

## OUTSOURCING

Outsourcing is the practice of contracting an outside organization to develop software instead of developing it in-house.

<b>Main Benefits</b>	The potential for faster development due to vendor expertise, resource availability, reusable artifacts, and staffing flexibility. Some potential for reduced budget through utilization of lower cost labor from a different labor market
<b>Keys to Success</b>	Carefully selecting and contracting with the vendor, planning to manage the outsourced project at least as closely as an in-house project, frequent communication with the vendor, doing a good job of specifying the requirements, and carefully managing change.
<b>When to Use</b>	<p>Outsourcing should be used when the outsource company has more expertise in an applications area, more engineers available to work at a given time, or reusable artifacts to draw from. The combination can result in a dramatic reduction in the time needed to deploy a new product.</p> <p>Cost reduction with outsourcing is possible, but make sure reasonable assumptions, estimates, schedules are being used. Fixed price bids provide a way to control costs, but the client still needs to carefully analyze vendor estimates – no one wins if a project is late or is never finished.</p>
<b>Main Risks</b>	<p>The main risks associated with outsourcing are transferring expertise outside of the organization, loss of internal team morale, and loss of visibility and control of detailed project work.</p> <p>These risks are magnified by geography, language, and cultural distance.</p>

### Overview

Outsourcing can provide an organization access to a flexible engineering resource and specialized capabilities. So called “off-shore” outsourcing is the practice of outsourcing to take advantage of lower labor rates in a different labor market.

Because outsource software is built off-site it can be even more difficult to understand the current status of a project than when the software is build in-house. Compensating for that lack of visibility requires astute and attentive management and good communication with the vendor. As a rule, outsourcing requires even more skillful management than in-house development.

Outsourced software is generally built under some variation of a time-and-materials or fixed-price contract. Regardless of the contract type, careful specification of requirements and managing the scope of the engagement are critical to ensure both vendor and client are aligned on the work being performed, its cost, and the delivery schedule.

### CxOne Support

CxOne provides support for outsourcing with the *outsourcing* and *project management* materials. Outsourcing checklists provide guidance for selecting and contracting with an outsource vendor. Project management materials provide support for ongoing management of the vendor throughout the engagement.

## Interactions with other Best Practices

On the customer side, effective outsourcing is an exercise in effective project management and risk management, and you need to be especially conscientious about those activities. Outsourcing may involve special challenges during requirements, design, and deployment phases.

## Further Reading

Marciniak, John J. and Donald J. Reifer. *Software Acquisition Management*. New York: John Wiley, 1990.

Humphrey, W. S. and W. L. Sweet. *A Method for Assessing the Software Engineering Capability of Contractors*. SEI Technical Report CMU/SEI-87-TR-23, Pittsburgh: Software Engineering Institute, 1987.

Humphrey, Watts S. *Managing the Software Process*. Reading, Massachusetts, Addison-Wesley, 1989.

Dedene, Guido and Jean-Pierre De Vreese. "Realities of Off-Shore Reengineering," *IEEE Software*, January 1999.