

A horizontal bar composed of several colored segments: dark teal, light teal, dark blue, medium blue, light blue, and dark teal.

## **Autodesk Buzzsaw Return on Investment**

— Autodesk, Inc.



## Autodesk Buzzsaw Return on Investment

— Autodesk, Inc.

<b>Executive Summary</b>	<b>iii</b>
<b>Analyzing Cost and Establishing ROI, ROO</b>	<b>1</b>
<b>Buzzsaw Survey Data and Analysis</b>	<b>1</b>
ROI Benefits	1
ROO Benefits	5
<b>Hurwitz Group's Analysis</b>	<b>7</b>
<b>Conclusion</b>	<b>8</b>

A Hurwitz Group white paper written for:

Autodesk, Inc.  
111 McInnis Parkway  
San Rafael, CA 94903  
Tel: 415 507 5000

[www.autodesk.com](http://www.autodesk.com)  
[www.autodesk.com/collaborate](http://www.autodesk.com/collaborate)

Published by:  
Hurwitz Group, Inc.  
111 Speen Street, Framingham, MA 01701 ► Telephone: 508 872 3344 ► Fax: 508 872 3355  
Email: [info@hurwitz.com](mailto:info@hurwitz.com) ► Web: [www.hurwitz.com](http://www.hurwitz.com)

August 2002

© Copyright 2002, Hurwitz Group, Inc.

All rights reserved. No part of this report may be reproduced or stored in a retrieval system or transmitted in any form or by any means without prior written permission.

## EXECUTIVE SUMMARY

---

This white paper identifies and quantifies the beneficial effects that the Autodesk® Buzzsaw™ online project collaboration service has on building design and construction industry organizations. The paper's major findings are that average return on investment (ROI) 12 months after installation of Buzzsaw is 370% and that breakeven on total cost of ownership (TCO) is possible in as little as two months. Additionally, the paper details customer benefits, including measurable increases in staff productivity, improvements in project team communication, and significant increases in new and repeat business.

Since the earliest implementations of the Buzzsaw collaboration service, abundant anecdotal evidence has been available showing that online project management produces significant ROI for building design, construction, and maintenance. However, there has been a lack of understanding about the exact nature of the benefits derived from Buzzsaw in terms of size of organization and within distinct industry segments: owners/developers, architects, engineers, and contractors. Autodesk recently engaged Hurwitz Group to conduct a research study\* of actual Buzzsaw implementations. The goal of the study was to provide comprehensive details on both primary hard cost benefits and secondary benefits such as increased business and gains in productivity.

\* The information, data, and results provided herein are intended solely for informational purposes; they may vary and are not a substitute for sound business judgment in light of individual circumstances. Autodesk, Inc. and Hurwitz Group have made every attempt to provide accurate information; however, no warranty either explicit or implicit is made that these results will be replicated in other organizations. No person or company shall be entitled to claim detrimental reliance on any information provided here.

## Analyzing Cost and Establishing ROI, ROO

In the building design and construction industry, as in other vertical industries, cost is a major factor for companies considering a new technology investment. But while cost can easily be measured for many physical business attributes and processes, calculating intangible soft costs can be difficult because of the multitude of variables introduced, especially when a company is considering an implementation as complex as an online project collaboration service. Hard costs — those that are easily identifiable and quantifiable for budgeting purposes, such as hardware and equipment, paper, supplies, and office space — are readily measurable. Companies can easily determine outlays for such materials before and after a software/service implementation and therefore accurately measure return on investment (ROI) based on these hard costs. On the other hand, soft costs — those associated with nontangible items such as staff productivity and communication efficiency — are not so easily measured and therefore can complicate an organization's ability to accurately establish overall ROI.

Return on Opportunity™ (ROO), a new return-measuring tool defined by Hurwitz Group, is an approach to categorizing and quantifying the difficult-to-measure top-line benefits of new technology investments. ROO helps organizations identify areas in which technology implementations affect competitive advantage and business success. Some of the features that ROO addresses are improvements in revenue, productivity, and customer retention. Most organizations are familiar with or have established some methodologies for computing the impact of a new technology implementation on the overriding costs of business operations. The growth of the Internet and the increased acceptance of web-based collaboration services have introduced a number of hard and soft metrics that companies consider when establishing overall cost and determining ROI/ROO. In the building design and construction industry, some of these hard and soft costs could include those associated with production, printing, delivery, productivity, and time to revenue.

## Buzzsaw Survey Data and Analysis

Hurwitz Group took a qualitative and quantitative approach to the methodology of developing Buzzsaw metrics for ROI, ROO, and total cost of ownership (TCO). To refine ROI/ROO benefits and to test the quantitative survey instrument, Hurwitz Group interviewed three Autodesk Buzzsaw customers. For the quantitative research, 50 Autodesk Buzzsaw customers were screened and interviewed by telephone and/or via web-based survey. Responding firms represented all the major segments or disciplines in the building design and construction industry, including architectural and engineering firms, contractors, and owners/developers. Individual respondents included Buzzsaw end users such as project managers and CAD managers as well as senior information technology (IT) personnel such as chief information officers, chief technical officers, and IT managers.

## ROI Benefits

Hurwitz Group research sought to uncover a variety of key metrics, most prominently the breakeven point from original date of Buzzsaw implementation and ROI at 12 months. The benchmarks used to calculate these metrics included average TCO for Buzzsaw customers and the average savings realized in cost for materials and labor. Since Buzzsaw pricing is based on the size of a project and number of users, TCO directly correlates to the size of company and varies widely. Average annual TCO for respondents to the survey was approximately \$17,000, including all hardware, software, and service fees as well as implementation, training, and maintenance costs.

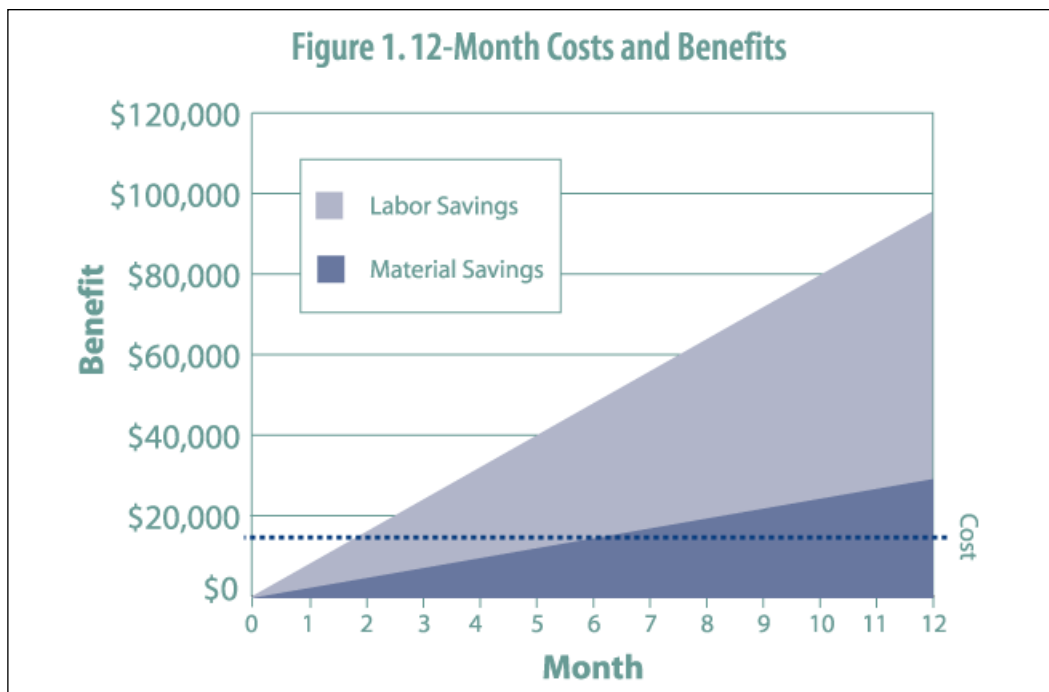
The ROI model developed from Hurwitz Group research uncovers key benefits from installing Buzzsaw:

- ▶ The break-even point (savings on material and labor costs = TCO) averages approximately two to three months.
- ▶ Average break-even times for material savings alone is six months.
- ▶ Twelve-month ROI on material and labor costs averages 370%.

ROI in dollar terms is as follows:

- ▶ Reductions in costs associated with copying, printing, and delivery services average approximately \$30,000.
- ▶ Average annual ROI benefits (including material savings plus labor savings) totaled approximately \$95,000.
  - ◆ Savings on paper, printing, delivery, and travel totaled more than \$30,000.
  - ◆ Savings of more than \$65,000 on the cost of managing project collaboration were realized.

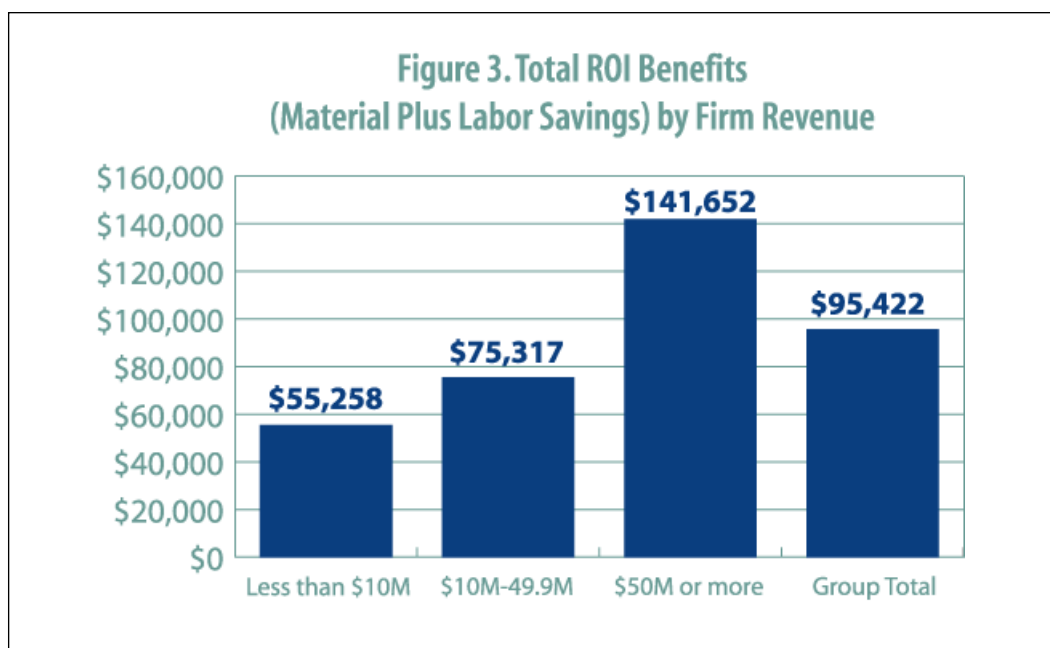
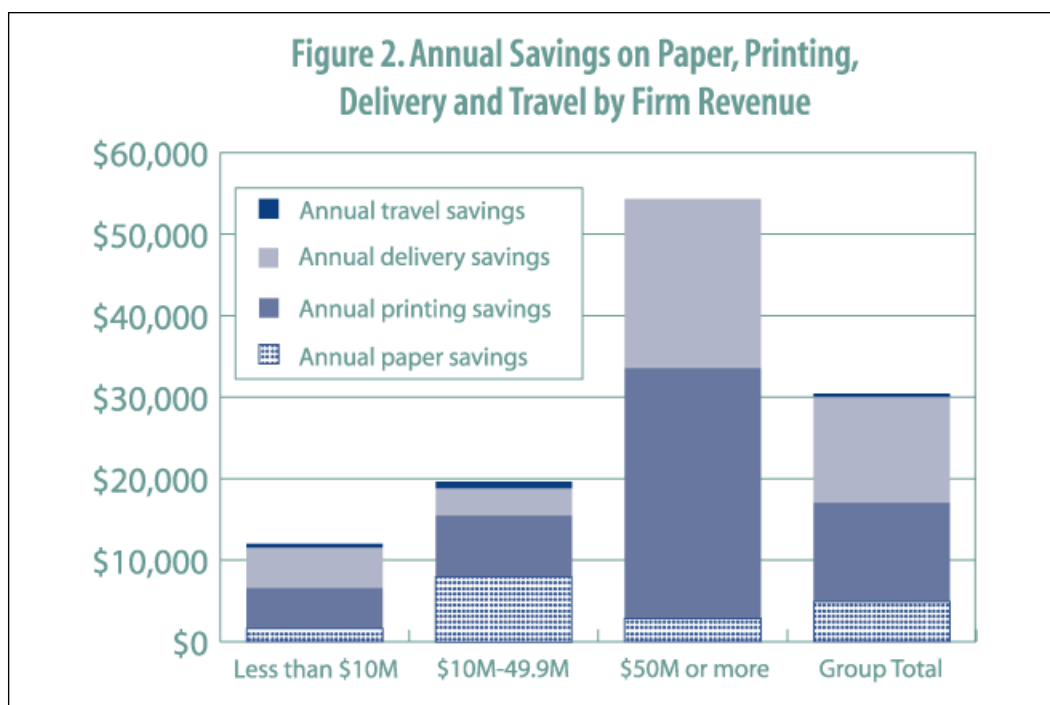
These findings indicate not only that the anecdotal evidence for ROI with Buzzsaw was confirmed, but also that respondents from all segments of the industry realized benefits in very short time frames. ROI material and labor savings and costs over a 12-month period are shown in Figure 1.



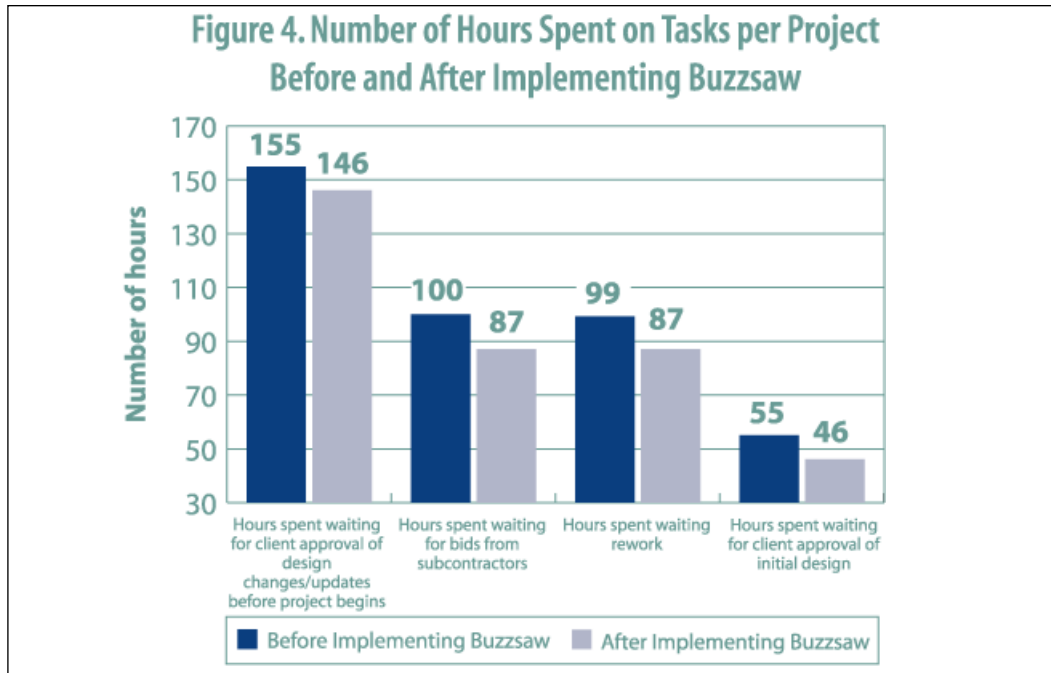
The first metrics defined and measured were related to materials and labor savings associated with a Buzzsaw implementation. The material savings realized were in direct proportion to the size of the company (see Figure 2). These material savings include the use of paper, printing, delivery, and travel; in some instances respondents combined printing and paper costs together.

As expected, large companies can realize a greater ROI, in part because of economies of scale. What is perhaps more interesting is how quickly small and midsize companies can now realize a similar ROI. Among building design and construction companies with \$10 million or less in revenue, average savings on material costs were over \$11,000. Most of the savings were realized in annual printing and delivery

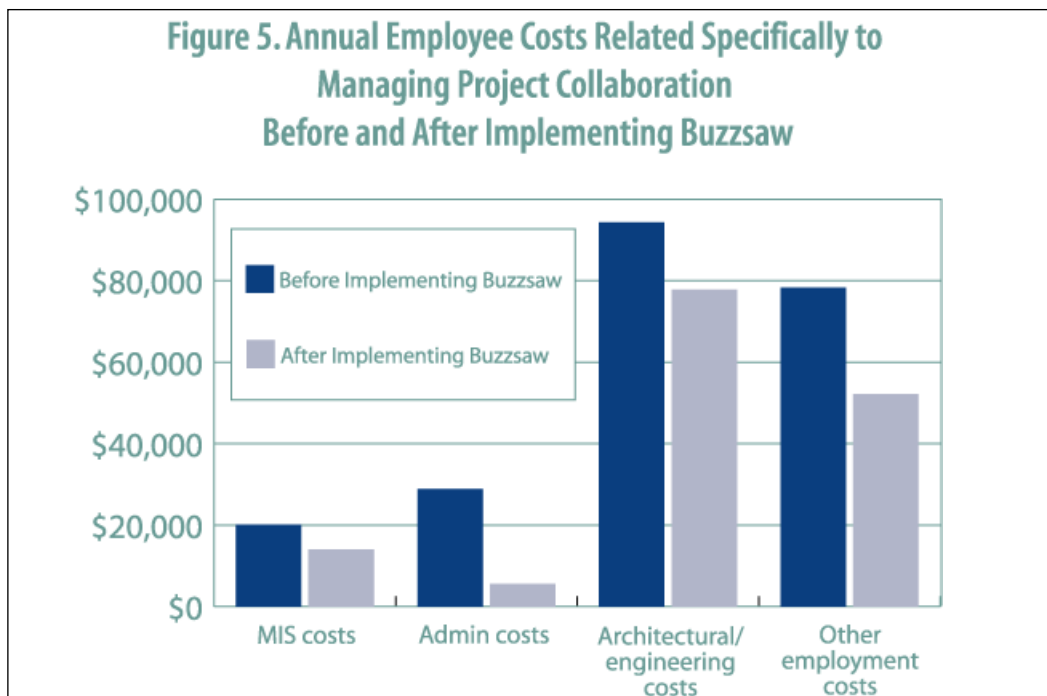
services for these smaller companies. Midsize companies, defined as those with revenues of \$10 million to \$49.9 million, saw annual savings of \$20,000 on material costs, with the greatest savings realized in annual paper and printing expenditures. Large building design and construction companies realized over \$50,000 in annual savings with Buzzsaw. Their greatest returns were from annual printing and delivery. Total ROI for both material and labor costs was higher (see Figure 3).



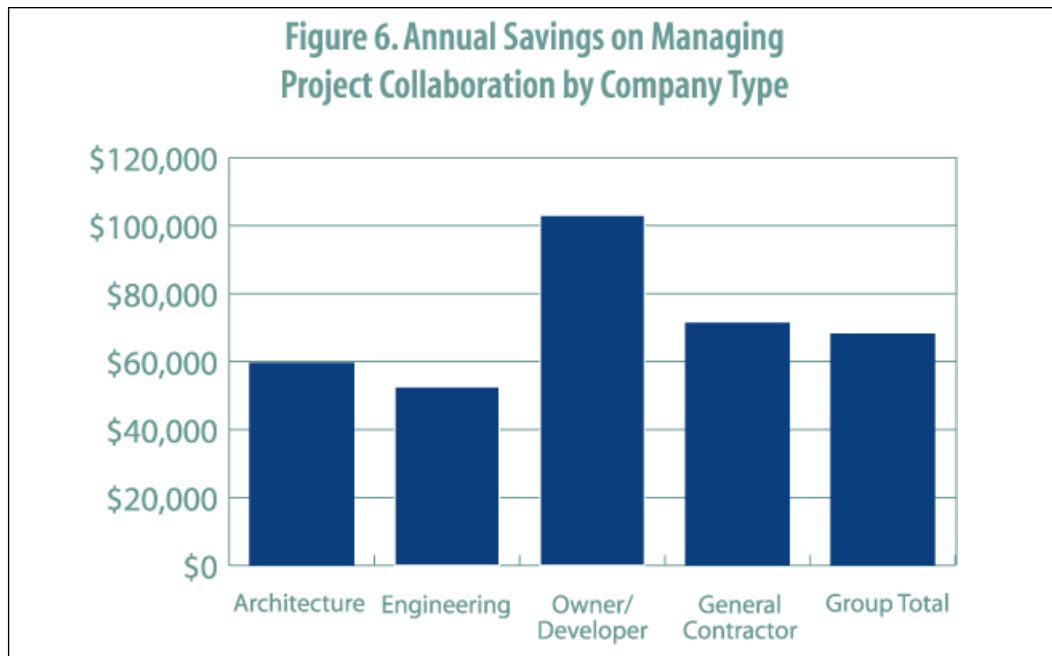
Organizations of all sizes reported a reduction in the number of hours employees spent on downtime or cycle time after Buzzsaw was implemented (see Figure 4). Companies saved a considerable number of hours per project in tasks such as rework, client approval cycles, and subcontractor bid processing. These time savings increase in proportion to the number of projects a company works on simultaneously. Savings related to design and bid cycle metrics provide evidence that using Buzzsaw achieves a return on investment beyond material costs.



After implementing Buzzsaw, companies saw a considerable decrease in time spent on managing the tasks associated with project collaboration. Figure 5 shows the savings in project collaboration costs that companies achieved by employee job function. These job functions represent MIS, administration, architect/engineering, and other employee costs.



Organizations of all sizes reported a decline in the specific collaboration costs associated with specific employee job functions after Buzzsaw was deployed. The combined project collaboration savings detailed in Figure 6 show that high levels of savings related to managing project collaboration were realized by companies in all of the building industry segments.



## ROO Benefits

Hurwitz Group applied its ROO methodology to the surveyed organizations, and the research revealed some key benefits provided by Buzzsaw, including:

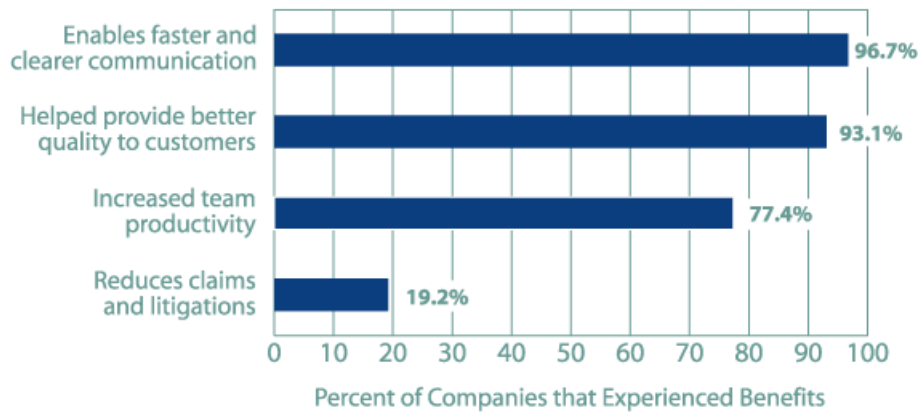
- ▶ An increase in new and repeat business post-Buzzsaw implementation
- ▶ Clearer and faster communication both internally and externally
- ▶ A measurable increase in the productivity of staff

As shown in Figure 7, the vast majority of companies that answered the ROO-related questions indicated that that use of Buzzsaw enabled faster and clearer communication with partners and suppliers (96.7%) and helped in providing better quality to customers (93.1%). Moreover, respondents saw a direct correlation between Buzzsaw and increases in business activity (see Figure 8).

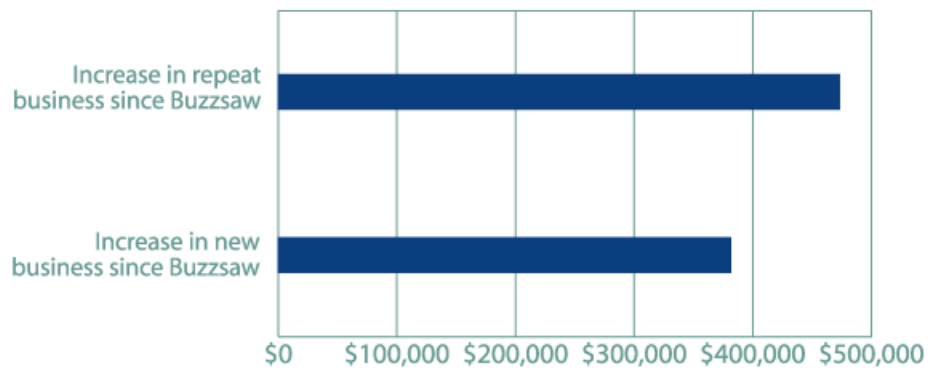
The dollar value of ROO benefits by company type is shown in Figure 9.

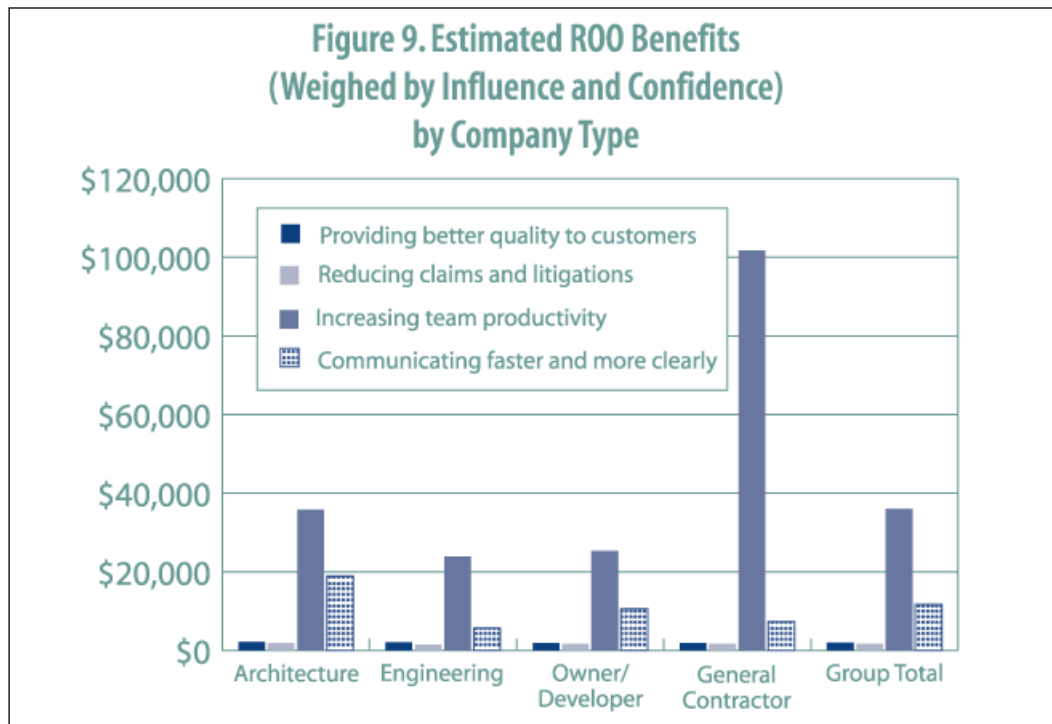
Clearly, all of the responding organizations saw immediate value and return from increasing the productivity of staff while using Buzzsaw. In addition, Buzzsaw users attributed considerable dollar value to the benefit of communicating faster and more clearly with their partners, suppliers, and customers.

**Figure 7. Whether R00 Benefits Were Experienced**



**Figure 8. Competitive Advantage: Increase in New and Repeat Business Since Implementing Buzzsaw**





## Hurwitz Group's Analysis

Today, numerous defined and measurable needs in the building design and construction industry can be addressed by online project collaboration. Suppliers have an opportunity to fulfill vertical organizations' project collaboration needs, and Autodesk meets the need of the industry with Buzzsaw. Based on this research study, the effectiveness of the Autodesk Buzzsaw service can be clearly perceived in that it:

- ▶ Delivers a measurable and effective ROI
- ▶ Speaks directly to the improvement in the quality of the deliverable
- ▶ Increases opportunity for annual savings, which is rare in these difficult economic times
- ▶ Enables organizations to leverage competitive advantage
- ▶ Increases management's ability to research, act, and report on company activities

## Conclusion

Organizations in the building design and construction industry that are evaluating online project collaboration services should consider Buzzsaw because it directly returns on material costs. In fact, material savings alone in many instances can justify a Buzzsaw implementation. Respondents to this survey indicated measurable savings and return on both hard and soft costs associated with the purchase and deployment of Autodesk Buzzsaw. Specifically, respondents highlighted the following savings and return:

- ▶ **Employee costs.** Survey results show that organizations that have implemented Buzzsaw will realize benefits related directly to employee costs specific to project collaboration management. This set of costs saving was, for many companies, sufficient to warrant the investment in a Buzzsaw implementation.
- ▶ **Labor.** Responding organizations indicated time and again throughout the survey that they realized actual labor effort and productivity savings related to Buzzsaw's effect on the design, bid, and build phases. While each company's mileage may vary, the evidence strongly suggests that these benefits translate into a return on the investment made in Buzzsaw.
- ▶ **Soft returns.** A high percentage of respondents realized ROO or soft return benefits after Buzzsaw installation. Some of these highlighted ROO metrics represent the benefit associated with better communication, better quality, increased productivity, and reduced claims and litigation.
- ▶ **Staff productivity.** Organizations clearly reported monetary value in the use of Buzzsaw for increasing the productivity of staff and speed of communication.

Finally, the benefits of many software deployments tend to be summarized in terms of ROI as it pertains to an organization's IT functions. The results of this survey present dramatic proof that Autodesk Buzzsaw provides measurable benefits to the design, construction, and facilities management industries not just by improving IT function, but also by improving overall team productivity, increasing work quality, shortening cycle times, and potentially reducing the cost associated with project collaboration.

*Autodesk and Buzzsaw are either registered trademarks or trademarks of Autodesk, Inc. in the United States and/or other countries. All other brand names, product names, or trademarks belong to their respective holders.*



## About Hurwitz Group

Hurwitz Group, an analyst, research, and consulting firm, is a recognized leader in identifying and articulating the business value of technology. Known for its real-world experience, consultative style, and pragmatic approach, Hurwitz Group provides strategic guidance to its clients by delivering analysis, market research, custom content, and consulting services. Clients include Global 2000, software, services, systems, and investment companies.