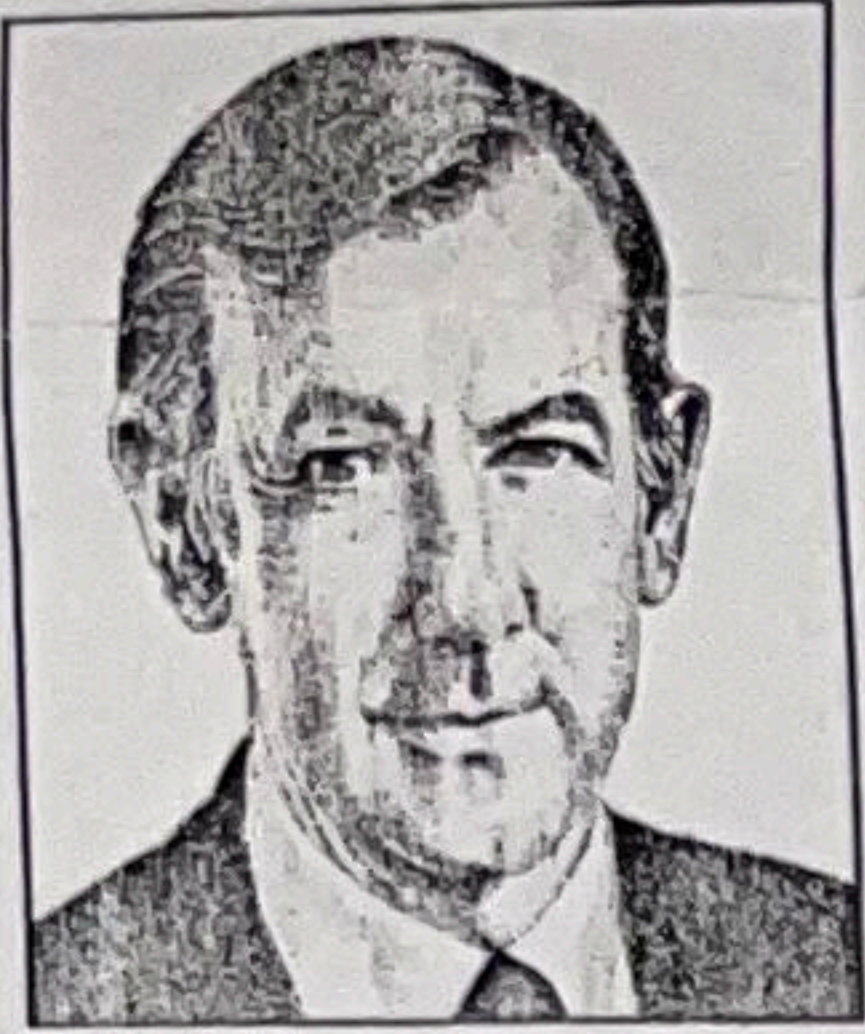


APPLIED INTELLIGENCE

Success of JAD Workshops Depends Largely on Leaders



This is the 10th in a series on rapid applications development (RAD).

Joint application design (JAD), originally introduced by IBM Canada, greatly facilitates the communication of specifications from end users to information systems (IS)

analysts. The technique, particularly successful for applications development, has spread to many corporations. It speeds requirements analysis and design, and yields designs that better meet users' needs.

The basic idea of JAD is to select key end users and conduct workshops that progress through a planned set of steps designed to create the system rapidly. In the session, IS staff members translate users' requirements into relevant data models, screen and report designs, process-flow diagrams, decomposition diagrams and rough prototypes.

Early JAD sessions were done without automation, but the process is far more effective when combined with integrated computer-aided software engineering (I-CASE) tools, which can generate code for complete prototype applications.

The skills of the person who organizes and conducts the JAD workshops are particularly critical to their success. Usually one person, called the JAD leader, runs the session.

The job of JAD leader should be regarded as a profession, requiring professional skills that take time to develop.

JAD leaders are not likely to conduct their first session perfectly. Only after three or four sessions does the leader gain the necessary confidence and skill to make the session as effective as possible. When a JAD session fails, it is almost always the fault of the leader.

JAD leaders should be chosen mainly for their communications skills. They may come from the end-user or IS community, but in practice, most come from IS. Some JAD leaders have been information-center staff members, some have a marketing background, and some are consultants.

The JAD leader needs to be diplomatic and disassociated from any politics that might affect the session. Above all, the leader must remain objective. It is his or her job to prepare the session, orchestrate the interaction between the participants, confine discussions to a structured framework and move the session relatively quickly to the required conclusions. The JAD leader acts as the focal point for the views of management, end users and IS professionals.

The JAD leader needs to research and prepare for the meeting, and to provide the participants with appropriate printed material. Additionally, JAD leaders should be:

- comfortable working in front of a group of people;

- confident in their ability to direct discussion and fact finding;
- able to command the respect of all parties at the session;
- well prepared;
- knowledgeable about the area of business;
- competent in the techniques being used; and
- able to control controversies and stay flexible.

A good JAD leader knows that certain goals must be accomplished by a given time. The JAD leader moves the session forward until the requisite designs are completed, along with screens, reports and, possibly, prototypes. The

separated into subsystems with an I-CASE tool that ensures consistent data models and precise interfaces between the subsystems. Separate, one-week JAD sessions may then be used for the separate subsystems.

Participants in the JAD workshop should understand four types of diagrams: entity-relationship diagrams; decomposition diagrams; dependency, or data-flow, diagrams; and action diagrams (used to specify procedural logic). These can usually be taught to end users in a half-day course. In some organizations, however, two half-day training sessions are used.

Users who have not previously partic-

meeting is held.

The initial design of the system is done in the first workshop.

To begin, the scope and objectives are reviewed, along with the output of the previous joint requirements planning (JRP) workshop. Relevant information from the I-CASE repository is reviewed. It may be shown "live" on the workshop's large-screen monitor using the I-CASE tool. Adjustments may be made and comments added. The data model may be discussed and modified.

Each process, represented by a process block on the process-flow diagram, is then examined in detail. This may be done in five stages:

- determining the steps in the procedure;
- building an initial data-flow diagram showing the steps;
- examining each procedural step in more detail;
- creating a partial prototype for each procedural step; and
- addressing unresolved issues.

The workshop participants should be shown screen designs and prototypes of the dialogue. They should examine and comment on reports the system produces.

After the first workshop, the design is solidified and cleaned up by IS professionals, and prototypes are built; users examine the design documents generated by the I-CASE tool and work with the prototypes.

At the second workshop, the experience with the prototypes is reviewed and enhancements to the design discussed. Substantial design improvements or additions may be made. After the second workshop, the design is further solidified and then finalized.

Preparation for the construction phase should overlap the JAD activity, taking place near the end of the process. The construction team becomes involved after the first JAD workshop, when the design is being consolidated and the prototypes evaluated. Members of the team are present at the second workshop.

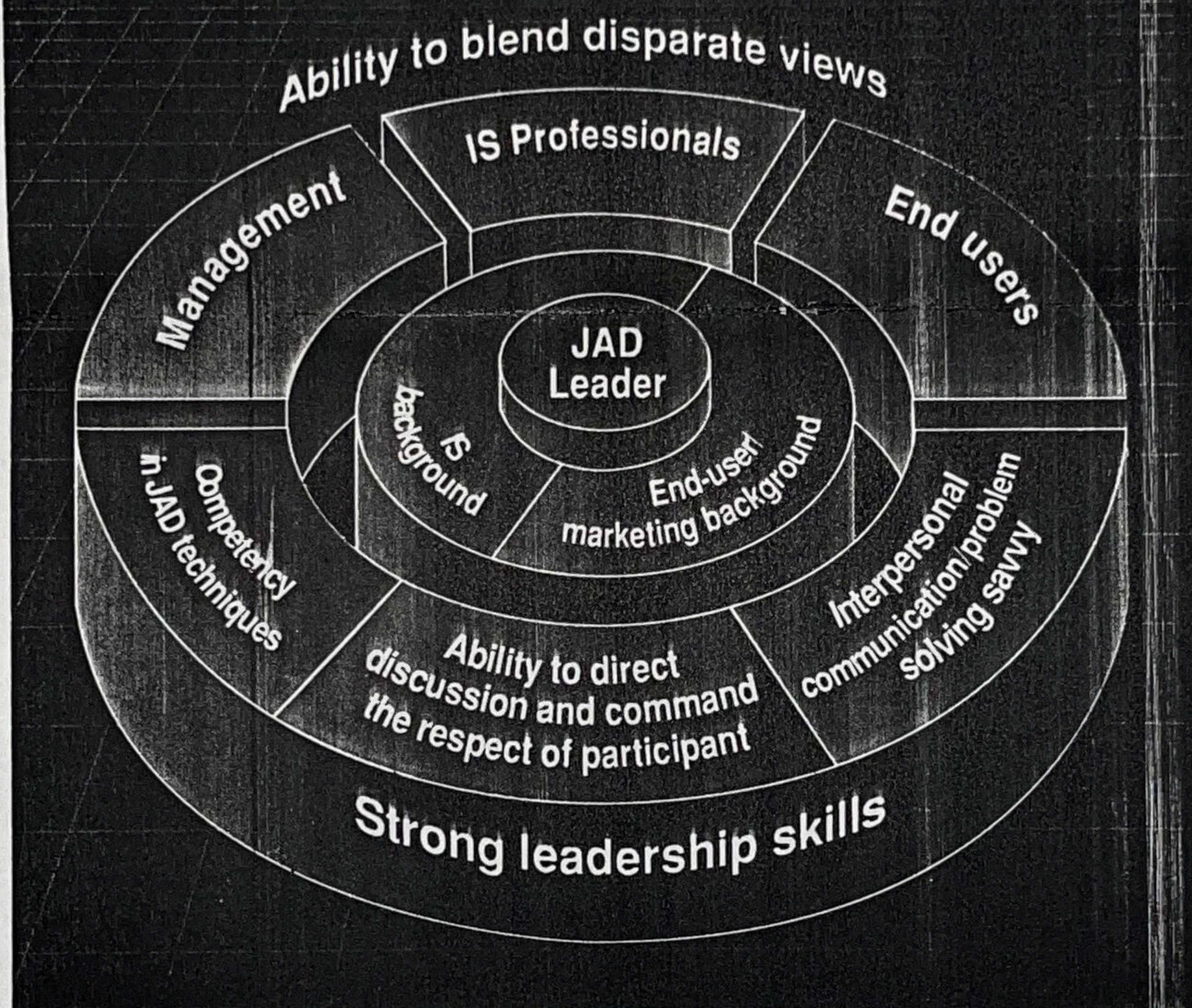
The construction team should estimate the amount of work required, which may indicate that the system be split into subsystems to be developed in parallel by separate teams.

The goal of the second workshop is to make a presentation to the executive owner and allow him or her to question the participants. The owner must feel comfortable with the design to give the go-ahead for construction.

Next week, I will discuss the concept of SWAT teams—small, highly trained teams of IS professionals who build the application under deadline. ■

The concepts embodied in RAD are described in a new volume in the James Martin Report Series. For more information on this volume, call (800) 242-1240. For information on seminars, contact (in the United States and Canada) Technology Transfer Institute, 741 10th St., Santa Monica, Calif. 90402 (213) 394-8305. In Europe, contact Savant, 2 New St., Carnforth, Lancs., LA5 9BX United Kingdom (0524) 734 505.

Essential Elements of a New I.S. Professional: Joint Application Design Leader



John Avakian

The goal is to discuss ideas and reach agreement without delay. It is important for the JAD leader to be enthusiastic about JAD and to convey excitement to the participants.

goal is to discuss ideas fully and reach agreement without much delay. It is important for the session leader to be enthusiastic about JAD and to convey excitement to the participants about how well it can work.

A corporation may employ an outside consulting firm to run its first JAD workshops until its own JAD leader becomes experienced.

For RAD, I recommend full-time—not half-day—participation in JAD workshops. Sessions should usually last five days, since participants tend to spend the first two days getting to know one another.

Very large applications need to be

participated in JAD need to become familiar with what it is and what they are expected to contribute.

The users and the JAD leader draw and discuss the diagrams on a white board or flip charts. A scribe enters the diagrams into an I-CASE tool set, which shows how the diagrams relate to one another and provides details of the objects. The participants examine the relationships and details on a large-screen monitor, adjusting the computerized design as the workshop progresses.

In the RAD life cycle, there are two JAD workshops in the user design phase. Before the first workshop, there is a period of preparation, and a kickoff