

High Performance Development Teams



Much of the process described in Evolutionary Development is oriented towards a high-performance team environment. From JAD sessions to daily team interactions, much of the speed and quality of development depends on building good teams. This parallels the emphasis in many organizations today on “teams.”

A team is a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach for which they hold themselves mutually accountable. An Evolutionary Development team adds the additional characteristics of having dedicated resources that are located together.

Small, Dedicated Core Team

For Evolutionary Development projects, fewer than ten should be on the core team. The intense interaction necessary for a team to “jell” is nearly impossible with larger groups. In selecting the team, a “multi-disciplinary” approach, with respect to skills, needs to be taken—technical skills, customer area business skills, problem-solving and decision-making skills, and interpersonal skills.

Core team members should be dedicated to the project full-time. Given the realities of most organizations, full-time may not mean 100%, but it should be at least 85%. Part of the reason Evolutionary Development works is that it demands an organization abandon much of the staff fragmentation so prevalent when projects take years to complete. Concentration of resources is key to speed. Depending on the project, and again organizational reality, client involvement on a core team may be somewhat less. A key point here is that the client core team member needs daily involvement with the team, not necessarily full-time involvement.

The team also needs to be co-located. Again, part of the reason Evolutionary Development projects are faster is the intense interaction and communication between team members. High levels of feedback on progress, both with clients and among team members, is critical. Many organizations set up team “war rooms” to be used for these projects.

Common Purpose and Performance Goals

Again and again, Kazenback and Smith reiterate that all other team-building efforts combined will not produce the desired results without the right purpose and goals to which the team is committed. The Project Data Sheet, and in particular the project objective statement and tradeoff matrix, provide the team with purpose and goals. The objective statement and matrix should be re-stated during every JAD, Customer Focus Group, and management presentation. They should also be in the header for every project status report.

Common Approach

Teams can squander their advantage of a common purpose and goals if members constantly argue over approach. These range from communications to role definitions to development methods. It is important that the team discusses and agrees on these items early in the project.

Mutual Accountability

In a society that stresses individuality, and particularly organizational cultures that emphasize individual accountability, it is often very difficult for team members to subordinate their individual performance to that of the team.

Truly jelled teams develop their own sense of reward because they believe in the project’s vision. They are willing to subordinate their personal agendas and rewards to those of the team, and thereby provide the foundation

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that allows the team to far outperform a group of individuals. It is not easy. Building the trust to achieve mutual accountability involves hard work and the personal risk associated with resolving conflicts.

Other Team Issues

One of the other important team issues, actually a sub-category of approach, involves team leadership approach. Evolutionary Development projects, by nature, lead to a more open, collaborative team style. Evolutionary Development projects will not work very well with a more traditional, hierarchical, leader-knows-all management style. Evolutionary Development teams are “empowered” in that everyone has input into major team decisions.

But because of the accelerated nature of these projects, some decisions need to be made quickly and effectively by a leader. Hopefully, the team arrives at a position where team members are comfortable with the necessities of the “leader’s” role.

Key Roles

There are a number of roles that are key to Evolutionary Development. On many teams, an individual may perform several roles. Additionally, some roles may revolve to other team members as the project progresses. Each of the roles is described briefly in terms of what the role is responsible for executing and the kind of skills required.

Architect

The Architect is responsible for insuring that all components of the application “fit” together, that each individual application “fit” with other segments (if any), and that the application “fits” with an overall enterprise strategy. In addition, the Architect should monitor the overall maintainability and enhanceability of the application.

Activities

- Integration of application with enterprise models
- Interfacing and integration with other Project Teams
- Maintaining overall application design perspective
- Developing reuse strategies

Skills Needed

- Data modeling including enterprise architecture level
- Good business application knowledge
- General consulting and interpersonal skills
- System level design experience

Application Analyst

The Application Analyst is responsible for working with the clients to determine the automation requirements of the business process. Because of the nature of Evolutionary Development projects, this person takes on process as well as information modeling activities. The Application Analyst bridges between the Clients and the Developers.

Activities

- Participate in JAD session and client interviews
- Develop specification documentation
- Analyze functional requirements

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- Work with developers on interim builds and user-interface decisions
- Develop the application data model

Skills Needed

- A good knowledge of the business process
- The ability to abstract and categorize information
- Skills in process, data, and/or object modeling

Business Process Expert

The Business Process Expert role is usually filled by someone from the client organization. His/her role is to provide the development team with a source of business expertise. This may be filled by a couple of full-time people from the business organization or several on a part-time basis.

Activities

- Participate in JAD sessions
- Participate in Customer Focus Group Reviews
- Work with Application Analyst in defining requirements
- Make decisions about the specifications
- Develop business scenarios for Focus Reviews and testing

Skills Needed

- Needs wide business perspective: vertically to anticipate the needs of direct users of the systems, supervisors, and managers; horizontally across the organization so one group doesn't dominate the specifications; and geographically to allow for differences in processes

Core Team Members

The core team members have the primary responsibility to implement the application. The core team should be 6-10 in number. The core team needs a blend of technical, decision-making, and interpersonal skills to function effectively. As mentioned in the project management section, the core team membership is a full-time job.

Activities

- A wide variety. See other roles

Skills Needed

- A wide variety. See other roles

Developer

The Developer is responsible for designing, coding, and testing the application. Since Project Teams are small, the developer role encompasses more activities than in some traditional development organizations.

Activities

- Developing a data model
- Developing component designs
- Coding the application
- Testing the application
- Development tool expertise

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Skills Needed

- Software/information/object engineering skills

Project Sponsor

The Project Sponsor is responsible for setting the project objectives, providing a business focus for the Evolutionary Development team, and providing organizational leadership for the project. Typically, the sponsor comes from the client organization. Questions to ask in determining who the Project Sponsor is include:

- Who cares so much about the successful completion of the project that they are willing to fund the project and ensure that adequate resources are assigned to it?
- Who will make the final decision if the team cannot resolve problems on its own?
- Who will make the final decision to add resources, cut features, and/or slip the schedule for the project?

Activities

- Providing business rationale for the project
- Setting project objectives and constraints
- Obtaining adequate funding
- Helping to resolve organizational conflicts
- Assisting in obtaining adequate client staff time for project activities
- Making decisions about key project characteristics and tradeoffs
- Supporting the Project Team
- Setting an example by participating in project kick-off and executive review sessions

Skills Needed

- Many

Facilitator

- The Facilitator is responsible for conducting major group meetings such as JAD sessions, Customer Focus Groups, and potentially, Technical Reviews. The Facilitator is responsible for meeting *process*, getting high quality results with a reasonable level of meeting time. Good Facilitators bring the group together, focus the group on the objective, and organize the results. The Facilitator needs to be perceived by the group as impartial — objective, unbiased, neutral. Qualities of a good facilitator are:
 - Enjoys working with people
 - Comfortable being on “center stage”
 - Thinks quickly, but doesn’t jump to solutions
 - Values other opinions — open-minded
 - Listens well and identifies key points
 - Plans and organizes well
 - Anticipates potential problems

Activities

- Preparation for JAD and Customer Focus Group meetings
- Conduct the meetings
- Assist in the preparation of meeting documentation

Skills Needed

- JAD planning and structure knowledge
- Good analytical skills — summarizing, categorizing, abstracting

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- Evolutionary Development process knowledge
- Software/information engineering modeling skills
- Sensitivity to organizational politics
- Ability to assimilate business area knowledge quickly
- Facilitation and group dynamic skills — timekeeper, clarifier, mediator, coordinator

Project Producer

This may seem like a strange role for an information systems project. However, with any project, especially when techniques such as Evolutionary Development that are new, people outside the Project Team want to keep up with progress. The Project Producer's job is to keep the visibility of the team's progress high, both within and external to the project.

Activities

- Making presentations to executives and client groups
- Developing status reports in conjunction with the project leader
- Developing the metrics approach for the team
- Developing and administering client satisfaction surveys
- Establishing communications lines with other Project Teams and organizational entities

Skills Needed

- Good written and verbal communications skills
- Presentation skills
- A flair for innovative ways to communicate
- A basic knowledge of metrics and how to present them

Project Manager

The Project Manager has the major responsibility for delivering a finished product to the client that meets the objectives and constraints established. The role may be filled from either the technical or the client areas, depending on the organization.

Activities

- Coordinating project initiation and planning efforts
- Ensuring that project structure items developed during initiation are implemented
- Keeping the team focused and motivated
- Participating in JAD and Customer Focus Group sessions
- Coordinating efforts within the team
- Coordinating with other projects, the Project Sponsor, and other, involved organizational entities
- Establishing project review sessions

Skills Needed

- Ability to set and meet objectives
- Good project management skills
- Good communications skills
- Interpersonal skills
- Sensitivity to organizational politics
- Technical competence

Evolutionary Development Consultant

The Evolutionary Development Consultant is basically a process expert. This role supports the Project Team as it implements a new approach to information systems development. This person or persons needs to have experience with Evolutionary Development projects in order to have the credibility necessary to influence both the Project Teams and management. Initially, this role is usually filled by someone outside the organization.

Activities

- Keeping the Breakthrough Project Team focused
- Providing process expertise in all areas of the project
- Providing encouragement to development teams based on experience with other projects

Skills Needed

- A broad range of software/information/object engineering skills
- Good facilitation skills
- Experience with all aspects of an Evolutionary Development project
- Project management background
- Team-building and leadership skills

Scribe/Recorder

The Scribe is responsible for recording and organizing the information produced by JAD and Customer Focus Group sessions. This role is particularly important since these sessions are an expensive use of staff resources, and poor recording can result in a significant loss of useful project data.

Activities

- Preparing for sessions with the Facilitator
- Recording results of JAD and Customer Focus Group sessions
- Converting session notes, flip-chart data, etc. into a word processing system
- Helping prepare deliverable documents from session notes and informal documentation
- Recording model diagrams in graphics package or CASE tool

Skills Needed

- Good working knowledge of application
- Good analytical skills of summarization and categorization
- Good note-taking skills
- Good working knowledge of modeling/engineering techniques being used in session

Subject Matter Experts

Subject Matter Experts supplement the core team in specific knowledge or skill areas that are not required full-time on the team. Examples are: specialized business knowledge for a specific “ability to” specification; physical data base design knowledge; telecommunications network design knowledge.

Activities

- Any of the team activities from JAD sessions to special design meetings

Skills Needed

Relevant skills to the subject area