



## AutoComplete QuestField Business Benefits

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Summary: This document lists various business benefits of AutoComplete QuestFields, based on internal research and 1,5 years of actual use by MasterObjects' enterprise reference customers. AutoComplete QuestField business benefits lead to a quicker ROI than offered by any other "Rich Internet Application" technology on the market today.

### Business Benefits Overview

The AutoComplete QuestField, the first product based on MasterObjects' unique patent-pending QuestObjects technology, offers various tangible and intangible business benefits. These business benefits vary depending on use. AutoComplete QuestFields can be applied to find or enter various types of data, such as people, products, accounts, branches, airports, categories, etc. QuestField-enhanced applications can be used internally (by employees in the intranet or clients in an extranet) or publicly (on the Internet).

⇒ For an introduction of QuestFields, the QuestObjects technology, and a comparison with other "Web 2.0" technologies, please visit the MasterObjects website at <http://www.masterobjects.com>

#### *Intranet benefits*

In a corporate environment, significant employee time savings can be derived from using a QuestField. Employees find information quicker after replacing existing search fields by QuestFields. In intranet data entry applications, AutoComplete QuestFields not only increase user speed, but also result in increased data accuracy, leading to far fewer errors that are often costly to correct.

#### *Extranet benefits*

In an extranet setting, QuestFields lead to happier clients by offering a significantly improved user experience. Clients make fewer data entry mistakes, experience less frustration while trying to find information, and are thus less likely to switch to a competitor.

#### *Internet benefits*

In an Internet setting, AutoComplete QuestFields allow website visitors to find information easier and quicker than ever before possible. This leads to improved user satisfaction, increased traffic from return visitors, increased advertising revenues, and enhanced conversion rates in ecommerce applications.

#### *Enhanced browser applications*

QuestFields allow browser applications to offer search and data entry features that were previously reserved to "fat" applications that needed to be installed and maintained on the user's system. Browser applications lead to inherently lower maintenance costs, but traditional browser applications were cumbersome and often decreased user efficiency and user satisfaction. With QuestFields, users no longer need to install or switch between separate applications in order to efficiently look up or enter information from various content sources.



## Programming-free

Contrary to other "Rich Internet Application" technologies available today, QuestFields offer an "end-to-end" solution that requires no custom programming. QuestFields can easily be added to any existing or new browser application, and the QuestObjects Server connects easily to existing databases. QuestFields pose very few restrictions on HTML and on the web development tools used. Moreover, QuestFields are compatible with over 99% of browsers in use today.

## Cost Savings

### Time savings

The "QuestField Success Story", a document that was formally approved by MasterObjects' reference customer, mentions the organization's original estimate of *over \$3 million* in annual cost savings derived from time savings incurred by the use of the PeopleFinder QuestField instead of the traditional PeopleFinder application. Since deployment of the first PeopleFinder QuestField, the reference customer and MasterObjects have created several internal reports based on an in-depth analysis of customer QuestObjects Server logs. These confirm that the time savings are significant.

Here are some key figures from the April 2006 QuestObjects Server log report:

- the average number of queries per day (handled by four server instances worldwide) is around 100,000;
- the number of simultaneous queries at any one time peaks at around 100 per server;
- the average query response time is 300ms;
- the QuestField is highly reliable (the reliability rate is 99.96%, or 1 failure in 2,423 queries, which includes external factors such as failures and downtime caused by temporary unavailability of the LDAP directory);
- no QuestObjects-related server restarts have ever been needed.

MasterObjects has designed an Excel spreadsheet, [questfield-value-calculator.xls](#), that calculates the cost savings derived from using a PeopleFinder QuestField.

*Based on MasterObjects' introductory list prices and time savings alone, for medium and large enterprises a PeopleFinder QuestField has an estimated ROI of 1-3 months*

### Development savings

Traditionally, creating "rich" browser applications required a significant investment in development tools and custom development time. QuestFields, for the first time, turn this into an easy "Make versus Buy" decision: With no custom development whatsoever, using QuestFields existing browser applications can easily be improved to derive the business benefits described in this document.

An AutoComplete QuestField can be added to a page almost as easily as an image. In the reference customer's case, the QuestField replaced an existing input field. Users can still submit values from the QuestField to open a details page for the selected person. But even without the underlying "traditional" application, the QuestField is very valuable, as is shown by the following conclusions in the log analysis report:

- 31% of users use a match (phone number or email address) without ever leaving the QuestField or submitting the page. About 10% of this group has found a match within 10 seconds after they type the first character. About half of this group (that's about 15% of all users) spends more than



35 seconds using the QuestField to perform multiple person lookups. 1% of all users spend more than 70 seconds using the QuestField (these are likely secretaries and other "heavy users").

*The total cost of a full QuestField implementation is less than the license fee associated with the average Rich Internet Application development tool or framework alone*

*Unlike development tools or frameworks, QuestFields do not require significant training, programming, testing, or ongoing maintenance*

### *Infrastructure savings*

By caching and intelligently distributing queries from multiple simultaneous users, the QuestObjects Server minimizes the load on the underlying databases. A QuestField only transmits over the network the results that a user is looking at, further minimizing the load on the network. The QuestObjects Server application runs on the same hardware alongside the database or existing web applications. Typically, no additional hardware or third-party software licenses are required.

Thorough pre-deployment load tests performed by two major multinational enterprises have shown a "surprisingly small load on the LDAP directories". Related results from the log analysis report:

- with a cache expiration set to one hour, 18% of user queries is served from the cache (note: these are typically the most generic and thus "expensive" queries on the underlying database);
- PeopleFinder QuestField users, on average, type 5.5 characters to perform a person query. Most frequently cached queries longer than 2 characters at the reference customer were: (1) smith (2) lee (3) garcia (4) johnson (5) van (6) sch (7) tan (8) brown (9) perez (10) miller (11) martin (12) jones (13) wilson (14) mar (15) williams. These frequent queries provide a near-instantaneous response using a QuestField, where traditional web applications often "choke" on them.

*A QuestField minimizes the load on the existing IT infrastructure while maximizing the user experience*

## **Efficiency Enhancement**

### *Overall user efficiency*

The benefits of using a QuestField go beyond tangible cost savings. One intangible benefit is the increased user efficiency. This increases intranet user productivity and drives traffic to the Internet site.

Here is a relevant extract from the QuestObjects Server log analysis report that was created after a full year of uninterrupted PeopleFinder QuestField use:

"The users seem to take less time to get to an answer (...). Since the previous report, the QuestField has accelerated the action of finding the intended person. Overall efficiency has increased as users have become accustomed to using the QuestField rather than relying on the separate results page that appears after submitting. One side effect is the increased number of timed out sessions (and therefore the increased number of concurrent sessions)."



"I love this, it is simple and very useful!"

"This is a great enhancement. It is very intuitive and easy to use. The approach taken is very self documenting."

"This new PeopleFinder banner search gives greater convenience and integration to mail application. There is no need to switch from window to window which is great."

"Very nice to see name / telephone number / email icon without having to view all details  
- telephone very useful, not sure how often I would use the email function  
(but very nice to have!)"

"This a much more efficient way to find an individual."

"I tested everything on my PC with Mozilla 1.7.3 and it worked just as well as on IE so that made me very happy. As it is, this now matches the capabilities I already had in the Mozilla address book connected to the ... LDAP server. It's still good that this is now built into the banner so I don't have to pop up an address book window to do the lookups, and for an IE user it's probably much better."

"I like the new search functionality. If I am not sure about how to spell someone's name, I have been using Outlook to do the same thing. Now I don't have to."

"I'm a big fan. Easy to use and meets my personal needs, and I like the detail given with the name in order to differentiate the results (phone number, location, etc.)."

"a great upgrade - i develop on linux most of the time and having to switch back to windows to find somebody is annoying"

"I think the majority of the population will find this feature very useful, I know I like it better. Keep up the good work and thanks for your efforts."

— first day user feedback after deployment on a major multinational intranet

#### *Increased user satisfaction*

Like no other browser application, QuestField-enhanced pages provide immediate feedback to users, even if they misspell an entry, or if they do not know the exact contents of the database. Correcting a query in a QuestField is as simple as hitting "backspace". No page reload is necessary.

*Improved user experience leads to an immediate boost in sales:*

*"Just a week after a major Ecommerce site introduced a (similar) tool that lets people search the entire text of many books it sells, the online retailer reported that this new feature lifted sales for searchable books by 9%"*

#### *Decreased burden on other resources*

QuestFields, for the first time, make large databases available for direct access from any browser page. Users no longer have to resort to switching between various local applications. QuestFields also decrease the necessity to use other information resources, such as the company operator or a printed directory or catalog.



"Corporate intranets do improve an employee's ability to access information needed to do the job. They enable the employee to connect with other employees more easily. For large companies, they also serve as a cost-effective communication tool, saving employee time and employer dollars. But whether that extra time is used to conduct more business, make better decisions or simply to leave work early is hard to tell. No amount of intranet analysis or market research is going to change that."

— Avenue A | Razorfish Intranet Best Practice Report  
(<http://www.avenuea-razorfish.com>)

### **QuestFields Value Proposition Shortlist**

The list below gives an overview of the reasons why QuestFields provide value to enterprises of any size. QuestFields can:

#### *Overall*

- Give your website powerful new data search capabilities immediately
- Give your website advanced UI features immediately

#### *Development*

- Save your developers time
- Improve your developers productivity
- Let developers concentrate on real business rules, not on technology
- Allow website designers to improve applications without the need for developers

#### *Employees*

- Save your employees time
- Improve your employee productivity

#### *Website visitors*

- Give your visitors faster access to more accurate and more useful data
- Keep your visitors on your website longer
- Improve your visitors' experience
- Save your visitors frustration and aggravation
- Save your visitors time
- Save your visitors money (time is money)

#### *Ecommerce*

- Get buyers to the product they want faster
- Increase website purchases
- Increase your revenue

#### *Support*

- Reduce support calls
- Reduce manual information inquiries