

## The Economic Value of Software Architecture

#### The Value of Design

There is clear economic value in doing software design over "hacking". The use of well-structured design helps software projects accomplish their goals more often and produce results that are predictable and reliable. With "hacked" software, it is difficult or often impossible to extend, fix, upgrade or otherwise maintain the resulting software "assets".

In other words, "design" is well worth its premium price.

Unfortunately, not all designs are equivalent and it's not easy to tell the right design from the wrong one until it's too late. But it can be done.

#### The Value of Architecture

Any number of software design concepts can usually satisfy a project's functional objectives. Many designs will "work", but one might be more flexible and pliable than another, or have modularity that isn't found in others. All these things make a difference when you're investing a lot of money developing a piece of software that will live and grow with your business. This is where architecture becomes important.

Architecture focuses on "large-scale" concerns and adds constraints and discipline to design so the result is a solution you want; not just a solution that simply "works". Typical examples of large-scale architectural concerns include: security, distribution, database management, scalability, legacy integration, transaction management, fault management, and application control. Architectural "constraints" include: how software components interact, how capabilities are accessed, and guidelines that are applied to the design of software components. Architecture allows you to decide up-front which of these qualities are most important. Then it's used to constrain design choices. With architec-



Doing architecture helps plan for design

ture, the design concepts that most closely reflect functional objectives can be selected and achieved.

Unfortunately, without architecture, the chances of having the wrong design are very high. The end result? The wrong design means the wrong software and the wrong software means your investment has been compromised.

### The Cost of Software Architecture vs. the Value

Compared to a large software investment, the cost of software architecture is very modest. A commitment to architecture, however, is not easy; it involves significant discipline, process, and skill.

The "sphere of influence" that architecture has on a project is great. A sound software architecture can significantly reduce project risks, enhance productivity, reduce costs and accelerate time-to-market. Architecture influences an entire project, and potentially other projects. The economic value of software architecture is no less than the value of producing the right software. Thus, the value of software architecture is greater than the software project itself.

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As a leading provider of software solutions and services for e-business applications, Blueprint Technologies specializes in providing sound architectures and world-class leadership that will allow you to maintain the peak competitiveness through your technology infrastructure. Our Total Blueprint Solutions, proven "executable" architectures based upon a framework approach, and software architecture expertise can improve the methodology you use to create software and will ensure that your investments yield results you want - now and in the future.

Software architecture... designed, modeled and built to withstand the test of time.



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