



**SI** System  
Integrator

# DATA-DRIVEN: STREAMLINING A SYSTEM INTEGRATION PROCESS

**Understanding How a Data Driven Process Can Help Streamline a System Integration Company**

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# EXECUTIVE SUMMARY

## Introduction and D-Tools System Integrator Overview

In today's challenging and ever-changing market conditions, System Integrators have to wear multiple hats more than ever in order to complete projects that are satisfactory to their clients' expectations. Many of the phases of a low-voltage system integration project (residential and commercial audio/visual, security, IT/Networking) tend to overlap and as the lines blur, productivity and profitability can depreciate. The three main project areas of Estimation, System Design, and Project Management are all crucial to the system integration process, and are often managed separately or not at all. Central and critical to any successful project is the management of product and pricing information, product specifications, as well as the time and labor associated with the installation and integration of project equipment. Managing this successfully can be a challenge and is often the single most time consuming element, ultimately costing money associated with that time. When these project phases are managed with a software application and dynamically linked together by product and labor data, the benefits immediately become apparent.

In this article, we'll explore these challenges that integrators face and how implementing a solid data-driven software solution such as D-Tools System Integrator can help overcome them. D-Tools data-driven process provides users with up-to-date and detailed product information, in a format that can be utilized in a cross-functional capacity for maximum work flow efficiency. Having a data-driven process enables integrators to track key elements of a project such as installation time, costs, pricing and ultimately profitability. The key concepts of tying product information to all project documentation through D-Tools' database-driven process ties each element together into a singular, connected process that produces accurate proposals and estimates, reduces time and errors, and ultimately produces profound bottom line results.

## D-Tools System Integrator Software Solution Overview

D-Tools System Integrator (SI) is a complete estimation, design, and project management software solution that fits the needs of any low voltage business. From large commercial integration firms to small residential companies, SI can help increase revenue while reducing time and costs associated with the design, installation, and integration of AV, Energy, Automation, Lighting, Security, and IT/Networking systems.

# SYSTEM INTEGRATOR (SI) FEATURES

**Catalog Management:** SI provides access to a comprehensive library of manufacturer products – providing detailed information such as model number, product images, descriptions, dimensions, MSRP, and vital engineering information to help users manage product information and pricing – which is the main driver of D-Tools' data-driven process.

**Proposals:** SI helps generate fast, accurate proposals based on product information and labor, along with a number of client facing templates for Proposals, Contracts, Scope of Work documents and more. Simply choose from one of D-Tools' report templates or download themes. SI takes the information from the integrator's project file and automatically creates the proposal. Present the information shown in the proposal by category, location, system, or project phase. SI also allows you to show or hide details as needed such as product model numbers and line item pricing.

**Mobile Quote App:** D-Tools Mobile Quote is a native IOS-based iPad® app that enables SI users to generate quotes in the field and bring them back into D-Tools SI for further project design and management. The D-Tools iPad® app leverages D-Tools' extensive manufacturer product library by enabling integrators to access and integrate product category and package data from their catalog while working with customers in the field. Integrators can enter client and contact information into the iPad app, then walk prospective customers through available installation scenarios in order to create a quote for approval. Once complete, the resulting quote can then be imported into SI for complete detailed project design, specification, and project management.

**Drawings:** SI allows the integrator to create detailed designs by leveraging the industry standards for drawing tools: Microsoft Visio and AutoCAD. Everything in System Integrator is data-driven, the user can quickly and easily generate detailed Line, Plan, Elevation, and Schematic drawings by simply dragging and dropping products from their catalog or project file to your drawing surface to create drawings. Throughout the whole process, the Bill of Materials for the project are integrated with the drawings – making the initial build all the way to Change Orders integrated into one software package.

**FreeTools PSL App:** FreeTools PSL (Professional Symbol Library) is a free D-Tools application designed to provide Microsoft Visio users with multiple libraries of industry-specific plan view shapes that will help make it both easier to create drawings using universally accepted industry standards and clearly communicate with trade professionals. FreeTools PSL is currently available with three Symbol Libraries – Audio-Video-Control, Security, and Custom.

**Project Management:** SI has complete project scheduling, resource management and powerful reporting capabilities to help ensure that integrators deliver the job on-time and to budget. SI makes it easy to assign tasks to the internal installation and programming teams, schedule those tasks, then communicate those tasks via email, task, or appointment via our integration with Microsoft Outlook 2007-2013.

**Mobile Install:** Mobile Install (MI) functionality gives users the power to publish install Tasks and Service Orders to a portal powered by the D-Tools cloud that can be accessed by technicians and installers in the field from any web-enabled device. Installers and Technicians can track install time and completion status, take photos, take of the install, add items to Service Orders, and sync information back to SI for accurate time and install tracking.

**Reports:** SI's powerful reporting capabilities enable users to quickly and easily create Client, Installation, and Management Reports. Integrators can also create customized Installation and Scheduling reports that can be sent directly to Microsoft Outlook 2007-2013. SI comes out-of-the-box with many report templates, and users can also modify any existing report or create their own with the D-Tools Report Designer available in SI.

**QuickBooks:** D-Tools provides a seamless integration with QuickBooks in order to further streamline the business processes and ensure accurate billing for products, labor, and project revision management. QuickBooks integration allows users to create items in QuickBooks directly from products/labor items in SI.

**Revisions and Change Orders:** SI provides a process for managing the various revisions through the project lifecycle. Change Orders can also be managed and produced as needed for client and internal changes. The Bill of Materials for the project is integrated with the drawings in AutoCAD and Visio, so making changes in one area of the project reflects across all reports and drawings instantly – saving time and reducing errors

# 3 MAJOR AREAS OF FOCUS

**Integrators face three major stages of a system integration business process:**

## Estimation:

Integrators can potentially find it difficult to locate the essential products for a given project, which can lead to confusion and loss of potential revenue.

Estimation can also be extremely time-consuming when each proposal consists of the repetitive task of copying and pasting and frustration of locating necessary products, which can lead to overlooked equipment and underestimated labor time. Without proper project estimation, proposals can appear unprofessional and incomplete to the client, potentially resulting in a loss of business, which directly affects company revenue.

It can also be difficult to accurately determine profitability per project. Allocated time per project phase can be under-estimated and common project materials can be overlooked, potentially resulting in an overall lower bottom-line. These missed products and labor can erode margin.

Implementing a software solution such as D-Tools System Integrator can help create accurate sales proposals and because all pricing and product data is driven from a single database, integrators have the opportunity to work with current product data – ensuring that their proposals are precise. Data is the hub to the entire system integration process, and SI's data driven process gives integrators centralized pricing and product information in real time, as it happens. With all of the information is easily accessible, integrators can drastically reduce the time needed to research products for their proposals which gives them the ability to react to the customer request more quickly, ensuring the best chance to win the business.

*“Through the use of D-Tools, we have been satisfied with the continued compliments received from clients on the quality of proposals and by organizing the project in ways that they can easily understand. By knowing how the client’s organization does business, we can cater reports and terms to meet their accounting and processing needs. With its combined feature set, D-Tools provides a win for us as well as our clients.” - Chet Neal, Vice President of Sound Stage*

*“The ability to add materials and drag them right over onto a Visio line drawing is amazing,” said Kevin Crow of Excel AV Group. “We use the line drawings to help clients understand how a system is designed on the front end, and it’s a great quality-control tool for us. I cringe just thinking about how much extra time this took back in the old days. The accuracy in proposals and subsequently a project is off the charts compared to what it used to be without D-Tools.”*

## System Design:

Successful System Integration companies establish a series of project phases in order to complete a job to the client's expectations and System Design is no exception. This particular project phase is extremely important to a system integration project because it's the clearest way to communicate the parameters of the project to the end customer, in-house team members, subcontractors, and other trades. Concise designs provide a guide for the project installers and team members to follow, ensuring accuracy and efficient project execution.

*“D-Tools helped us land the project, design it, and manage it from afar. For a small, albeit talented, company to complete a job of this magnitude and complexity nearly three hours away with minimal issues and nothing but high praise from the client is a unique and noteworthy accomplishment. We couldn’t have done it without D-Tools complete streamlined software.”- Zachary Boyd, Systems Engineer at Residential Media Systems*

*“D-Tools’ dedication to standardization is of significant importance to our business management process. Once we incorporated D-Tools, we immediately saw a decline in error rates that subsequently allowed us to complete more projects on time and to budget. It’s easy to see that their success as a company comes from their great software platform, and the fact that they continue enhancing System Integrator with direct input from their customers.” - Peter Mejer, AV System Designer for Atea*

Some integrators contract their design work out which can be very costly, while many other System Integration companies lack an in-house Engineering resource to create these designs. When the design phase is completely omitted, it could result in a loss of business. Including professional system designs in proposals will drastically boost the overall aesthetics of the proposal and set Integrators apart from competitors. It also provides the client with a tangible representation of their finished system so they are able to visualize the end product. Having a solid System Design in place can easily be the differentiator that helps win the bid for a project. Once the project is won, this gives the install team clear direction and makes the system easily manageable.

Including accurate and detailed data within the initial estimate streamlines the entire design phase because the data is automatically carried over from the estimate phase to the design phase, saving the integrator a sizable amount of time. By utilizing D-Tools System Integrator software, integrators can design systems with Visio and AutoCAD, the industry's top standards for drawing tools. SI allows users to get going quickly when they need product data. It contains not only access to a library of over 1 million products ready for download, but also an extensive suite of data management tools, allowing users to import or add data from almost any source. Everything in SI is data-driven, so users can quickly create proposals and drawings by adding products from D-Tools' extensive manufacturers database. From there, users can easily design floor plans, line diagrams, schematics and elevations, creating accurate system drawings for both the end-customer and the installation team.

D-Tools SI Data Library is built on D-Tools' Cloud architecture and SI provides advanced tools and functionality geared towards increased efficiency and ease of use when creating, managing, and updating a product catalog.

## Project Management:

Project Management is an important aspect of a System Integration project because it's the framework that helps determine the overall success of a company. Due to disorganization, it is often implemented improperly resulting in tracking time and costs inaccurately, which can negatively affect profitability and waste time that could be used to complete projects and gain additional business. Utilizing SI's project scheduling, resource management, and powerful reporting capabilities can help ensure that integrators deliver the job on-time and to budget.

SI also facilitates project management by improving communication between not only the system integrator and the client but also with internal team members and external contractors. SI makes it easy to assign tasks to internal installation and programming teams, schedule those tasks in a master project calendar, then communicate those tasks via email, task, or via the cloud-based Mobile Install feature. Additionally, SI can track labor tasks, installations, and resource scheduling by generating a project work order. SI also provides functionality for creating and managing Service Orders for projects. Consistent use and tracking of work orders used in conjunction with SI's new online project scheduling and resource management tools will help integrators improve product-based labor estimates' accuracy over time.

By utilizing the comprehensive project management capability that D-Tools SI offers, overall customer satisfaction is heightened. With SI, product data is the link between the estimation, design and project management project phase and gives an integrator a solid foundation to focus projects around. Because these phases can be tracked, the inaccuracies will better equip integrators to make system adjustments to meet client's needs and react to potential issues before they become major problems.

*"D-Tools have excellent support staff and training programs that help us manage the intricacies of our business to their highest potential. Their standardized processes have assisted in improving our company image and we now have more comprehensive communication tools at our disposal when working with clients and project stakeholders. D-Tools is worth every dollar and minute we've spent as it has allowed our firm to reap positive long-term benefits."*

**- Kassa Harrison, Principal at Harrison Home Systems**

*"Utilizing D-Tools and its streamlined process has given myself and our company more satisfaction when delivering these services to our clients. I personally feel that D-Tools is the only end-to-end solution that is able to scale with not only our requirements in terms of functionality, but also with the growth of the business. We have found it to be the most comprehensive all-in-one solution for delivering a professional level of documentation."*

**- James Owens, founder of Draw4**

# RETURN ON INVESTMENT

**Below are examples from D-Tools users that describe how System Integrator has been beneficial to their companies in the areas of estimation, system design, and project management.**

- Atea has experienced a 30% increase in revenues, reduced costs by 20%, accelerated internal business processes by 80%.
- Atea additionally reports that internal user satisfaction has increased by 80% while customer satisfaction has been increased by 50%.
- Buzzfire has reducing costs by 20%, increased revenue by 10%, accelerated purchasing processes by 50%, and reduced system design time by 60%.
- Sound Stage has decreased their time on Quote generation by 30-40%, and decreased Design drawing time by 60%.
- Harrison Home Systems has increased revenue by more than 10%, reduced data management cost by 25%, accelerated proposal creation time by 20%, and reduced employee time on task by 50%.
- Draw4 increased revenues by nearly 50%, reduced operational costs by 20% and employee time on task 50%, as well as accelerated their business process by 75%
- Draw4 also reports that internal user satisfaction has increased by 90% while customer satisfaction has been increased by 90%.
- Access Technologies has simplified and accelerates their proposal process by 30%
- Jones designs increased revenue by 40% and increased business process efficiencies by 50%

# CONCLUSION

Implementing D-Tools System Integrator will create a dynamic business process that promotes company organization by assisting with the initial estimation phase, a method to create clean and concise designs, and a firm basis for project management. Accurate product data that is linked between project phases provides integrators with a synchronized process to track project elements including equipment, labor, and time management.

No other application allows integrators to bring together the entire business process enabling increased revenues, reduced time and costs, and increased overall profitability per project.