

CAD Standards Manager

Automation for Implementation

NCS 4.0 Compatible

collaboration.

consistency.

speed.

accuracy.

quality.

Why CAD Standards? When working as a project team, communication is key. In the CAD world, our deliverable is how we communicate the what, where, and how. The quality and the profitability of our projects are determined by the accuracy of that communication. CAD Standards ensure we are all speaking the same language.

But how to ensure compliance with your standards? With CAD Standards Manager, implementation is achieved with automation. We make it easier for each member of the team to do the right thing than to do their own thing. And our comprehensive auditing and reporting tools ensure 100% compliance.

ROI you can expect from CAD Standards Manager:

Supports

All AutoCAD
Based Products

Collaboration

With today's changing workforce, effective collaboration is paramount. CAD Standards Manager will streamline workflow and create digital files that are easier to share.

Now you can better balance workload between offices or supplement your workforce with outsourcing. Effective collaboration maximizes your team resources, maximizes efficiency, increases production volume and lowers costs.

Consistency

Create better looking plans that are easy to read and understand. Seeing the design clearly facilitates a better design with fewer revisions. A better design saves your client money.

Speed

Improve efficiency in the production process. Accelerate drawing production and increase volume of output. Decrease training requirements and QA/QC investment.

Accuracy

Clarity in the plans allows you to find errors sooner. Reduce your liability and limit post delivery revisions.

Quality

Create a better product. A better design. Better, faster, and cheaper. Your clients will see the difference.



ROI Analysis for 200 User Firm

Measurable ROI = Time Savings

The profit gains from a better, more accurate, more consistent deliverable can be difficult to estimate. A return on investment for these production improvements can be gauged through happy clients and repeat business. Measuring profit gains from better collaboration between disparate offices, shorter time to productivity in new hires, and easier data sharing with sub consultants can also be challenging. One can see a return on the investment in these areas through a normalization of workload across regions, lower staff costs, and faster project completion times.

A straightforward approach to quantify specific gains can be calculated based upon the reduction of man-hours required to perform daily design and drafting tasks. The analysis below is based only on this component of ROI in CMI Standards Manager.

First Year Cost Estimate (based upon 200 cad designers)

Software Costs (initial purchase)

5 Administration Modules (1 for each of 5 offices)	5 *	\$795 = \$ 3,975
200 User Modules for 200 owned seats of CAD	200 *	\$249 = <u>\$49,800</u>
Total Software Cost:		\$53,775

CAD Standard Development Cost

\$50,000

Setup and testing of the company standard including layers, colors, linetypes, plot styles, text styles, dimension styles, cleaning and organizing of symbol and detail libraries, creation of production palettes for specific project groups and disciplines, etc. This is a conservative estimate for a large company supporting many disciplines and several client or agency standards. Smaller companies will be able to cut these costs based upon the number of disciplines they support.

*** Please be aware that this step in standardizing CAD production processes within an organization cannot be skipped no matter what method of implementation of a CAD standard is chosen.

Software Installation / Deployment Cost

\$ 2,500

This is a simple task and can be configured to install automatically on the user stations upon login. The costs shown here are for customization and testing of the deployment.

Training Costs

\$ 6,875

Training on the User module is very simple. Introductory training should consist of a 1 hour webcast with a follow-up webcast at a later date on more advanced customization, compliance and conversion topics. Administrative training should be hands-on, 1 day of training for each administrator, with follow-up technical support included free of charge. This estimate shows costs for 5 administrators (hands-on) and 200 users (by web, 10 sessions).

Total Costs: \$ 113,150

First Year Return on Investment

For the purposes of this evaluation, assume the average time saved by a designer/drafter using CAD Standards Manager is 15 minutes per day. This is a conservative estimate based upon personal interviews with dozens of current Standards Manager users as well as internal time trials performed by CAD Masters' technical staff.

Time savings are realized through quick access to standard symbols and details, ease in the layer creation process, ease in controlling layer status for various drafting tasks and desired views, ease in manipulating xrefs, decreased plotting time, ease in finding data in shared drawings, ease in controlling text, and much more.

ROI based upon hourly billable rate:

15 min/day @ \$90/hour average billing rate = \$22.50 per day per user in savings

200 users @ \$22.50 per day = **\$4,500 per day in savings**

ROI break even point in 25 working days

Alternatively, if we base our savings on actual staff cost rather than on billable rate:

15 min/day @ \$40/hour average staff cost = \$10 per day per user in savings

200 users @ \$10 per day = **\$2,000 per day in savings**

ROI break even point in 56 working days

Potential Profit Gains First Year

Based on the assumption of 15 minutes per day savings per employee, use of CAD Standards Manager will result in an increase in the amount of work an employee can complete each year as follows:

260 working days per year, less 25 working days to break even = 235 profitable days

.25 hrs/day * 200 employees * 235 days = 11,750 additional man hours available per year

Average billable rate of \$90/hour * 11,750 additional hours =

*more than **\$1,000,000 additional profit potential** in the first year*

Yearly Continued Investment

Annual Software Maintenance Costs

Software Subscription Per Year

5 Administration Modules (1 for each of 5 offices)	5 *	\$199 = \$	995
200 User Modules for 200 owned seats of CAD	200 *	\$ 69 =	<u>\$13,800</u>
Total Software Cost:			\$14,795

CAD Standard Maintenance Cost

\$10,000

This is an estimate to cover internal staff costs for continued maintenance of the various standards, input of new client or agency standards, etc.

Software Installation / Deployment Cost

\$ 500

Software updates will need to be tested and deployed.

Training Costs

\$ 1,000

Training on new features, training for new users, or occasional refresher training can be provided by web on demand. This is an estimate of annual costs.

Total Costs: \$ 26,295

ROI based upon hourly billable rate:

15 min/day @ \$90/hour average billing rate = \$22.50 per day per user in savings

200 users @ \$22.50 per day = **\$4,500 per day in savings**

ROI break even point in less than 6 working days each year

Alternatively, if we base our savings on actual staff cost rather than on billable rate:

15 min/day @ \$40/hour average staff cost = \$10 per day per user in savings

200 users @ \$10 per day = **\$2,000 per day in savings**

ROI break even point in 13 working days each year

Potential Profit Gains Annually

Based on the assumption of 15 minutes per day savings per employee, use of CAD Standards Manager will result in an increase in the amount of work an employee can complete each year as follows:

260 working days per year, less 6 working days to break even = 254 profitable days

.25 hrs/day * 200 employees * 254 days = 12,700 additional man hours available per year

Average billable rate of \$90/hour * 12,700 additional hours =

nearly **\$1,150,000 additional profit potential** annually