## Roles, Responsibilities, & Authorities

Team of Leads

CxOne defines a flexible project team structure that provides a champion for each critical software discipline. The diagram below describes CxOne positions for a typical software development project.

These positions are commonly referred to as "hats". On larger projects this ensures necessary effort is given to each area. On smaller projects, engineers wear multiple hats and often will perform work as an engineer for other leads. Even on a two (or even one!) person project, calling out these responsibilities and using them to force thinking from different perspectives can be useful.
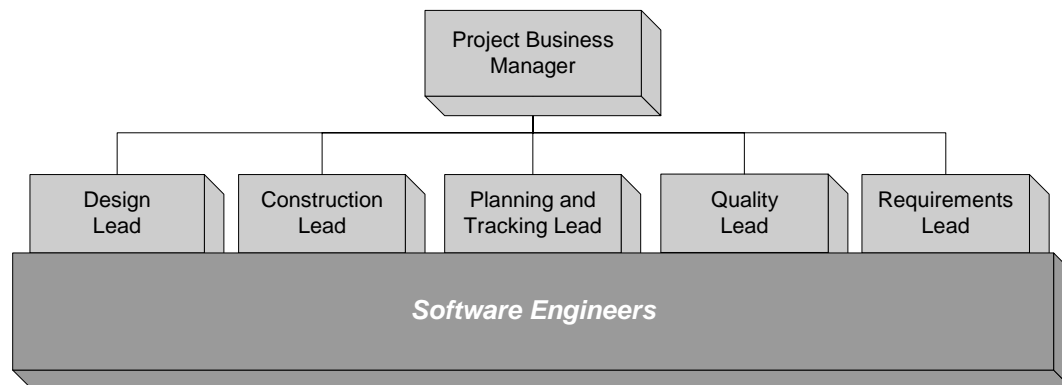
Project Team Structure

The responsibilities for planning and managing the work are split between a group of technical leads and the project business manager (PBM). Using an analogy with the movie industry, the PBM can be thought of as the producer (handles business issues), and the group of technical leads can be thought of as sharing the duties of a director (handles technical execution).

A pool of engineers carries out front-line work on the project. Depending on the project and organization, this pool may be a group of cross-trained people that share responsibilities, or specialists may be provided from different areas to work under specific leads.

Standard Project Positions

The following roles are considered the nominal oversight structure for a project. If a project has specific needs for technical leadership in other areas, project business managers should create specific lead positions for the project's needs (see next section).

Standard Project Role Description

Position	Responsibility
Project Business Manager	Responsible for successful business outcome of the project. In charge of project staffing, acquiring resources for the project, personnel issues, top-level work assignments, and stakeholder interaction.
	Is the top decision maker on the project, but normally defers technical decisions to the appropriate technical lead. Resolves disputes between project participants. Responsible for coordinating the activities with the stakeholders, project sponsor, and project reviewers.
	See the CxOne Project Business Manager checklist for more information.
Planning and Tracking Lead	Directs overall flow of technical work on the project. Directly responsible for project planning and overseeing the execution of work breakdown, estimation, scheduling, and tracking.
	See the CxOne Planning and Tracking Lead checklist for more information.
Requirements Lead	In charge of eliciting, defining, maintaining, and tracing detailed product requirements. If necessary, separate sub-leads for UI design, documentation, and other areas may be assigned.
	See the CxOne Requirements Lead checklist for more information.
Quality Lead	Plans and directs all quality assurance and quality control activities including reviews and testing. Sub-leads may be assigned as appropriate.
	See the CxOne Quality Lead checklist for more information.
Design Lead	Responsible for the system architecture and overseeing design activities. As appropriate may assign sub-leads for functional areas of the product or for technical specialties such as database, graphics, driver, distributed processing, communications protocol, etc.
	See the CxOne Design Lead checklist for more information.
Construction Lead	Responsible for construction, integration, product builds, development environment, and deployment. As appropriate, may assign sub-leads for functional areas, environment, integration, deployment, etc.
	See the CxOne Construction Lead checklist for more information.
Software Engineers	A pool of software engineers that can be assigned various tasks on a project based on ability and interest. On many projects engineers will perform activities for more than one lead, and leads of one area may work as an engineer in a different area.

Custom Project Positions

Creating additional specialized lead positions on a software project allows for specific project needs to be more effectively met, because each areas has its own visible lead position. This structure allows distribution of lead responsibilities to take the best advantage of staff capabilities while providing many opportunities for professional development.

The project business manager should be careful to ensure that the splitting of responsibilities is balanced against efficiency of decision making. Requiring every lead to be involved in every decision will not likely be the most efficient way to run the project.

External Project Roles

The diagram below describes the CxOne model for external interfaces on a typical software development project. The project business manager is the focal point for communication in and out of the project, although it is quite likely that many other communication channels will develop between team members and stakeholders outside the project.
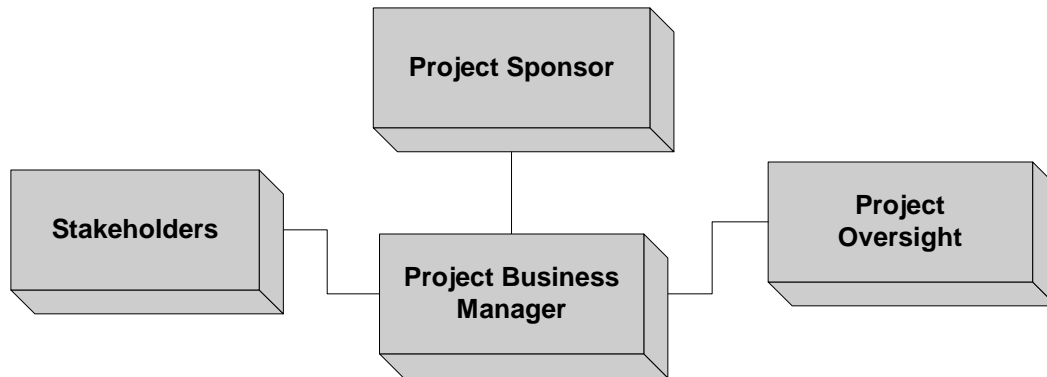

Figure 6-2: External Project Interfaces

External Project Positions

Position	Responsibility
Project Sponsor	The project sponsor is part of inception, approves resources for the project, directly oversees the project business manager, and is responsible for the project meeting the goals of all stakeholders. *See the CxOne Project Sponsor checklist for more information.*
Project Oversight	Experienced and objective technical and management oversight from individuals who are not directly involved in the project. Examples include a SEPG, a project reviewer, external consultant, etc. *See the CxOne Project Reviewer checklist for more information.*
Stakeholders	Any individual or organization that is explicitly recognized as being directly or indirectly affected by the project outcome.