



**XACTWARE**<sup>®</sup>  
WHITE PAPER

# Pricing Research Methodology

2.18.2015

## EXECUTIVE SUMMARY

Beginning in 1989, Xactware pioneered a unique and scientific approach to providing building cost data for the insurance repair market. Today, Xactware's cost data is used by both insurers who are responsible for at least one out of every two property claims in the United States and Canada, and by more than 80 percent of contractors and service providers in the repair and remodeling industries who utilize computerized estimating systems. Simply put, Xactware's pricing data is used more often than all competitors' data combined.

This paper examines the history and makeup of Xactware's pricing research and methodology, automated and manual procedures, and provides detail on processes that have been put in place to ensure that this data continues to be the industry standard. This paper focuses on structural pricing methodology. For information regarding research of personal property items, please review the XactContents Pricing Methodology white paper.

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## HISTORY

Since its beginning, Xactware's role has been to report market or prevailing prices based upon industry surveys and recent transactions that have occurred (submitted repair and remodeling estimates). To accomplish this, Xactware researches prices much the same way an independent contractor would—by contacting local materials providers, contractors, and service providers throughout each market.

Over the years, Xactware has refined a "Bottom-Up" and "Top-Down" methodology to align with the real-world processes used by those industry professionals and included a real-time feedback option for tracking client requests and questions.

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## METHODOLOGY

When an independent contractor develops, or updates, the prices they use as a basis for their estimates, they commonly use a multi-pronged approach which includes:

- Reviewing and understanding of the time and material costs (bottom-up) by price surveying local wages, material, and equipment needed to perform the work
- Surveying unit costs (top-down) from local subcontractors and servicers
- Reviewing prices they have used in recent jobs they have performed

Xactware's Pricing Data Services team follows this same multi-tiered approach by performing industry surveys on both time and material (bottom-up) and unit costs (top-down) with more than 50,000 industry suppliers, contractors and servicers across the continent. In addition, Xactware reviews recent transactions in the form of completed repair and remodeling estimates that have been submitted from live jobs in each market.

Within a free market economy, prices can vary significantly among providers for the same product or service. However, competition tends to force most providers to charge prices that are reasonably similar to others who are providing the same product or service in their market. With this understanding, Xactware employs a proprietary cluster analysis algorithm designed by doctorate-level professors with wide experience in the fields of economics and statistical analysis. The cluster analysis algorithm analyzes all submissions, identifies the cluster(s) into which prices are grouped to minimize the impact of outliers, and selects a representative price from the largest cluster. This process is run independently on all information received.

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Each month, Xactware's systems review nearly 20,000 market surveys of randomly selected contractors, suppliers, and service providers. Surveying a random sample of contractors for installed costs would be extremely difficult for every single line item. To expedite the process, Xactware surveys the most commonly utilized items in a trade and then uses the data and the current assumptions for labor yields to update the Retail Labor Rate. This Retail Labor Rate is then used to update all items in a trade. Xactware may also directly survey hourly Retail Labor Rates from contractors when feasible.

In addition, more than 400,000 estimates are returned to Xactware every day either from feedback specifically sent by a user or by utilizing Xactware's assignment network. This enables real-time analysis on the usability of pricing information. Every estimate sent through Xactware's assignment network is automatically reviewed for pricing differences. Millions of estimates representing billions of dollars of actual closed claims files have been analyzed and continue to be reviewed by Xactware's pricing team. The intended goal is to provide cost information to the estimator that reflects the most common price recently submitted, which by definition is referred to as a "market price."

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The combination of using the Bottom-Up (time and material research) and the Top-Down (unit cost research) methods provides a balanced approach which ensures that the unit price derived using the Top-Down method does not fall below the cost of labor, equipment, and materials needed to perform the work. While the Bottom-Up method provides necessary checks and balances to make the analysis fair and accurate, Top Down is the primary analysis method used to impact reported prices. As a result, users can feel confident that when they view a price within a price list published by Xactware, actual work has been completed in their specific geographic area at or near that published price.

In the end, any differences between prices obtained from market surveys and those received from completed estimates are manually reviewed, and resulting price updates are evaluated on an individual basis.

## MARKET CONDITIONS

When the resulting price gathered using the Top-Down method exceeds the sum of all costs gathered using the Bottom-Up method, the difference is placed in a field called "Market Conditions." Market conditions can be caused by a number of forces such as supply-and-demand issues in the local market, or by additional costs, which have been reported in the Top-Down surveys, but not the Bottom-Up surveys. "Market Conditions" provides a secondary level of checks and balances to ensure unit prices are not solely driven by labor and materials needed to complete the work.

## REGIONS AND MARKETS

Xactware publishes separate localized prices lists for nearly 500 individual markets in all 50 U.S. states and 10 Canadian provinces. Each price list is based on local and regional material, labor, equipment, and unit cost information as surveyed from suppliers who service that market. Markets published within the United States are based on five-digit ZIP codes, while those in Canada are based upon the three-character FSA (forward sortation area) portion of the postal code. Each of the approximately 44,000 ZIP codes in the United States and approximately 1,600 FSA codes in the 10 Canadian provinces are continuously evaluated for contractors and suppliers servicing the area and grouped into one of the Xactware published pricing markets noted above.

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The actual number of markets in which Xactware publishes cost information, as well as the boundaries of each market can on occasion change as resort areas are established, as population and infrastructure changes, and/or as the geographic area serviced by local providers grows. Surveys and estimate transactions occurring within the entire market are used in the analysis of evaluating and reporting market prices.

Xactware does not utilize straight demographic information such as median income, cost of living, or rural vs. urban market boundaries to evaluate costs as they do not often align with actual market prices. Evaluation based upon demographic information can lead to the use of area factors, or "modifiers," to create so-called localized prices.

## FREQUENCY

The result of all this work is that price lists for each market are published on a monthly basis. When demand surges occur, causing prices to change more rapidly, price lists can be published as often as biweekly.

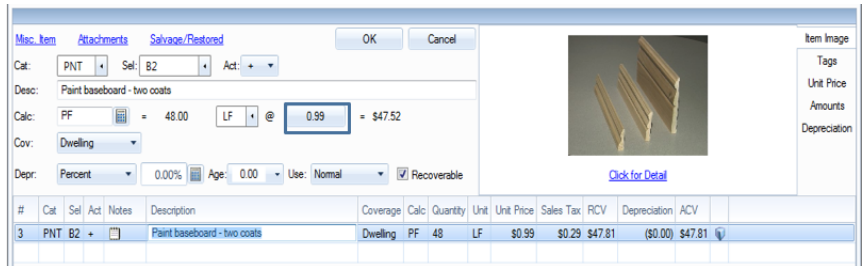
## OPEN FOR INSPECTION METHODOLOGY

Xactware understands that job size and complexity have a dramatic effect on the costs associated with performing the work. It is important to note that when publishing a database that uses "installed unit prices," the prices must be based upon an assumption for job size and complexity. Xactware's goal is to target the most common job scenario. However, understanding that prices can vary from job to job, Xactware has made every effort to ensure that all details associated with published prices are "Open for Inspection."

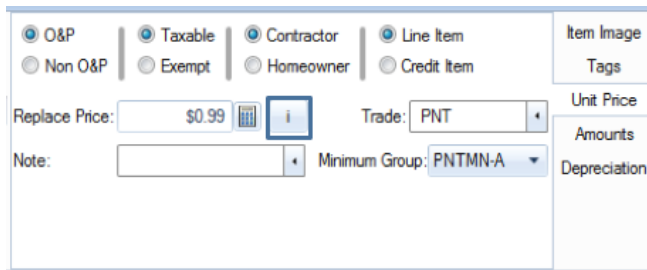
After selecting a price list item within an estimate, all users can “drill down” to view—and edit if they have authorization—detail within the price in Xactimate. Do this by using the following steps:

1. Click on the unit price button from the line item entry pad.

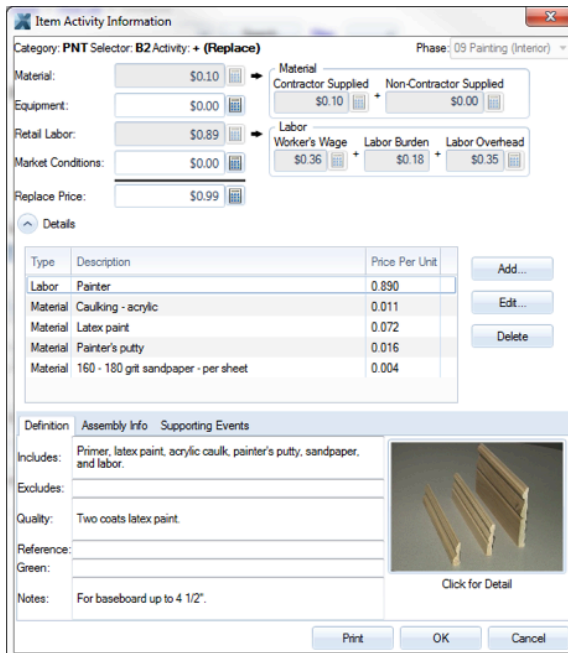
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2. Click the Information [i] button to open a window that allows the user to modify the unit price directly, or drill down even further to the line item assembly.



3. Use the Item Activity Information window to review the line item assembly detail.



The Item Activity Information window displays all pertinent detail about the item price, allowing the user to view the information gathered using both the Top-Down and Bottom-Up approaches. The first section of the window outlines the unit price and is the result of Top-Down research and analysis.

The middle section of the window lists the components involved in the item and is a result of research and analysis performed using the Bottom-Up approach.

The last section of this window is also reserved to show the item definition (which includes detailed information on the components of the item), the quality of the item, and, if applicable, the manufacturer or model reference number.

Definition	Assembly Info	Supporting Events	
Type:	Labor		Direct Yield: 75.940
Component Code:	PNT		Component Price:\$46.310/HR
Supporting Events:	PNT-LAB		Yield: 52.209
	(31.250)		Price Per Unit: \$0.890
Description:	Painter		Price Per Unit = Component Price / Yield
Yield = Direct Yield * (1 - (Supporting Events / 100))			
			Print OK Cancel

## INDEPENDENT VERIFICATION REQUESTS

On occasion, Xactware receives notice from a customer that a published price may need further review. When this occurs, the Xactware pricing team begins a process called an Independent Verification Request and Response.

The pricing team analyzes the submitted price and makes contact with those companies and individuals listed to determine if the figure constitutes a true difference or a random difference in price. Essentially, the question becomes “Does the submitted price fall outside or inside the cluster of prices that have already been analyzed for this price list item?”

If the price falls outside the cluster of existing data and constitutes a true difference, Xactware performs a random sample survey on contractors and service providers in the area. Those who are included in the survey are selected from a list of all known contractors and service providers in the area, and they are extracted using a formula that provides a true random sample subject to a 95 percent confidence rating.

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Once the results of the survey have been gathered, data is run through the cluster analysis algorithm and the resulting price is then updated on the Xactimate price list.

Regardless of whether a price is changed or not, the results are always communicated back to the individual(s) who submitted the original Independent Verification Request.

Requests can be submitted to Xactware via phone, or email through a dedicated country-specific address to pricing@xactware.com for the United States, or pricing@xactware.ca and prix@xactware.ca for Canada. In order for the request to be expeditiously handled, Xactware asks for as much information as possible regarding the line item in question. Requested data includes:

- customer submitting the request
- city in question
- line item in question
- price that the customer feels is correct
- contact information for contractors, subcontractors, suppliers, etc. who can verify the price submitted

## SUMMARY

Xactware recognizes that individual costs required to repair or rebuild a structure can vary between structures due to differences in size, complexity, accessibility and location. Additionally, prices charged by contractors and suppliers vary based upon their company's size (overhead) and/or perceived quality of work and level of service. In the end, the correct price for any job is based upon an agreement between the purchaser and the provider: the price which the purchaser is willing to pay and the provider is willing to work.

Xactware's role is to report a market price based upon recent transactions that have occurred and industry surveys. Primary data sources include labor, equipment, or material providers; contractors, subcontractors, service providers; and Xactimate customers. Information is acquired using a combination of surveys (phone, fax, or email), direct data feeds from suppliers, and completed estimate transactions and bids.

Xactware uses a cluster analysis to analyze all submissions, identify the largest group of prices from those submitted, and pick a point within the appropriate range. The intended goal is to provide cost information to the estimator that is reflective of the most common price recently submitted. This by definition is referred to as a "market price."

*Xactware uses a cluster analysis to analyze all submissions, identify the largest group of prices from those submitted, and pick a point within the appropriate range.*

As Xactware's published cost information is a reported market price based on recently acquired submissions, there is no way to be certain that any published price will be appropriate for a specific contractor, repair, or structure. Having cost information that is based on recently submitted prices, however, is an extremely valuable tool in creating appropriate repair estimates, providing a basis from which the estimator can then decide whether the price should be accepted or adjusted. This process significantly enhances the claims settlement process.

In addition, as many structures are unique, there are many items and tasks that are either so custom by nature or that occur so seldom that the research or reporting of a market price is not possible. As such, Xactware's published price list is not intended to provide costs for every potential item. Xactimate, therefore, provides users the full capability to create and/or modify any costs as needed to match the conditions of the specific job or their company.

## THE XACTWARE PRICING TEAM

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The Xactware pricing team comprises a number of individuals with experience in the construction and restoration industries, monitored by an economist. While each team member has a background in one or more of the construction trades, together they have more than 600 years of combined construction experience. Their specific experiences cover the full spectrum of construction trades and multiple IICRC certifications in restoration. Several are also licensed general contractors. A brief summary of the members of the pricing team is as follows:

- 8 Licensed General Contractors
- 1 Certified Master Inspector (CMI)
- 1 Certified LEED Accredited Professional (LEED AP)
- 8 IICRC Certified Carpet Cleaning Technician (CCT)
- 4 IICRC Certified Carpet Repair & Reinstallation Technician (RRT)
- 2 IICRC Certified Master Fire & Smoke Restorer (MSR)
- 4 IICRC Certified Fire & Smoke Damage Technician (SRT)
- 1 IICRC Certified Journeyman Fire & Smoke Restorer (JSR)
- 4 IICRC Certified Health & Safety Technician (HST)
- 3 IICRC Certified Odor Control Technician (OCT)
- 5 IICRC Certified Upholstery Cleaning Technician (UFT)
- 4 IICRC Certified Journeyman Textile Cleaner (JTC)
- 12 IICRC Certified Water Restoration Damage Technician (WRT)
- 3 IICRC Certified Journeyman Water Restorer (JWR)
- 4 Lead Safety for Renovation, Repair & Painting (RRP) Training Course
- 5 OSHA 10 Hour General Industry Safety & Health
- 2 RIA Certified Restoration Technician (CRT)





Xactware.com

**Xactware European Headquarters**

4th Floor, 40 Gracechurch Street  
London EC3V 0BT

Office: 020 7680 4970  
Fax: 020 7680 4999

eusales@xactware.com

**Canadian Sales Team**

6-5509 Canotek Road  
Ottawa, Ontario, Canada K1J 9J8

Office: (800) 931-9228  
Fax: (877) 736-4373

canadiansales@xactware.com

**Xactware in de Benelux**

Eric Van der Wolk  
The Insurance Toolbox, Managing Director

Mobielnr: +31 6 19 35 65 74

eusales@xactware.com

**Xactware Corporate Headquarters**

1100 West Traverse Parkway  
Lehi, UT 84043

Office: (801) 764-5900  
Fax: (801) 932-8013

xsales@xactware.com