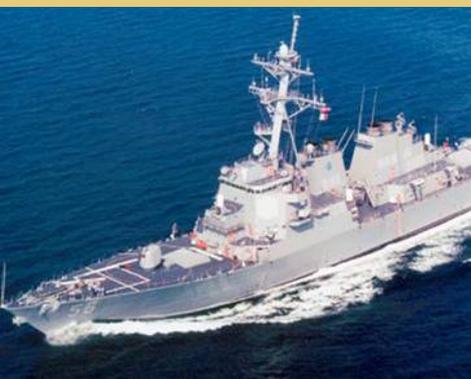




Naval Enterprise Open Architecture Open Architecture Assessment Tool Training



29 October 2008

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distribution is unlimited.***

Naval Open Architecture Enterprise Team



The purpose of this presentation is to explain how to use the Open Architecture Assessment Tool (OAAT) and why programs must use it

- First, we will explain why programs must use the OAAT
- Second, we will explain how to set up the OAAT
- Third, we will explain the purpose of each of the worksheet tabs on the Excel-based assessment tool
- Fourth, how the individual assessing the program must enter answers to the questionnaire is explained in detail
- Fifth, the tool's output is explained, including:
 - The 'Total Score' worksheet and the plot on the OA Maturity Matrix, and
 - The Programmatic and Technical Section reports.
 - The MOSA PART report
- Lastly, we provide contact information for individuals in case you have any further questions or problems



Program Managers must use the OAAT to assess the extent to which their programs are implementing open architecture according to DoD and Navy leadership's direction

- DoD Directive 5000.1 tells acquisition programs a “modular, open systems approach shall be employed, where feasible”
- 5 APR 2004 Under Secretary of Defense (Acquisition, Technology & Logistics) Memo amplifies DoD Directive 5000.1, stating that the DoD's intent is to use OA to rapidly field affordable systems that interoperate*
- Assistant Secretary of Navy (Research, Development & Acquisition) (ASN(RD&A)) 05 AUG 2004 policy statement on Naval OA Scope and Responsibilities:
 - Chartered the OA Enterprise Team (OAET)
 - Tasked the OAET with promulgating a Navy-wide OA business strategy including providing programs with analysis tools (e.g., the OAAT)
 - Required all ACAT I and II programs to use this strategy to develop their OA implementation plans
- 23 DEC 2005 Deputy Chief of Naval Operations (Warfare Requirements and Program) (N6/N7) Requirement for Open Architecture (OA) Implementation*

*Links to these documents are available on the “Policy & Guidance” page of the Naval OA website, <https://acc.dau.mil/oa>.



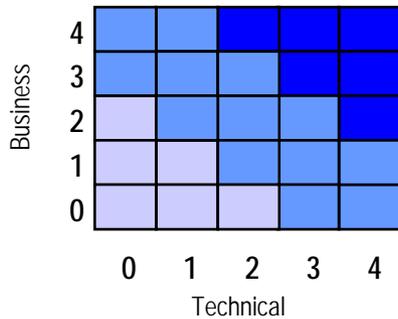
There are three distinct customers for an OA assessment

- The most important customer is the Program Manger
 - Completion of the OAAT as an ongoing activity conducted periodically in the execution of the program provides insight into where the program is and what can be done to improve
 - Working with his OPNAV sponsor, the PM should periodically evaluate his status, determine the adequacy of the current state, and work to identify the way ahead for the program based on the business case
- The acquisition chain of command is the second most important customer of the assessment
 - Review of OA status as part of the milestone and six-gate-two-pass cycle provides the opportunity to understand and act on a program manager's plans for moving his program forward
 - The OAAT results are a consistent way to understand how the programs are implementing the Navy OA objectives
- Thirdly, by aggregating results of assessments, the Enterprise OA program can evaluate effectiveness of the enterprise effort and target OAET efforts going forward

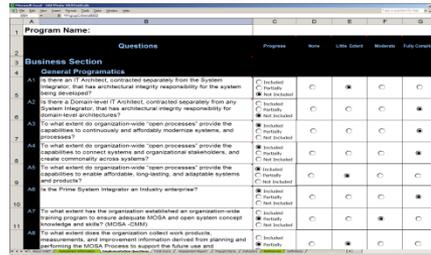


The PM's use of the OAAT was envisioned as part of a recurring process conducted a key program points

OA Assessment Model
Version 1.0 (8 March 2005)



OA Assessment Tool



Where is my program today?

What are the alternatives for advancing towards OA?

Is a business case needed?



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- Graphical depiction of the current OA maturity state

- Set of business and technical questions to help PMs understand how to become more open

Interaction between the PM and the OPNAV sponsor is crucial to determine:

- Is current state "good enough" or should action be taken to improve (is there a "requirement" for more OA)?*
- Should the PM conduct a business case analysis to help determine the way ahead?*
- Based on that business case, what programmatic and budget changes should be undertaken to the program of record for implementation?*



What the OAAT Does and Doesn't Do

The OAAT does:

- Automate data gathering and presentation for an assessment of “openness” for a program or system
- Provide a more consistent and repeatable method of assessing a program or system than the model alone could
- Concisely represent the results of the assessment in an easily described manner
- Provide an assessment framework within which the PM’s judgment can be applied
- Make it harder to “game” the system

The OAAT does not:

- Provide a measure of “goodness” or “compliance” with OA policy in isolation from other factors
- Justify investment decisions on its own merit; it provides only a starting point for the Business Case Analysis (BCA) process
- Provide a guarantee of consistency among different organizations doing assessments
- Substitute for judgment by the PM in honestly assessing his program
- Make it impossible to “game” the system



Things to keep in mind about the OAAAT assessments are

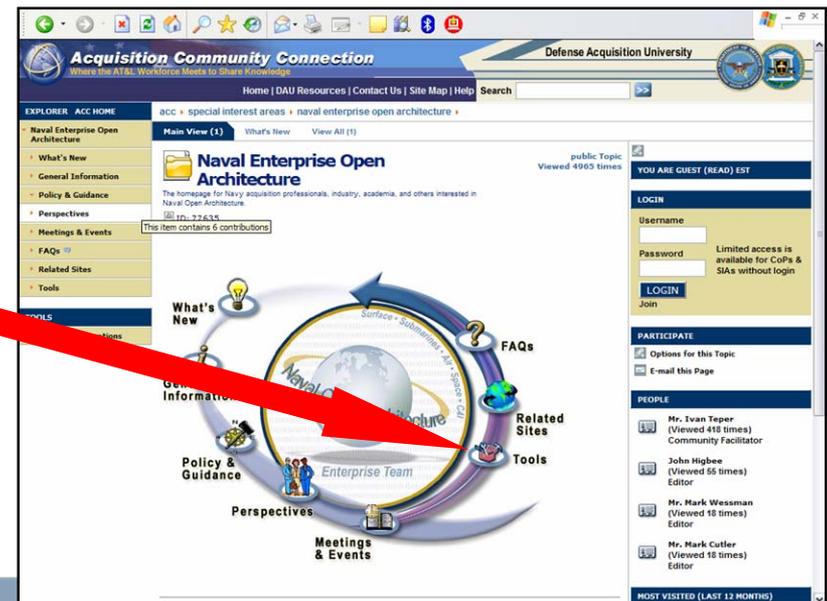
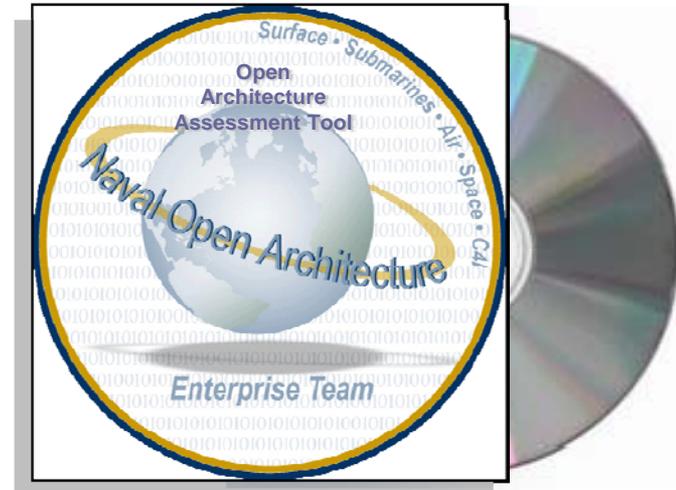
- An assessment result is neither “good” or “bad”, but simply a descriptor of a state
 - “Goodness” only has meaning in the context of what the target state ought to be
 - A 2,2 assessment might be perfectly good depending on a variety of factors
 - Remaining service life of the system
 - Propensity to change
 - Nature of the system (net-centric or stand-alone, etc.)
- An assessment simply for the sake of completing the assessment “wicket” is a waste of time, effort, and money – it needs to be used in order to be worthwhile
- The tool is far from perfect; however, those who have used it in good faith have benefitted from the insight gained through the process



To begin using the OA Assessment Tool, first install version 1.0 of the OAAT on your computer

You can obtain the OAAT two ways:

- Your program office should have received a compact disc from your Domain Representative. Copy the OAAT and its accompanying materials onto your computer and share the CD with other program staff
- If you did not receive a CD, you can download the OAAT from the Naval Enterprise Open Architecture Special Interest Area (SIA) at <https://acc.dau.mil/oa>





The OAAT CD or zip folder contains 5 files:

- The **OAAT Memorandum**, a PDF version of the letter CAPT Shannon sent to Program Managers when the OAAT was distributed
- The **OA Assessment Tool**, which is an Excel® spreadsheet
- The **README FIRST** file, a Word document
 - Please read this file before trying to use the OAAT
 - It provides the user with information needed to set up and launch the OAAT
- The **OAAT Capabilities and Limitations** file, a Word document that explains the capabilities and limitations of the tool
- The **OAAT Users Guide**, which is a Word document
 - We suggest you print and read this document before conducting an assessment using the OAAT
 - The Guide and its appendices provide a comprehensive understanding of open architecture and the OAAT
 - There is an extensive glossary of OA terms and acronyms in an appendix to the Guide
 - The Guide will evolve as the OAAT is updated



We suggest you print the OAAT Users Guide because it contains helpful resources, including:

- A description of the purpose of the Open Architecture Assessment Tool
- A section describing how to use the OAAT
- Information resources to support the assessment and use of the OAAT
- The Open Architecture Assessment Model (OAAM) itself
- A discussion of the Open Architecture Business Model
- The full list and explanation of Business Question Examples
- The full list of Technical Questions
- Capabilities and Limitations
- A list of acronyms
- Instructions on how to provide comments on the tool
- The OAAT Glossary

We highly recommend that those conducting assessments read the Users Guide prior to using the OAAT



Assessing Complex Programs Requires Additional Considerations

- Complex Programs of Record (PORs) are comprised of two or more systems that could be assessed individually using the OAAT
- For some particularly complex PORs, a single comprehensive assessment view may not be appropriate
- In these cases, the POR assessment should be conducted by performing individual assessments of the major systems which comprise the POR
- This requires “unbundling” the POR in order to isolate cohesive functional systems which possess meaningfully distinct technical and business “openness” characteristics
- The decomposition exposes systems to be assessed (“Units of Assessment”) and segregates the systems to be excluded from assessment (such as sub-system PORs)
- Each of the selected “Units of Assessments” would then be the subject of individual analysis using the OAAT

For more information on assessing complex PORs, refer to the OAAT Users Guide, p. 23, Appendix C: OAAT Assessment Advice for Complex Programs



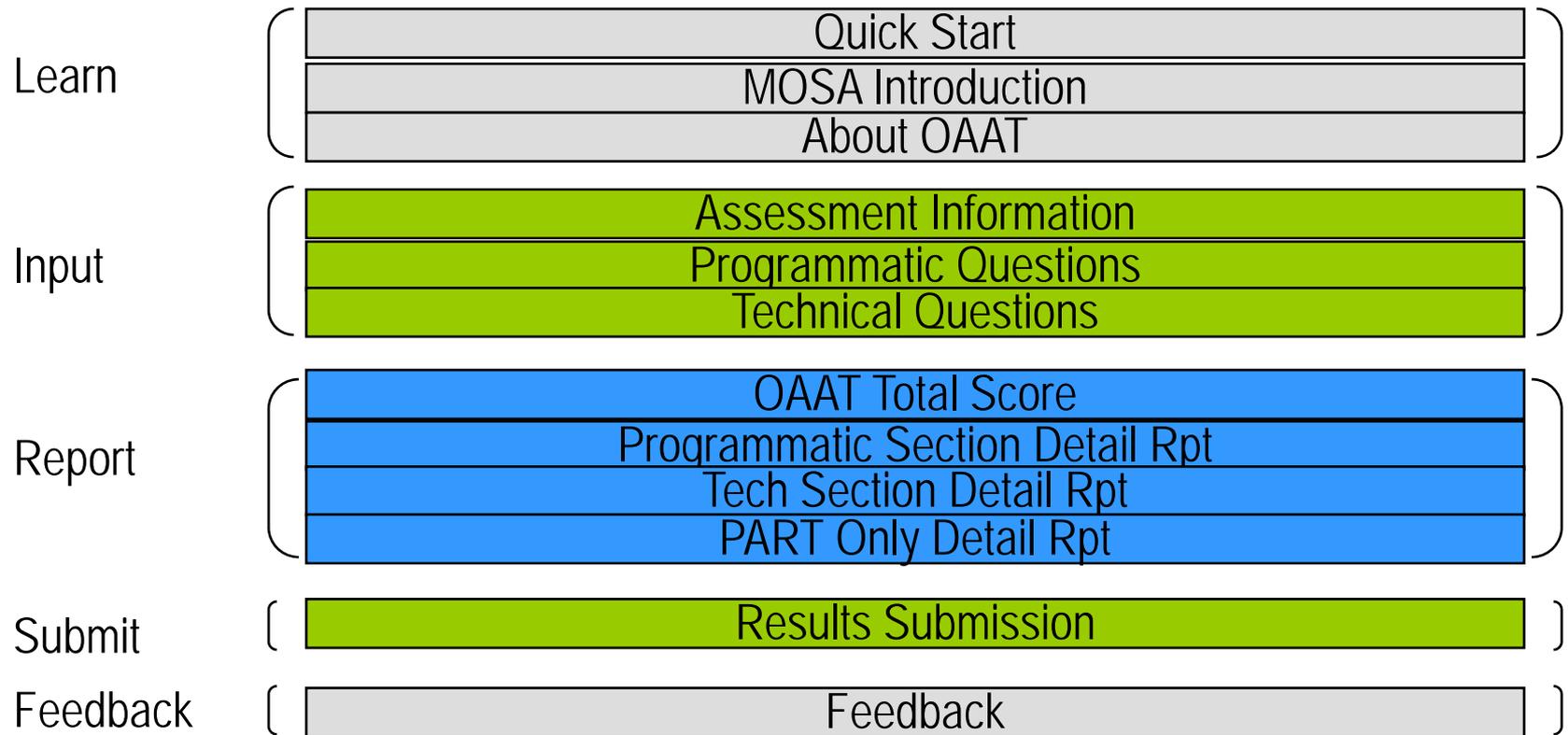
OAAT Question Types

- Programmatic Questions: Assess business openness
- Technical Questions: Assess technical openness
- MOSA PART Questions:
 - Adopted from OSD Open System Joint Task Force (OSJTF) Modular Open System Approach (MOSA) Program Assessment and Rating Tool (PART)
 - Appear as the top section of Programmatic and Technical questions
- Response is required: each contributes equally to the final total score
- Included in Reports:
 - Total Score
 - Programmatic Detail Report
 - Technical Detail Report
 - Separately in MOSA PART Only
- Programs can use OAAT 1.1 to complete MOSA PART assessments



OAAAT Worksheet Organization

- Tabs are color coded to indicate functional capability (Read Only: Grey; Write: Green; Report Output: Blue)





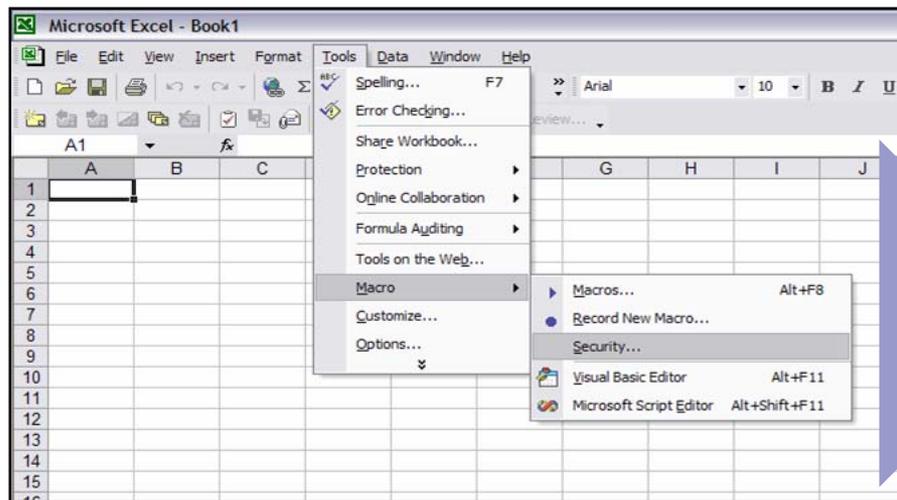
Now, let's get started using the OAAT ...





Before conducting your assessment, **READ** the README FIRST file; this file discusses important information, including:

- *System Requirements for the OAAT.* The tool was developed using Excel 2002 SP3, but should be able to be used on any platform that has a compatible version of Excel
- *What to do before you start.* Macro Security must be properly set:
 - NMC1 machines have the option set at *High* by default
 - Macro Security needs to be set at *Medium* to run the OAAT properly
 - To make the change, go to the 'Tools' menu, select 'Macro' and then 'Security' and click on the 'Medium' radio button



Each time you begin an assessment, use the 'Save As' feature in the 'File' Menu to save the file with a unique name that identifies the unit of assessment



'Quick Start' Worksheet (Top Section):

- A short **User Guide**, briefly describes each field on the programmatic and technical question worksheets to give the user a general feel for the mechanics of answering the assessment questions
- Top Section: Describes how to answer the MOSA PART component of the questions
- Middle Section: Describes how answer the other questions

The screenshot shows an Excel spreadsheet titled "OAAAT_1.1_Statement A.xls". The main content is a "Quick Start User Guide" section. A red arrow points from the text "A short User Guide..." to the "Quick Start User Guide" section. Below the guide, there are two boxes explaining the "Explain" and "Evidence" buttons. The "Explain" box states: "Explain: Pressing the Explain button causes the explanation and rationale boxes to appear. Information entered into the Rationale box is saved in the spreadsheet for reporting." The "Evidence" box states: "Evidence: Pressing the Evidence button causes the example evidence and supporting evidence boxes to appear. Information entered into the Rationale box is saved in the spreadsheet for reporting." Below these boxes is a screenshot of the MOSA PART Business Indicators worksheet. The worksheet has a question: "1.1 To what extent is MOSA incorporated into the program's acquisition planning?". The answer options are: N/A, None, Little Extent, Moderate Extent, Large Extent. There are "Explain" and "Evidence" buttons next to the question. Below the question is an "Explanation" section. The worksheet also has a "Current Status" dropdown menu. The spreadsheet has a navigation bar at the bottom with tabs for "MOSA Introduction", "About OAAAT", "Assessment Information", "Programmatic Questions", and "Technical Questions". The status bar at the bottom shows "Address 100%".

'Quick Start' Worksheet (Bottom Section):

- The **Assessment Tool Workflow**, at the bottom, describes the order in which the OAT worksheets should be navigated to help facilitate the assessment
- This presentation will describe how to use the tool

The screenshot shows an Excel spreadsheet with the following content:

Assessment Tool Workflow

NOTE: When Excel loads the OAT it will ask you to Disable or Enable Macros. Select Enable Macros.

Review the OAT User's Guide for details on the content of each of the worksheets, and for definitions of particular terms. Then follow the workflow described below.

Step 1: Fill out the form in the Assessment Information worksheet. This is used for reference in the printable summary report and will populate similar information on other work sheets. Once you begin to enter any data, the releasability statement will automatically change to Statement D. This can be overridden once the Assessment is completed.

Step 2: Switch to the *Programmatic Questions* or *Technical Questions* worksheet and respond to each question on the worksheet. The questions may be answered in any order provided all questions are answered.

2a: Select your answer to each question using the arrow buttons next to the Current Status label.

2b: MOSA PART Questions: The Explain button provides background helpful for answering the question and opens the Explanation section where respondents should enter details to support the answer selected. The Evidence button provides a list of items that could be used as evidence to support the answer and opens the Evidence section where documents and references should be listed.

2c: OAT Questions: The Explain button provides background helpful for answering the question and opens the Rationale section available where the respondent should provide details to support the answer selected. If there are documents that are available for later reviewers, please provide references to those in the Rationale.

2d: If a decision is made that the question is not applicable for this assessment, you must provide a detailed explanation of that decision in the Rationale panel. In some cases it may be helpful to provide explanations in order to ensure the most favorable assessment score.

2e: Press the Explain, Evidence or Rationale button again to close the corresponding Explain, Evidence, or Rationale panels.

Navigation tabs at the bottom: MOSA Introduction / About OAT / **Assessment Information** / Programmatic Questions / Technical Questions



'MOSA Introduction' Worksheet

- Describes the OSD Open System Joint Task Force (OSJTF) Modular Open Systems Approach (MOSA) Program Assessment and Rating Tool (PART)

An Introduction to the Modular Open Systems Approach (MOSA)

The Modular Open System Approach (MOSA) is a means to assess and implement, when feasible, widely supported commercial interface standards in developing systems using modular design concepts. It is an integral part of the toolset that will help DoD to achieve its goal of providing the joint combat capabilities required for 21st century warfare, including supporting and evolving these capabilities over their total life-cycle. DoDD 5000.1 states that, "Acquisition programs shall be managed through the application of a systems engineering approach that optimizes total system performance and minimizes total ownership costs. A modular, open-systems approach shall be employed, where feasible."

MOSA is an integrated technical and business strategy that begins with a modular system design and then defines key system or equipment interfaces by widely used consensus-based standards. This approach is an enabler to achieve the following objectives:

- adapt to evolving requirements and threats
- promote transition from science and technology into acquisition and deployment
- facilitate systems integration
- leverage commercial investment
- reduce the development cycle time and total life-cycle cost
- ensure that the system will be fully interoperable with all the systems which it must interface, without major modification of existing components
- enhance commonality and reuse of components among systems
- enhance access to cutting edge technologies and products from multiple suppliers
- mitigate the risks associated with technology obsolescence
- mitigate the risk of a single source of supply over the life of a system
- enhance life-cycle supportability
- increase competition
- facilitate modular contracting.

Application of MOSA is consistent with sound system engineering principals; however it requires a different mindset as the SE process is executed during the design of a system and

Quick start | MOSA Introduction | About OAAT | Assessment Information | Programmatic Questions



The 'About OAAT' Worksheet

- This worksheet provides a brief introduction to Naval Open Architecture and how the OAAT fits into the Naval Enterprise Open Architecture (OA) initiative

The screenshot shows a Microsoft Word document with a blue header and white body text. The header contains a logo and a quote. The body text includes an introduction to Naval Open Architecture (OA) and a list of objectives for the Open Architecture Assessment Tool (OAAT).

“...The Enterprise Team shall define an overarching OA acquisition strategy and develop guidance that addresses incentives, intellectual property issues, contracting strategies (integrator’s vs. prime’s), and funding alternatives...” [ASN RD&A Memo 05 Aug 04]

An Introduction to Naval Open Architecture (OA)

Open Architecture (OA) “is critical to the long term needs of the Navy Enterprise,” according to Assistant Secretary of the Navy, Research, Development and Acquisition John J. Young, Jr. OA is the underpinning technical and business structure that provides binding standards, protocols, and computer-based war fighting functions to meet Navy goals. “At the highest levels, the Navy recognizes the advantages of Open Architecture and has set out to implement a Commercial Off-the-Shelf Based Open System to increase processing capacity, provide system growth potential, reduce cycle time for future upgrades, realize inherent space/weight reductions, and enable a better return on investment dollars,” Young said in his August 5, 2004 memorandum summarizing the June 2, 2004 EXCOMM.

OA is the desired future state of the Navy and it is expected to enable the Navy to achieve the following objectives with respect to net-centric weapons system components:

- Provide more opportunities for competition and innovation;
- Optimize total system performance;
- Implement systems that are easily developed & upgradeable;
- Minimize total ownership cost;
- Rapidly field affordable, interoperable systems; and
- Achieve component software reuse.

Open Architecture is a FORCENet compliant architecture intended to encompass war fighting systems for ships, submarines, and aircraft—including their sensor systems, weapon systems, combat direction systems, and other mission critical support systems.

The Open Architecture Assessment Tool (OAAT) is a means by which Navy managers can



The 'Assessment Information' Worksheet

- Use this worksheet to document your program descriptor, milestone, contract, program manager, assessment date, and lead assessor

Assessment Information

Note: The information below is specific to the program being assessed.

Program Information	
Program Name:	
Part of the Program Being Assessed (Unit of Assessment)	
Program Abbreviation:	
Program Purpose:	
Organization and Code:	
Platform Designation:	
Acquisition Category (ACAT):	
Distribution Statement:	Distribution Statement A: Approved for Public Release; distribution is unlimited.
Associated Milestone Review Info	
Review Type:	

Distribution Statement A:
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Ready

start | Address 88% | 3:56 PM



The 'Programmatic Questions' Worksheet

- Use this worksheet to answer the Programmatic Questions
- Not designed for printing
- Keep responses shorter than 1024 characters (known limitation)

Microsoft Excel - OAAAT_1.1_Statement A.xls

File Edit View Insert Format Tools Data Window Help

Type a question for help

B1

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MOSA PART Business Indicators

Question ID	Question Text	N/A	None	Little Extent	Moderate Extent	Large Extent	Current Status	Explain	Evidence
1.1	To what extent is MOSA incorporated into the program's acquisition planning?		None				None	Explain	Evidence
1.2	To what extent did the program plan for its implementation of MOSA?		None				None	Explain	Evidence
1.3	To what extent is the program's MOSA implementation based on systems engineering principles and processes?		None				None	Explain	Evidence
1.4	To what extent are responsibilities assigned for implementing MOSA?		None				None	Explain	Evidence
1.5	To what extent is the program staff trained on, or have relevant experience in MOSA concepts and implementation?		None				None	Explain	Evidence
1.6	To what extent does the program's configuration management process encompass changes to key interfaces and corresponding standards?		None				None	Explain	Evidence
1.7	To what extent have program requirements been analyzed, and refined as needed, to ensure that design-specific solutions are not imposed?		None				None	Explain	Evidence

Ready

start | Quick start / MOSA Introduction / About OAAAT / Assessment Information / Programmatic Questions / Technical Questions / OAAAT Total Score

Address 87% | 3:57 PM



The 'Technical Questions' Worksheet

- Use this worksheet to answer the Technical Questions
- Not designed for printing
- Keep responses shorter than 1024 characters (known limitation)

MOSA PART Technical Indicators						
3.1	To what extent is the system's architecture based on related industry or other standard reference models and architectural frameworks?					Explain Evidence
N/A		None	Little Extent	Moderate Extent	Large Extent	Current Status
3.2	To what extent is an architectural description language used to define system modules and interfaces?					Explain Evidence
N/A		None	Little Extent	Moderate Extent	Large Extent	Current Status
3.3	To what extent does the system's architecture exhibit modular design characteristics?					Explain Evidence
N/A		None	Little Extent	Moderate Extent	Large Extent	Current Status
3.4	To what extent is the system's architecture capable of adapting to evolving requirements and leveraging new technologies?					Explain Evidence
N/A		None	Little Extent	Moderate Extent	Large Extent	Current Status
3.5	To what extent has the criteria for designating key interfaces been established?					Explain Evidence
N/A		None	Little Extent	Moderate Extent	Large Extent	Current Status
3.6	To what extent has the program designated key interfaces?					Explain Evidence
N/A		None	Little Extent	Moderate Extent	Large Extent	Current Status

Navigation: Quick start / MOSA Introduction / About OAAAT / Assessment Information / Programmatic Questions / **Technical Questions** / OAAAT Total Score

System tray: Ready, Address 87%, 3:57 PM



The 'OAAT Total Score' Worksheet

- Use this worksheet to view and print your combined score and OOAM

Microsoft Excel - OAAT_1.1_Statement A.xls

File Edit View Insert Format Tools Data Window Help

Type a question for help

P51 75% Arial 10

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Naval Open Architecture Assessment Tool
Assessment Score Summary

Program Name:					
Unit of Assessment:					
Acquisition Milestone:					
Next Review Date: 1/0/1900					

Area or Section	Section	Total Questions Applicable	Total Questions Not Applicable	Max Score	Achieved	Normalized
A	Open Systems Approach	2	0	8	2	25.0%
B	Open Architecture	2	0	8	2	25.0%
C	Open Modular Design	3	0	12	3	25.0%
D	Interface Design and Management	4	0	16	4	25.0%
E	Treatment of Proprietary Elements	4	0	16	4	25.0%
F	Open Business Practices	4	0	16	4	25.0%
G	Peer Review Rights	3	0	12	3	25.0%
H	Technical Insertion	4	0	16	4	25.0%
I	Commercial Standards	1	0	4	1	25.0%
J	Compliance	19	0	76	19	25.0%
Combined Programmatic Rating		40	0	136	34	25.0%
K	Design Teaset: Interoperability	6	0	24	0	0.0%
L	Design Teaset: Maintainability	2	0	8	0	0.0%
M	Design Teaset: Extensibility	3	0	12	0	0.0%
N	Design Teaset: Composability	2	0	8	0	0.0%
O	Design Teaset: Reusability	4	0	16	0	0.0%
P	General Design Teasets	13	0	52	0	0.0%
Combined Technical Rating		30	0	120	0	0.0%

MOSA Introduction / About OAAT / Assessment Information / Programmatic Questions / Technical Questions / **OAAT Total Score** / Program

Ready

Address 86% 3:59 PM



The 'Programmatic Section Detail Report' Worksheet

- Use this worksheet to view and print your Programmatic Questions and responses

Microsoft Excel - OAAT_1.1_Statement A.xls

File Edit View Insert Format Tools Data Window Help

Type a question for help

A1 =Assessment Information!C14

Distribution Statement A: Approved for Public Release; distribution is unlimited.

Program Name:
 Unit of Assessment:
 Program Abbreviation:
 Lead Organization:
 ACAT Level:
 Next Milestone Decision / Review:
 Next Review Date: 10/1900

MOSA Programmatic Questionnaire

These questions address issues pertaining to the acquisition practice.

1.1 To what extent is MOSA incorporated into the program's acquisition planning?

N/A None Little Extent Moderate Extent Large Extent

To assess the degree to which MOSA is integrated into the acquisition strategy as a means to achieve program objectives and benefits such as affordable system development and sustainment; system adaptability and flexibility; ease of integration; vendor and technology independence; insertion of new commercial technologies; reuse and commonality of components; interoperability.

Example Rationale:
 The program's Acquisition Strategy document states why and how MOSA is leveraged to achieve program objectives.

Ans: 1- None
 Rationale: Enter Your Explanation w/ Example: 1.1
 Supporting Evidence: Enter Your Evidence: 1.1

1.2 To what extent did the program plan for its implementation of MOSA?

N/A None Little Extent Moderate Extent Large Extent

To assess the degree to which the program integrated MOSA implementation into its planning documents.

Example Rationale:
 The program has established a specific, measurable, achievable, relevant, and time-phased plan for achieving the program objectives (as identified in 1.1) using MOSA.

Ans: 1- None
 Rationale: Enter Your Explanation w/ Example: 1.2
 Supporting Evidence: Enter Your Evidence: 1.2

1.3 To what extent is the program's MOSA implementation based on systems engineering principles and processes?

N/A None Little Extent Moderate Extent Large Extent

To assess the degree to which the program employs systems engineering processes (e.g., ISO 15288, EIA 632, IEEE 1220).

Assessment Information / Programmatic Questions / Technical Questions / OAAT Total Score / Programmatic Section Detail Rpt / Tech Sect

Ready

Address 86% 4:00 PM



The 'Technical Section Detail Report' Worksheet

- Use this worksheet to view and print your Technical Questions and responses

Microsoft Excel - OAAT_1.1_Statement A.xls

File Edit View Insert Format Tools Data Window Help

Type a question for help

A6

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Program Name:
Unit of Assessment:
Program Abbreviation:
Lead Organization:
ACAT Level:
Next Milestone Decision / Review:
Next Review Date: 1/0/1900

MOSA Technical Questionnaire

3.1 **To what extent is the system's architecture based on related industry or other standard reference models and architectural frameworks?**

N/A	None	Little Extent	Moderate Extent	Large Extent
-----	------	---------------	-----------------	--------------

To assess the degree to which the system's architecture matches or aligns with architectural patterns (e.g., ISO/IEC 10746 Reference Model - Open Distributed Processing) that are well established in industry.

Example Rationale:
The system's architecture is completely based on industry accepted and supported reference models or frameworks.

Ans: 1 - None
Rationale: Enter Your Explanation w/ Example: 3.1
Supporting Evidence: Enter Your Evidence: 3.1

3.2 **To what extent is an architectural description language used to define system modules and interfaces?**

N/A	None	Little Extent	Moderate Extent	Large Extent
-----	------	---------------	-----------------	--------------

To assess the degree to which the system modules and interfaces are well-defined and understandable.

Example Rationale:
The program uses a widely supported architecture description language (e.g., Unified Modeling Language, MATLAB) to define system modules and interfaces.

Ans: 1 - None
Rationale: Enter Your Explanation w/ Example: 3.2
Supporting Evidence: Enter Your Evidence: 3.2

3.3 **To what extent does the system's architecture exhibit modular design characteristics?**

N/A	None	Little Extent	Moderate Extent	Large Extent
-----	------	---------------	-----------------	--------------

To assess the degree to which the system's architecture modules are encapsulated, cohesive, self-contained, and loosely-coupled.

Programmatic Questions / Technical Questions / OAAT Total Score / Programmatic Section Detail Rpt / Tech Section Detail Rpt / PART Only D

Ready

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The 'PART Only Detail Report' Worksheet

- Use this worksheet to view and print your PART Questions and responses
- Output from this special worksheet can be used as input to MOSA PART assessments

Distribution Statement A: Approved for Public Release; distribution is unlimited.

Program Name:

Unit of Assessment:

Program Abbreviation:

Lead Organization:

ACAT Level:

Next Milestone Decision / Review:

Next Review Date: 10/1900

MOSA PART Responses

Programmatic Questionnaire

These questions address issues pertaining to the acquisition practice.

1.1 To what extent is MOSA incorporated into the program's acquisition planning?

N/A	None	Little Extent	Moderate Extent	Large Extent
To assess the degree to which MOSA is integrated into the acquisition strategy as a means to achieve program objectives and benefits such as affordable system development and sustainment; system adaptability and flexibility; ease of integration; vendor and technology independence; insertion of new commercial technologies; reuse and commonality of components; interoperability.				
Example Rationale: The program's Acquisition Strategy document states why and how MOSA is leveraged to achieve program objectives.				
Ans: 1- None				
Rationale: Enter Your Explanation w/ Example: 1.1				
Supporting Evidence: Enter Your Evidence: 1.1				

1.2 To what extent did the program plan for its implementation of MOSA?

N/A	None	Little Extent	Moderate Extent	Large Extent
To assess the degree to which the program integrated MOSA implementation into its planning documents.				
Example Rationale: The program has established a specific, measurable, achievable, relevant, and time-phased plan for achieving the program objectives (as identified in 1.1) using MOSA.				
Ans: 1- None				
Rationale: Enter Your Explanation w/ Example: 1.2				
Supporting Evidence: Enter Your Evidence: 1.2				

1.3 To what extent is the program's MOSA implementation based on systems engineering principles and processes?

N/A	None	Little Extent	Moderate Extent	Large Extent
To assess the degree to which the program employs systems engineering processes (e.g. ISO 15288, EIA 632, IEEE 1220)				

Ready

Technical Questions | OAAAT Total Score | Programmatic Section Detail Rpt | Tech Section Detail Rpt | **PART Only Detail Rpt.** | Results Submit



The 'Results Submission' Worksheet

- Use this worksheet to collect information for your OAAT results submission
- Results are to be submitted to PEO IWS 7

Microsoft Excel - OoAT_1.1_Statement A.xls

File Edit View Insert Format Tools Data Window Help

Type a question for help

75% Arial 8

A1 =Assessment Information!C14

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OoAT RESULTS SUBMISSION TEMPLATE

Program Name: _____
 Unit of Assessment: _____
 Date of Assessment: _____
 Applicable Date: _____
 Program Manager: _____
 OoAT Results File Name: _____

1 Brief description of the program or system assessed:

2 What tangible (Program Changes, Acquisition Plan Updates, etc.) or intangible results (Increased Awareness of OA, Identification of Potential Reuse Opportunities, etc.) were identified during the assessment?:

3 What were your perceptions of the business and technical assessment results?:

Ready

start AT&T Ne... James Br... Microsof... Microsof... Address 99%



The 'OAAT Feedback Report' Worksheet

- This worksheet provides the assessor with detailed instructions on how to submit feedback on the OAAT as well as points of contact for each Domain
- It describes the required feedback details needed
- The worksheet explains how the feedback will be handled by the OAAT developers
- In addition, it has a hyperlink to facilitate the easy submission of feedback

The screenshot shows a Microsoft Excel spreadsheet with the following content:

OAAT Feedback Report

Distribution Statement A: Approved for Public Release; distribution is unlimited.

Feedback Report Instructions

[Submit Feedback](#)

- Submit feedback reports for the OAAT by free form email to navaloa@navy.mil or click the "Submit Feedback" link on the left.
- All feedback reports should include contact information for the submitter, including organization, email address and telephone numbers.
- For issues dealing with functionality of the tool, such as incorrect computation or data entry problems, please include information regarding what was being done at the time with the OAAT when the problem occurred as well as a complete description of the problem.
- For recommended changes to the question set, include a complete rationale for the suggested change, including references where appropriate.
- Each feedback report submitted will receive email acknowledgement of receipt.
- Feedback reports will be resolved within 30 calendar days and a report of the resolution provided by email response to the submitter.
- A quarterly report of issues and resolutions will be prepared and provided to stakeholders/users.
- A listing of active feedback reports and their status will be available at the Naval OA Special Interest Area at <https://acc.dau.mil/oa>. (Enter address in Internet Explorer to view the page)
- For help in conducting actual program assessments, contact the following domain representatives directly for assistance:

Surface Domain: Kirk Brandts, kirk.brandts@navy.mil
 Subsurface Domain: Paul Gooder, pgooder@egginc.com
 Air Domain: Brian Schneider, brian.schneider@jhuapl.edu
 C4I Domain: Dave Gedra, dgedra@systechnologies.com or Ken Osborne, Kenneth.R.Osborne@saic.com
 Space Domain: Carlos Del Toro, cdeletoro@sbstechnologiesolutions.com
 USMC Domain: Jim Africa, james.africa@navy.mil



The 'Assessment Information' Worksheet requests information on the Unit of Assessment

- **Program Information**, including name, abbreviation, purpose, and organization code
- **Associated Milestone Review Info**, such as review type and estimated review date
- **Contract Information**, including contract type and number
- **Program Manager's Information**, such as name, contact information, and office code
- **Assessment Information**, including completion date and applicable date
- **Lead Assessor's Information**, including name, contact information, office code, and program role

Assessment Information	
<i>Note: The information below is specific to the program being assessed.</i>	
Program Information	
Program Name:	
Part of the Program Being Assessed (Unit of Assessment):	
Program Abbreviation:	
Program Purpose:	
Organization and Code:	
Platform Designation:	
Acquisition Category:	
Distribution Statement:	Distribution Statement A: Approved for Public Release; distribution is unlimited.
Associated Milestone Review Info	
Review Type:	
Est. Next Review Date: (MM/DD/YYYY)	
Contract Information	
Contract Type:	
Development:	
Contract Number:	
Program Manager's Information	
Name:	
Email Address:	
Telephone Number:	
Office Code/Symbol:	
Assessment Information	
Completion Date: (Data Valid as of)	
Applicable Date: (MM/DD/YYYY)	
Lead Assessor's Information	
Name:	
Email Address:	
Telephone Number:	
Office Code/Symbol:	
Program Role:	

It is important that this information be accurate since it provides the data that uniquely identifies the Unit of Assessment



[MOSA PART] 'Technical Questions' and 'Programmatic Questions' Worksheets

Question # and text

Current Status: Use the arrows to select your answer and the text in that cell will be highlighted in red

Distribution Statement A: Approved for Public Release; distribution is unlimited.							
MOSA PART Business Indicators							
1.1	To what extent is MOSA incorporated into the program's acquisition planning?						Explain Evidence Current Status
	N/A	None	Little Extent	Moderate Extent	Large Extent		
1.2	To what extent did the program plan for its implementation of MOSA?						Explain Evidence Current Status
	N/A	None	Little Extent	Moderate Extent	Large Extent		

Explain: Click here to explain your status answer. If you have selected "N/A" or "Large Extent" an explanation is required. Many assessors have reported that analysis of explanations has helped to raise scores during evaluation of results.

Evidence: Click here to describe and list the documents that support your response to the question.



'Technical Questions' and 'Programmatic Questions' Worksheets

Section Name: Explains what kind of information the question is directed at (technical questions only)

Question

Current Status: Use the arrows to select your answer and the text in that cell will be highlighted in red

A Design Term: Interoperability							
STANDARDS							
A1	The use of a standardized data and functional models, based on an open standard domain ontology is essential to how readily separate systems can exchange information and appropriately utilize each other's functional capabilities. Where two systems don't understand the same thing in exactly the same way, there will be greater or lesser problems. The larger the system, the greater the problems that semantic impedance will create.						
A1_1	With what interoperability standards does the Unit of Assessment comply?						
	N/A	Not standards based	Project specific standards	Corporate standards	Domain standards	Enterprise / International standards	Current Status
A1_2	How standards-based is the Unit of Assessment's data model?						
	N/A	Not standards based	Project specific standards	Corporate standards	Domain standards	Enterprise / International standards	Current Status
A2	SCOPE						

Answers: The arrows in the Current Status box will highlight your answer in red

Explain: Pressing the 'Explain' button causes the 'explanation' and 'rationale' boxes to appear. The 'explanation' box explains the question and suggests rationales for the selected answer. The 'rationale' box gives the assessor an opportunity to explain why the specific answer was chosen and to cite documentation, which must be available for review.



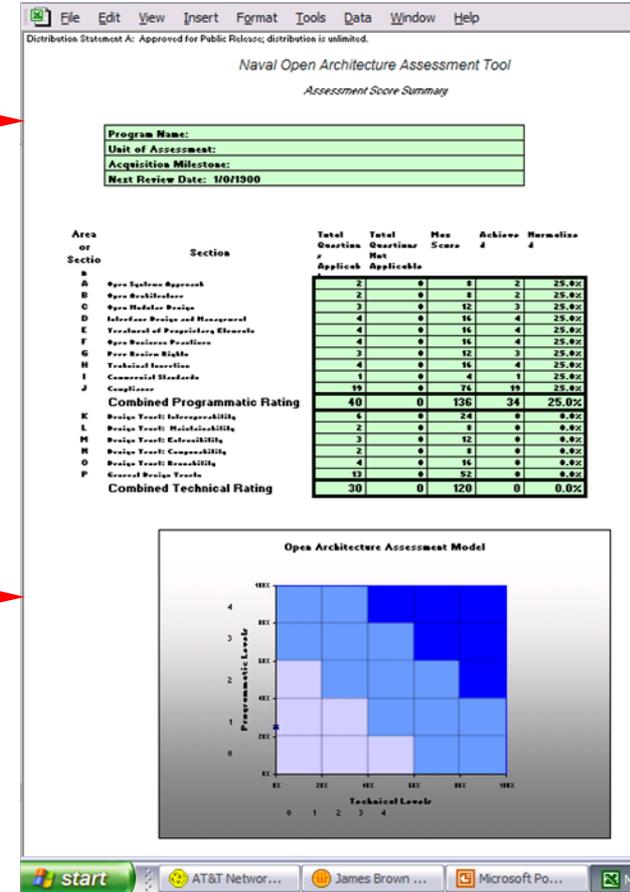
'Technical Questions' and 'Programmatic Questions' Worksheets (cont)

- Read the **Section Name** description (if applicable) to understand what the group of questions is about
- Read the **Questions** and click the **Explain** button for more information about that question (as needed)
- For Programmatic (Business) Questions, if further explanation is needed, refer to **Appendix D**, 'Explanation of Business Question Examples,' of the OAAAT Users Guide
- In the **Current Status** box, click the arrows to highlight your answer to the question in **red** – *only one answer can be selected*
- Be sure to answer all of the Programmatic and Technical questions. N/A can also be used.



The 'Total Score' Worksheet displays:

- An **Assessment Score Summary**, which shows data such as the program name, milestones, a breakdown of the Programmatic Rating and the Combined Technical Rating
- A plot on the **Open Architecture Assessment Model** (referred to as the **Open Architecture Maturity Matrix** in the OAAT), the 5x5 matrix that displays the program's "as-is" state with respect to Programmatic (or business) openness and Technical openness, each on a scale of 0 to 4





The 'Programmatic Section Detail Rpt' Worksheet

- The 'Programmatic Section Detail Rpt' provides a detailed report of your answers to each Technical section question
- This worksheet is for printing only and cannot be edited
- The worksheet may be printed on a stand alone basis using Excel's print function

Microsoft Excel - OAAT_1.1_Statement A.xls

File Edit View Insert Format Tools Data Window Help

A1 =Assessment Information!C14

Distribution Statement A: Approved for Public Release; distribution is unlimited.

Program Name:
Unit of Assessment:
Program Abbreviation:
Lead Organization:
ACAT Level:
Next Milestone Decision / Review:
Next Review Date: 10/1900

MOSA Programmatic Questionnaire

These questions address issues pertaining to the acquisition practice.

1.1 To what extent is MOSA incorporated into the program's acquisition planning?

N/A	None	Little Extent	Moderate Extent	Large Extent
To assess the degree to which MOSA is integrated into the acquisition strategy as a means to achieve program objectives and benefits such as affordable system development and sustainment; system adaptability and flexibility; ease of integration; vendor and technology independence; insertion of new commercial technologies; reuse and commonality of components; interoperability.				
Example Rationale: The program's Acquisition Strategy document states why and how MOSA is leveraged to achieve program objectives.				
Ans: 1 - None				
Rationale: Enter Your Explanation w/ Example: 1.1				
Supporting Evidence: Enter Your Evidence: 1.1				

1.2 To what extent did the program plan for its implementation of MOSA?

N/A	None	Little Extent	Moderate Extent	Large Extent
To assess the degree to which the program integrated MOSA implementation into its planning documents.				
Example Rationale: The program has established a specific, measurable, achievable, relevant, and time-phased plan for achieving the program objectives (as identified in 1.1) using MOSA.				
Ans: 1 - None				
Rationale: Enter Your Explanation w/ Example: 1.2				
Supporting Evidence: Enter Your Evidence: 1.2				

1.3 To what extent is the program's MOSA implementation based on systems engineering principles and processes?

N/A	None	Little Extent	Moderate Extent	Large Extent
To assess the degree to which the program employs systems engineering processes (e.g., ISO 15288, EIA 632, IEEE 1220).				

Assessment Information / Programmatic Questions / Technical Questions / OAAT Total Score / Programmatic

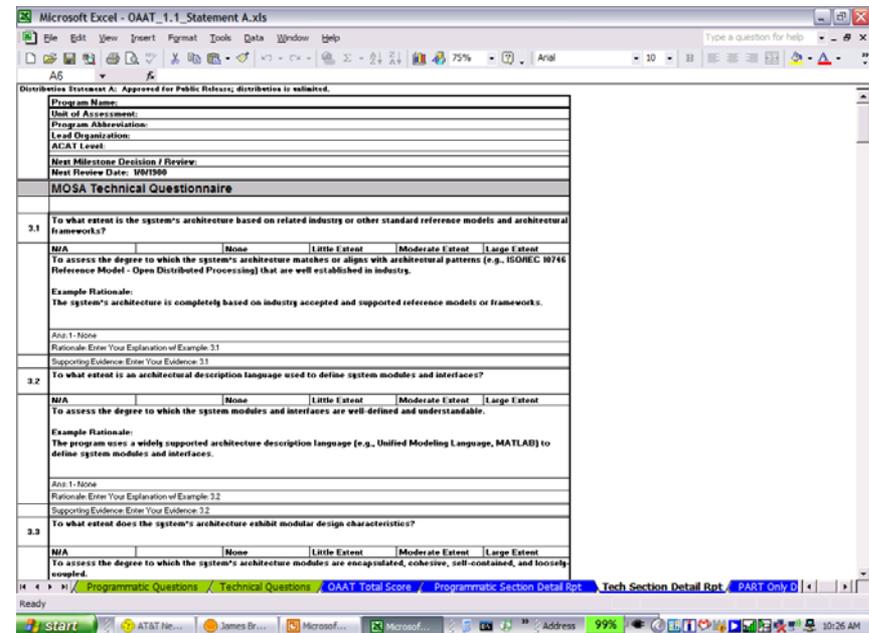
Ready

start



The 'Tech Section Detail Rpt' Worksheet

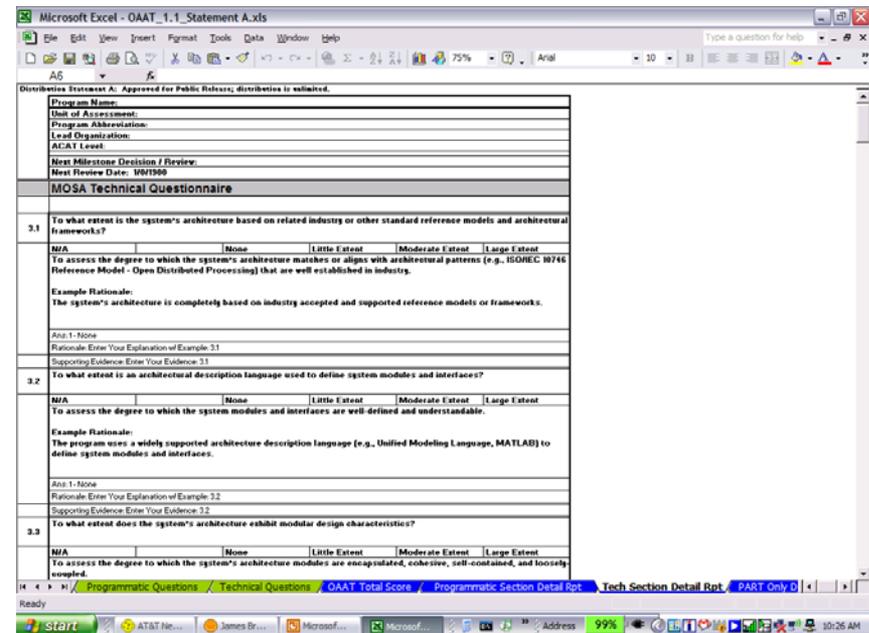
- The 'Tech Section Detail Rpt' provides a detailed report of your answers to each Technical section question
- This worksheet is for printing only and cannot be edited
- The worksheet may be printed on a stand alone basis using Excel's print function





The 'PART Only Detail Rpt' Worksheet

- The 'PART Only Detail Rpt' provides a detailed report of your answers to each MOSA PART question but does not include answers to other questions
- This report is intended for use by assessors of MOSA PART programs and need not be printed for OAAAT assessments
- This worksheet is for printing only and cannot be edited
- The worksheet may be printed on a stand alone basis using Excel's print function





What to do when the Open Architecture assessment is complete

- The results of the OA assessment should be used by the Program Office and the Milestone Decision Authority (MDA) to help improve the Program with respect to Naval Open Architecture
- The program manager should work continuously with the program sponsor to identify opportunities and requirements to improve OA for the program
- A business case analysis should be used to distinguish among alternatives and identify programmatic and budgetary changes necessary to implement the recommended course of action.



In Conclusion

- We hope this short tutorial has helped you understand how to use the Open Architecture Assessment Tool
- For further information, please contact your designated Domain Representative as listed on the feedback tab in the OAAT.
- Feedback on any mechanical problems with the OAAT as well as suggestions for improvements and clarifications should be submitted using the link on the feedback tab in the OAAT