Business System Analysis Series

JADr: Joint Application Development - Requirements

Performing Effective Requirements Gathering JADr Sessions

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Disclaimer!

The purpose of this document is to give the reader a brief, concise understanding of Joint Application Development - Requirements (JADr – pronounced “JADDER” rhyming with “ladder”) sessions and their applicability to modern information technology system development projects. The perspective of this document is that of the practitioner. It is based on the combined experience of several people who have successfully completed a significant number of sessions (under this name and many others), either in the role of session leader (previously “Facilitator”) or session analyst (previously “scribe”).

We do not anticipate that the reader will be able to successfully complete a JADr session based solely on the information provided in this document. The process of planning, preparing, performing, publishing, and propagating a successful JADr session requires a combination of communication skills, business analysis techniques, and technology skills. Whereas there are many potential combinations of skills that might work, finding your unique combination is a matter of judgment, guidance, and trial-and-error. This document cannot aspire to provide all of the answers. It is designed to open the reader’s mind to the possibilities that exist and to initiate thought processes that will ultimately help the reader evaluate the potential inherent in the JADr approach.

Effective Use of this Monograph

This monograph is designed to help you. It is written with minimum reading time in mind. The following table points to the most effective use of your time.

Reader	Should read	To get
Manager	Section I	Quick overview
Session Participants	Sections I: A-E, III: A-C	Relevant Details of JAD sessions and specifics on scheduling
Facilitator	Sections: All	How to information , Tips and Tricks
Session Analyst	Sections I, III, V, VIII	How to information , Tips and Tricks

I. Table of Contents

II. What is a JADr and Who Needs One, Anyway?

A. In the Beginning

The term JAD first shows up in our vocabulary in 1979. As far as we know, it originally stood for "Joint Application Design" and was first used by an IBM user group in Winnipeg, Canada. The idea was to avoid the constant back and forth discussions between the business community and the developers by getting everybody physically together so that they could agree to a common set of requirements before developing the solution (granted, a novel concept). Meanwhile, JAD generally is interpreted as Joint Application Development. It is a technique that is suitable for creating critical early project deliverables quickly, assuming that you have access to the cross-functional expertise needed. It can be used to define a project (in which case it is generally referred to as a planning JAD), a business process, (as in business process improvement), or a software product, (which is the use of the concept upon which this document is based).

Back in the 1980's, JADs were such a smashing success that many organizations went predictably overboard and tried to use a JAD on every project and in every situation. Unfortunately, many of their so-called "JADs" failed to deliver on their promise. One major failure cause was that the business community was subjected to a barrage of technical jargon they did not understand. As a result, many business users quit attending JADs.

This was particularly detrimental to business-centric applications where understanding what the business community wants is of the utmost importance to the information technology department. The concept of JADr evolved in recent years specifically to get the business community back at the bargaining table to participate in identifying, gathering, defining, specifying, and analyzing the business requirements. Using the same session to define <u>system</u> requirements is relatively risky because of the danger of once again losing the interest of the business community. Since JAD is, however, so widespread, we want to make sure that everyone knows that the term "JADr" means "Requirements Gathering JAD" for the remainder of this document.

B. The Promised Benefits of JADr

1. Faster Delivery

Basically, we know that if we could get the right requirements for the project earlier, the project would run a lot smoother and we would be able to deliver a better solution earlier. All of the activities of a JADr session focus on getting the early project deliverables (AS-IS analysis, Process Problem Analysis, Business Information Usage Model, etc.) completed quickly and accurately. Everything else in the project builds on these deliverables, so the quicker you get them done, the quicker the project is over.

2. Earlier Cancellation of Doomed Projects

The decision to cancel a project that most likely will not succeed could just save your organization as much or more than completing a project successfully. If a project is not going to deliver a solution, the earlier and cheaper you can fail it, the better. The very first JADr session I personally facilitated ended up in the customer cancelling the project on the 4th day of a 5-day session. At first, I thought we had blown it, until I noticed how satisfied the customer was with the result. It was a great idea that initiated the project, but the analysis work the contributors did in the session showed everyone that it was not going to fly, so ultimately, we saved the organization a ton of money.

3. Increased Business Community Buy-In

When we refer to increased business community buy-in, we are referring to the end-users and their management. Whoever is going to use the solution when it is completed is much more likely to embrace it if they actually get what they asked for. Just like building a house, if you are able to make the decisions on the layout, colors, and interior decorations of the house, it is much more your house than one you buy “off the shelf”. In the second situation, you have to start off by figuring out how to personalize it to make it more of a home. The more invested the client is in the decisions the more they will own the solution.

4. Higher Quality Solution

The fact that you get a higher quality solution out of a process that focuses on compressing time might seem slightly suspect, but it is true. The reason this happens is because of the focus that is brought to bear on the analysis portion of the project and the early clarification of the business needs and wants, a.k.a., requirements. Projects that use JADr sessions tend to have fewer change requests early on because the first cut at the requirements was the result of a very concerted effort by all involved. Fewer changes during development automatically lead to a more robust and reliable solution.

In the end, of course, it is the satisfaction of the customer that counts, and in this context we really mean our ‘real’ customer, meaning whoever is paying the bill. Because the JADr shows concrete results within days or weeks as opposed to months or years, the customer is less insecure about where the project is and what is going on. By meeting all of the other benefits, i.e., higher quality, increased buy-in, etc., you can increase customer satisfaction without really trying.

5. Reduced SME Time Commitment

The next point, reduced time required of the subject matter experts, is a great selling point, but is it true? Absolutely, since the JADr approach is primarily about getting the various stakeholders together in a room to present their perspective, you are axiomatically reducing the number of times you have to get back with each of them to clarify what they meant. If you get conflicting answers from two of your stakeholders, they are both in the room and you can get the clarification first hand. In addition, you save a lot of “ramp” time, that is, the pick up and put down time that is necessary when you are interrupting a task. You have to keep track of where you were before you can quit and then you have to figure out where you were before you can restart the activity, all of which takes time. Multiply that times the number of people involved in the decision-making process, and you start to recognize that it is a non-trivial number.

6. Reduced Rework Due To Bad Requirements

Finally, reducing the rework that is caused by missing, misunderstood and bad requirements is a biggie. According to all of the statistics ever captured in our field over the past 30 years, the number one problem that we fact is missing or misunderstood business requirements. According to one statistic, over 65% of all code that is developed on a typical IT project is ***recoded*** at least once before the solution gets into production. That does not count the amount of code that gets thrown away on projects that never finish, and that number is verifiably larger. If you can reduce that number, the costs associated with doing a JADr look like a very lucrative investment.

C. The Dark Side of JADr

1. You Gotta Do What You Gotta Do

So, what is the other side of the coin like? It's obvious that the author is a big fan of the JADr process, but it would be unrealistic to expect there to be no down sides. First off, the JADr process does not eliminate any activities on the project that are needed for the project to succeed. It certainly does not eliminate the need for managing the project, that iss not its purpose. It also does not eliminate the need for good analysis; it allows you to do it more efficiently. Also, it does not eliminate the need for testing the solution; it paves the way for a smoother initial test run.

2. You Do Not Get Something For Nothing.

If you consider the costs of a JADr, you have to involve a skilled facilitation team that would not be needed without the session. Whether you get them from inside the organization or externally, there is a price to pay. You have to provide the facility for conducting the session, and the best spot is off-site, which adds accountable dollars. We call them accountable dollars because they are not buried in the office space rental that covers what you pay for meeting rooms on-site. An otherwise successful JADr could fail for lack of a few dollars in off-site rental.

3. Does Not Reduce Project Effort

Although it might seem obvious, it is important to point out that the JADr will not unrealistically reduce the overall effort needed to get the job done. It does, however, significantly reduce calendar time. Consider that during the session, you are consuming a tremendous amount of person-days. You are making effective use of everyone's time but in the end, it is being consumed. You will realize the largest savings in effort through the elimination of pick-up and put-down time between activities mentioned earlier. Also, since the JADr session focuses on completing specific activities in a specified sequence, the deliverables will have fewer missing pieces that need to be added later on.

D. Phases of a JADr

Well, now that you know what a JADr is, let's talk about what a JADr REALLY is. Let us look inside the JADr to see what makes it different from the typical business analysis meeting or requirements gathering interview. For starters, every JADr session actually consists of 5 distinct phases, each of which is critical to the success of the overall JADr process.

Phase	Duration	Deliverables
Planning	2 – 6 hours	Go/No-go Decision, Agenda and Content
Preparing	1 – 5 (10) days	Prepared Facilities and Participants
Performing	1 – 5 (10) days	Selected Artifacts, Documented Decisions
Publishing	1 – 3 weeks	Completed Action Items, Resolved Issues
Propagating	2 – 6 hours	Closure and Lessons Learned, Propagation Plan

Table 1: JADr Phase Durations and Deliverables

The first phase, which we call **"Planning",** determines whether a JADr is appropriate for a specific project. If it appears to be a likely candidate, the first step is to schedule the pre-session planning meeting. This is a critical decision-making meeting and the invited attendees typically include the project sponsor, project manager/leader, business analysts, systems analysts, and subject matter experts for the project business domain. This meeting can last anywhere from two to six hours. The primary outcome is a decision as to whether or not a JADr will be scheduled. If so, the pre-session meeting also delivers a preliminary agenda and identifies the artifacts (results) that the JADr working session will attempt to deliver.

The next phase in the life of a typical JADr session is the **"Preparing"** phase, which can last anywhere from 1 to 5 days – and could stretch to ten days under extreme circumstances. The major goals of this phase are to create initial session artifacts that will be used to "jump start" the performing phase and prepare participants for a productive JADr working session. During this time, each participant is expected to network with his/her colleagues and to identify potential problems that the project should solve as well as potential requirements that might be right for this particular project.

The working session is called "**Performing**". This is what most organizations referred to as "the JAD" (or, in our terminology, the JADr. It is in this phase that the actual JADr deliverables are created. In theory, the working session simply follows the preliminary agenda from the beginning to the end with each activity contributing to the creation of a specified session deliverable. In reality, the major caveat is that the preliminary agenda can and will be modified during the session to capitalize on opportunities that arise and/or address issues with the planned activities. In either case the working session is where the proverbial rubber meets the road.

"**Polishing**" is the next phase in the life of a JADr. This is the follow-up phase which can be from one to three weeks duration. During this phase, any open issues and/or action items identified during the working session are addressed by participants and brought to resolution. This phase is as critical to the success of the JADr as every other phase but is often neglected as it is "after the fact".

The "**Propagating**" phase of a JADr is another 2 – 6 hour meeting. It is necessary to ensure that all identified action items are completed and all open issues are resolved. It also gives participants an opportunity to do a "lessons learned" evaluation of the value that this JADr provided for the project. It is during this wrap-up meeting that we typically learn much more about how the JADr should have run during the working session and this lesson can be invaluable for future sessions. The overriding purpose of this phase is, however, determining how to propagate the use of the JADr concept throughout your organization. We recognize that every organization is unique, every project is unique, and every individual is unique. Figuring out how to increase the probability of successfully implementing this exciting concept throughout your organization is your prime directive.

In later sections, we will offer considerably more detail on the "who, what, when, where, why, and how" of each of the above-mentioned phases. To set the stage for that, however, we first have to take a look at who the potential players are and what is expected of each during the JADr sessions.

E. The People Perspective

To discuss how people interact during a JADr session, we need to define roles that are involved. A role is not a job title, but a set of skills and responsibilities that individuals are assigned during the JADr session. The roles we are describing have to be filled by someone during the session. Ideally, each role will be filled by the person most qualified to assume those responsibilities. In the real world, trade-off decisions are possible but it is important to recognize that those trade-offs add a dimension of risk to the session. We highly recommend paying attention to the people side because JADr is a people-oriented process. One of the most significant risk factors is not getting the right people to do the job.

1. The Facilitation Team

The first role we need to talk about is that of the facilitation team. Most commonly, the facilitation team consists of two members, one who is responsible for managing the session (and taking care of the people side of life) and another who is responsible for capturing the results of the session and managing the deliverables (more like the task side of life). This team is responsible for running the session. It is important to recognize that the successful completion of the session is the only goal of the facilitation team. Regardless of what happens to the project, the facilitation team did their job if their session was successful!

The facilitation team consists of two distinct and separate roles: session leader and session analyst. In earlier years, we used the titles “Facilitator” and “Scribe” for these roles. Whereas the term “Facilitator” might be appropriate for that role, “Scribe” conjures up an image of a dark, foreboding room in which manuscripts are meticulously transferred by apprentice monks in black robes somewhere in the middle ages. Basically, the Session Leader is responsible for conducting a successful session. This individual:

- solicits the information required to create the deliverables from all participants
- ensures contribution from all participants based on their role
- coordinates the efforts of multiple groups in a session
- enforces the agenda and updates it as necessary
- maintains momentum throughout the session
- confirms the information captured by the session analyst
- applies appropriate methods and techniques to keep the participants moving forward without exhaustion
- manages side issues so they do not delay the session
- interacts with the session analyst
- is responsible for involving the participants
- ensures active participation by all, and
- keeps the session moving toward the predefined objective.

We consider these activities to be the “People” component of the session.

The session analyst is responsible for transcribing the content and creating all of the physical artifacts that were defined in the JADr Preparing phase. This is the “Task” component of the session. This person:

- interactively captures the session results in the appropriate automated tool
- evaluates the completeness and correctness of the artifact
- notes any discrepancies, irregularities, omissions and errors for the session leader
- prepares working copies of deliverables and distributes them in the session
- maintains rapid turn-around of the session deliverables
- assists the session leader in any way necessary to ensure a successful session

He (or she) is ultimately responsible for the quality of the deliverables. We generally refer to the job of the session analyst as the Olympics of business analysis. If you like to do business analysis, try doing it under immense time pressure in public where everyone in the room is following your cursor and every mistyped word is highlighted by the software automatically for all to see. Talk about having fun!

For those aspiring to become JADr Facilitation Team members, we recommend that this be your only responsibility during the session. That implies that the role of JADr Session Leader should not be filled by the project leader and the role of the JADr Session Analyst should not be assumed by the business analyst for the project. Running a JADr is a full-time job during the session. Being a project leader or a business analyst is also a full-time job during the session. You are much more likely to succeed if you assign the business analyst the role of "Expert" during the session to ensure that he or she is asking the questions that need to be asked to get the requirements right. The same is true of the project leader.

2. Representation from the Business Community

The business community is represented by decision makers and subject matter experts (it is not unusual for one individual to assume both roles for his/her group). These are people with specialized business knowledge about the business area under discussion and the authority to make decisions. They are the customers of the process. They:

- deliver the business knowledge that the session is designed to capture;
- explain what they are currently doing and what they need to do it better;
- answer questions and validate assumptions concerning their needs; and
- reach consensus and make decisions based on options and possible solutions.

Getting the right mix of both people with the authority to define the future and those who have actual experience in the present system is challenging, yet it is important for the success of the JADr that you get the right people — and that they are aware of their roles.

3. Representation from the Technical Community

The job titles of those who depend on the input from the User Community to do their jobs vary wildly from one organization to another. They are likely to be called Business Analysts, Systems Analysts, Technical Analysts, Requirements Analyst, Requirements Engineer, Requirements Manager, or some similar title. Whatever the title, their job during the JADr is to:

- listen to the subject matter experts problems, process, and perspectives
- ask questions to clarify what the business community wants and needs
- solicit decisions from the business community regarding features, functions, facts and behaviors
- express the business needs in business requirements
- avoid the use of technical jargon
- ensure that they understand the artifacts being produced and that those artifacts form a solid, understandable basis from which they can continue to work after the session.

Conceptually, those representing either community are assigned to the session for the duration, meaning they are expected to be there from start to finish providing continuity to the session and allowing a certain synergy to evolve. Due to the nature of many projects, however, that could lead to sessions that are extremely large to accommodate all of the different areas of expertise that might be needed for the project to succeed. As expressed earlier, we find that a JADr session that exceeds 15 or so participants becomes extremely challenging to manage, so we recommend trying to stay below that number. If there are special topics that need to be covered where the group needs input from specialists, this is where the role we refer to as "Advisors" comes in.

4. *Session Advisors – a Part-Time Job*

Advisors are not expected to attend the session full-time, meaning they will be invited into the session at a certain time, will provide the session with their responses to questions that the Contributors have prepared, and then be released. They might be on call for anywhere from an afternoon to the length of the session, but the key is that they are not there full-time, ergo, they cannot provide continuity. Their role is to:

- be part-time participants in a session on an as-needed basis
- be on-call with very short response time during the working session
- advise the group on topics specific to their area of expertise.

They are called in to provide their expert advice on specific topics to guide the Subject Matter Experts and Decision Makers in the decision-making process and then get out of harm's way. Put that way, it's no wonder that an awful lot of people would rather be Advisors than Contributors!

5. *Observers and Tourists*

Finally, we have a group called Observers, and they are expected to be what their name implies. Observers are allowed to sit in on the session, in a special area reserved for them at the back of the room where they will not disrupt the proceedings. We recommend limiting the number of observers to 4 or less per session. Most commonly, observers are managers who just want to drop in for a part of the session to see what a JADr session is all about. We have also had situations in which developers sat in on business requirements gathering sessions just to become more comfortable with the concept of business requirements versus technical specifications.

It is also not uncommon to have a wide range of interest in the JADr concept, in particular when an organization is trying the idea for the first time. On one occasion, the customer wanted so many managers exposed to the concept that we created a type of observer entitled "Tourist". These were people who were allowed to join in on a session for a single period (1 – 1½ hours) just to get the flavor of the thing and then return to their daily grind. If you are going to allow Tourists to sit in on the session, make sure that they do not interrupt the session. They should only be allowed to join and leave the session during a break and, of course, they are subject to the same rules as the other observers – to be seen and not heard.

F. Critical JADr Facilitation Skills

As mentioned above, neither of the JADr Facilitation Team roles should be filled by people assigned to the project! This tends to be contrary to how most organizations plan and execute the JADr concepts, but let me explain why we recommend this. If the project leader and/or a business analyst take on the roles of Session Leader and Session Analysts, what is their goal? They want their PROJECT to succeed, which is right and good. However, the primary goal of a good Facilitation Team is, as mentioned earlier, to make sure that the SESSION succeeds. Sometimes, a successful session leads to a cancelled project, which can be considered by the project team to be less than a good thing. Because of that, given the option, we always recommend having qualified people who are not assigned to the project take on these critical roles.

In that vein, let's take a quick look at the differences in skills required during a JADr session for the session to be successful. We decided to look at the skills needed by the JADr Leader (JSL), the JADr Session Analyst (JSA), the Project Manager/Leader (PL), and the Business Analyst (BA) assigned to the project.

The Focus was on the skills that are essential for the JADr Facilitation Team on a project during a JADr session. Our goal was to determine how the project leader role and the business analyst role compared to the session facilitator and session analyst roles. The basic question we were trying to answer was, "Which role needs which skill the most during a JADr session? We use the results of this analysis as an exercise in our training seminars to assess people's perceptions and compare them against the results of our analysis.

The rules for the analysis were very simple. We queried a series of experienced JADr Facilitation Teams and created a consensus of their responses. For each skill, we identified which of the four roles needed that skill the most (1) during a JADr session and which role needed it the least (4). Then we identified which other role needed the skill more (2) and which needed it somewhat less (3). The only caveat was that ties were not allowed - each skill had to be assigned a 1, a 2, a 3, and a 4. Each individual skill listed in the table is linked to the explanation of the group's rationale for their evaluation. The results of our analysis were quite revealing, even to us.

Table 2: JADr Facilitation Team Skills Comparison

PL-Project Leader, BA-Business Analyst
JSL-JAD Session Leader, JSA-JAD Session Analyst

Skill	PL	BA	JSL	JSA
Effective Communication	3	2	1	4
People Focus	2	3	1	4
Analysis Techniques	4	3	1	2
Work under Pressure	3	4	2	1
Empowering Others	1	2	3	4
Work with Tools	3	2	4	1
Maintain Momentum	2	3	1	4
Deliverable Focus	4	3	2	1

Effective communication is our ability to communicate using visual, vocal, and verbal cues to get concepts across. This skill is absolutely essential for the facilitator role to be able to run the session. The session analyst's primary communication during the session is through the session facilitator and, as a result he/she needs this skill the least. Business analysts by the nature of their role of translating business needs into business requirements have to have a good measure of effective communication skills, hence the number 2. Project leaders need to have effective communications skills as well, but their role as project leader is deemphasized during the session, ergo the 3.

The ability to work with people (or **People Focus** as we call it here) is the second skill we analyzed. Once again, the JADr session facilitator won the prize as needing this skill the most during the JADrs session. Without it, the session could easily be proceeding without progressing. On the other end of the scale, the JADr session analyst is not required to associate with people during the session. As a matter of fact, quite a few of the session analysts I know are downright people hostile when they're working in a session. The project leader role may be deemphasized during the session, but that does not mean that they can lose their people focus or they may not have a project to lead to once the session is over. The business analyst is generally more focused on tasks than on the people.

Who needs **analysis skills** the most? Surprisingly, we chose the JADr session facilitator. The rationale being that this individual has to be able to not only perform the technique, but to explain it to others and lead them through the process without getting bogged down in the detail. The JADr session analyst needs this skill second most because they are capturing the results of the techniques and if they do not understand the technique, their ability to capture those results could be compromised. In addition, they have to do analysis on the fly so that they can catch errors and other issues. The business analyst is involved in asking the right questions and as a result of needs to understand the techniques nearly as well as the session analyst. Project leaders are not necessarily the analytical types and as a result end up at the end of our list.

When it comes to **working under pressure**, no role needs this skill more than the JAD session analyst. If the session analyst is not able to keep up with the progress as the group works, the entire session could be in jeopardy. The JADr session facilitator has to keep the group moving and has to be aware of the time element which means they're ability to work under pressure is second only to that of the JADr session analyst. Please note, we are referring to this skill during the JADr session. The ability to work under pressure during the session can be pretty much equally distributed between the project leader and a business analyst but since we had been neglecting the project leader we thought they should win this one.

The skill of **empowering others** is a critical skill for managers and project leaders. Although it might seem that the JADr session leader needs this skill, all of our experienced, effective JAD session facilitators tend to have the attitude, "my way or the highway". As a result, the project leader who is basically empowering the JAD facilitation team to complete the session needs this skill the most. The business analyst is also giving up a considerable amount of power to the JADr session analyst during the session in exchange for this the business analyst ability to participate in the session as a technical expert. The JADr session analysts that I know empower no one except themselves.

Working with tools might seem to be a fairly common human ability, but in the context of a JADr session the person needing this skill the absolute most is the session analyst. The session facilitators I know could easily hurt themselves with tools but the good news is they need them the least. The business analyst who will be taking the results of the session once it has ended has to understand the tools well enough to be able to continue with the finalization of the deliverables that were initiated during the session. Project leaders tend to fall close to the JADr session facilitators in their need for working with tools.

One of the critical success factors for a JADrs session is momentum. If you lose momentum, the session languishes and could fail. The role that is most responsible for **maintaining momentum** in a JADr session is the facilitator. They can be assisted in this effort by the project leader who generally needs a lot of this skill regardless of whether they're in a JADr session or not. The business analyst is of course involved somewhat in maintaining momentum just to get his/her job done and the session analyst has the responsibility for maintaining the deliverables and not inhibiting momentum .

That brings us to the **Deliverables Focus**, the skill to stick to a task until it is done. Here the session analyst has to shine or the session could be wasted. He/She has to be extremely well organized because he/she is dealing with so many different pieces of information and there are many relationships between those pieces that should not get lost. In addition, he/she has to be very creative when it comes to content representation. The session analyst has to help participants achieve the needed results by understanding their individual thinking styles. This understanding, and the task at hand, determines how he/she should represent the results of one task to make a future session task effective and efficient. The facilitator has to be very aware of where the deliverables are to keep the group focused on completing them or the work of the session analyst could be wasted. The business analyst will take the results over and has to be on board with the deliverables that are created (and the tools used). The project leader is generally satisfied if the deliverables get created with the necessary level of quality.

This entire analysis is designed as food for thought, not to be confused with the truth, the wisdom and the way. We have seen successful JADr sessions executed by individuals and teams where the skill matrix was shattered, but that does not make it a recommended practice. The more focused each role is on their essential skills, the more likely successful sessions become.

III. Planning the JADr

A. Assessing Organizational Readiness

Is JADr a good fit for your organization? JADr is a phenomenal concept, but it is not a panacea. It is not a good fit for every organization or even for every group within an organization. A major factor to consider is how your organization approaches information technology projects – what is your methodology?

1. *What are Development Life Cycles?*

When we start talking about methodologies, many people think we're going back in time. Methodologies, also known as the application life cycles, are still alive and doing well and have been available for the field of information technology since the sixties. Before that, as we all know, chaos reigned supreme. Actually, chaos is still alive and doing well and is a legitimate system development lifecycle. It basically refers to projects where it is not known what the end result will be and we are allowing developers to do what developers enjoy doing in the hopes that an application will evolve that is usable and/or sellable. This is by no means a bad approach if the project is right. Unfortunately, due to the nature of these projects, business requirements are seldom defined which more-or-less negates the need for a JADr session and, as a result, we will not consider chaotic development here.

a) Structured Approaches

The first major methodologies that were developed during the sixties and seventies tended to follow a waterfall model. A waterfall methodology simply means that the project is broken down into specific phases, commonly planning, analysis, requirements definition, design, development, testing, and delivery. The basic premise was that each phase had to be completed before the next phase could begin, so water was always running downstream. This approach was highly successful for many projects, but on others, it failed. On those projects, this premise was not rigorously enforced and as a result the methodology started to develop eddies, tributaries, branches, and other side effects that tended to "muddy the waters". This is not a bad thing, it was a recognition of reality in the real world, and many projects cannot be clearly defined and analyzed before development begins. There is therefore a need for some flexibility in the approach, but the waterfall methodology is extremely well suited to the JADr approach. This is the era in which the JADr concept was born.

b) Iterative, Incremental Methods

Since too many projects failed using waterfall methodologies, it was realized in the eighties that we needed a different approach for those projects. This was the birth of iterative methodologies in which we cycle through the phases of planning, analysis, design, development, testing, and delivery several times before the product has reached its end state. At the end of each cycle, the customer gets the latest release of the solution/system and the process begins over. Rapid Prototyping/Evolutionary Development (RP/ED) methods were the original application of the iterative approach. This methodology fits very well on projects where the requirements are evolving over time and are based primarily on the user's reactions to what they have at any point in time. As far as JADr is concerned, it is accepted practice to conduct an initial requirements gathering session before the first iteration and, if the size of the project warrants it, additional JADr sessions for each iteration.

c) *Agile Development*

In the early years of this century (anno 2001 to be exact), a group of software developers skiing in Park City, Utah decided to attempt to solve the woes of the world in terms of system development challenges. They created a new concept (documented in “The Agile Manifesto” which is readily available on the Internet) and basically focused on the development process that deemphasized non-critical activities such as analysis and documentation. According to the agile approach, you need a team consisting of a software developers and subject matter experts working closely together to develop a system in a super iterative manner. The actual methodology revolves around a daily stand-up meeting of the entire project team to report progress and plan their daily activities. It has proven its worth on projects where the project team is small enough to manage and maintain an intense level of productivity to get a project done in an extremely short time frame. Although this might not sound like a good candidate for a JADr session, it is not at all uncommon to initiate the entire process with a major JADr session that sets the stage for a set of Agile projects that run simultaneously. Actually, JADr is an agile approach for defining the business requirements for your project – assuming that your project is suitable.

2. *Other Organizational Considerations*

Beyond the methodology, there are other factors to consider in determining how likely the JADr concept is to succeed in your organization. To assess these factors, we recommend that you identify an experienced session facilitator. Work closely with this individual to determine:

- Has a “real” JADr session ever been attempted within your organization?
- Who would the key players be for the Planning phase (an organization chart is a valuable tool here)?
- How can you communicate the purpose and goal of the pre-session to all involved parties?
- Will all key players be made available for a session?
- Can you complete all planning and preparatory activities in time?
- Is there a higher priority project that could reduce participant availability during the session?
- How will acceleration of this project’s deliverables impact related projects?
- Can the project team carry the momentum of the JADr session onward to completion of the project?

If you and the session facilitator feel that the answer to each question is positive, your organization would appear to be a prime candidate for using JADr session to gather requirements. However, not only the organization, but also the specific project has to be a good fit before we would recommend grabbing the bull by the horns.

B. Profiling the Project

1. *Project Considerations*

Over the years, we have developed a profile to define projects that tend to be good JADr candidates. Admittedly, project profiling is not a science (but at least we think it’s legal), and to say the least we have experienced projects that did not meet the profile where a JADr was very successful. Nonetheless, the more of the following factors that a project violates, the more challenging the JADr will be.

Project Parameter	JADr Recommended Range
Number of decision-makers	1 (ideal) or < 4 (available)
Probable duration	< 9 months
Number of participants	< 15 non-developers including business community
Need for speed	High (short delivery horizon)
Priority	High
Executive Support	High
Need for consensus	High

Table 3: Profiling Criteria for JADr Project Suitability

Our first criterion is the number of decision-makers involved in the project. Ideally, we prefer to have a single individual who will own the solution in the end and who is willing to take ownership of the decisions. This individual (typically, a project sponsor) is willing to invest the time to listen to ideas, weigh pros and cons, and ultimately make a definitive decision about any feature of the solution that needs to be defined. If we only have one decision-maker, the JADr contributors tend to be direct reports to that individual and they are empowered to make decisions up to a point. Obviously, the final authority rests with the "decision-maker", which is kind of what that name implies, but the group can make a lot of headway towards that decision simply by virtue of how well they know their "boss".

This scenario is also, unfortunately, rare. More commonly we have projects in which there are 2 or 3 independent decision-makers who have to reach agreement on each requirement. This is not a show-stopper, necessarily, but it changes the nature of the session. For this session to work, the individual decision-makers have to be involved directly in the session as contributors. They may have a variety of their immediate reports there to support them, but the major thrust of the session is then to get the decision-makers to agree on common requirements, identify potential areas of disagreement and deal with them.

If the project exceeds 3 decision-makers, you are generally facing a 'political' project which requires a very diplomatic facilitator and should be approached with great respect and fallback plans.

The ideal duration for a project has changed significantly over the years. It used to be anything up to 2 years, and then 18 months, one year, and in recent times, we recommend a project that will be completed within the next 9 months. If the project timeline is significantly shorter than 3 months, the scope of the project may not be large enough to warrant a JADr session.

The number of people who need to be involved (both Business Community representatives and Technical Community representatives) in the JADr session is another critical factor to consider. This number is heavily dependent on the experience level of the facilitation team, but as a general rule, we find that a group larger than 15 is very difficult to get focused on a single task. On the low end, we generally find groups smaller than seven tend to generate fewer ideas, probably because there is not enough variety of viewpoints brought to bear on the subject.

The need for speed is indeed a factor in deciding to do a JADr session. If getting the project done quickly does not provide a significant advantage, it will prove difficult to get the support needed for the JADr session to succeed. In other words, if you don't need to get there quickly, don't take the JADr route.

The project has to be a high priority for the organization or, again, you will not get the resources dedicated to the project that are so essential for the JADr approach. As a result of this, it has proven impossible to pilot the JADr concept on a low-risk project. That means, it's either do it or don't, there are no half measures here. This also means that it is very difficult to get experienced as a JADr facilitation team unless you are willing to take significant risks and are very qualified or very, very lucky.

Executive support- what can we say? Without it, any significant change will fail. As a side note, it is essential that the executive support is not only there when you start the JADr process, it has to be there throughout or you might as well pack up and go home.

Finally, there has to be a significant value to achieving consensus on the requirements. If it is just a question of gathering a list of requirements that everyone knows anyway, don't bother with the rigor of a JADr session. You might be better off with a simple survey (and it is considerably cheaper). One of the major selling points for the JADr concept is that it helps a group of qualified contributors achieve consensus on the features, behaviors and attributes of a future technology solution. If the consensus isn't necessary, again, don't bother with a JADr.

2. Application Criteria: The Target Audience

Another characteristic that we pay attention to is where the solution that the project will deliver fits into the grand scheme of things.

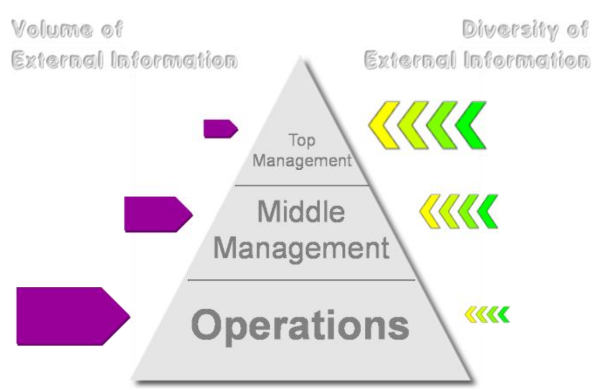


Figure 1 Application Audiences

This pyramid represents types of systems that are common in organizations. At the bottom of the pyramid, we have what we call operational systems. These are systems such as inventory control, accounting, payroll, etc. These systems are the backbone of the organization, without them, the organization would rapidly disintegrate. One of the common characteristics of systems at this level is that they tend to deal with huge amounts of data that is very similar in nature. For instance, in accounting, an invoice is very similar regardless of whether it is a payable or a receivable, but you might be dealing with tens of thousands or even millions of them. What we are getting at is that operational systems deal with a huge VOLUME of external information but there is not a lot of DIVERSITY in the information. As a side note, these are also the types of applications that our industry started automating back when computers were young, so there is an awful lot of automation out there. These types of automated systems generally deal with efficiency because getting things done quickly is of the essence due to the sheer volume of inputs.

The next level we define as "Middle Management" systems. These systems include decision support systems, data warehouses, and so forth and the characteristics that systems at this level share include a significant amount of external data (albeit considerably less than operational applications) but a considerably larger diversity. A lot of the information that these systems deal with comes out of the operational systems but a non-trivial amount comes from other sources, such as the Internet, newsletters, conferences and workshops, trade magazines and the like. What is happening here is that because the volumes are significantly lower, the solutions are more personal, so the interface or interaction level becomes much more critical to the success of the project. These types of systems focus more on effectiveness than efficiency and they tend to change more frequently than operational systems.

The top level we have represented as "Top Management". Systems at this level of the pyramid tend to process very low volumes of data (due in part to our human trait of information overload) but that data comes in all shapes and forms. A lot of the information at this level is not quantifiable, but much more evaluated based on feelings and assumptions. Executive dashboards and data mining tools are examples of what we mean here.

Of course, the key question here is, "How does this pyramid relate to JADr sessions?" Well, the 3 levels of target audiences that we have represented here pose very different challenges from the perspective of requirements gathering. For projects targeting changes or upgrades to operational systems, the requirements can generally be fairly clearly defined. The major challenge is getting those with the authority to agree on what the requirements are and what their priorities are. These projects make great JADr candidates if the project is important enough to warrant the time commitment.

As we move up the pyramid, the "Middle Management" audience can generally make a case for individuality, so the requirements become much more personalized. A JADr for this group can be extremely successful in sharing viewpoints and ideas. This type of a session is much more of a requirements brainstorming and then developing a common set upon which all solutions will be based but still allows for individualization.

At the top, due to the relatively small target audience of decision-makers and the limited amount of time they can make available to requirements gathering, JADr is not necessarily the best choice. JADr sessions can be very effectively used to define the feeds into the Top Management types of systems, but the actual systems themselves are usually best developed using prototypes, out-of-the-box applications for system by example, and so forth.

The application audience is one major factor to consider in determining whether or not your project is a good candidate for a JADr session. What other factors should you consider?

C. Additional Project Criteria

As you can tell, not every project is a good candidate for JADr sessions. Beyond the specific factors listed above, weigh the following seriously before committing time and energy to the wrong project.

- Benefits of acceleration can be quantified and the ROI is positive and achieved in an acceptable time period. There is a tangible benefit for the early creation of required deliverables or early project completion.
- Management commitment and support for the project is there and unlikely to go away in the foreseeable future. That means that whoever has final make-or-break decision authority on the project is committed to completion and this project is their highest priority.
- Knowledgeable customers have time for the project. The right people can work ***exclusively*** on the project for the entire session.
- Few (ideally less than 5) customer representatives have to reach consensus before a decision can be made

- A tight deadline is usually the major reason for considering acceleration. A JADr session can save enough time to make meeting the deadline possible.
- Both the facilitation team and the people who would continue the project after a session are experienced users of all tools and techniques needed to deliver a solution.
- A people-oriented facilitator and task-oriented session analyst with a proven track record of successful sessions are available.
- All parties involved in the project are or can become team players to the greater good of the project.

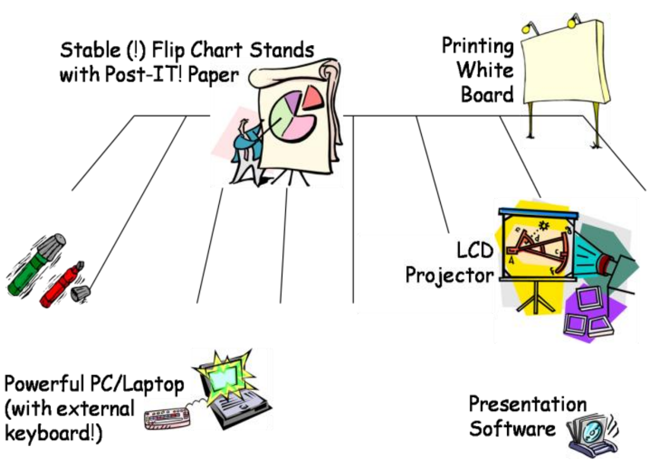
IV. Preparing the JADr

A. Session Site Considerations

The facilities for an effective JADr session should be off-site if possible. I can hear the finance department screaming about cost savings already, but in reality, if you try to save money on the facility, you will pay for it in a reduction in the quality of the results. First off, if you stay on-site, you will not be able to avoid people being called out of the session or their jumping back to their desk to "check their email" during a break (and, as a result, coming back late and missing important discussion points that will come back and bite the entire JADr in the end). I recommend pushing hard to get the facilities in a local hotel or, if the project is truly critical, even further away from the workplace. By the way, just by this simple step, you are sending the participants the signal that this project is important enough to warrant this expense, so kindly pay attention.

Appropriate facilities will have a direct impact on the quality of the generated deliverables. The session room has to be available 24 hours a day and offer:

- a physical location away from the day-to-day workplace
- walls for taping or pinning up results
- refreshments at all times
- no telephones in the room, cell phones off or silent
- standard presentation supplies and equipment
- a support room in close proximity with a suitable hardware and software configuration, 24 hour access and a high-speed copier.



Regarding the meeting room itself, we recommend a room with windows (which has proved to be a significant challenge due to the custom of building the conference facilities in the basements of hotels or in the middle of the building). Windows have a phenomenal effect on us as people. We need to have the sense of freedom that windows give us to put us in the right frame of mind for producing truly different ideas. The natural light that windows provide opens the mind and that makes it easier to reach agreement on sticky points.

You also need comfortable chairs and round tables (round tables reduce confrontation), or what we call a "workgroup" setup. For the group to be productive, you obviously need the mundane meeting materials like flip charts with pens that can write and be read, at least one white board (ideally, an electronic printing white board), and walls that you can hang interim results that you want to have in front of everyone's eyes. Obviously, you also need presentation software with a laptop or PC that is powerful enough to not keep the group waiting. Since a lot of the work in the session is visual, the room has to be set up so the projector screen is easily visible from every spot in the room and the session analyst has room to work without distracting the group. As a side note, since the session analyst is going to be working on his/her computer for the entire day, we recommend going the extra step to make sure he/she has a comfortable office chair and ergonomic work environment (whatever that means).

B. Pre-work Assignments

Like the calm before the storm, this phase is one of expectancy and growing anticipation. Be sure to:

- follow up on any assigned pre-work
- maintain realistic expectations concerning the results of the working session
- acquire access to the needed facilities and equipment

C. Scheduling Considerations

1. Scheduling Concepts

The process of delivering an information system can be viewed as a manufacturing process. There are two complimentary scheduling concepts that have proven themselves in the manufacturing industry and are very useful tools for IT projects.

- A JIT (Just In Time) approach recommends completion of any process as late in the cycle as possible to avoid tying up scarce resources needlessly and to limit the number of changes that will have to be made to the product.

- JIC (Just In Case) scheduling mandates the start of a process early enough to assure delivery of the product without risking the scheduled delivery date.

The combination of the two is called “JIT/JIC” scheduling and this forms a great basis for JADr scheduling.

2. Progress-Based Scheduling

Good scheduling can increase your chances of success. The following tips can help.

- Sequence the activities to give the participants a change of mental pace. This can allow the group to work longer than normal and still be effective.
- Offset the working hours for the session analyst by 1 - 2 hours. This enables same-day turn-around of many deliverables.
- Plan the sequence of session activities carefully to allow the session analyst sufficient time to prepare the results and return them to the group.
- Break when the group shows exhaustion.
- Assign each break a specific length in time.

D. Deliverable (Artifact) Considerations

The old “what’s in it for me?” question is actually very apropos for a JADr session. Ultimately, the answer, however, might leave much detail to be desired. The high-level answer is “whatever you decide you need to move your project to the next milestone or level”. We have listed here a variety of potential deliverables, but on any given JADr session, any or all of these might apply, or you might decide that you need something not on our list at all. All we can say for certain is that the deliverables are for you to define (during the pre-session meeting). If there is an outcome that would benefit from synergistic work-group activities, meaning achieving consensus would significantly improve its quality, using the JADr to create it will most likely help. The table that follows lists a variety of requirements-related artifacts that a JADr Session can deliver.

Artifact	Description
Org Chart	A representation of the authority of individuals within the hierarchy of an organizational structure
Context Level Process Model	A high-level diagram depicting the information exchange between various organizational units or specific individuals within the organization
Work Flow Diagrams	Any representation of how people do their jobs in particular focusing on their interaction with or reliance upon information technology
Use Case Diagrams	(UML) a picture of the interaction between users and the automated system
Entity/Relationship Diagrams	(Structured Technique) Represents data entities, key attributes, relationships between entities, and the nature of those relationships (a.k.a. data models)
Domain Models	(UML) Depicts the attributes, methods and relationships amongst business classes of objects for the impacted business area
State Diagrams	(UML) Represents the status of an object in any given point, the potential for transforming the object into a different status, and the conditions/events that can trigger the transformation
Data Flow Diagrams	(Structured Technique) Documents business or system data transformation, transportation, storage, and indicates the scope of the project using external entities
Event-Response Models	(Structured Technique) Represents business and/or system events with the related responses as a way of delineating the system from its environment
Activity Diagrams	(UML) Shows the control transfer between activities; often represented with swimlanes
Information Usage Analysis	A technique for capturing and documenting on a per deliverable basis how the business community utilizes information
Open Issues List	A collection of pending decisions, unknowns, or unresolved topics that were raised (i.e., during a JAD session) and need to be resolved for the project to be successfully completed
Question File	A (preferably electronic) collection of items that you know you don't know about the project as well as items that you know you know based on answers and assumptions
Quick 10	A reusable set of 10 critical questions that need to be answered during the analysis phase of the project (Function, Content, Frequency, Urgency, Distribution, Volume, Location, Accuracy, Constraints, Security)
Use Case Descriptions	(UML) A single interaction between the user (which may be a human or another automated system) and the system in question depicting a basic course of events, alternate and exception paths with other relevant information

Artifact	Description
Business Problem List	A listing of all business problems that the project is expected to solve with all identified, associated symptoms (created through Problem/Symptom Reduction)
Problem / Requirement Matrix	A spreadsheet representation of the impact that meeting defined requirements would have on identified business problems
Mini Specs	(Structured Technique) Represent the inner workings of a process typically expressed in Structured English, decision tables, system flow diagrams, or similar tools
Business Requirement Statements	A document that captures a list of business needs and wants for project as a coherent set of single, simple English sentences
Performance Requirements	A list of measures that will be used once the solution is in production to ensure that it performs at acceptable levels
Constraining Requirements	List of external factors that pose absolute limits on any solution
Complexity / Volatility Matrix	Shows relative complexity (level of difficulty) versus volatility (likelihood for change) of the individual functions of the business area in question
Functional Requirement	A statement in verb-object form of a process, action, or step that any solution has to support or do
Test Strategy	A set of decisions regarding the approach or methodology, tools and techniques, priorities and risks associated with the testing phase of project
Metadata	Literally, data about data; any information that has to be maintained about the data that the system manipulates (i.e., name, description, edit rules, etc.)
List of Data Elements	Alphabetized listing of all pieces of Information that the represented application creates, consumes, or stores
Informational Requirements	Any requirement that identifies or quantifies data that the solution has to maintain and/or track

Table 4: JADr Session Artifacts

This list of deliverables represents content that we have provided over the years for a variety of customers around the world; it is not just a theoretical listing of concepts. As a side note, several of these items are artifacts that originate in the world of the UML (Unified Modeling Language). That shows that the JADr approach can be just as successful in this object-oriented environment as it is in a business process improvement project.

Any or all of these artifacts might show up in a Requirements Definition Document (RDD), a Business Requirements Document (BRD), a System Specification Document (SSD), or a document-by-any-other-name that defines the features, functions, facts, and behaviors that a future business system must or should meet. That is a result of the focus of the JADr on defining the business requirements for information technology projects.

E. Session Planning Considerations – A Checklist

Category	Task	✓
General	Determine objectives and assumptions	
	Define scope	
	Identify constraints	
Artifacts	Define content	
	Determine form/format	
	Select technique	
	Choose media/tools	
Participants	Identify groups to be represented	
	Identify participants from each group	
	Define the role of each participant (i.e., executive sponsor, client sponsor, session leader, session analyst, decision makers, subject matter expert, advisor, technical expert, etc.)	
	Determine participant availability	
	Secure participant and manager commitment	
Scheduling	Select time for pre-session	
	Determine number/length of each session	
	Define content/subject of each session	
	Pick date and time for each session	
	Create preliminary agendas	
	Develop contingencies	
Facility and Equipment Requirements	Calculate required room size	
	Choose location	
	Determine availability	
	Schedule room	
	List all equipment needs	
	Validate equipment functionality	
	Locate backup equipment	
	Develop equipment/facility contingency plan	

Table 5: JADr Planning Checklist

V. Performing the JADr

A. Common Activities

The activities of a JADr session obviously target the creation of the selected artifacts. Unfortunately, that is much simpler to state than to accomplish. For instance, you may be trying to create a context level process model of the application, but people are constantly discussing topics that do not appear to have the least bit to do with your project. One of the most common activities we do during a JADr session is to either define or, if it has already been defined, confirm the project scope. Without this critical activity, the JADr session would never have a basis to evaluate whether or not it is staying on track.

Analyze Problems: Once we know the scope of the project, we typically identify and analyze problems that the business community has reported that might be within the scope or business area of the project. If the list of potential business problems becomes too large, we might spend a significant amount of time ensuring that the group has a common understanding of each problem. The end result of this activity is a prioritization of the problems and potentially a list of possible solutions.

Analyze Business Processes: If the project is going to significantly affect or even redesign a business process, defining, modeling, and analyzing the business processes is a very common activity for the JADr session. This requires the appropriate modeling tools and techniques (which implies that the facilitation team is current in the use of whichever tool or technique is selected). If any of the problems have to do with business data inconsistencies or irregularities (and they quite often do), creating a model of the business data and analyzing the business data usage are typical steps of a JADr session.

Capture Business Requirements: These activities typically flush out preliminary business requirements and help the business community think about what other business requirements for the new solution should be. Once we have completed this awareness-building and analysis segment of the JADr session, you can start to capture the business requirements. As the requirements list becomes relatively stable, you can then write well-structured business requirements for the use of the project after the JADr session.

Decompose Requirements: To truly test our understanding as to whether or not the requirement sentences make sense, we might spend time decompose them into categories such as functional versus non-functional, informational, performance, constraints, etc.

Prioritize Requirements: Unless the project consists of requirements that are all mandated, a significant activity during a JADr session is the prioritization of the requirements. Prioritized requirements enable us to make better decisions on which components will be implemented in which sequence and which are optional.

Develop Test Strategy: Assuming that the project is of a suitable size and that the JADr session has run successfully, developing an acceptance testing strategy is an optional activity for the working session. Although we generally acknowledge the acceptance testing strategy is a significant component of the business requirements document, it is also most often developed outside the JADr session.

Assign Action Items: The closing tasks during a typical JADr working session consist of assigning action items to be completed post-session and scheduling the wrap-up session. These are consistently the final critical activities in a normal working session.

Project Manager/Leader Tips:

Let the facilitator run the session. Your role in the process is to:

- meet with the facilitation team at the end of each day to discuss progress, resolve any concerns and evaluate the next day's agenda
- stay in touch with the mood of the participants and pass any important observations on to the facilitator
- reevaluate your assumptions about the project daily

Session Leader Tips

This process is time dependent, therefore:

- Be sure to initiate all deliverables. It is okay not to finish a deliverable, but critical that you start it.
- Manage group sessions to ensure topics are of concern to all participants. Use breakout sessions for topics specific to small groups of participants.
- Beware of overwhelming the session analyst (see III. Preparing the JADr session, C Scheduling Considerations).
- Use Open Issues and Question Lists to hold issues and questions that cannot be resolved immediately in the session. Keep them on the wall in the session room to prevent non-productive discussions from reoccurring.

The working session is a major project activity. Since it requires several scheduling and coordinating decisions, be especially sensitive to late completion of pre-work during the first interim. A single participant not completing their assignment can greatly deteriorate the potential for a successful session. Consider the impact on the session and prepare for contingencies to cover this scenario.

B. Helpful Facilitation Techniques

- Always establish explicit time limits and stay to them
- Create a list and agree on the top 3 items (prioritizing and filtering)
- Use one list to create another.
- Split the group, give the same assignments, merge, reduce and select results on matches and agreement (listing, filtering, higher prioritization and involvement)
- Split group, same assignment, critique list (share ideas and generate more).
- Create full group list by having each individual create a short list. Prioritization occurs based on the number of times an item is mentioned. Combine and reduce by eliminating redundancies.
- Post lists in a permanent place to create a visible group memory.
- Reduce lists by agreement on elimination without discussion (a form of consensus).
- Reduce lists by agreement on grouping or elimination with discussion (a tighter form of consensus).
- Constant refinement of critical lists by periodically reviewing and modifying them.
- Quick decision making combining brainstorming, prioritizing and justifications.
- Use an affinity matrix to see how two variables are related.
- Create room locations for each group to meet in.
- Choose by use of both positive and negative options.

- Individuals create a short list. The facilitator places the information on a flip chart and gets agreement on wording and a count of hits. When a participant gets a "hit," they cross it off their list.
- Develop and agree on justification for decisions which could be highly subjective or open to debate.

C. Risks and Remedies

There are a variety of risks that have to be mitigated before and/or during the JADr session. Ignoring them is a sure recipe for disaster. The following are examples of risks that you should prepare for:

1. Bad decisions due to speed.
2. JADr Process not conducive to some cultures / thinking styles.
3. Not having the right people support/buy in.
4. Missed information or requirements (possible big impact downstream).
5. Not enough time (in the JADr.
6. Group think (not real).
7. Not clear or inaccurate documentation.
8. Poor quality of the development.
9. Loss of focus (people, EQ).
10. The development is not agreed upon (management of tasks in a short time frame).
11. Lack of Follow-up.
12. Wrong time (loss of investment).
13. Missing connections to other projects.
14. People with different needs in the same session.

In addition, we have some recommendations for dealing with specific risks as outlined in the table, below.

Risk	Possible Causes	Recommended Actions
Sessions deteriorate into non-productive meetings or debates.	Lack of technical expertise or people skills on the part of the facilitator	Get help from an internal or external consultant. If none are available, stop the session and rethink the approach.
Deliverables not available in time	Inadequate support equipment	Rent the necessary equipment, it's cheaper than a failed session.
	Inexperienced session analyst	Bring in an experienced session analyst immediately.
	Too much information produced	Plan over-time, schedule a facilitation team day or consider assigning 2 support people (with the necessary equipment).
Wrong decision-maker(s)	The person needed has conflicting priorities	Reschedule the session when the right decision-maker is available.
Group-think	Reaching consensus without considering all factors	Challenge any agreement reached without dissenting opinions. Evaluate the impact of the decisions on extreme situations or from a negative perspective. Play the devil's advocate.
Deliverables rejected by non-participants	Wrong people at session	Improve your participant selection process and ensure that validation of deliverables by non-participants is part of the Quality Assurance process.
	No communication between session participants and their peers	Present the deliverables of a JADr session in a formal presentation as opposed to simply distributing it through normal channels.
Deliverables are invalid or outdated	No follow-up, no finalization, and/or no on-going updates to the deliverables of a JADr session.	Schedule or repeat a post-session meeting with all participants. Re-evaluate the overall accelerated process; identify where problems occurred and how to avoid them in the future.

Table 6: JADr Risks, Causes, and Recommendations

We list these risks because we have, within our experience, met and resolved each of them. These are not all possible risks, but with over 300 successful sessions under our collective belt, we think these are the major threats. Quality project and process management will enable your organization to take advantage of JADr sessions very quickly. Above all, the best selling point for JADr sessions in an organization is a high-profile, professional, productive first session.

D. Session Support Choices

1. InstaDoc™ – In-Session Documentation

InstaDoc™ creates the documentation while the group is working on it. It requires that the session analyst sit in on the session and capture the results of the discussion in real time. There are obviously pros and cons to having the session analyst in the fold during the session.

Pros	Cons
1. The session analyst hears the participants' contributions first hand and is better able to help the session leader guide the group.	1. This requires a session analyst who is willing to do analysis in public.
2. The participants see what the session analyst is capturing while they are discussing it.	2. The contributors can become distracted by observing the antics of the session analyst while he/she is capturing the results of their contributions.
3. The contributors automatically perform quality control on the deliverable which reduces the need for additional reviews.	3. The only results that the group sees are the results that are projected.
4. The artifact is documented as soon as the discussion is over.	4. Contributors are not allowed any time to reconsider their decisions before the session has moved on to a different topic.

2. Intra-Session Documentation

Intra-session documentation means that the session analyst is sitting in a different room than the JADr participants. The session leader is capturing the results of the discussions (typically on flip charts or electronic white board) and then turns the hand-written version over to the session analyst who transfers it into the computer.

Pros	Cons
1. The session analyst has time to perform an in-depth analysis of the results before returning them to the group.	1. The session analyst often has to work hours after the session is over to prepare the documents for the next day's session.
2. The group only sees the "clean" version of each interim deliverable (they are not distracted by trivial errata)	2. The group has to review each deliverable to catch transcription errors.
3. The session analyst's work time can be offset so they start and end 1 – 2 hours later than the working group.	3. The deliverable is not available immediately at the end of the session.
4. The results of one activity are reviewed during a later phase of the session which gives participants a second opportunity to identify and voice concerns.	4. Some participants consider the reviews as a waste of time as issues that they considered closed are revisited.

VI. Polishing the JADr Results

In this phase, the contributors are expected to complete all assigned action items and resolve all assigned open issues. They should also involve peers who were not in the session by sharing the session deliverables and discuss potential problems. Assuming that the session was successful, those who contributed should become ambassadors for the concept and "spread the word" about what was achieved and how. This "word of mouth" campaign can do more to pave the way for the successful implementation of JADr across the organization than any other method. There is no more powerful proponent of a product than a satisfied customer.

On the other hand, there are also risks. In particular, beware the post-session letdown. Be sure to:

- Help the project leader re-estimate the project based on the new knowledge and modified assumptions
- track progress of unresolved issues and other assigned tasks
- monitor the timely distribution of the session deliverables to appropriate non-participants
- maintain the enthusiasm and momentum generated by the session
- schedule quality assurance reviews with non-participants
- keep all involved parties abreast of on-going developments

It is important to note that much of what was achieved during the working session can be undone by loss of momentum during this phase. We highly recommend that you stay focused through the end of the Polishing activity to ensure that the results of the JADr session are received in the spirit in which they were intended.

VII. Propagating the JADr

A. The Post-Session Wrap-Up Meeting

The post-session wrap-up meeting is the beginning of the future of JADr for your organization. This meeting is critical, especially for the early JADr sessions. Our post-sessions follow a reasonably fixed script (whereby individual facilitation teams have taken liberties with the order and the priorities of individual items, skipping some and adding others as the situation dictated). The duties assigned to the individual roles during this meeting are designed to maintain the synergy that the session generated but at the same time to reestablish the "normal pecking order" within the project.

The roles and their duties:

Session Facilitator:

- Complete all assignment lists.
- Follow-up call or visit to Project Leader.

Project Leader:

- Follow-up on outstanding items.
- Draft/revise and issue project plan.
- Produce status report (time).

JADr Team Members:

- External – follow-up
- Internal – follow-up
- Complete their tasks with Project Leader.

B. JADr Implementation Steps

A good facilitation team is essential to successfully implement JADr sessions within any organization. The following steps will get an in-house facilitation team up to speed quickly and set the stage for using JADr sessions.

1. Build a Facilitation Team

A facilitation team needs experience, but they aren't born with it. The quickest way for candidates to get up to speed is to:

- observe one or more sessions facilitated by experts
- identify personal weaknesses and address them through training or survey instruments such as those available from the Requirements Solutions Group
- conduct a first session together with an experienced facilitation team
- solicit and evaluate constructive criticism from all participants of the session

2. Plan the First JADr

Plan the first session carefully. Choose a project that has high visibility. Use everything at your disposal to make sure this first session is a success. Communicate the desired results of the session and state upfront what will make this session a success. Use the "Risk and Remedies" section of this paper to evaluate what might possibly go wrong. Plan a course of action for each scenario. Manage any other risks you can identify. Use a team facilitation approach.

3. Monitor the Session Critically

Have an experienced facilitator monitor the first session. If needed, the monitor can suggest a course of action to the facilitation team. Record everything in the session that can be improved upon. If the facilitation team is open to it, these can be discussed daily.

4. Prepare an On-Going Improvement Program

If your organization decides to use JADr sessions as a routine part of systems delivery, you may need several facilitation teams. Each team will need training and opportunity to perform a session. Build one good team first, and give them time to develop experience. They can then develop and mentor additional teams.

VIII. Critical Success Factors for the JADr

So in the end, what are the critical success factors that it takes to make a successful JADr session?

A. Right Project

First off, you have to have the right project. If you try to force the concept in a project that is too small, not critical enough, or lacks executive backing, not only can your JADr session fail, you could even ruin the concept for others within your organization. If the JADr name becomes 'just another meeting" or, worse yet, a technique that 'just does not work for us", you are losing a valuable technique. Because making sure the first JADr is successful is critical for the organization as well as the project, make sure you try it on the right project.

B. Executive Support

Secondly, you need executive support from the beginning of the session to the end (ideally, to the end of the project). If you lose executive support, your session will be wasted and your project endangered. A big part of maintaining the support of the executives is communications. Make sure that they know what the JADr is about, why the project is critical to the organization, and what you expect to get out of the JADr process. You should consider daily updates on the progress of the session to keep your project on their minds, even if it is just through an email or a phone call that goes onto the answering machine.

C. Achievable Goals

It just makes sense that the goals of the JADr have to be achievable. If the expectations are unrealistic, it doesn't matter how good the session goes, you are doomed from the start. Make sure that your goals are realistic and that you manage expectations. If the project sponsors and/or executives expect too much from the session, they will be disappointed with whatever you deliver. If they expect too little, you risk losing that support I just mentioned.

D. Informed, Empowered Participants

Next, informed and empowered participants provide the energy that the JADr runs on. "Informed" implies that they are aware of their needs (and those of their peers) and "empowered" implies that they are capable of making decisions that will not be overthrown by whoever-they-report-to as soon as the session is over.

E. Knowledgeable, Effective Facilitation

Knowledgeable, effective facilitation and efficient knowledge capture more or less dictate having a team who has experience in facilitating JADr sessions and documenting the results. This of course begs the question, how can you get experienced teams the first time around? Actually, what we recommend for building a successful JADr team starts with training in the basics (such as our course on "http://www.requirementssolutions.com//CIL5400_How_to_Prepare_and_Facilitate_Productive_JADr_Sessions.htm" and is followed up by participating in one or two JADr sessions as an observer.Your team is then qualified to team facilitate (working with an experienced team and taking on parts of a real session) and, finally, the team should then facilitate a session by themselves (flying solo) but with the experienced team sitting in as observers and ready to guide them in case they run into trouble. Of course, we assume that they already bring a solid background in the techniques of business requirements gathering or they will fail on technical grounds.

F. Suitable Facilities and Tools

Finally, suitable facilities and tools is a statement that if you try to save money by limiting where the session can be held (i.e., in a conference room surrounded by cubicles in the middle of a busy office) or by not providing the high-powered tools (i.e., fast computer, quality projector, color printer, high speed copier, etc.) for the session, you are shooting yourself in the foot. If the project is critical, it should be worth providing the team with the necessary resources to give them every chance to succeed.

In the end, a successful session will remove any doubts and send a strong message to all projects throughout the organization that you now have a powerful, flexible and cost-effective tool for getting to better business requirements faster and (in the end) cheaper.

IX. e-JADr: Myth or Miracle?

A. What is e-JADr?

With the proliferation of teleconferencing, the Internet, and collaborative environments, transitioning the classic face-to-face JADr to the new modes of communication almost seems like a no-brainer. The people are more widely distributed than ever before and the cost of travel has increased. Does it not make sense to exploit the new media that allows each contributor to sit at his/her workspace (or home) and participate with others around the planet?

Being amongst those who pioneered the original JAD concepts, we, at RSG, felt it imperative to maintain our pioneering spirit and be amongst the first to test our tried-and-true methods for JADr sessions in the electronic environment. Our requirements for the test were simple and straightforward:

The electronic meeting tool should:

- Support full document sharing and creation capabilities
  - any participant can see and modify any document
  - changes could be overridden by the facilitation team
  - support all version control
- Allow for break-out sessions where sub-groups could work on their own deliverable
  - The facilitation team had to be able to "wander" between the break-out groups
  - Each group had to be able to summon the facilitation team
  - Each group had to be able to present its results to the entire session audience
  - It had to be possible to assimilate the work of each group into a main document
- Be able to record the audio portion of the main session and each break-out group

B. The Good, The Bad, and The Funny – Some Lessons Learned

1. *Benefits of e-JADr*

-
- Cost savings (although the actual saving was considerably reduced due to the communication costs for the teleconferencing line).
- Electronic distribution of the results immediately following each session gave the participants the option of reviewing the outcome while the session was still fresh on their minds
- Electronic capture of individual diagrams expedited the preparation of the final deliverable.
- Ability to facilitate session from the office drastically reduced stress on facilitation team

2. *The Down Side of e-JADr*

- Not as productive as life JADr
- Technology dependency caused loss of continuity
- During one session, we were using an external telecommunications provider for the teleconferencing component. We discovered that it is excruciatingly important for the facilitator to be able to recognize who is talking (which is supported with WebEx® integrated teleconferencing capabilities, albeit at a significantly higher cost).

- Scheduling algorithm limited synergy building
- Lack of visual communication dimension led to anticipated increased dependency on verbal and vocal dimension whereby loss was actually greater than anticipated. (NOTE: Our initial tests with a simple webcam showed limited value add-on and the deterioration in the quality of the sound due to the heavier load on our Internet connection sealed the deal – no video.)
- Difficult to maintain enthusiasm levels
- The lack of visual communication between participants made it more difficult to dispel doubts.
- It was difficult to keep people from inadvertently talking at the same time.

3. The Weird, Wacky, and Just Plain Different Side

- The Facilitation team had to establish a non-obtrusive mode of vocal communication (private chat function proved to be to taxing on facilitator) to be able to exchange signals on what was going on and what was needed without distracting the contributors.
- In the past, we have used humor extensively in JADr sessions, not only to diffuse difficult situations but also to stimulate creativity. We are convinced that creativity and laughter are closely related and that people who are having fun are much more creative. Using humor in the virtual environment proved considerably more challenging than anticipated due to the inability of people to see each other. As a result, the only way to diffuse tense situations with humor was audio. Studies indicating that we communicate 76% Visually, 17% Vocally, and 7% Verbally were reinforced by our experiences here. These challenges must be addressed before the e-JADr can become all that it can be.

C. Untried Solutions

For reasons stated above (financial), we have not yet experimented with full, streaming, duplex video capabilities due to the costs involved. Based on our experience with live sessions, we do anticipate that the video dimension would add value to an e-JADr, but until we find a customer that has the capability or is willing to finance it for a session, we will not be able to establish how much it adds.

We remain, however, firmly convinced that the concept of JADr can become extremely successful in the virtual universe. We believe that the success of JADr is strongly related to the rules that make the session productive. It is in our opinion just a matter of discovering the appropriate rules for making the virtual session just as effective. We would love to try an e-JADr with a customer whose participants are geographically spread out but where each location can pull a small (ideally 3, 2 or 4 also possible), cross-functional group together in a room with all of the required communication modes, in particular

- A large monitor that all can easily read by all in the room
- Video capability that can be turned off for small group assignments
- Good audio capabilities that allow the group to be heard by groups in other locations (and by the facilitation team) that can be muted for small group assignments
- Comfortable seating arrangements, high-speed printer (possibly plotter) for reproducing idea-generating flip-chart size print-outs
- Refreshments available in the meeting room

Our thought is that the full group collaboration would be minimized and a lot of work done by the individual (small) groups before being electronically shared by all. Full group activities would presumably focus primarily on review and revision activities. With our trademark enthusiasm, we look forward to the opportunity to venture into this exciting and novel application of the tried-and-true JADr principles.

X. Is JADr Right For You?

Now that you have a better idea as to what JADr sessions are all about, you should be in a better position to determine whether you want to try a JADr (or an e-JADr. We know that JADr sessions are not a magic pill and that they will not succeed in every organization or even on every project. You have to make the decision as to whether or not they are right for you, for your project, and for your organization. However you decide, we hope that our contribution through this paper helps you make the right decision.

JADr (Joint Application Development(Requirements)s): Performing Effective Requirement Gathering JADr Sessions is one of a series of white papers published by the Requirements Solutions Group, LLC. This white paper is intended to complement our training and consulting in business system analysis and delivery. For more information concerning this training, our methodology, or our consulting services, contacts:

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