JAD Guidelines

Joint Application Development (JAD) sessions are highly structured, facilitated workshops that bring together customer decision makers and IS staff to produce high-quality deliverables in a short time period. The original term "Joint Application Design" has evolved to "Joint Application Development" because these sessions are now used effectively throughout the software development cycle. JAD sessions can also be held prior to specific software development activities to review and document business processes.

JAD sessions are an integral part of Evolutionary Development. Without the accelerated start that a JAD session provides, the early project initiation and specification work on a project cannot be accomplished in a short enough time frame.

Description

One of the key messages of Evolutionary Development is the use of facilitated group meetings. Customer Focus Groups, together with JAD sessions and technical reviews form a potent combination for developing high-quality, customer-focused applications.

A JAD session enables customers and developers to quickly come to agreement on the basic scope, objectives, and specifications of a project. Or, in some cases, *not* come to agreement, which indicates the project may need to be re-evaluated. The session is moderated by a trained facilitator, and each participant in the session has a specific role to play. Simply put, JAD sessions can:

Simplify — consolidate months of meetings and phone calls into a structured workshop.

Identify — issues and participants.

Quantify — information and processing needs.

Clarify — crystallize and clarify all requirements agreed upon in the session.

Unify — the output from one phase of development is input to the next.

Satisfy — the customers defined the system; therefore, it is *their* system. Shared participation brings a share in the outcome: they become committed to the system's success.

A JAD session should have a clear objective and an agreed upon agenda. The four principal steps in a JAD:

1. Define the session objectives
2. Prepare for the session
3. Conduct the session
4. Produce the documents

JAD sessions can be used for a variety of other purposes.

Development Activity	Examples of JAD Use
Initiate	Business strategy and plans. Business process review. Project Charter. Project Data Sheet. Project Structure Decisions. Schedule and resource plans. Quality Assurance plans. Configuration Management plans. Risk Management plans.
Specify	Architecture. Data model. Process model. Process-data relationship models.
Design	Detail requirements. Logical/physical design. Prototype design. Prototype evaluation. Test plan development. Implementation planning.

Benefits

To accelerate systems development

To increase system quality

To increase customer satisfaction

To promote developer/customer partnership

To deliver the right system in time for it to be of use

Challenges

Challenges in making JAD sessions work for an organization include:

Getting the right people together for 1-3 days

Confusing jad with the entire development process

Understanding that the sessions are not "magic"

Training and developing good facilitators

Participants

Details about the roles identified below are contained in the Team section. A summary of that information, plus additional information specific to JADs, is provided here.

Facilitator

Responsibilities:

    Determines the objectives and plans the session.

    Ensures that quality deliverables are produced and distributed.

Recommendations:

    Unbiased, does not take sides

    Experienced in conducting JAD sessions

    Excellent analyst

    Diplomat, unflappable

    Results-oriented

    Optional application expertise

    Knowledgeable in software/information/object engineering

Customers

The words "I'll have to check with my boss," should not be heard in a JAD session.

In JAD sessions, customers break down into two sub-roles, Decision-Maker and Application Customer (someone who actually will use the system). Often customer representatives fulfill both these roles, but they are described separately here because of the importance of having decision makers in the JAD sessions. Without customers who have the authority and willingness to make decisions, much of the advantage of JAD sessions can be lost.

Decision-Maker Responsibilities:

    Resolves conflicts

    Prevents stalemates

Recommendations:

    Selected by Project Sponsor to make decisions

    Knowledgeable in business policy

    Excellent listening skills

    Global perspective

    Well respected

    Results oriented

Customer Responsibilities:

    Clarify business rules and procedures

    Make commitments for their area

Recommendations:

    Knowledgeable about business processes including: policies, benefits, costs, and interfaces

    Full-time participation encouraged

Developer

Responsibilities:

    Observe carefully

    Learn about the customer's needs

    Provide "reality checks" if needed

Recommendations:

    Primarily listeners

    Non-judgmental, positive attitude

Scribe

One of the under-rated roles in facilitated meetings is that of the scribe. Often times the scribe is someone who gets "stuck" with the job of recording information. In many JAD, Customer Focus Group and technical review sessions a significant amount of valuable (and expensive) information is lost due to poor record keeping.

Responsibilities:

    Documents during sessions

    Publishes intermediate results

    Prepares deliverables

Recommendations:

    Customer or IS staff

    Knowledgeable in software engineering techniques

    Excellent listening skills

    Comfortable with tools used in the session

    Captures information quickly

Four Principal Steps

1. Define the JAD Session Objectives

The first task for the facilitator, together with the project leader and other key individuals, is to define the session objectives. This consist of answering three key questions:

>Why is the session being held (session objectives)?

>What is wanted from the session (session deliverables)?

>Who can help create the deliverables (participant list)?

In many cases in Evolutionary Development projects, some project initiation work, such as the project objective statement, will be done during the session. But even at this early preparation stage, some drafts of the objectives should be completed.

The deliverables from a Evolutionary Development project initiation JAD will usually be a combination of project initiation information (such as the project data sheet) and sufficient specification to scope the project and build the initial version. The Project Team needs to prepare an outline of what project charter and specification information they need from the session.

The final task in this section is to identify the participants for the session. There should be customers who are full or part-time members of the core development team. Normally, JAD sessions would be attended by these team members and additional customer representatives. Rationale for selecting these participants include:

>Identifying those individuals who are key players in their organizations

>Including representation from all levels and all geographic areas involved

>Having 65% to 75% of the participants be customers and/or business area experts

>Selecting the participants based on skills needed for the type of JAD:

>(1) Big-picture thinkers for long-term goals

>(2) True end users for specific system needs

>(3) Technical experts for new applications

>Limiting the total number to a reasonable size, based on objectives and deliverables (15-18 maximum).

TechNote - Writing "SMART" Objectives

Specific	states what will be done
Measurable	you know when they have been achieved
Achievable	can be accomplished in the time frame required
Realistic	achievable with adequate resources
Time-framed	states when they will be achieved

2. Prepare for the Session

The facilitator has primary responsibility for JAD preparation. Furthermore, good preparation is key to good JAD sessions. It is important that all participants understand their parts in the process and that all relevant information be gathered and sent to participants ahead of time. In preparing for the session, there are four categories of tasks:

Conduct pre-session research (include the following topics as appropriate)

- History and context of the project
- Business goals supported by the project
- Business environment
- Hidden issues and built-in constraints
- Open issues
- Benefits to the organization
- Customer work environment
- Evaluation of the current system

Create a session agenda

- Create a preliminary session agenda
- The facilitator will need to prepare some introductory material so all participants know their roles

Arrange session logistics

- Arrange for a meeting space, and its set-up
- U-shaped table arrangement or large oval table (see figure)
- Comfortable chairs
- Good, adjustable lighting
- Overhead projector(s) and large screen
- Whiteboards
- Foamcore boards (like whiteboards) with 3x5 post-it notes
- Flipcharts (with lots of paper)
- Computer and appropriate application software

- – Food services
- – Convenient location
- – Freedom from interruptions (emergencies only!)
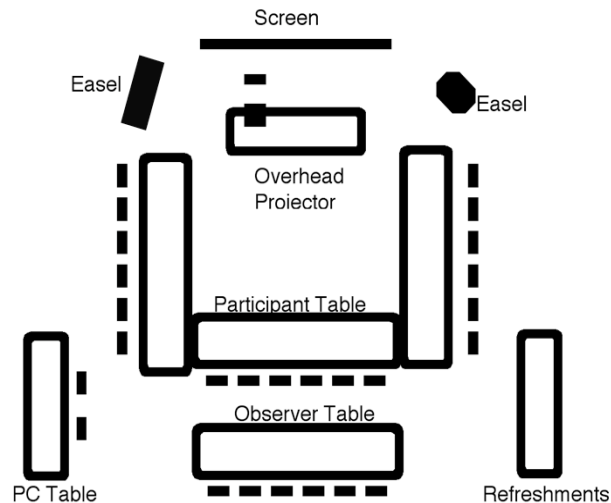
Sample JAD Room Layout

Prepare the participants

- – Participants need to know the length of the session, and how the focus group fits in the development process.
- – Participants who are not core team members should receive *written* invitations to the session.
- – The facilitator needs to review the scribe's duties with him/her.
- – Participants need to know what is expected of them during the session.
- – All preliminary information, such as the objectives, deliverable outlines, and agenda, need to be distributed.

3. Conduct the JAD Session

The facilitator conducts the JAD session, leading the developers and customers through the planned agenda. In general the facilitator is responsible for keeping the session on track and moving forward with agenda items. Conducting the meeting involves:

Running an effective meeting

- – Start and ending on time
- – Distributing and following the meeting agenda
- – Gaining consensus on the meeting purpose and ground rules at the beginning of the meeting
- – Keeping the meeting on track — remembering the purpose of the meeting

–   If possible, resolving any issues that arise. If resolution is not possible, capturing the issue and move on.

–   Collecting feedback from each attendee five minutes prior to the scheduled end

–   Using group exercises to help build a common understanding and commitment

–   Asking open questions to generate new ideas

–   Listening carefully and without judgment

–   Asking closed questions to clarify

–   Using templates to help structure the discussion

–   Using appropriate analogies to assist group understanding.

–   Involving all the participants

Session ground rules should be established early. They basically establish "how" the group intends to work together.

TechNote - Examples of Session Ground Rules

This list of sample ground rules is much too large for a session. Appropriate ones for a specific group should be selected and discussed.

— Everyone is there on time.
— Check titles at the door.
— There are no dumb questions.
— Everyone is a participant.
— One person speaks at a time.
— Discussion periods will be called from time to time.
— Lengthy issues should be written down and tabled.
— The whole group is responsible for the results.
— Allow individuals to finish there thought.
— Criticize the product, not people.
— Silence is compliance.
— Documents need to be approved by the group.
— Avoid us/them discussions.
— Avoid side conversations.
— Try for group understanding, not always personal understanding.
— Observers should be silent.
— The number of observers should be strictly limited.
— Stick to the facts. Be specific. Give examples.
— Limit discussion to x minutes per item.

4. Produce the Documents

It is critical to the success of any JAD session that the information on foils, flip-charts, whiteboard, and discussions be recorded and reviewed by the participants. Each day of the session, the facilitator and scribe (they always welcome help) should create a draft of the day's results. The first agenda item for the following day should be to review this draft and make any corrections.

The final document(s) from the JAD should be completed as soon as possible after the session. It is the primary responsibility of the facilitator and the scribe to:

> Organize the final document for easy use by project members
>
> Complete a "Final Draft" document
>
> Distribute the "Final Draft" document to selected individuals for review
>
> Incorporate revisions as necessary
>
> Distribute the final copy for participant sign-off
>
> Incorporate the final JAD deliverable into the project documentation

TechNote - Ten Tips for Facilitating JAD Sessions

1. Don't be afraid to interrupt politely. Here are some possible entries into a conversation that has gone on too long:

   > "Process check! What's going on here?"
   >
   > "Excuse me —"
   >
   > "Can you state that comment concisely so we can capture it?"
   >
   > "Is this discussion relevant to the problem we are trying to solve?"

2. Re-emphasize the session ground rules.

3. Stand up and move around — you are more in control of a session when you are standing. If individuals are carrying on their own discussion, walk near them — and glare if necessary.

4. If a discussion goes on and on, make a "cut" motion with your arms. Or a "time-out" sign.

5. Observe the group interaction, and then report on your observation. For example, "This discussion has lasted for 15 minutes. Is it important enough that we should change the focus of our session?"

6. Be aware of body language. If the discussion on an issue is making one or more participants defensive, interrupt and record the issue (both sides if you have to.) If the issue is relevant and is a show-stopper, use an objective technique (e.g. Pro-Con Analysis) to analyze it and reach group consensus.

7. Listen to a discussion. Try to identify the root problem that is driving it. If you can, address this problem directly and objectively.

8. If the discussion is about an outside issue, capture the issue (on a flip-chart) for later resolution and move on.

9. Be polite at all times.

10. Maintain your sense of humor and perspective.