

JAUGS WORKING GROUP
SOFTWARE ENGINEERING DIRECTORATE
REDSTONE ARSENAL, ALABAMA

6-7 December, 2000

MINUTES

December 6th, Wednesday

INTRODUCTION

The 13th quarterly meeting of the JAUGS Working Group was called to order Wednesday, December 6th, 2000 at 8:40am by the Chairman (Jeff Kotora), in the Software Engineering Directorate (SED) building.

An overview of SED was given by Robert Wade with his welcoming remarks. The objectives of this meeting included the following: (1) focus on completion of the Working Group Standard Operating Procedures (SOP), (2) adding manipulator, plug-and-play, and weapon functions to the Domain Model, and (3) review of the Reference Architecture (RA) 2.0. He also mentioned the RAMP demo that the group would attend in the afternoon.

The Chairman initiated individual introductions around the room. The reading of the minutes from the May 23-24, 2000 meeting was suspended and the minutes were accepted without objection.

PRESENTATION AND DISCUSSION

The Chairman gave a briefing on the JAUGS Working Group Standard Operating Procedures (SOP) per an action item that came out of the May 2000 meeting. The SOP was initiated by a desire from members to have a more formal structure. Therefore, the JAUGS WG SOP Version 1.1 Draft dated November 28, 2000 was presented regarding the concept of Roberts' Rules of Order, which was presented by Fred Proctor at the May 2000 meeting. Issues to be voted on were mentioned, which included a secretary position and committees. Voting is based on attendance at meetings due to no defined quorum and openness. Document custodians were listed as follows: Robert Wade – Reference Architecture & Domain Model, Jeff Kotora – Configuration Management Plan, and Fred Proctor – Working Group SOP. The conduct of business within the working group is accomplished by means of motions, either main or secondary, from the floor. Motions usually require seconding, however, speaking requires recognition by the chair. The speaker may yield either permanently or temporarily for an inquiry. A main motion is followed by discussion (debate), but the discussion may be limited. A motion may be called to question (voted upon), tabled, amended, referred (to a committee), rescinded, or withdrawn. Main motions have precedence and only one may be considered at a time.

The intent of the JAUGS WG SOP is to be fair to members and to record how JAUGS decisions were made for historical purposes. As the JAUGS WG SOP is instituted, the nature of JAUGS may require modification to the SOP Version 1.1 Draft. Members are encouraged to help this process by suggestions and support.

At the conclusion of the JAUGS WG SOP briefing, discussion by the group commenced regarding their ideas and suggestions. Motion by Phil Adsit was approved to accept SOP V1.1 as written and refer Section 1 to an SOP Committee for revision.

The issue of the secretary position was discussed and it was determined that the qualifications for the position should be listed in the bylaws and not in the SOP. The group felt the position should be held by a person not directly involved in JAUGS so they would have no need to participate in the discussions. Discussions concerned whether the person for the secretary position should be provided on a volunteer basis or by an organization that already receives funding for JAUGS. Motion by Phil Adsit accepted for Robert Wade's organization to provide the secretary for the next JAUGS meeting and henceforth. Katie Jackson was appointed Secretary for the current meeting.

DEMONSTRATION

Lunch was from 11:20p-12:15. At 12:20, the group boarded a bus and attended a RAMP demo (XUV firing LAWs) at the small rocket test range. The group witnessed two successful LAW (light anti-armor weapon) rocket firings.

DISCUSSION

At 3:07, the group returned to the meeting room and began a discussion on the SOP Committee and clarified its role. There was consensus that the SOP Committee should include members of industry and academia. The size of the committee should be 3-5 people. It was reiterated by the Chairman that the WG adopted the SOP with intention of the SOP Committee to review Section 1 of the SOP V1.1 for recommended changes. Volunteers for the SOP Committee were accepted as follows: Tim Cable, Fred Proctor, Daniel Carroll, Phil Adsit, and Carl Crane.

PRESENTATION

Robert Wade briefed the COUGAR Program, which is a weaponized robotic project. Robotic Applications for Modular Payloads (RAMP) is funded by 6.2 a line, which is the technology for the COUGAR. COUGAR is an acronym for Cooperative Unmanned Ground Attack Robot(s) that currently has three planned phases. COUGAR Phase I is a weaponized robotic vehicle that demonstrates plug and play for two weapons and allows soldier operation of both the vehicle and weapons. Weapons were chosen that have a soft launch and were low cost. There have been a total of 19 successfully (includes 2 from today) fired LAWs at three ranges (Redstone Arsenal, AL; McGregor Range, NM; and Ft. Knox, KY). In early December, a Javelin missile is scheduled to be fired. COUGAR Phase II is a roboticized M-113, Hybrid HMMWV, which offers plug and play for longer

range weapons. The longer range weapons include Hellfire, Stinger, Low Cost Precision Kill (LCPK), and AMRAAM, as well as leveraging smart launcher and missile fire control programs while incorporating JAUGS. The vehicle will go beyond tele-op by convoying, using low speed waypoint navigation and an integrated operator control unit. It will demonstrate detection, designation and engagement of threat system(s) in FY02 with multiple robotic systems. There will be two/three weapons on the M-113 and sensor payload(s) on a HMMWV/M-113, and a UAV for this demonstration. The COUGAR Urban Battle System (CUBS) will arm the Gladiator robot for the USMC and incorporate two weapons (M240 medium machine gun and anti personnel obstacle breaching system). Modeling and simulation will be available for virtual prototypes for RCSS and COUGAR and will be incorporated into two experiments. Experiment #1 will include AP mine neutralization, obstacle reduction and a mechanical arm. Experiment #2 will include a RSTA UGV, a lethal UGV, a chemical detection UGV, and COUGAR force-on-force employment. COUGAR Phase III involves a small UGV (CUBS) delivered by robotic M-113 (marsupial concept) in an urban environment. This will include one OCU to have interoperability between a UGV and UAV. It will demonstrate detection, designation and engagement of threat system(s) in FY03 with multiple UV systems.

The meeting adjourned at approximately 4:30pm and will reconvene at 8:30am Thursday, December 7th.

Thursday, December 7th

The meeting was called to order at approximately 8:30am by the Chairman and a lunch menu was passed around the group. He began the meeting with administrative remarks. Calling the question is defined as a motion that closes discussion immediately on the current main or secondary motion and brings it to a vote. If it passes, it supersedes any previous motion to limit or extend debate. It may be qualified by its sponsor to apply to all pending questions. The speaker must have the floor to initiate a calling of the question; it must be seconded and is neither debatable nor amendable. A two-thirds vote is required to call the question.

PRESENTATION

Phil Bennett and Brian Rigdon from Sandia National Laboratories gave a briefing on Manipulations and JAUGS Extensions. The kickoff meeting for their program was November 2nd and funding is from the UGV/S JPO. They are looking for feedback from the warfighter's point of view. Manipulators are technology independent and mission isolated. The art of any abstraction is defining the limits. Their task for the JPO validates application of JAUGS and a demo manipulator on RCSS using plug and play. They are open for discussions on manipulations with JAUGS regarding arms, legs, and platform.

Next, Robert Wade went over the Reference Architecture V2.0. There was discussion on versions and a conclusion that what is in will stay in. There was a request for Fred Proctor to send out a version of the RA with changes shown. Also, there was discussion

regarding a document format for submission of requested changes to the RA. Jeff Kotora is going to send out something similar to Army Form 2028 for review and customization for the working group.

NEW BUSINESS

A series of motions and discussions took place. The group passed a motion to solicit questions and comments from the WG using a formal inspection process in order to establish a list of current issues with all JAUGS document content. A motion was passed that we establish a RA committee, whose purpose is to collect, collate, formulate and disseminate all issues and propose changes to the RA document for ratification by the WG. Subsequent identical motions were passed for the CM and DM committees as well. A motion to populate the RA, CM and DM committees by volunteers was passed. The RA committee consists of Robert Wade, Ralph (Woody) English, Carl Evans, and Carl Crane. The CM committee consists of Daniel Carroll, Joe Urda, Roy Greunke, and Jeff Kotora. The DM committee consists of Robert Wade, Tim Cable, Kerry Pavek, and Ralph (Woody) English.

Mid-late March is the target for the next JAUGS Working Group meeting. The location is to be at Tyndall Air Force Base, Florida.

Meeting adjourned at approximately 3:45pm.

Katie Jackson
Secretary

ACTION ITEMS

1. Provide list of JAUGS documents that are grandfathered prior to the SOP acceptance. - Katie Jackson
2. Review old action items from May 2000 meeting and advise as to the status through the reflector. – ALL members
3. Send out RA V2.0 with changes shown and publish. If problems, Jeff Kotora will repost on JRP website. – Fred Proctor
4. Publish similar format of Army Form 2028 to WG for future document revisions. – Jeff Kotora
5. Provide a disciplined vehicle to ensure the committees are responsible for their reports due at the WG meetings (ex: chair person, executive committee). – SOP Committee
6. The committees shall elect their chairpersons. – RA, CM, DM

7. Revise the SOP. – SOP Committee
8. Provide secretary for next meeting. – Robert Wade
9. Check on website archival of past WG minutes, document sharing and read only files for downloadable access. Examine feasibility of establishing JAUGS only website. – Jeff Kotora

MOTIONS

1. Adopt SOP with intention of committee to review and revise Section 1. (PASSED)
2. Appointed members of SOP committee, which are Tim Cable, Fred Proctor, Daniel Carroll, Phil Adsit, and Carl Crane. (PASSED)
3. Robert Wade's organization to provide a secretary for the JAUGS WG. (PASSED)
4. Solicit questions and comments from the WG in order to establish a list of current issues with the RA content. (PASSED)

Amendment: Use a formal inspection process to solicit questions and comments. (PASSED)

Amendment: Main motion to include all JAUGS documents. (PASSED)

Solicit questions and comments from the WG using a formal inspection process in order to establish a list of current issues with all JAUGS document content. (PASSED)

- 4a. Motion: Amend motion 3 to name someone to gather the comments and present them at the next WG meeting. (WITHDRAWN)
5. Motion: That we establish a RA committee, whose purpose is to collect, collate, formulate and disseminate all issues and propose changes to the RA document to the WG. (PASSED)

Amendment:for ratification by the WG. (PASSED)

Motion: That we establish a RA committee, whose purpose is to collect, collate, formulate and disseminate all issues and propose changes to the RA document for ratification by the WG. (PASSED)

6. Motion: That we establish a CM committee, whose purpose is to collect, collate, formulate and disseminate all issues and propose changes to the CM document to the WG.

Amendment:for ratification by the WG. (PASSED)

Motion: That we establish a CM committee, whose purpose is to collect, collate, formulate and disseminate all issues and propose changes to the CM document for ratification by the WG. (PASSED)

7. Motion: That we establish a DM committee, whose purpose is to collect, collate, formulate and disseminate all issues and propose changes to the DM document for ratification by the WG. (PASSED)
8. Motion: By the process of asking for volunteers, we populate the committees defined in Motions 5-7 (RA, CM, DM). (PASSED)

(RA: Wade, English, Evans, Crane)

(CM: Carroll, Urda, Greunke, Kotora)

(DM: Wade, Cable, Pavek, English)

AGENDA
JAUGS WORKING GROUP
6-7 DECEMBER, 2000
SOFTWARE ENGINEERING DIRECTORATE
REDSTONE ARSENAL, AL

WEDNESDAY 6 DEC

0830 START

CALL TO ORDER	JEFF KOTORA
WELCOMING REMARKS	ROBERT WADE
A. INTRODUCTIONS	
B. MEETING OBJECTIVES	
C. DEADLINES	
D. OUTPUT EXPECTED	
MINUTES OF THE PREVIOUS MEETING	JEFF KOTORA
WORKING GROUP STANDARD OPERATING PROCEDURES	JEFF KOTORA
COUGAR PROGRAM	ROBERT WADE
LUNCH	
RAMP DEMO (JAVELIN FIRING/LAAW FIRING)	ROBERT WADE
ADJOURN FOR THE DAY	JEFF KOTORA

THURSDAY 7 DEC

CALL TO ORDER	JEFF KOTORA
SANDIA MANIPULATORS & JAUGS EXTENSIONS	PHIL BENNETT
REFERENCE ARCHITECTURE V2.0	ROBERT WADE
PLUG & PLAY (RAMP)	ALICE SHEPPARD
LUNCH	

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TOUR OF ROBOTICS LAB	ROBERT WADE
DOMAIN MODEL V2.0 APPROACH	ROBERT WADE
REVIEW OF ACTION ITEMS	JEFF KOTORA
NEXT MEETING	JEFF KOTORA
ADJOURN	JEFF KOTORA