additional services and features.

The primary goal is to utilize this application to improve business efficiency on the job site. The experience to be offered by the ACME Corporation product its customers business lead to an expansion project to provide additional products, add ons, or services.

## Handheld Software Requirements

### Overview

The Handheld Software must have the ability to general estimates, invoices and payments. This will require an application that utilizes screen touch or pen stick selection for each variable as the general contractor performs activities. The Handheld Software will be the initiator to create new records within the base application/data store.

This application will automate the process of creating the Conceptual Renderings found in Appendix A. The use of this cost reference table will determine the pricing to be used in the current estimate form found in Appendix B.

### Requirements

<b>ID:</b> A1	<b>Status:</b> Proposed
<b>Requirement Statement:</b> The Handheld Software will function on handheld PC technology.	
<b>Business Description/Rule:</b> The user must be able to complete all functions and scenarios on work site.	
<b>Change Log:</b> Proposed 03/06/2003	

<b>ID:</b> A2	<b>Status:</b> Proposed
<b>Requirement Statement:</b> All user interface entries must be enabled by a touch screen or pen stick method to select estimation variables.	
<b>Business Description/Rule:</b> The user may not be able to type to make selections of menus, drop down lists, checkboxes, etc.	
<b>Change Log:</b> Proposed 03/06/2003	

<b>ID:</b> A3	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b>	

<b>ID:</b> A4	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/2003	

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<b>ID:</b> A5	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/2003	

<b>ID:</b> A6	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/2003	

<b>ID:</b> A7	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/2003	

<b>ID:</b> A8	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/2003	

<b>ID:</b> A9	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/2003	

<b>ID:</b> A10	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/2003	

<b>ID:</b> A11	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/2003	

<b>ID:</b> A12	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/2003	

<b>ID:</b> A13	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/2003	

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<b>ID:</b> A14	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/2003	

<b>ID:</b> A15	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/2003	

<b>ID:</b> A16	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/2003	

**Invoice Element Matrix**

Element	Variable	Type	Values	Default	Validation
<b>Element X</b>	Variable X	Array	Value List	ND	
	Variable X	Array	Value List	ND	
	Variable X	Boolean	Value List	N	
<b>Element X</b>	Variable X	Array	Value List	ND	
	Variable X	Array	Value List	ND	
	Variable X	Array	Value List	Normal	
<b>Element X</b>	Variable X	Array	Value List	ND	
	Variable X	Array	Value List	ND	
	Variable X	Boolean	Value List	N	
<b>Element X</b>	Variable X	Array	Value List	ND	
	Variable X	Array	Value List	ND	
	Variable X	Boolean	Value List	N	
<b>Element X</b>	Variable X	Array	Value List	ND	
	Variable X	Array	Value List	ND	
	Variable X	Boolean	Value List	N	
<b>Element X</b>	Variable X	Array	Value List	ND	
	Variable X	Array	Value List	ND	
	Variable X	Boolean	Value List	N	
<b>Element X</b>	Variable X	Array	Value List	ND	
	Variable X	Array	Value List	ND	
	Variable X	Boolean	Value List	N	
<b>Element X</b>	Variable X	Array	Value List	ND	
	Variable X	Array	Value List	ND	
	Variable X	Boolean	Value List	N	
<b>Element X</b>	Variable X	Array	Value List	ND	
	Variable X	Array	Value List	ND	
	Variable X	Boolean	Value List	N	
<b>Element X</b>	Variable X	Array	Value List	ND	
	Variable X	Array	Value List	ND	
	Variable X	Boolean	Value List	N	

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## Base Server Application/Data Store Requirements

### Overview

The base application/data store will work with the Handheld Software unit to initiate new records. The remaining data elements required to finish invoices and estimates will be recorded in a traditional client server environment accessed by internet web services. The base application will also have the ability to create new records without input from the Mobile unit and perform, update and delete record. Along with being the detailed record storage for all estimates and invoices, the base application will contain basic security requirements, data export and reporting functionality outlined in the requirements below.

### Requirements

<b>ID:</b> B1	<b>Status:</b> Proposed
<b>Requirement Statement:</b> The base application will accept quote initiation data for a new unique record from the Mobile unit. See Mobile unit element table.	
<b>Business Description/Rule:</b> After the user creating the estimate, the Mobile unit will export the recorded information to the baseline unit.	
<b>Change Log:</b> Proposed 03/06/06	

<b>ID:</b> B2	<b>Status:</b> Proposed
<b>Requirement Statement:</b> The base application will utilize user names and passwords to as a level of security to access the application and track the latest update to an estimate record.	
<b>Business Description/Rule:</b> Each user will have a unique ID in the system.	
<b>Change Log:</b> Proposed 03/06/06	

<b>ID:</b> B3	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/06	

<b>ID:</b> B4	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/06	

<b>ID:</b> B5	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/06	

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<b>ID:</b> B6	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/06	

<b>ID:</b> B7	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/06	

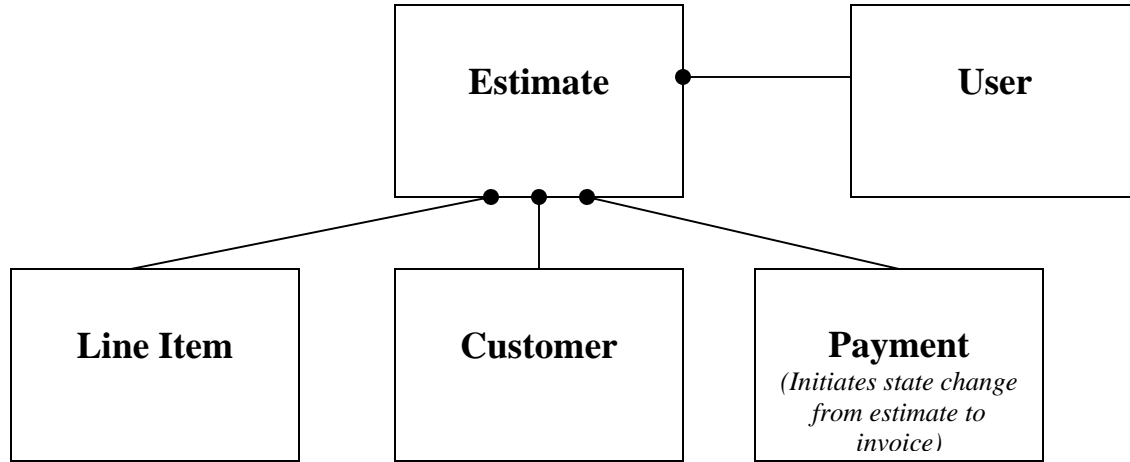
<b>ID:</b> B8	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/06	

<b>ID:</b> B9	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/06	

<b>ID:</b> B10	<b>Status:</b> Proposed
<b>Requirement Statement:</b>	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/06	

### Object Representation

The invoicing process involves 5 objects. The estimate is made up of user, line item, customer, and payment information. The estimate object makes a state change to an invoice as payment information is recorded. Below is a simplistic object diagram.



### Detail Record Layout Data Matrix

Estimate/Invoice Specific Data Matrix

Data Element	Unique	Nullable	Type	Max Length	Comments
Element XXX	Y	N	VARCHAR	20	Comments XXX
Element XXX	N	N	VARCHAR	30	Comments XXX
Element XXX	N	N	DATE	8	Comments XXX
Element XXX	N	N	VARCHAR	15	Comments XXX
Element XXX	N	N	DATE	8	Comments XXX
Element XXX	N	N	VARCHAR	15	Comments XXX
Element XXX	N	N	VARCHAR	15	Comments XXX
Element XXX	N	N	VARCHAR	15	Comments XXX
Element XXX	N	Y	VARCHAR	200	Comments XXX
Element XXX	N	Y	VARCHAR	200	Comments XXX
Element XXX	N	Y	DATE	8	Comments XXX
Element XXX	N	Y	DATE	8	Comments XXX
Element XXX	N	N	NUM	7(2)	Comments XXX
Element XXX	N	N	NUM	7(2)	Comments XXX
Element XXX	N	N	NUM	7(2)	Comments XXX
Element XXX	N	N	NUM	7(2)	Comments XXX
Element XXX	N	N	NUM	7(2)	Comments XXX
Element XXX	N	N	NUM	7(2)	Comments XXX
Element XXX	N	N	NUM	7(2)	Comments XXX
Element XXX	N	N	NUM	7(2)	Comments XXX
Element XXX	N	N	NUM	7(2)	Comments XXX
Element XXX	N	N	NUM	7(2)	Comments XXX
Element XXX	N	N	NUM	7(2)	Comments XXX

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## Printing Records

### Overview

Printing will require two forms of the same detail record. The first form is an estimate print out, which will be required before any work is performed. The second form is an invoice. It is anticipated the same form can be used with the label estimate or invoice changing to designate the state of the detail record. The invoice form is printed as work is completed and accepted by a customer. See Appendix C for a visual conception of the new estimate/invoice.

### Requirements

<b>ID:</b> C1	<b>Status:</b> Proposed
<b>Requirement Statement:</b> After an estimate is recorded in the system. The estimate printout will be created for the customer, which will be labeled Estimate. See Appendix A.	
<b>Business Description/Rule:</b> Each customer will receive a printed estimate.	
<b>Change Log:</b> Proposed 03/06/03	

<b>ID:</b> C2	<b>Status:</b> Proposed
<b>Requirement Statement:</b> After work is completed, the detail record will change state to an invoice record. This will prompt an invoice printout. which will be labeled as Invoice in the heading.	
<b>Business Description/Rule:</b> Each customer receives a printed invoice after work is completed.	
<b>Change Log:</b> Proposed 03/06/03	

<b>ID:</b> C3	<b>Status:</b> Proposed
<b>Requirement Statement:</b> Fields will only appear on the estimate and invoice if the field contained a cost or entry.	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/03	

<b>ID:</b> C4	<b>Status:</b> Proposed
<b>Requirement Statement:</b> The sales tax field will only appear on estimate and invoice printouts, if sales tax is applicable.	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/03	

## Data Export and Reporting Functions

### Overview

There are two main requirements for reporting and data exporting for the application. Firstly, repair companies must be able to receive the estimate printout in an electronic format. Repair contractors will utilize the electronic format to receive a printable version of the estimate. Secondly, ACME Corporation would like to attain statistical analysis capabilities.

### Requirements

<b>ID:</b> D1	<b>Status:</b> Proposed
<b>Requirement Statement:</b> Estimate records shall have the ability to be stored electronically in print out form, so they may be electronic sent and printed.	
<b>Business Description/Rule:</b>	
<b>Change Log:</b> Proposed 03/06/06	

<b>ID:</b> D2	<b>Status:</b> Proposed
<b>Requirement Statement:</b> Multiple estimate records shall have the ability to be stored electronically in print out form, so they may be electronically sent and printed in groups. Estimates will be selectable by date, insurance company and work site. The query results matching the appropriate selection criteria will contain checkboxes to indicate the record should be included in the report.	
<b>Business Description/Rule:</b> Contractors must be able to receive multiple estimates electronically.	
<b>Change Log:</b> Proposed 03/06/06	

<b>ID:</b> D3	<b>Status:</b> Proposed
<b>Requirement Statement:</b> A statistical report will generate the number or estimates created, percentage of estimates that became invoices, and number of invoices with monies outstanding by date, customer, contracting company and work site.	
<b>Business Description/Rule:</b> ACME Corporation, Inc wants the ability to review business statistics of operations and invoices that remain unpaid.	
<b>Change Log:</b> Proposed 03/06/06	

<b>ID:</b> D4	<b>Status:</b> Proposed
<b>Requirement Statement:</b> The base application will be able to archive records by work site. This archiving will remove all records associated to a particular work site to a file that can be transferred to CD.	
<b>Business Description/Rule:</b> The datastore will be kept on a laptop PC. It is anticipated detail records will need to be removed in order to make room for new current work site records. ACME Corporation wants to store these records by work site for historical record keeping.	
<b>Change Log:</b> Proposed 03/06/06	

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## Document Change History

### Change Log

Version	Date Created	Analyst	Changes	Comments
0.1	03/06/03	PWS Project Manager	Draft version created.	

## ***Appendix A – Conceptual Renderings***