

**USDA Agricultural Marketing Service | National Organic Program (NOP)**  
**Sound and Sensible Organic Certification Initiative**  
**Streamlining Recordkeeping for Certified Operations and Certifying Agents**

**Project Title:** Sound and Sensible Certification System Guide

**Project Partner:** Pennsylvania Certified Organic

**Project Goal:** The goal of this project was to provide a software design package that can support the development of a uniform and easy-to-use organic certification system. Resulting systems will help make organic certification more accessible, attainable, and affordable for all operations.

**Background:**

This Sound and Sensible Organic Certification Project was funded by the Agricultural Marketing Service (AMS) National Organic Program (NOP), and was implemented by organic certifier Pennsylvania Certified Organic (PCO). With input from multiple organic certifiers, the project generated a series of documents that can guide the design of an organic certification system. It includes, for example, examples of forms and data entry screens that can support the organic certification process; lists and definitions of data fields (called a data dictionary) that capture information about a certified organic operation; and relationship diagrams that should have the different data fields and forms connect.

These documents provide a framework that an organic certifier could use to design and build an organic certification system. The design of the system emphasizes the importance of information or “data” that is easier to manage than the more traditional system of creating, completing, reviewing, approving, filing, maintaining, storing and archiving “documents” (whether paper or electronic).

**Audience:**

The documents provided through links in this overview are technical documents that can be used by an organic certification organization, working closely with a technical lead that is well versed in data structures and database design. The documents below are tools that will primarily be understandable to the technical lead or system/data architect, who will guide the requirements and design phase of a software development project. The documents were originally designed to support a FileMaker software implementation, but could be used to inform development on multiple other platforms.

## Document Listing:

The following documents were developed as part of this project, and can be accessed by clicking on the links in the table below.

File Title and Link	Description and Instructions
<a href="#">ACES* Database Design Report Package</a>	<p>The link to the left leads to a zip file. To open, download the .zip file to your computer and extract. Then, open the “ACES_ ddr folder, and click “index.html.” This index crosslinks to other html files in the zip package.</p> <p>This Design Report Package includes a Database Design Report, the Database Field Definitions, and the Database Layouts and Scripts. These elements will help you design a database for the certification system.</p>
<a href="#">ACES User Interface (UI) Framework</a>	<p>The link to the left leads to a zip file. To open, download the .zip file to your computer and extract. The extracted folder contains portable network graphic (PNG) files that show screenshots and/or screen wireframes that can help you design a user interface for the certification system.</p> <p>Files provide User Interface and Business Logic for: Clients (Client Entities, Directory Generation, Certificate Tracking, web portal account management); Staff (Staff elements, staff reviews layouts, staff review doc storage); Repository Document Management (Repository layouts, Processing logic and user interface, export, import, linking); Reviews (Review elements, client inbox, client outbox, inspector inbox, inspector outbox, Review support layouts, In/Out box renaming, Inspector assignments); Inspector (Inspector elements, Inspector Reviews layout, Inspector Reviews document storage)</p>
<a href="#">Data Dictionary</a>	<p>This single portable document file (PDF) is a table that lists all the data elements in the database and forms. Data Dictionary columns include the field name, the data type, data category, and form use.</p>
<a href="#">Documents Master Library</a>	<p>The link to the left leads to a zip file. To open, download the .zip file to your computer and extract. The extracted folder contains PDFs that are a full set of form documents that a client, inspector, and/or the certifier would use as part of the certification process.</p>

File Title and Link	Description and Instructions
<a href="#">Relationship Graph – Also known as an Entity Relationship Diagram</a>	This single PDF provides a map of how the data elements in the certification system should interconnect on the database.

\* ACES stands for Automated Certification eForms System

**Relationship to Other Systems:**

This software design package was created before the [Organic INTEGRITY Database](#) was launched; we strongly encourage developers to add the 10-digit NOP Operation ID data field to any new data dictionary/design to facilitate system interfaces, and to review the [INTEGRITY Data Dictionary](#) to facilitate field mapping between systems.

**Next Steps and Best Practices:**

The first step in using this certification database framework is to identify an experienced database developer that is familiar with database architecture and business process analysis. This will enable the customization of these materials for your unique organizational needs and business process. Here is a summary of the next steps that could be taken using the documents generated by this Sound and Sensible certification project:

- Find a reputable, well-respected, and experienced database developer
- Ensure senior leadership buy-in and funding for a development effort
- Identify a project plan with milestone dates
- Convene a diverse team of knowledgeable experts across several areas: Quality and Information Technology, Certification, Materials, and Administration.
- Conduct regular meetings to discuss various phases of the project
- Facilitate on-site developer work during critical project phases