



Technical Documentation



Abstract

Accutrac8 is a high-performance and multi-featured record management system designed for medium to large legal and corporate organizations. Accutrac extends its capabilities by use of SQL Server; this records management program provides higher levels of scalability, performance, and a comprehensive platform to manage, track, and re-locate the organization's files and records.



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SYSTEM REQUIREMENTS

Hardware Requirements for Server

Minimum	Recommended
<ul style="list-style-type: none"> Pentium II 500MHz 	<ul style="list-style-type: none"> Pentium III 700MHz or higher Dual processors
<ul style="list-style-type: none"> 256 MB SDRAM 	<ul style="list-style-type: none"> 512MB SDRAM or higher
<ul style="list-style-type: none"> 6*GB Hard Disk Drive 	<ul style="list-style-type: none"> 9GB* SCSI Ultra2/Wide (10,000rpm) Hard Drive
<ul style="list-style-type: none"> 4MB Video Card 	<ul style="list-style-type: none"> 4MB Video Card
<ul style="list-style-type: none"> CD-ROM Drive 	<ul style="list-style-type: none"> CD-ROM Drive
<ul style="list-style-type: none"> 10/100 PCI Ethernet Card (If running over network) 	<ul style="list-style-type: none"> 10/100 PCI Ethernet Card (If running over network)

* Additional disk space may be recommended depending upon size of data

Software Requirement for Server

Minimum	Recommended
<ul style="list-style-type: none"> MS Windows NT 4.0 Server 	<ul style="list-style-type: none"> MS Windows NT 4.0 Server (sp5+) Windows 2000 Server
<ul style="list-style-type: none"> Microsoft SQL Server 6.5 / 7.0 	<ul style="list-style-type: none"> MS SQL Server 7.0 (sp2) MS SQL 2000
<ul style="list-style-type: none"> SYBASE SQL Server 11.9 	
	<ul style="list-style-type: none"> PC Anywhere – For Remote Connecting to server
<ul style="list-style-type: none"> Fonts ** <ul style="list-style-type: none"> Arial Times New Roman Impact 	



Hardware Requirement for Workstation

The following tables outlines the workstation hardware requirements for Accutrac8. The database resides on the MS-SQL Server, while the front-end application is installed on either a network drive, or each workstation using Accutrac. It is recommended, however, that the application DLL files be loaded on a network server drive; this minimizes the workload required to install future program updates. If the application files are being run from a network drive, Accutrac does require that some minimal files be loaded on the local desktop machines. These include an Accutrac "ini" file, a barcode font, and a third-party spell check utility, all of which are provided by Accutrac during installation.

Minimum	Recommended
<ul style="list-style-type: none"> • Pentium 233Mhz 	<ul style="list-style-type: none"> • Pentium II 233Mhz or higher
<ul style="list-style-type: none"> • 64MB EDO RAM 	<ul style="list-style-type: none"> • 128MB SDRAM or higher
<ul style="list-style-type: none"> • 1GB Hard Disk Drive 	<ul style="list-style-type: none"> • 1GB Hard Drive
<ul style="list-style-type: none"> • 2MB Video Card 	
<ul style="list-style-type: none"> • CD-ROM Drive 	
<ul style="list-style-type: none"> • 10/100 PCI Ethernet Card (If running over network) 	

Software Requirement for Workstation

Minimum	Recommended
<ul style="list-style-type: none"> • Microsoft Windows 95 / 98 / ME 	<ul style="list-style-type: none"> • MS Windows NT 4.0 Workstation • MS Windows 2000 Professional
<ul style="list-style-type: none"> • ODBC Driver 3.70 or higher • MS SQL Client Utilities installed • Fonts ** <ul style="list-style-type: none"> ▪ Arial ▪ Times New Roman ▪ Impact 	

** Accutrac uses standard Windows fonts to comply with Microsoft Standards.

Database Structure

Clarion 5

Accutrac8 delivers a unique combination of automation features, sound development methodology, blazing execution speed, and extensive database awareness. It automates every phase of Accutrac's work starting with design, through development and deployment, all the way through ongoing maintenance.

It's the only development environment that lets you create 16- and 32-bit programs for Windows 3.x, 95, 98, and NT -- *all from a single source.*

Streamlined Development -- Reduced Time Spent Maintaining Existing Applications

The dictionary synchronizer imports the structure of any database into a Clarion database dictionary **automatically**. With this **breakthrough technology**, a developer can automatically update the dictionary to match any changes that the database administrator might have made since the project was last worked on -- even after months.

Clarion applications compile into native Win32 executables that run at the speed of C++ applications. Clarion uses a proven, tested and repeatable code generation strategy that significantly reduces the time it takes for an application to go through prototyping and testing, to deployment.

Database Normalization

Normalization is a design methodology that limits the unnecessary duplication of database information, thus simplifying the design of a database to achieve the best performance.

How a Database is normalized:

There are three industry standard normalization rules, which Accutrac adheres to. The three rules are:

1. Entities that describe one idea (discrete data objects).
2. Non-key fields must depend on the entire primary key.
3. All non-key columns are mutually independent.

Each table in Accutrac has an internal number referred to as SYSID, which is a Primary Key. When any record is added or changed, it will reflect on the entire table linked to that table. See the illustration below.

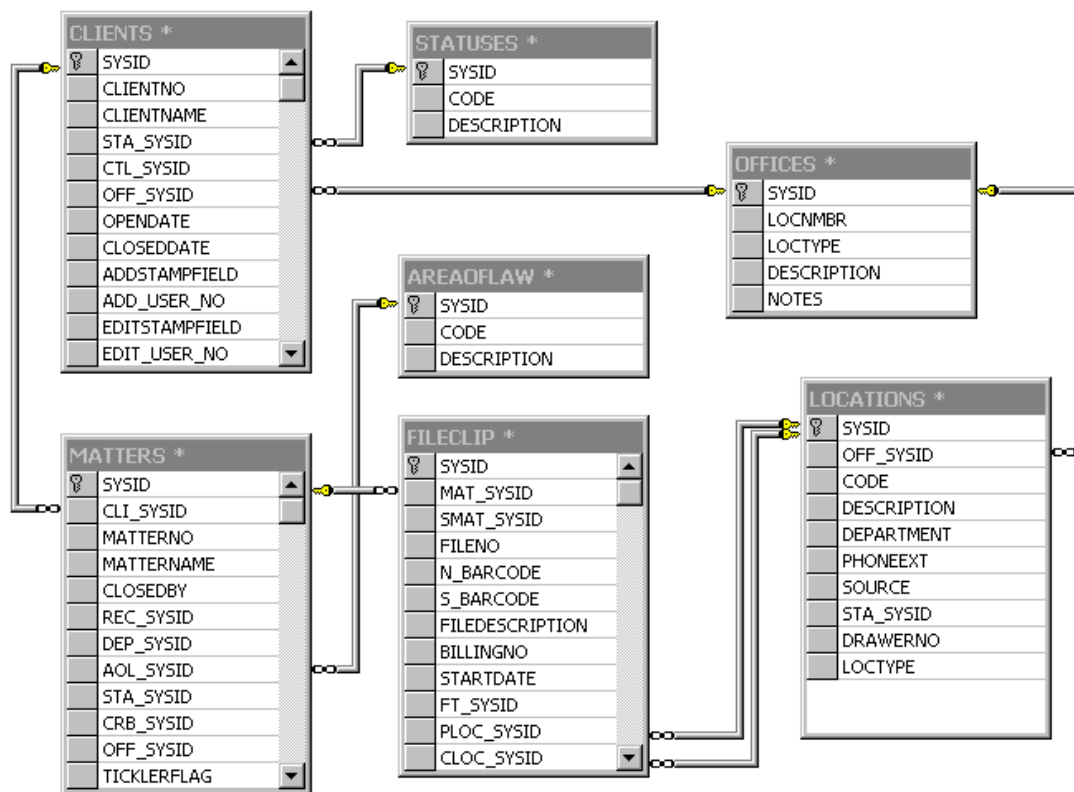
All data is stored in the form of discrete data objects linked with foreign key fields. For example, if a Client's information is changed, all related records to that Client would reference the updated information instantly. This is accomplished using foreign key lookups to the Client.

Accutrac Database Layout

Accutrac database is normalized. The diagram below illustrates how the tables and fields are linked via SYSID to other tables.

To attach a Matter to client, the client SYSID is used in matter table and to created folder for that client/matter; matter SYSID is used in Fileclip table.

EX. If the CLIENTNAME is changed in Client table, it will change that client name in every table.



Distributed Network Architecture

Data Protocols

Accutrac takes advantage of the latest in data driver technology developed by TopSpeed in their Clarion 5 environment. These drivers are optimized for maximum performance on their respective SQL servers. In addition, they support the ODBC (Open Database Connectivity) standard from Microsoft allowing seamless connection to datasources using all Windows compatible communication protocols. The following protocols have been tested in the Accutrac environment:

TCP/IP

IPX/SPX

NetBEUI

Named Pipes

Citrix Compatibility

Citrix® WinFrame® is a multi-user Windows application server based on Windows NT. It supports enterprise application deployment using a Server-based architecture. Citrix® WinFrame® uses the Independent Computing Architecture (ICA) protocol, which allows an application's logic to execute on an application server. Only the user interface, keystrokes, and mouse movement are transferred between the server and the client application over any network or communication protocol. Accutrac is a standard Windows program developed using the Windows API and is fully compatible with Citrix® WinFrame®. The application and data drivers are stored on the Citrix® server and are accessed using remote Citrix® clients.



Application Information

Resource Consumption

Accutrac uses approximately 12Mb of RAM upon execution. The total size of memory used by the application depends on the number of windows open at any given time and the size of the indexed database. The applications executable files consume 25Mb of disk space and the support libraries for the executables consume an additional 1.4Mb. Based on today's standards for application resource consumption, these numbers indicate a highly optimized and efficient data solution.

The data managed by Accutrac consumes a variable amount of space depending on each organization's requirements. For medium-sized organizations with record volumes exceeding five hundred thousand rows, Accutrac recommends a multi-gigabyte storage medium.

Supported Printers

Accutrac conforms to the Windows standard for printer support. Barcodes and reports may be printed on any printer possessing a Windows compatible driver. The Accutrac system integrates with many color barcode printing software systems, including ColorBar, Tabquick, and ColorFlex to name a few. Accutrac recommends high-end color laser printers for maximum effectiveness.