

## Reporting and Data Access Methods



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## Introduction

The Sage ACT! application provides its own Report Writer that offers a number of stock Reports, Envelopes and Labels which allow users to produce a variety of reports and correspondence. These items are based upon templates which can be further modified or copied to create a customized and specific solution as needed. Template customization<sup>1</sup> is performed by the user right from within the application using the Sage ACT! Report Designer.

In addition to Report Templates, the Sage ACT! architecture provides four additional Data Access Methods. These methods can be used for querying, reporting and data extraction:

- Sage ACT! OLE DB Reporting Provider
- Sage ACT! Reader Utility and account (*Sage ACT! Premium only*)
- Sage ACT! Password Utility (*Sage ACT! Premium only*)
- Sage ACT! SDK (**S**oftware **D**evelopers **K**it)

The objective of providing these additional methods outside of the Sage ACT! application is to offer the user the most flexibility in creating reports, lists or other documents to suit most any need. This includes data extraction to consolidated databases for rollup, as well as highly-customized reports using third-party software such as Crystal Reports®.

## Data Access Overview

While the Sage ACT! Report Designer offers a fairly comprehensive ability of creating custom reports and other correspondence, it can be limited in some aspects. Depending upon the task, data security may or may not be of concern. Such a case might include the need to perform unconstrained data rollups to a company or corporate level for consolidated reporting or other analytics.

The four Data Access Methods each offer a very different approach and data exposure. Below is a discussion of each.

### OLE DB Reporting Provider

The Sage ACT! OLE DB Reporting Provider is a data source provider written by Sage and is included with Sage ACT! Pro and Sage ACT! Premium (includes access via Windows® and web). The Provider is designed to leverage the underlying client-server platform and the power of the Microsoft® SQL Server® relational database engine which services the Sage ACT! database. The Provider is the desired method for querying the Sage ACT! database both from within the application, as well as externally. There are two OLE DB Providers offered by Sage ACT!, referred to as version 1.0 and 2.0.

Background and Specification:

The version 1.0 Provider was created with the original development of ACT! by Sage 2005 (7.0). The primary objective and use-case is for external reporting of Sage ACT! data via third-party software such as Crystal Reports® and Excel®. The data returned is provided in a read-only manner and within the same security context as the Sage ACT! application, respecting both Record-Level Security (RLS) of the data and Field-Level Security (FLS) of the schema.

The Provider is a communication library written in C++ that is essentially a “pass-thru” layer to communicate with the underlying SQL Server OLE DB data provider. The User provides an Sage ACT! .PAD file and user/password credentials for its connection/data source, then creates a physical connection to the database using a specific standard SQL Server login account.

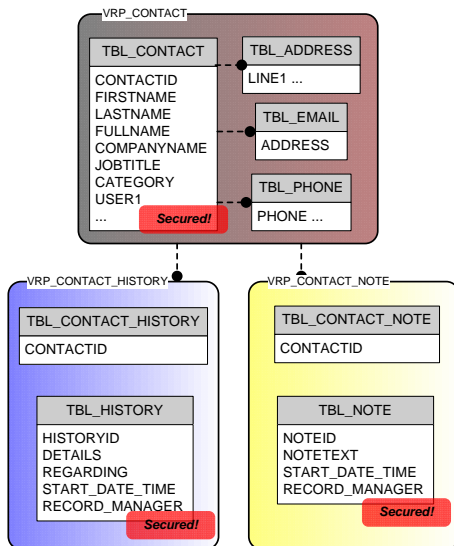
<sup>1</sup> In Sage ACT! Premium (access via web), administrative functions must be performed on the Web server.

The fundamental design approach of the OLE DB Provider is to expose Tables as database Views. These essentially look similar to database Tables, however, these Views contain relevant Sage ACT! implementation details such as Security and other rules. These Views are modeled in a “building-blocks” approach, which actually differs somewhat between version 1.0 and version 2.0. With both versions, the Sage ACT! virtual columns (Address, Email and Phone) are “flattened” as the JOINS required to obtain those columns are already included in the base table View clause. These Views reside atop of underlying table Functions which contain the RLS and FLS security enforcements.

The following highlights an example of the difference using the Contact and Note “building-block” records (Entities):

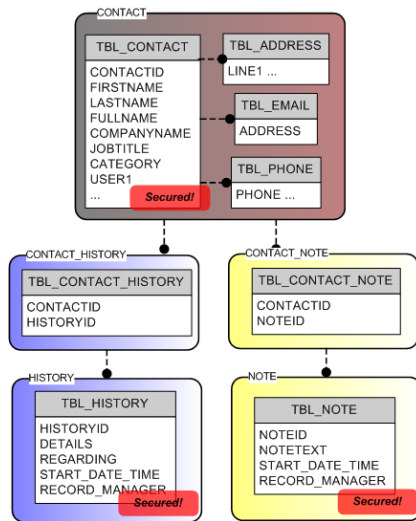
- **Version 1.0:**

The “Contact Notes” View, named VRP\_CONTACT\_NOTE, contains all of the Note columns and just the Primary Key column for the Contact record (CONTACTID), not the Contact columns themselves. The User would need to JOIN the two Views appropriately to compose the query required to product a report of Notes by Contact, for example.

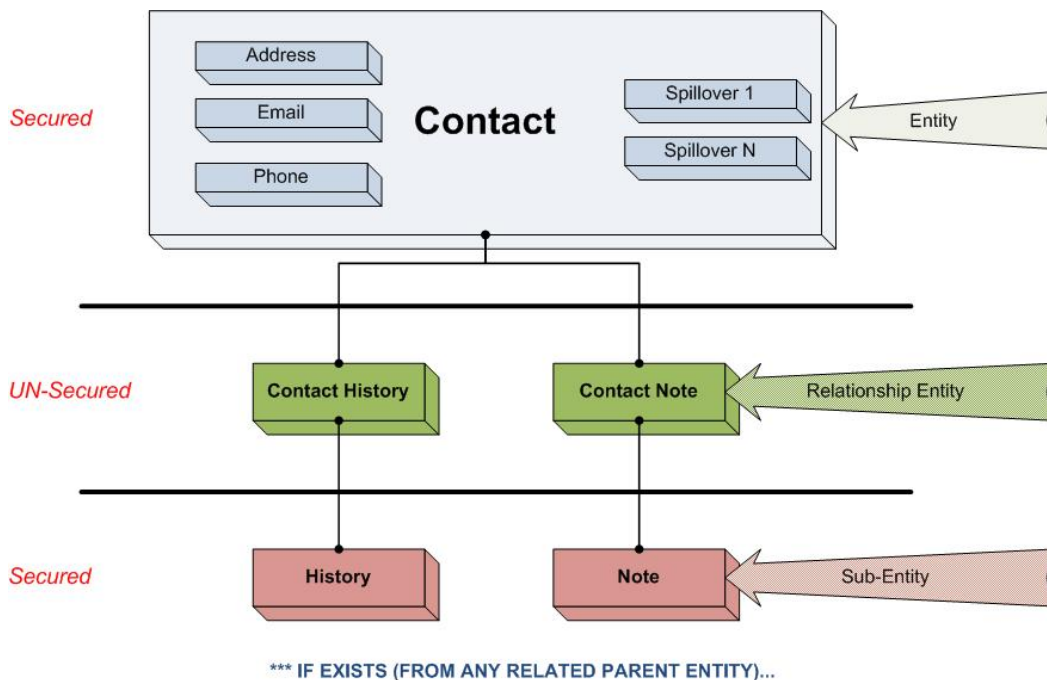


- **Version 2.0:**

The “Contact Notes” View, named CONTACT\_NOTE, contains only the Primary Key columns of each Entity/Sub-Entity that you need to JOIN together. So this view will contain only two columns, the Note Primary Key column (NOTEID) and the Contact Primary Key column (CONTACTID). The User would need to JOIN this View to the three Entity Views (CONTACT, NOTE, CONTACT\_NOTE) appropriately to compose the query required to product a report of Notes by Contact, for example.



A more complete picture of the Sage ACT! Entity model, as implemented thru the OLE DB Provider version 2.0, is depicted here:



*“The version 2.0 Provider shipped with ACT! by Sage 2010 and Sage ACT! 2011 offers some additional capabilities and exposes metadata in different manner than the original Provider version 1.0”*

Highlights of both OLE DB Provider versions include:

- Provides a read-only Sage ACT! logon to the database (using Sage ACT! credentials)
- Returns the same secured data, respecting both Record-Level and Field-Level Security, as the Sage ACT! application
- Provides a flattened data model presentation with relatively few View tables
- Dynamic by design – updates automatically via Define Fields changes
- Connection is available with the Sage ACT! Framework SDK for third-party developer Add-Ons

- Includes the ability to query Custom Table data (note: the Custom Tables feature is currently an SDK feature and not a core feature of the Sage ACT! application)

The version 2.0 Provider shipped with ACT! by Sage 2010 and Sage ACT! 2011 offers some additional capabilities and exposes metadata in different manner than the original Provider version 1.0. It is recommended that any new development or usage of the Sage ACT! OLE DB Reporting Provider is done with the version 2.0 Provider, as support for the version 1.0 Provider may be discontinued in a subsequent release.

Below are some highlighted differences of each version of the Provider:

### Version 1.0:

- The Views are constructed by a combination of using a static prefix (“VRP” for **V**iew **R**eporting **P**rovider) and the logical Table name.
- Any spillover tables, if applicable, generate their own Reporting View; it is the user’s responsibility to correctly JOIN to these Views as necessary.
- Column names are fully-qualified for discoverability to include their table name and column name: “<Tablename> <Columnname>”.
- Column names are updated dynamically if they are renamed via the Define Fields task in Sage ACT!.
- There is no ability to query Activity data, nor Group or Company Contact Members.
- Extended data, such as Notes and History, is only accessible thru its parent Sage ACT! record of Contact, Group, Company or Opportunity (i.e. you cannot directly query Histories independent of its parent/associated record).

### Version 2.0:

- Separates Entity (i.e. Contact, Group, Company and Opportunity) and Sub-Entity (Note, History and Activity) records for better autonomy and easier, more flexible reporting. This allows more direct-reporting of “Histories by User”, for example, without regard to the type of Entity record the History is associated with.
- Views include all fields created as a result of record field customization (via Define Fields and/or any Add-On Products) – one logical View per Entity or Sub-Entity. This provides a much simpler and centralized view of each record.
- Sage ACT! data type adherence for Uppercase, Lowercase and Initial Caps character fields. This means character data will appear just as it does in Sage ACT!
- Date, Time, and Datetime values default to local client time (*configurable per connection*). This means date/time values will appear as they do in Sage ACT!.
- A fully-expanded “My Record” View which includes all Contact fields.
- Optional descriptive text for Views and Columns (*currently can only be set via the Sage ACT! SDK*). This description can be seen in some third-party report tools, such as Crystal Reports, to assist the user in understanding what the View or column contains.

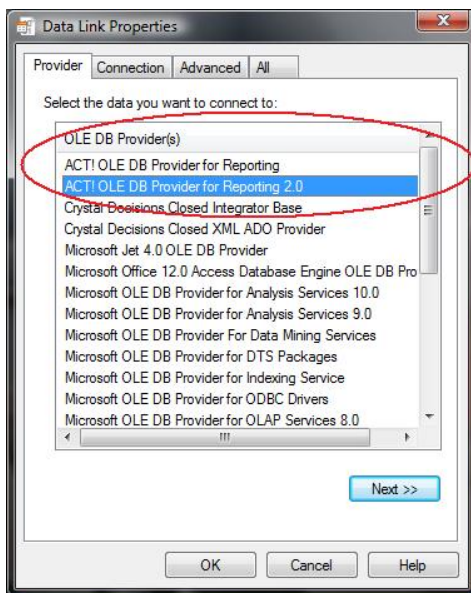
With OLE DB v2.0, View column names are based on the field Alias Name which was introduced in ACT! by Sage 10.02. This value can be set programmatically via the Sage ACT! SDK such as by an Add-On product; fields added via Define Fields are set with the name provided upon creation:

- Alias Names do not change; Queries will not break if field name changed
- Use the “Database Structure>Fields Detail Report” in ActDiag to see field name information (“OLE/DB Column” is for the OLEDB v1.0 Provider, the “OLEDB(2) Column” shows the field for the version 2.0 Provider)

*“It is recommended that any new development or usage of the Sage ACT! OLE DB Reporting Provider is done with the version 2.0 Provider, as support for the version 1.0 Provider may be discontinued in a subsequent release”*

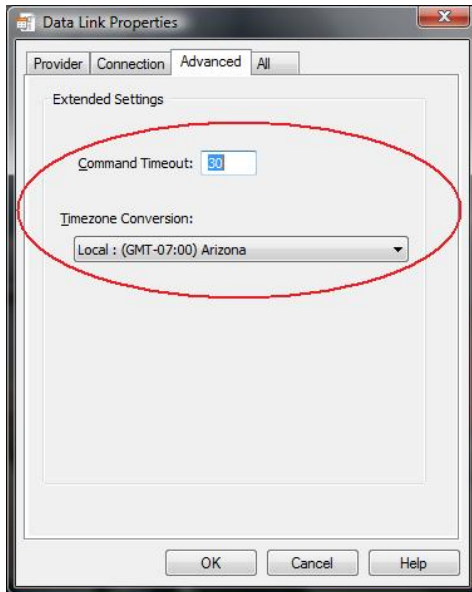
In addition to reporting software outside of the Sage ACT! application, ACT! by Sage 2010 and Sage ACT! 2011 include a Dashboard Component which uses the OLE DB Reporting Provider 2.0. This component, named “Data Chart”, can be customized to provide virtually any custom list or chart desired in a Dashboard. The source definition for this component is contained in the file **Act.Dashboard.DataChart.XML** which resides in the \Tools folder beneath where the Sage ACT! program is installed (by default c:\Program Files\ACT\ACT for Windows). Upon installation, this file contains a number of stock queries which can be selected while in Design Layout mode. You can edit the XML file using any text editor, such as Notepad, to add, modify or delete a query. You may find it easiest to write the query first using a query or reporting tool, then copy & paste that SQL Server query into the XML file once you have what you want.

The following depicts the Properties of creating a database connection via third-party reporting and query tools. As noted, there are two versions of the Sage ACT! Provider:



For the version 2.0 Provider, Additional connection options can be set on the “Advanced” tab of the connection properties dialog:

- **Command Timeout** – Value (in seconds) in which the SQL Server query is allowed to complete before timing-out. Initialized to 30 seconds by default; if you experience “Timeout expired” messages, you can increase this value higher. A value of zero (0) specifies no timeout.
- **Timezone Conversion** – Datetime values are stored in the Sage ACT! database as Universal Time (UTC). By default, the Provider will display these values using your Windows® time zone setting. This can be changed, to view datetime values in another time zone.



The Provider offers a good amount of abstraction and flattening of the relational tables which comprise a logical record in Sage ACT!. These records are referred to as Entities and Sub-entities which include:

- Contacts, Groups, Companies and Opportunities (*Entities*)
- Notes, Histories and Activities (*Sub-entities*)
- Custom sub-entity tables created via the Sage ACT! Software Developers Kit (SDK)
- Schema metadata
- Characteristic, Security and other supporting tables

Typical Uses:

- Creating and running third-party reports such as Crystal Reports to return secured data (both record and field level)
- Reporting and querying data in Custom Tables (Sub-Entities) as this is currently not possible in the Sage ACT! Report Designer
- Custom Data Chart Dashboard Component queries within the Sage ACT! application

In the Conclusion section of this document, there is a comparison table to facilitate the comparison of features/abilities between OLE DB version 1.0 and 2.0.

### Sage ACT! Reader

The Sage ACT! Reader is a utility which is included with Sage ACT! Premium. This utility is used to set a password for the ACTREADER SQL Server account. This account has read-only access to all Premium databases on the machine for which the password has been set.

The Sage ACT! Reader utility allows you:

- Establish a connection to the local Microsoft SQL Server (ACT7) instance to manage the instance ACTREADER password.
- Set (and reset) a password for the Sage ACT! Reader account. Once you set the password, you can use this account from any third-party software (for example, Crystal Reports or Microsoft Access®), from virtually any machine, to connect to a Premium database on the machine and generate custom reports.

*“The Sage ACT! Reader Utility only works with Sage ACT! Premium and Sage ACT! Premium (access via web).”*

## Sage ACT!

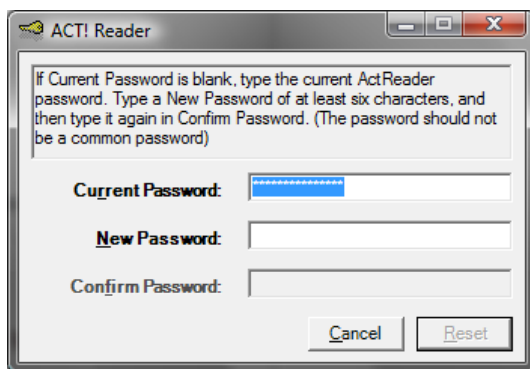
Highlights include:

- Allows direct read-only SQL Server access to native tables and data
- Allows un-secured data access (i.e. no data is Private!)
- Does not require a Sage ACT! logon
- Supported in Sage ACT! Premium and Sage ACT! Premium (access via web) databases only
- Can be used for ODBC, OLE DB or SQL Server Native Client connections
- Requires fundamental SQL Server language and relational database knowledge to construct queries properly

Typical Uses:

- Data extraction and rollup reporting, as no data is secured or filtered by security (no FLS nor RLS)
- To connect using ODBC connection when some reporting or query software does not support OLE DB, such as Microsoft Access.

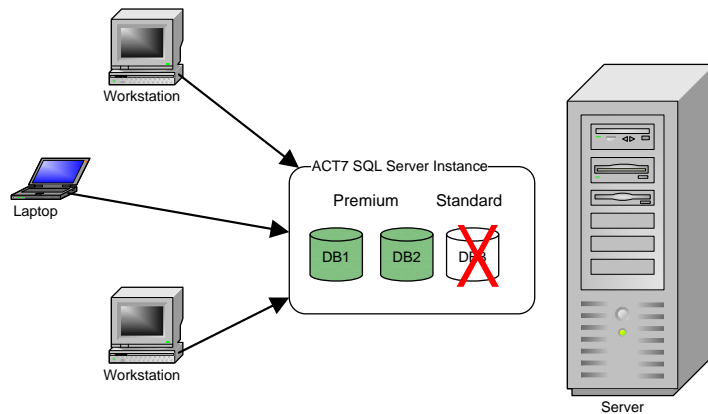
While the Sage ACT! Reader Utility itself only operates in a local context (on the local machine SQL Server instance in Sage ACT!), once the password has been set, access and logon to the SQL Server instance in Sage ACT! can be made from any machine which is able to communicate with the host database machine. The password can be changed at anytime later – to change the password, however, the user must know the current password. If the current password has been forgotten, you must contact Sage ACT! Technical Support to guide you thru the process of resetting the ActReader password. Below is an example of the Sage ACT! Reader Utility:



The following diagram depicts a machine running a SQL Server instance in Sage ACT!, hosting multiple Sage ACT! databases of both Premium and Pro Tier. As noted, the ActReader account will have access to any and all Premium Tier databases on the SQL Server instance, but no access to any Pro Tier databases:

*“Sage ACT! Reader allows direct read-only SQL Server access to native tables and data.”*

*“No data is Private!”*



To use the ActReader account with a third-party reporting or query tool, you simply specify “ACTREADER” as the login name, then the password as it was set with the Sage ACT! Reader Utility. For the server, remember that Sage ACT! runs against a named instance of SQL Server, “ACT7”. You’ll need to include this after your machine name, like: “My\_Machine~~ACT7~~”. You will find additional assistance in the Sage ACT! Help topic “Using the Sage ACT! Reader utility”.

### Sage ACT! Password

The Sage ACT! Password is an optional utility which can be obtained from Sage ACT! Corporate Sales to view the per-machine SQL Server “sa” password. The “sa” account (meaning **S**ystem **A**dministrator) is a built-in account which is the utmost and most powerful account in the Microsoft SQL Server security model. Upon installation of Sage ACT!, the “sa” password is set to a random alpha-numeric value and is not disclosed to the end users or administrators. This is because much of the data integrity aspect of the application that drives the Sage ACT! platform resides in the database itself. This is done to maintain the highest degree of data integrity, performance, security and product quality.

It must be noted, however, that while the “sa” account has full read-write access to the Sage ACT! database and the SQL Server instance in Sage ACT!, directly modifying any configuration, definition, structure or data content is **strictly prohibited** by the [Sage ACT! End User Licensing Agreement \(EULA\)](#). To address these needs, Sage ACT! offers a very rich and comprehensive SDK for developers to accomplish such tasks (please see the following section for more information on the SDK).

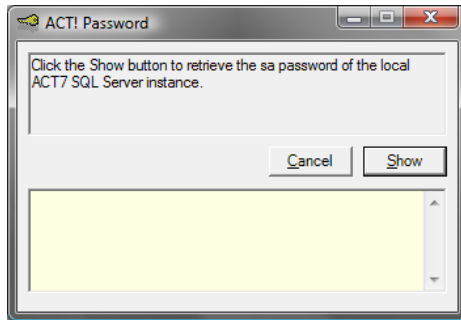
The three core reasons for the non-disclosure of the “sa” password includes:

- **Application Integrity.** The Sage ACT! SDK is built atop the database; a good degree of physical and business integrity is defined and maintained by code and logic that resides within the database. Un-securing the database exposing potential exploitations in both Sage ACT! procedural logic as well as the data.
- **Data Security.** The Sage ACT! security model is an important feature of the overall product. This can be defined by both our security features and rules designed into Sage ACT!, as well as the managed database files which are serviced by and only usable via SQL Server which employs its own security model.
- **Protection of Intellectual Property.** Un-securing the database exposing the physical implementation of both schema design and procedural code. It is for the same reason that we do not publish our underlying SDK source code.

*“The Sage ACT! Password Utility provides disclosure of the SQL Server “sa” password in Sage ACT!”*

*“The “sa” account (meaning System Administrator) is a built-in account which is the utmost and most powerful account in the Microsoft SQL Server security model.”*

Below is a screenshot of the Sage ACT! Password Utility (prior to clicking the Show button):



Highlights of the Sage ACT! Password Utility include:

- Full read/write access to the SQL Server instance in Sage ACT! (although data and programmatic changes are strictly prohibited!)
- Highest level of SQL Server instance access
- Does not allow user to change/set their own “sa” password
- Full access to all databases, data, procedural objects and all other content
- Not supported for writing to and/or altering the SQL Server instance or databases (EULA violation)

Typical Uses:

- Third-party administration software such as online backup of SQL Server databases
- Security configuration when employing a clustered SQL Server configuration

It is recommended that you review the other data access options reviewed in this document prior to pursuing the Sage ACT! Password Utility. Depending upon your requirement, usage of the “sa” account may either violate the Sage ACT! EULA or not provide the level and type of data access you are expecting. In many cases, usage of this account can be “overkill”.

### Sage ACT! Software Developers Kit

The Sage ACT! SDK, or **S**oftware **D**evelopers **K**it, is the preferred and supported method of interacting with the product and database for the purposes of writing data, as well as extending the Sage ACT! product itself. The SDK is built upon the Microsoft .Net platform offering a highly-customizable and feature-rich programmatic environment for the developer. In fact, the Sage ACT! application itself is written upon this platform, that is to say it uses this same Sage ACT! SDK.

The Sage ACT! SDK consists of feature-rich components that are highly extensible. Where Sage ACT! seeks to empower the end users to customize the product to their business, the Sage ACT! SDK helps third parties and other developers extend that vision through independent development.

Highlights include:

- Developer-oriented approach requiring familiarity with programming concepts
- Requires a Sage ACT! logon
- Not “Report Writer-friendly” (i.e. Crystal Reports)
- Exposes built-in functionality for creating custom solutions
- Provides the Sage ACT! data experience

*“The SDK is built upon the Microsoft .Net platform offering a highly-customizable and feature-rich programmatic environment for the developer.”*

*“The Sage ACT! application itself is written to use the Sage ACT! SDK.”*

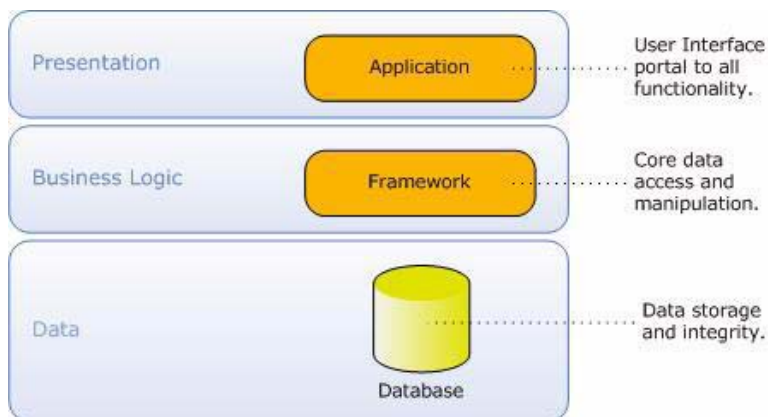
Typical Uses:

- To further extend and customize the Sage ACT! application to meet a specific requirement by the user

The Sage ACT! platform has three logical tiers:

- Application
- Framework
- Database

This SDK development platform is shown in the following figure:



## Conclusion

The Sage ACT! product, supplemented by the four Data Access Methods described here, provides a robust, flexible and rich set of abilities to meet most all user reporting and data extraction needs.

## Recommendations

This document has provided a description of four different Reporting and Data Access Methods, capturing some highlights and abilities of each. Below is a table with some features and scenarios which may provide some guidance on selecting the most appropriate method to query the Sage ACT! data:

## Data Access Method Comparison

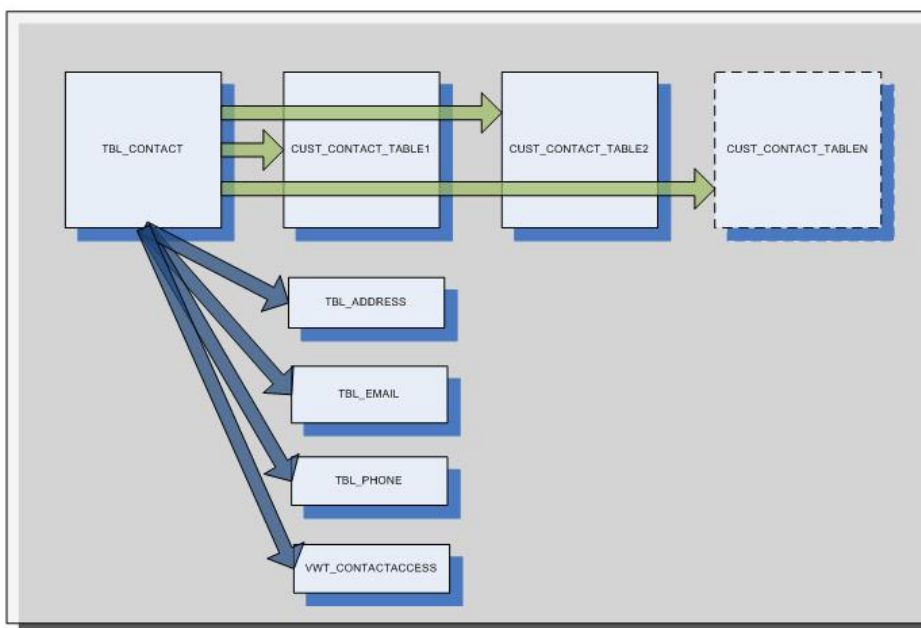
Characteristic / Requirement	OLE DB v1.0	OLE DB v2.0	Sage ACT! Reader	Sage ACT! Password
<b>Sage ACT! Product Tier:</b>				
<i>Sage ACT! Pro</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<i>Sage ACT! Premium (including Sage ACT! Premium (access via web))</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Respects Sage ACT! Security (FLS/ RLS)</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
<b>Objects Accessed</b>	Views	Views	Tables	All Objects
<b>Column Naming convention</b>	Friendly Name as input by the user; changes when renamed	System Alias Name; does not change when renamed in Define Fields	Native physical name in SQL Server	Native physical name in SQL Server
<b>Entities and Sub-entities available:</b>				
<i>Activities</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>Group and Company Members</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Custom Tables (Sub-entities) available</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Spill-over table exposure</b>	View for each Spill-over table	Spill-over tables included in Entity View	Each physical table	Each physical table
<b>Date/Time values</b>	UTC/GMT	Local	UTC/GMT	UTC/GMT
<b>Sage ACT! character data type conformance</b>		<input checked="" type="checkbox"/>		
<b>OLE DB Connection</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>ODBC Connection requirement</b>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

## Terms and Concepts

For the purposes of these Data Access Methods, the following series of terms will help you in understanding some of the challenges, and terminologies, often required when working with relational databases. Some terms are more specific to Sage ACT!, however.

- **Base Table** – the core/primary table containing the stock and some custom (user-added) fields. There is one per Sage ACT! Entity (i.e. Record Type).
- **Spillover Table** – table which extends a Sage ACT! Entity (such as Contact) beyond a physical table storage limitation by the underlying RDBMS. In SQL Server, as well as most other RDBMS vendor products, there are limitations in table size definition and the number of fields. The design of our Spillover tables could be conceptualized with the following diagram:

### Contacts



Spillover tables are implemented as a one-to-zero-or-one cardinality (aka Z-cardinality), so there is not a one-for-one record in each Spillover table for each base table record. Only records on which one or more fields residing on that Spillover table will contain a record. Spillover tables inherit the Primary Key column (such as CONTACTID) of the Entity base table which they are extending.

- **Access Control List (ACL)** – a list on each Sage ACT! Entity identifying the Users and/or Teams which have access to the record. Having access to a record does not imply nor infer action(s) that can be taken against that record – that resides in the Sage ACT! Permissions module.
- **Row-Level Security (RLS)** – only allow the requestor to see records to which they have access. For Entity records, this access is either direct (user themselves) or indirect (via Team membership) via ACL. For Sub-entities (Notes, Histories, Activities and custom Sub-entities) this means Private to the requesting User, or Public.
- **Field-Level Security (FLS)** – only allow the requestor to see the contents/data of a field to which they have not been denied access. This applies for all records in the table, it is not on a record-by-record basis.

- **Globally Unique Identifier (GUID)** – a 36-character alpha-numeric value used on most every table in the Sage ACT! database. Used as the Primary Key (identifier) for a record.
- **Primary Key (PK)** – one, or more, field(s) on a table which is used to uniquely identify a record. No two records in the table can have the same Primary Key column value(s).
- **Foreign Key (FK)** – a field on a dependent table (aka “child” table) that points to (references) a record in another table (aka “parent” table). A JOIN is generally performed between two tables using this Primary Key and Foreign Key relationship.
- **Cardinality** – a mathematic phrase to express the number of records between two tables in a set (relation). For example, one record in the Contact table having three related records in the Address table has a 1:3, also referred to as a one-to-many, cardinality.

## OLE DB v1.0 vs. v2.0 Comparison

Feature / Behavior	OLE DB v1.0	OLE DB v2.0
<b>View Name</b>	<ul style="list-style-type: none"> <li>• “VRP_” prefixed</li> <li>• Entity or Table Name based</li> </ul>	<ul style="list-style-type: none"> <li>• No prefix</li> <li>• Entity and Subentity Name based</li> </ul>
<b>View Structure</b>	<ul style="list-style-type: none"> <li>• Each spillover table has its own View</li> <li>• User has to determine which View a desired field resides on</li> <li>• Complexity in INNER/OUTER JOIN logic for query writing</li> </ul>	<ul style="list-style-type: none"> <li>• Entity View will contain all fields including those on spillover tables</li> <li>• Mitigates requirement to know where field resides</li> <li>• JOIN complexity is eliminated</li> </ul>
<b>Building Block Design</b>	<ul style="list-style-type: none"> <li>• Views are Entity-based</li> <li>• Must query thru Entity to get to Subentity records (i.e. VRP_CONTACT_HISTORY)</li> <li>• Must UNION all three History Views (Contact, Group, Company) to obtain all possible records</li> </ul>	<ul style="list-style-type: none"> <li>• Views are more autonomous</li> <li>• Subentities have their own Views (i.e. HISTORY)</li> <li>• Can query History independent of related Entity(ies) (no UNION req'd)</li> <li>• Relationship Views are now just Join Keys</li> </ul>
<b>Three Major Subject Areas</b>	<ul style="list-style-type: none"> <li>• Content (Contacts, Histories, etc.)</li> <li>• Limited Configuration (Picklist, Team, User, etc.)</li> <li>• Tables and Columns</li> </ul>	<ul style="list-style-type: none"> <li>• Content (Contacts, Histories, etc.)</li> <li>• Configuration (Picklist, Team, User, History Types, Activity Types, etc.)</li> <li>• Tables, Columns, Db Configuration, Primary and Foreign Keys</li> </ul>
<b>“My Record”</b>	<ul style="list-style-type: none"> <li>• Shows limited fields</li> <li>• Have to JOIN to VRP_CONTACT to get the “My Record” (Contact) fields</li> </ul>	<ul style="list-style-type: none"> <li>• Mirrors the CONTACT View – no need to JOIN to CONTACT</li> <li>• Also includes USERID</li> </ul>
<b>Sage ACT! Character Datatypes</b>	<ul style="list-style-type: none"> <li>• Character datatypes are not rendered accordingly</li> </ul> <ul style="list-style-type: none"> <li>• Uppercase</li> <li>• Lowercase</li> <li>• Initial Caps</li> </ul>	<ul style="list-style-type: none"> <li>• Character datatypes are properly rendered</li> </ul>
<b>Sage ACT! Date/Time Fields</b>	<ul style="list-style-type: none"> <li>• Displayed in UTC value</li> </ul>	<ul style="list-style-type: none"> <li>• Supports timezone conversion</li> <li>• Displayed in Local Time</li> <li>• Configuration per-connection on the Advanced tab</li> </ul>
<b>Expanded Stock “Yes/No” Fields</b>	<ul style="list-style-type: none"> <li>• Only the 0 or 1 values are available</li> </ul>	<ul style="list-style-type: none"> <li>• The 0 or 1 value is available</li> <li>• A complementary character field is also available (localized to “Yes” “No”)</li> <li>• 0/1 recommended for WHERE clause</li> <li>• “Yes”/“No” recommended for SELECT clause</li> </ul>
<b>Query Command Timeout</b>	<ul style="list-style-type: none"> <li>• Non-configurable at 30 seconds</li> </ul>	<ul style="list-style-type: none"> <li>• Defaults to 30 seconds</li> <li>• Configurable (Advanced tab)</li> </ul>
<b>Descriptions</b>	<ul style="list-style-type: none"> <li>• No Descriptions at any level</li> </ul>	<ul style="list-style-type: none"> <li>• Description available for: <ul style="list-style-type: none"> <li>○ Entity (View)</li> <li>○ Column</li> </ul> </li> <li>• Note: Descriptions currently only settable via SDK</li> </ul>

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### About Sage ACT!

Sage ACT! makes it easy for you to have meaningful conversations with customers by giving you an organized view of the people you do business with. Like the millions of small businesses and sales teams who use Sage ACT!, you'll always be prepared with recent emails, meeting notes, task reminders, and social media profiles, because all of these details live in one place.

**Important Note:** Review Sage ACT! system requirements at [www.act.com/2011systreq](http://www.act.com/2011systreq). You must purchase one license of Sage ACT! per user. Scalability varies based on hardware, size, and usage of your database. **Compatibility:** Visit [www.act.solutions.com](http://www.act.solutions.com) or contact your add-on product provider to help determine compatibility. Due to new functionality available in ACT! by Sage 2010, we strongly recommend contacting your add-on product provider to confirm compatibility. Using versions of the add-on product that have not been confirmed compatible by the vendor may result in features behaving differently or not appearing within ACT! by Sage 2010.