



AASHTOWare®

Transportation Software Solutions

# Task Force Handbook

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AMERICAN ASSOCIATION OF  
STATE HIGHWAY AND  
TRANSPORTATION OFFICIALS

**AASHTO**  
THE VOICE OF TRANSPORTATION

AASHTOWare®

# Task Force Handbook



**American Association of State  
Highway and Transportation Officials**

**October 2009**

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# Preface

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This handbook is intended to be compatible with, supplement and expound upon AASHTO's Cooperative Computer Software – Policies, Guidelines and Procedures (PG&P document), which governs the administration of joint software development activities. The purpose of this handbook is to provide the task force members a guide and additional information to help manage their efforts in connection with cooperative software development.

The initial draft of this handbook was originally prepared and edited in April 1992 by members of the Task Force on Joint Development (TFJD), with input from the project and product task force Chairs in place at that time. Preliminary distribution was then made to the Task Force Chairs. The TFJD was later reorganized into the Special Committee on Joint Development (SCOJD) in 2002, and the handbook was updated to reflect changes made to the PG&P document resulting from the reorganization of the management structure at that time. This version of the handbook was updated in 2009 to reflect a number of changes to the PG&P document since 2002, and make it current with regard to general operating procedures and practices.

This handbook is dedicated to all the past and current volunteers who have served on the AASHTOWare task forces, technical review teams and advisory groups and have spent tens of thousands of person-hours over the last two decades to make the AASHTOWare program the successful operation it is today.

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# Introduction

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This handbook is intended to be a guide to understanding the processes that support our cooperative development activity. The success of the cooperative joint development activities is due in large part to the consensus-building process involving many licensed users, which forms a fundamental basis for decision-making on major product directions. The expertise of many people has been solicited for inclusion in this handbook, and those people reflect the diverse professional and geographical facets of the AASHTO member agencies.

You have probably been selected to serve on an AASHTOWare project/product Task Force because your agency licenses an AASHTOWare product or is contributing to an AASHTO joint development project, and your agency approved the submission of your resume and your availability to serve as a member of a Task Force if appointed.

These actions made you eligible to be considered for appointment, but you were also selected due to your extensive experience in the technical or management field or fields needed for this assignment. Many additional skills are required and needed to accomplish your and your Task Force's activities besides the professional skills that got you here. These include exercising tact, diplomacy, flexibility, leadership, a sense of humor, inter-personal communication, promoting consensus building, and sometimes a clear and loud voice. The continuing enhancement of your skills in these areas should be a valuable by-product of this work.

As you study this handbook remember that it is primarily intended to be used as a reference and guide. To improve and make it more useful to you and the other Task Force members, it will need to be tempered with your good judgment and feedback, along with frequent references to the PG&P document, which formally governs the joint development activities.

This handbook is designed to give Task Force members:

- A view of the joint development environment in which they will be operating;
- additional elaboration and guidance beyond that presented in the PG&P;
- highlights of the process and procedures that need to be followed to achieve an orderly transition of project/product efforts from year to year;
- samples and examples of documents that are used in the yearly cycle of joint development activities;

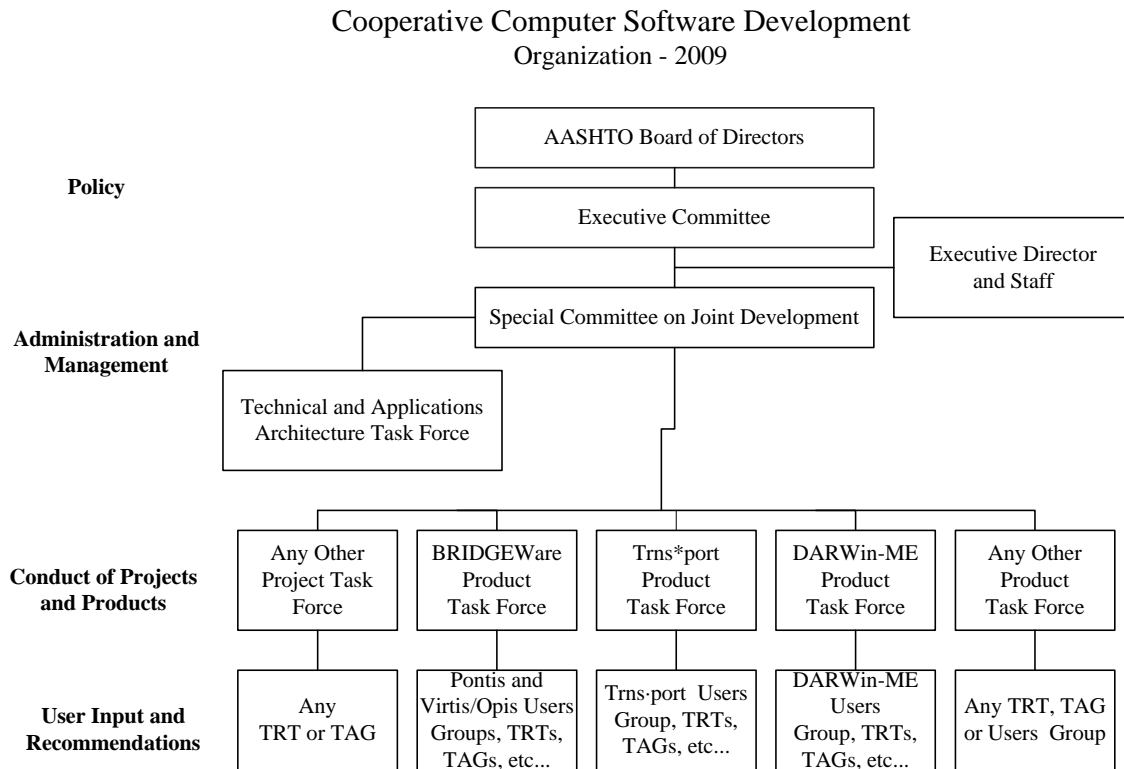


- processes and guidelines for managing the complexities of software development; and,
- general information that can provide a broader perspective that should help make them more valuable employees to their own organization.

# Organization and Administration

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## Organization Chart



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## Division of Responsibilities

### A. Common Functions of Project and Product Task Force Members (Including the designated Chairperson)

- Promote Joint Development activities.
- Provide liaison with AASHTO Business area Committees/Subcommittees.
- Provide liaison with recognized User Groups.
- Prepare and recommend project/product Task Force annual travel budgets and forward to SCOJD (Chairperson's responsibility for submission).
- Recommend the establishment of technical advisory groups (TAGs) when needed and appropriate, including planned associated TAG travel budgets for reimbursements, to the SCOJD and AASHTO staff for approval.
- Use good project management practices, monitor and direct project/product activities including requiring and reviewing Contractor progress reports to determine contract progress and compliance.
- Recommend any needed contract modification or other contract actions to the SCOJD and AASHTO staff.
- Recommend or state objections to requests from the Contractor for project/product "Related Work", and pass on recommendations to the AASHTO staff for action.
- Follow established processes for project management including the testing and evaluation of contract deliverables; and determine technical quality of all deliverables received from the Contractor, recommending formal acceptance or rejection. (See Testing Standard and other applicable processes, standards and guidelines).
- Certify project/product contract completion in writing (technical audits or independent reviews may be a consideration on more complex projects/products) and forward appropriate documentation to the SCOJD and AASHTO staff for action.
- As appropriate for the particular project/product, determine and recommend the schedule for release of contract deliverables to project participants or product licensees.
- Propose any project/product related application, data or technical standards or propose a study to develop such to the SCOJD.
- Seek administrative counsel, as needed with the project/product designated SCOJD and AASHTO staff liaisons.
- Seek technical counsel, as needed with the project/product designated T&AA liaison.

**B. Functions of Project Task Force Members (Including the designated Chairperson)**

- Participate in the development of a draft Request For Proposal (RFP) or other solicitation document if appropriate and recommend it to the SCOJD and AASHTO staff for action. (AASHTO staff issues all RFPs.)
- When applicable, AASHTO staff distributes RFP responses to the project Task Force members for their recommendation of a selected Contractor, which the Chairperson forwards to the SCOJD for concurrence. (Only the AASHTO staff formally negotiates contracts.)
- Working with the AASHTO staff, finalize and recommend a project Work Plan to the SCOJD and AASHTO staff for inclusion in the project contract.
- Use acceptable project management processes in monitoring contract compliance throughout the entire project development cycle.
- At the conclusion of the project, determine the success or failure of the project.
- If the project was successful, prepare a product distribution plan including licensing fee structure and assessments for proposed AASHTOWare products, and submit it to the SCOJD.
- When appropriate, recommend a follow-on project solicitation to the SCOJD.

**C. Functions of Product Task Force Members (Including the Designated Chairperson)**

- Annually prepare and update the products' strategic plan and next operating year plans, linked to the AASHTOWare Strategic Plan within the planning cycle, and budget as it relates to the on-going support, maintenance and enhancement (SM&E) of the product, including Task Force travel budget, and revised catalog pages with recommendations to the SCOJD and AASHTO staff. This material is submitted to the SCOJD for approval at the spring Chairs' Meeting.
- Prepare an annual presentation on the progress and status of the product, and submit it to the SCOJD. This presentation is part of the material submitted to the SCOJD for the spring Chairs' Meeting.
- Prepare, refine and recommend to the SCOJD, an annual product work plan including an appropriate license fee schedule.
- Monitor and direct the product development, enhancement, maintenance, and distribution activities including Contractor progress and compliance with AASHTOWare policies, guidelines and procedures, and applicable software development standards and guidelines (AASHTOWare S & G Notebook).
- Periodically prepare product newsletters or brochures for distribution by the AASHTO staff to interested parties in support of the marketing plan.
- When appropriate, may recommend to the SCOJD a project solicitation which will expedite enhancements or new developments for the product.

- When appropriate to effective on-going support, maintenance and enhancement of AASHTOWare products, develop a draft RFP or other solicitation document for rebidding, and recommend it to the SCOJD and AASHTO staff for action. (Only the AASHTO Executive Director may issue RFPs on behalf of the Association).
- When applicable, AASHTO staff distributes RFP responses to the product Task Force members for their recommendation of a selected Contractor, which the Chairperson forwards to the SCOJD for concurrence. (Only the AASHTO staff formally negotiates contracts).

#### **D. Functions of the Chairperson**

**(The functions described below are intended to be applicable to both SCOJD Chairperson as well as Product / Project Task Force Chairpersons, although some may be more applicable to Task Force Chairpersons.)**

- Champion consensus in the spirit of joint development.
- Promote the use of collaboration tools and historical document archiving capabilities used by the AASHTOWare community.
- Rule on questions and/or seek answers and interpretation of AASHTO policy from the PG&Ps publication and the SCOJD and/or AASHTO staff through the assigned liaisons.
- Ensure that meetings, both face-to-face and telephone conferences, are scheduled in a timely manner and of adequate duration to expeditiously conduct required business.
- Produce and publish minutes of meetings and distribute appropriately only within AASHTO. Only “meeting summaries” should be distributed to User Groups or the Contractor when deemed necessary and appropriate.
- Develop and keep updated “Action Item” or “To Do” lists separately for Task Force members and Contractor.
- Allocate some time at each meeting to conduct “Executive” sessions of the Task Force without the Contractor in attendance.
- Maintain such records or charts as are necessary to enable the Task Force to appropriately monitor the Contractor’s progress and compliance. (Charts, graphs and other reporting may be developed by the Task Force Chairperson in consultation with the Task Force members).
- Approve, reject, correct or have corrected any Contractor invoices, sending them to the AASHTO staff within ten working days with the appropriate recommendation for payment.
- Develop or cause to be developed, use and submit the necessary annual project/product plans, budget elements and reports according to the schedules and distribution outlined in the PG&Ps.
- Inform the SCOJD and/or AASHTO staff in a timely manner of any changes in Task Force membership, and solicit resumes for candidate Task Force members when requested, or as appropriate to allow appointments to be made by the SCOJD to fill vacancies in accordance with established procedures (see Section 2, Item IV).

- Prepare a clear statement of benefit to AASHTO or its member departments, and obtain approval thereof from SCOJD and AASHTO staff, prior to incorporating any proprietary third-party product into an AASHTOWare product. The approval process should include addressing perpetual rights to the proprietary product as well as placement of source code in escrow in the event of the product owner going out of business or being sold.
- Rule on questions and/or seek answers and interpretation of AASHTO Standards and Guidelines through the assigned T&AA liaison.
- Maintain an appropriate level of supervision and control over the project/product Contractor.
- Utilize and include the knowledge and assistance provided by the SCOJD, T&AA and AASHTO staff liaisons assigned to your Task Force when major questions or issues arise.
- Involve Task Force members in all activities, particularly major decisions; they have been selected for their application and/or information systems background and specific expertise.
- Share or delegate appropriate responsibility and authority to other Task Force members so long as it is consistent with good project management practices and the PG&P.
- Establish product advisory groups as needed and appropriate within budgetary constraints. Product advisory groups may be referred to as Technical Advisory Groups (TAGs) or Technical Review Teams (TRTs), or other similar names.
- Cultivate a Task Force Chairperson-in-training. Formal designation of a vice-Chairperson is recommended.
- Ensure that a specific test plan and adequate resources are identified and provided for in any Work Plan to complete this testing. Appropriate Alpha and Beta testing procedures are essential to the delivery of a high quality computer software product (See Testing Standards).
- Obtain input from product users and product user groups in setting project/product priorities.

#### **E. Functions of the Vice Chairperson**

**(The functions described below are intended to be applicable to both SCOJD Vice Chairperson as well as Product / Project Task Force Vice Chairpersons, although some may be more applicable to Task Force Chairpersons.)**

- Carry out the duties and responsibilities of the Chairperson when they are absent, or otherwise not available.
- Be prepared to serve as Chairperson on a temporary or permanent on-going basis in the event the Chairperson completes their term or is unable to complete their term of service for any reason.
- Undertake tasks delegated by the chairperson.

- Draft minutes of Task Force meetings for approval by committee members and distribute appropriately only within AASHTO. Only “meeting summaries” should be distributed to User Groups or the Contractor when deemed necessary and appropriate.

#### **F. Functions of the Special Committee on Joint Development (SCOJD)**

- Support joint development activities through active promotion with the various AASHTO business committees and subcommittees.
- Consult with all active project/product Task Forces, study policy issues for the joint development activities and bring resulting recommendations before the AASHTO Board of Directors for action, as appropriate.
- Review and approve all procedural documents, manuals and other guidelines pertaining to the process and management of the joint development activities.
- Approve the appointment and removal of all members of the project/product Task Forces, and designate the Chairpersons of each.
- Recognize official joint development activities’ AASHTOWare User Groups when appropriate.
- Authorize solicitation of the AASHTO membership for participation and funding in proposed joint development projects.
- Maintain appropriate liaison with the Administrative Subcommittee on Information Systems. This liaison activity includes updating of the annual technology survey as well as customer satisfaction surveys.
- Monitor and coordinate all joint development computer software project/product activities of the Association, and provide management guidance, support and oversight. (Contract negotiation and execution of contracts is the sole responsibility of the AASHTO Executive Director or designee).
- Review recommendations from the project/product Task Forces, and when necessary, request additional review by the Technical and Applications Architecture Task Force (T&AA), and notify or recommend action to be taken to the AASHTO Executive Committee and /or AASHTO staff.
- Review and recommend approval or rejection of requests for contract amendments received from the project/product Task Forces, forwarding recommendations to the AASHTO staff for consideration and execution as appropriate.
- Conduct the annual strategic planning session to develop the annual edition of the AASHTOWare Strategic Plan document for use by each project/product Task Force in their planning. The AASHTOWare Strategic Plan serves as the general strategic planning guide for all joint development activities.
- Develop the travel and related services budgets for the SCOJD and their designated technical advisory groups such as the T&AA.
- Review and recommend the project/product long range and next operating year plans and budgets for inclusion in the overall AASHTO annual budget

document.

- Review and recommend approval or rejection to the AASHTO staff, of contract awards resulting from RFPs or renewals for on-going products that are received from the project/product Task Forces.
- Review, refine and recommend approval or rejection to AASHTO staff, of product distribution and marketing plans including fees for licensing as AASHTOWare products that result from completion of projects and for on-going products
- Review and develop a written recommendation for concurrence by the AASHTO Executive Director on the individual Audit Reports received resulting from the audit of joint development contracts.
- Investigate and recommend, in conjunction with the appropriate product Task Force, whether or not the particular AASHTOWare product, version or portion should continue to receive ongoing support or be licensed by AASHTO. When so indicated, a written recommendation will be made by SCOJD for concurrence by the AASHTO Executive Director the “sunsetting” of any product or portion that demonstrates it can no longer be economically supported and/or licensed as an AASHTOWare product or portion thereof. (The procedure and alternatives for implementation of this “sunsetting” procedure is covered in the PG&P.)
- Seek out new ways to continually improve on the quality of the AASHTOWare Joint Development program.

#### **G. Functions of the Technical and Application Architecture Task Force (T&AA)**

- Establish AASHTOWare product development standards and guidelines that promote quality, usability, maintainability, and look and feel consistency across an inconsistent user technical environment.
- Promote and help interpret/apply standards and guidelines.
- Translate technology to common understanding.
- Provide technical framework to help products achieve AASHTO quality requirements based on industry and member agency technology directions.
- Provide technical expertise and assist with issue resolution and decision support.
- Provide opportunity for influence on standards and guidelines.
- Refer technical issues back to SCOJD whenever necessary.
- Provide a cross-product technical perspective.
- Promote cross-product communications.

#### **H. Functions of the AASHTO Executive Director and the Director’s Authorized and Delegated Staff**

- Serve as an ex-officio, non-voting member of SCOJD and all project/product Task Forces, and attend meetings of these groups.



- Provide administrative, clerical and other AASHTO support services relating to joint development contracting activities.
- Conduct annual AASHTOWare product licensing solicitation - secure funds from licensees.
- Distribute solicitations approved by the SCOJD to AASHTO member organizations to determine level of interest and funding for proposed joint development projects, and prepare summary of responses and submit reports to the SCOJD for action.
- Develop and coordinate review of RFPs by project/product Task Forces and SCOJD, and prepare prospective contractors list in compliance with AASHTO policy and procedures. Assist in determination of and justification for any sole source procurement. Announce and distribute RFPs to prospective contractors. Receive proposals from interested contractors and forward to Task Force members and Chairperson for their evaluation.
- Negotiate and execute all contracts, modifications and revisions, and as the AASHTO Contract Officer, provide the general administration of all contracts resulting from approved joint development computer software activities, in accordance with governing policies and procedures.
- As the AASHTO Contract Officer, establish guidelines and instructions for Task Force Chairpersons and members concerning necessary record keeping, communications with Contractors and such other topics as appropriate to ensure proper management and administration of all contracts.
- Administer revenue, disbursements and accounting records, including preparing consolidated budgets, invoicing project participants and product licensees, making payments to Contractors and other project/product related expenditures, and provide detailed and summary financial management information for each project/product on a monthly basis.
- Administer reimbursement of joint development Task Forces' travel costs within established guidelines, and authorize special travel reimbursement when it is deemed to be in the best interest of the Association.
- Approve or reject requests from User Groups to use the mark "AASHTO" or "AASHTOWare" or any seal, emblem, or reference.
- Coordinate joint development activities with other AASHTO Committees and Subcommittees to seek out and promote potential joint development projects among the states.
- Serve as the communication and distribution center for all joint development activities, including providing product information to states and other potential licensees not currently using the product, to promote awareness of product capabilities and gather potential enhancements for the products.
- Maintain appropriate mailing lists for the SCOJD and each project/product Task Force.
- Arrange for audits of joint development activities and report thereon to the SCOJD and project/product Task Forces.

- Specify, require and maintain warranty provisions and information for all project/product software agreements with Contractors.
- Coordinate and approve or reject all requests from Contractors for “Related Work” activities, in accordance with governing policy.
- Respond to inquiries about AASHTOWare product availability and functionality to member departments or other licensee prospects.

#### **I. Functions of the AASHTO Executive Committee/Board of Directors**

- Establish and revise policies governing the joint development activities consistent with the Administrative Resolution and other AASHTO Governing Documents. (Board of Directors)
- Approve the creation and termination of joint development projects and AASHTOWare products, and the revenue and expenditure budgets of the joint development activities as part of their overall approval of the annual Association budget. (Executive Committee)
- Approve the appointment by the AASHTO President of members of the SCOJD. (Executive Committee)

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## **Task Force Appointments and Terms**

In accordance with governing policy, the Special Committee on Joint Development (SCOJD) has been delegated the authority to establish and terminate task forces as need to carry out the business of the AASHTOWare program, and to appoint or remove the members and Chairs thereon. The following procedure should be used regarding product task force appointments:

1. Resumes should be solicited from an appropriate pool of potential candidates each time a vacancy occurs. This pool may include, but not be necessarily limited to product user group representatives and AASHTO committees and subcommittees with an interest in the business area(s) covered by the software product. Assistance from the AASHTO Project Director is available to perform the solicitation of AASHTO committees and subcommittees.
2. For each vacancy, the existing task force Chair should submit the following to the SCOJD Chair for further consideration and final action:
  - All resumes submitted;
  - Skill sets needed for each opening, as applicable;
  - List of who was interviewed;
  - Short-list of nominations. The number of candidates on the short-list should exceed the number of open slots whenever possible.

SCOJD may solicit additional nominations from additional sources depending on the circumstances, and additional candidates not necessarily included on the short-list may be considered for appointment.

### Chairperson Designation:

When the need arises to designate a new Chair, the SCOJD will attempt to fill the Chair's position from the pool of existing members serving on the task force. The SCOJD liaison and AASHTO Project Manager will privately interview each member of the task force to determine their willingness to serve as Chair. Input will be sought from existing members not willing to be considered as Chair regarding the designation of Chair among the other pool of candidates. After discussions with each existing task force member are completed, the SCOJD liaison and AASHTO Project Manager will convey a recommendation to the SCOJD regarding the designation of a new task force Chair. If none of the existing task force members is willing to be designated as Chair, then the SCOJD will follow the procedure outlined above to fill the vacancy with a new member willing to be designated as the task force Chair.

Appointments to project task forces are valid for the duration of the project. Product task force appointments are made for specific terms. Product task force appointments are normally for three years, except when a product task force is initially established in which case initial appointments are staggered with terms of from one to three years to provide continuity as future terms expire. Product task force and SCOJD members can serve a maximum of two, full three-year terms.

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## Technical Advisory Groups and Review Teams

From time to time, it may be desirable and beneficial to bring outside expertise to the Task Force. This expertise may be highly technical computer or engineering related, or expert knowledge about a particular application or functional capability. In such cases, the AASHTO Financial and Administrative Subcommittee on Information Systems, other AASHTO Subcommittees or the product user group may be valuable sources of such assistance. The Task Force can bring this expertise to bear by recommending the formation of a Technical Advisory Group (TAG) or Technical Review Team (TRT). Such TAGs and TRTs have been used successfully in the past to ensure product developments are addressing the AASHTO user community requirements.

TAG and TRT members should be assigned under the guidance of and/or chaired by a member of the regular project/product Task Force. Minutes and other records of these group meetings are the responsibility of the parent Task Force.

If adequate travel funds are budgeted and available, it is possible with the recommendation of the project/product Task Force, concurrence by the SCOJD and approval by the AASHTO staff, that travel expenses for these group members may be reimbursable by AASHTO. The same expense accounting forms and procedures apply, except that the project/product Task Force Chairperson should forward the Task Force's statement of specified and assigned activities and membership of these groups to the SCOJD and AASHTO staff. When the TAG or TRT members' travel expenses are not covered by their respective departments, and they have been previously approved for reimbursement, they should prepare joint development claim forms and forward them to the AASHTO staff for payment processing.

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# User Groups

The designated representatives of the various licensees of an AASHTO software product may organize for the purpose of establishing a users' group. They may petition AASHTO and request to be designated as the official User Group for that product. AASHTO will designate only one official user group for each AASHTOWare product. The decision to recognize an official user group will be by the Special Committee on Joint Development, with the concurrence of the AASHTO Executive Director. If AASHTO accepts the petition and designates an AASHTO Product User Group, it will be based on the group's agreement with and adherence to the following guidelines.

1. The User Group shall as a minimum adopt a mission statement and an operating charter or bylaws, and shall elect officers. The charter or bylaws shall meet the provisions of these guidelines.
2. All organizations who license an AASHTO Product shall be eligible for membership in the specific product User Group.
3. Tentative and final dates, agendas and minutes for all official meetings of the User Group, including any consensus recommendations from the User Group relating to the AASHTO Product, shall be transmitted to:
  - Chairperson, Product Task Force
  - assigned AASHTO Product Manager
4. The User Group shall be a not-for-profit organization and meet at least once in every calendar year, with at least one meeting designated as an annual meeting. User Group Officers may coordinate with the AASHTO Product Task Force Chairperson to select a common site and date once a year for a joint and concurrent meeting of the User Group and Product Task Force.
5. Officers and members of the User Group shall have complete control of the finances of the User Group, such as establishing and charging dues or meeting registration fees. Financial records consistent with a not-for-profit organization shall be maintained.
6. The User Group may adopt and use its own logo and letterhead. However, it shall not use the mark "AASHTO", or "AASHTOWare", or any AASHTO seal, emblem, or reference except the phrase "An AASHTO Recognized User Group for (Product name)", unless otherwise expressly authorized in writing by the Executive Director, or his delegate.
7. The User Group will not be an official AASHTO administrative or operating unit. The User Group will remain an independent organization representing the users of a particular AASHTOWare software product, except that its recognition as such by AASHTO will be dependent on its adherence to these guidelines and at the sole discretion of AASHTO.
8. AASHTO recognizes the benefits from and encourages strong and active User Groups. However, recommendations from the User Groups will be considered by AASHTO as being advisory only.

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# Travel and Related Expenses

## **A. Selection of Meeting Sites**

The location selected for task force meetings should be made to provide the most benefits to the task force while minimizing costs to AASHTO and the project/product. The overall cost of travel and meeting facilities must be considered. This includes determining the level of participation required by the Contractor's personnel; the cost of travel, hotel facilities and accommodations; ease of accessibility by commercial carrier for all involved; and any special arrangements or equipment for the conduct of task force business. Remember that normally the SCOJD, T&AA and AASHTO staff liaison will be attending these meetings as well.

If discussions with and direct participation by several of the Contractor's personnel is required to accomplish the business of the task force, a meeting at the Contractor's location or in a hotel near the Contractor's office may be the most cost effective since the Contractor will charge the cost of travel for their personnel to the project/product. Meetings hosted by individual task force members at or near their state's offices can be cost effective since they may be able to provide needed special support such as document copying or computer equipment access. Travel expenses for meetings held in a member's state are not reimbursable unless prior approval is granted by AASHTO Staff.

## **B. Meeting in Conjunction with Other Meetings**

Task force meetings held in conjunction with other organizations' meetings (prior to or after) that some or all of the task force members also would attend can be cost effective. Keep in mind, however, that AASHTO should not be charged expenses that the task force member's organization would normally pay for sending the individual to the other meeting. For example, transportation to and from the meeting would not be reimbursed by AASHTO if the person normally would go to the meeting site as a representative of their department. Also, only the lodging for the additional period of the person's attendance at the task force portion of the meeting is reimbursable.

# Project and Product Management

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## Software Development Lifecycle

The following outline describes the general AASHTOWare project / product lifecycle and software development methodology, and lists the activities and deliverables associated with each phase.

### A. Planning

This includes all of the planning activities required to support the project.

- General problem or objective definition
- Definition of scope and requirements for proposed solution (inclusive of functionality and technical architecture requirements)
- Identify resources for proposed solution (inclusive of human resources and their organization as well as financial resources)
- Methodology plan providing a definition of the project phases and deliverables
- Project plan defining the schedule for completion and review of deliverables by phase
- Cost Benefit Analysis - Determine if resources are sufficient to complete the project and whether the project cost is justified by the benefits
- Request for Proposal (RFP) where a Contractor is not yet selected (inclusive of contract management and acceptance procedures)

### B. Requirements / Analysis

This includes all of the requirements and analysis activities needed to specify and track the user and system requirements of the product or product enhancement.

- User Requirements Specifications (definition of the user cases the product or project are intended to solve and the expected outcomes of the individual requirement needs)
- System Requirements Specification (contains the requirements traceable to

project / product requirements that define the application's technical architecture, organizational architecture, business rules, behavior, data models, interface description models, and user prototypes(definition of all cases of how the system will be used, user interface prototype that captures user interface requirements, models defining the information and functional processes required to satisfy user requirements, domain model defining system structure) (See the practices relating to the creation and approval of the System Requirements Specification in the AASHTOWare Requirements Management standard)

- Requirements Traceability Matrix (the repository of all the traceable objects produced by the project/product activities. It is the method used to manage the requirements and is capable of all the attribute definition and linking needed to support traceability) (See the practices relating to the creation, maintenance and use of the Requirements Traceability Matrix in the AASHTOWare Requirements Management standard)
- Risk analysis (define risks of proposed requirements and their resolution)
- Resource Requirements (re-estimation of resource requirements)
- Project Plan (revision of project plan schedule, when necessary)

### **C. Design**

This includes all of the activities needed to build the external and internal design of the product or product enhancement.

- Functional design (inclusive of Functional and Dynamic models, as needed, to assure that all aspects of what the system does and when it does it are defined)
- System architecture partitioning (for instance, a partition model defining and separating the user interface, the problem domain, and the persistence domain)
- Data model (Logical Data and Database models defining the information required, processed, produced, and stored)
- User interface and report design (through prototyping)
- Design issue formulation and resolution (change requirements if necessary)
- Project Plan (revision of project plan schedule when necessary)

### **D. Construction**

This includes all of the activities needed to construct the product or product enhancement.

- Functional prototype (inclusive of system logic and business edits, system management objects such as middleware, security, and other object request brokers)
- Physical database
- Non-visual objects (also inclusive of connection of all objects)
- Change and configuration management procedures

- Construction issue formulation and resolution (change requirements and design if necessary)
- Project Plan (revision of project plan when necessary)
- Construction review (repeated iteratively using functional prototype)

## **E. Testing**

This includes all of the activities needed to track, verify, and validate the developed product or product enhancements with respect to the requirements. This category ends with acceptance by the user of the product.

- Test planning for all test types (See practices for test planning in the AASHTOWare Testing standard.)
- Preparation of the Test Instance (inclusive of all testing phases for all test types (See practices for creating and using the Test Instance Report in the AASHTOWare Testing standard.)
- Walkthrough testing for examination of the components of a test instance (the requirements, the test procedures / result criteria, or the system / component of the test) (See practices for Walkthroughs in the AASHTOWare Testing).
- Unit testing (testing of lowest the lowest level objects methods of Class/Object or function of a module to be sure they behave as designed and are reporting accurate correct results) (See practices for Unit Testing in the AASHTOWare Testing standard.)
- Build testing (testing that insures that assemblies of objects or components work together as expected and that no failures occur as a result of their interaction) (See practices for Build Testing in the AASHTOWare Testing standard.)
- System testing (test the system as a whole to ensure that the integration is completed and that it meets user requirements) (See practices for System Testing in the AASHTOWare Testing standard.)
- Alpha testing (testing designed to break the system) (See practices for Alpha Testing in the AASHTOWare Testing standard.)
- Alpha Test Acceptance Report development, review and approval (a report developed by the Contractor that documents all of the Unit, Build, System and Alpha test results; review and approval of the report by the Task Force certifies that the system meets all requirements as defined and is ready for Beta testing) (See practices for development, review and approval of the Alpha Test Acceptance Report in the AASHTOWare Testing standard.)
- Beta testing (testing designed to demonstrate that the system or system component fulfills its intended use when placed in its intended environment) (See practices for Beta Testing in the AASHTOWare Testing standard.)
- Beta Test Acceptance Report development, review and approval (report developed by the Contractor that documents of the Beta test results; review and approval of the report by the Task Force certifies that the system has been completed and that the testing results have been completely reported) (See practices for development, review and approval of the Beta Test



Acceptance Report in the AASHTOWare Testing standard.)

- Repository of test results (a complete set of all test results)

#### **F. Acceptance Phase**

- Acceptance (process for project/product Task Force and Contractor sign-off that work is in compliance with project/product Work Plan)
- System demonstration to Task Force
- Operations and/or user manual/instructions
- Task Force acceptance of system deliverables

#### **G. Implementation**

This includes all of the activities needed to prepare the product or product enhancement for distribution and implementation at customer sites.

- Site/user installation (See practices for creating and using the Installation Materials in the AASHTOWare Testing standard.)
- Site/user testing (See practices for creating and using the Distribution Test Materials in the AASHTOWare Testing standard.)
- Implementation status tracking (See practices for reporting installation status using the Installation Status Report in the AASHTOWare Testing standard.)
- User initiated error reporting during warrantee period (contract should have provisions for warrantee support as appropriate, plus a modest post-acceptance provision for initial user installation support)

#### **H. Product Maintenance**

This includes all activities required to maintain the product after it is in use by the customer. Maintenance processes are usually specified in the product work plans.

- Establish and follow processes for error reporting, prioritization, tracking and handling.

#### **I. Product Retirement**

This category includes all activities needed to retire a product (See the AASHTOWare Policies, Guidelines and Procedures document, “Guidelines for Termination of Support for an AASHTOWare Product” for definition of this process.).

## AASHTOWare Planning and Budgeting Calendar

The following listing indicates the major activities that involve work by the project/product Task Forces, and more particularly the Task Force Chairperson, during the AASHTO fiscal year.

Start Date	Activity
July	Start product FY and contract
Mid-August	Receive Prior FY Budget/Revenue/Expenditure report from AASHTO staff
Sept-Oct	Review AASHTOWare Strategic Plan directions and User Group status, needs, and recommendations, and incorporate into planning process
December	Begin development of Long Range/Strategic Plan, the Annual Work Plan, the Task Force travel budget, an overall budget, updated pages for AASHTOWare Catalog, Task Force membership recommendations, resumes for potential Task Force candidates, and the Product/Project Summary presentation for the annual chairperson's meeting (in early March). Forward issues, opportunities, conflicts, policy & procedures affecting AASHTO products to SCOJD for planning consideration
January	Make appropriate recommendations for AASHTOWare Annual meeting to SCOJD
Jan-Feb	Finalize Product/Project work plans and budgets initiated in December
Mid-Feb	Submit the finalized work plans and budgets to SCOJD
Early March	Task Force Chairs meet with SCOJD to present Product/Project Summary, discuss any issues related to the Product/Project work plans and budgets submitted in mid-February, identify AASHTOWare Strategic Plan issues and topics, and become aware of other AASHTOWare activities and Product/Project Plans and directions
Late March	Finalize Annual and Long Range/Strategic Work Plans, following feedback/approval from SCOJD, for next FY.

Start Date	Activity
April	Obtain final budget, catalog and Task Force membership approval from SCOJD.
June	Prepare to initiate new FY

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## Contracts

### A. Use of Agreement

An AASHTO executed contract Agreement is the legal document binding AASHTO and the Contractor to a fixed term, maximum dollar amount work plan.

Contracts and any amendments can only be negotiated, offered and signed by the AASHTO Executive Director and the Contractor's legally designated representative.

A model contract Agreement form used by AASHTO can be adjusted for specific projects and products as necessary. A sample can be found obtained from AASHTO staff.

Alterations to the model Agreement are made only for exceptional conditions which are agreed to by the Contractor, the project/product task force, the SCOJD and the Executive Director of AASHTO.

Contract Agreements include and incorporate the project/product work plan by reference and attachment.

### B. Contract Changes

With few exceptions, changes to work plans represent changes to the contract Agreement terms and must be recommended by the project/product task force, and referred to the SCOJD, then AASHTO staff for their review approval and creation of the needed contract amendment. This also includes extensions of time beyond the stated contract period even though no increase in dollars is involved.

The project/product task force has some authority and flexibility in the contract to shift priorities or sequence or funds from one element of work to another, but only within the separate portions for time and materials-based services or fixed-priced services. Shifting of funds from one of these portions to the other, however, requires SCOJD concurrence and AASHTO staff approval. The task force Chairperson should consult both the current contract document and AASHTO staff liaison to verify that any intended action is provided for prior to any directed action to the Contractor.

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# Workplans

## A. General

A work plan is the description and specifications, mostly in functional terms, stating the work to be performed by the Contractor during the project/product contract period. A work plan should describe the contract deliverables, the schedule for delivery, and the costs for the deliverables and related services. For projects, it is normally for the duration of the project; for products, it is normally for each AASHTO fiscal year (FY) period which is July 1-June 30. The work plan is normally prepared to cover the appropriate period, which is the duration of the project (9-24 months), or the fiscal year for products.

Work plans are a fundamental part of the contract between AASHTO and the Contractor, and are incorporated by reference into the legal agreement executed by the parties.

The work plan is to be developed by the task force with input from the product User Group, and some assistance from the Contractor relating to cost estimation for the development of well defined deliverables for projects, and on-going support, maintenance and enhancement for products. The deliverables in the Work Plan should be quoted as fixed price deliverables. Time and Materials based work and Task Force Directed activities should be avoided.

The work plan should be consistent with AASHTOWare Standards and Guidelines, the applicable product strategic plan and AASHTOWare strategic directions.

Product work plans should be submitted to the SCOJD and AASHTO staff in preliminary form in January and final form in February for the following July 1-June 30 period. Development of the work plan is the responsibility of the task force, with submission the primary responsibility of the project/product Chairperson. Each FY product Work Plan is reviewed and recommended at the annual SCOJD /Task Force Chairpersons meeting, usually held in March.

Each project work plan is submitted by the project task force Chairperson, and reviewed and approved by the SCOJD at the start of the project.

Work Plan sections as a minimum include:

- A preface containing background information and the goals and objectives.
- Support and maintenance (S&M) services for the licensees and a listing of enhancement deliverables (E) for products only - and the listing of deliverables or development for projects.
- Any allowance for Task Force Directed Work.
- The required development, programming, documentation and testing standards to be used.
- The associated costs to execute the work plan.

## B. Support and Maintenance Services

The Support and Maintenance services sections of the work plan must specify what expectations are placed on the contractor for call-in support, problem resolution, code alteration and distribution of software releases and malfunction corrections.

The procedure and forms to be used by the product user community to report problems should be included by reference or attachment. This includes such items as descriptions of the problem, minimum documentation to be submitted, user individuals to be contacted, identification of software version, hardware platform, operating system, the input data creating the problem, etc.

The cost for maintenance services should be negotiated at a fixed rate, normally with monthly installments payable to the contractor. Support services are generally estimated on a time and materials basis, with a capped or maximum amount derived from the number of hours, times a rate quoted by the contractor with concurrence by the task force. The cap can be adjusted by the task force by shifting funds within this general time and materials portion. Funds cannot be shifted, however, from the fixed price portion to time and materials portion without concurrence from the SCOJD and a contract amendment by AASHTO staff.

The work plan should include a provision for notifying the project/product task force when 80% of the allowable capped dollar limit for the time and materials work is reached to allow time for remedial action should fund shifts or transfers be needed.

Services performed on a time and materials basis should NOT include any work to be done under the required Contractor warranty provision, and the product task force must ensure that the contractor does not charge for warranty work as maintenance or support services.

### **C. Enhancements**

The enhancement or new development section of the Work Plan must specify the deliverables and the fixed cost associated with the development, testing and warranty period for each enhancement. A maximum amount for all enhancement deliverables stated in the work plan must also be specified.

The work plan enhancement specifications should categorize and describe in detail each new development or enhancement to the project/product. Enhancement and new development work should be determined by the task force with input from the user community.

Each deliverable, particularly software, is required to be warranted for a specified period, with the Contractor correcting errors or omissions within the fixed cost for the deliverable. The work plan should describe the warranty provisions and reporting procedure. Each specified enhancement should indicate delivery schedule, method of determining compliance with the specifications and delivery mechanism.

Enhancements may be specified for delivery to the user community as individual enhancements or bundled as a group of enhancements, however, each delivery must include an alpha and beta test procedure to aid in determining the compliance with specification, error free operation, usability of the deliverable, and appropriateness of any associated documentation.

Delivery costs of the enhancement(s) may be included within the fixed cost for the enhancement, or a group of enhancements to be delivered, or they may be listed as separate deliverables. In any case, they must be considered and included in the work plan.

### **D. Allowances and Reserves**

The work plan should indicate and reserve a small portion of the total project/product

Contractor services budget for purposes of Task Force Directed Work. This might include such things as:

- demonstrations of the project/product at locations/occasions determined by the task force
- preparation of special newsletters or brochures
- other such work that cannot be otherwise anticipated at the time of the work plan generation.

Further, the task force may wish to reserve a small part of its annual revenue budget for contingencies, such as:

- small but necessary minor enhancements
- minor alterations in scope of work due to new, improved technology or application specifications changes
- unanticipated costs related to user support or maintenance services, etc.

#### **E. Revenue Estimates**

Task force members should not disclose the actual or estimated project/product revenues to the Contractor prior to the estimation of work plan items. Revenue forecasts should be derived from an estimate of the number of agencies that will renew or start licensing the product based on history and the task force's knowledge of individual member agency plans which may be communicated through the user community.

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## **Contractor Allowable Related Work**

As provided in the PG&P document and contracts, there are several purposes for which an AASHTO project/product Contractor may conditionally perform work related to the AASHTO project/product Work Plan and contract. This includes but may not be limited to: software migration to additional computer platforms; developing or incorporating interfacing software that is beneficial but not budgeted for, nor incorporated in, the Task Force's project/product plans; training sessions or custom work for member departments or other licensees.

An AASHTO member project participant or product licensee may commit to fund (Sponsor) and use an AASHTO Contractor for work related to the AASHTO project or product Work Plan for their own purposes. All such related work is at the expense of the respective Sponsor. AASHTO has no obligation to support or correct problems caused by the related work.

All related work must be recommended by the project/product Task Force and approved by the AASHTO staff with notice to the SCOJD before the Contractor begins such work.

General criteria or questions used to consider recommending and approving related

work includes:

- For whom is the related work to be done, and what is the purpose?
- Will the related work affect or change the AASHTO source code?
- Will this work diminish the Contractor's effort or resources necessary to complete or satisfy the AASHTO contracted work within schedule and budget?
- Can or will the related work likely be considered for incorporation into the product in the future?
- What are the benefits to AASHTO and its member departments if later incorporation is considered, including acceptable assumption of AASHTO resources, and cost to maintain the end product?
- Is there a commitment to use AASHTOWare standards for programming, testing, and documentation,?
- Are there any other concerns affecting the integrity or exposure to added liability of AASHTO or the project/product?

When satisfactorily completed, the related work may be offered to AASHTO, through the project/product Task Force and the SCOJD for inclusion in the AASHTO project/product for ongoing support, maintenance, and enhancement. Upon recommendation by the project/product Task Force and SCOJD, AASHTO reserves the right to negotiate a license for the results of the related work effort at a negotiated fee. Any related work funded by an AASHTO member or product licensee may also be offered to AASHTO for inclusion in the AASHTO ongoing project/product, but normally without reimbursement to the member/licensee.

- If the approved related work is not accepted by AASHTO, the Contractor or their client may, market it as a non-AASHTO product. If the approved related-work includes any AASHTO intellectual property, a license to such AASHTO-owned property must first be negotiated.
- If the related work is not accepted by AASHTO, the related work must continue to be supported, maintained, and enhanced at the sponsor's expense, with no additional obligation by AASHTO.

Procedurally, consideration for related work is provided as follows:

- The Sponsor discusses the request with the project/product Task Force.
- If tentative concurrence is given by the Task Force, the Sponsor must be advised to make a written request to perform the related work, which must be sent to the AASHTO staff liaison for processing.
- The AASHTO staff will contact the SCOJD if needed, for concurrence.
- Upon Task Force concurrence, the AASHTO staff will respond to the Sponsor and/or Contractor for the related work, citing necessary terms, conditions, and any licensing requirements.

It is important for the project/product Task Force and the Contractor to note that if the Contractor performs related work without the prior approval of the project/product Task Force and the AASHTO staff, AASHTO, by the terms of its contract, can choose to assume total ownership of the work effort without

reimbursement of any kind to the Contractor, and use or dispose of it as AASHTO sees fit.

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## Standards and Guidelines

### A. Applicability

The SCOJD through its designated Technical and Application Architecture (T&AA) Task Force has established an “internal” software standards and guidelines setting procedure. This procedure and the resulting standards and guidelines are applicable only to AASHTOWare development projects and products under the joint development activities. The objective of this effort is to provide more uniformity, better quality, enhanced portability and reduced costs in the AASHTOWare software development and support processes. The authority for developing and implementing these internal AASHTOWare standards and guidelines is provided by AASHTO policy.

The AASHTOWare standards and guidelines are continuously being reviewed, updated and expanded by the T&AA Task Force, with ongoing distribution to the Task Force Chairpersons and contractors after approval by the SCOJD. The standards and guidelines may apply to procedures, software, hardware, operating systems, testing methods, documentation, or other appropriate facets of the AASHTO joint development effort.

It should be noted that these internal AASHTOWare standards and guidelines are distinguished from the “external” AASHTO standards and technical data guides which are governed by a separate review and approval process involving balloting the Administrative Subcommittee on Information Systems. Because the external technical standards and data guides can affect public and private enterprises including manufacturers and vendors outside of AASHTO, they follow the more traditional review and approval process used by AASHTO.

### B. Project/Product Task Force Use

- All agreements and contracts with AASHTOWare software Contractors include reference to and require use of these standards as applicable and appropriate. The project/product Task Forces should be aware of these standards and encourage their Contractor(s) to do the same. Further, the T&AA Task Force members are available for technical interpretation and guidance on using the standards and guidelines.
- The Standards and Guidelines (S&G) Notebook contains the accumulation of approved standards and guidelines. Standards denote required compliance; guidelines denote recommended procedures, software, hardware, operating systems, etc.
- Each project/product Chairperson is expected to incorporate the use of established standards into their ongoing Work Plan/Contract and Strategic Plan. Exceptions to the standards may be requested of and approved by the SCOJD.
- Each project/product Task Force Chairperson is expected to participate in this



standards and guidelines setting process. Proposed AASHTOWare standards and guidelines are coordinated by the T&AA who will send the proposed standard and/or guideline to the project/product Task Force Chairpersons for review and comment. The Task Force Chair should also solicit review and comments from their Contractor.

- Enforcement of these standards may sometimes require extra effort on the part of the Task Force and Contractor, and may consume additional project/product financial resources which should be included in the planning and budgeting processes.

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## Warranties for Contract Deliverables

### A. Implementing Contractor Warranties

Every AASHTO contract Agreement for software project development or product development or product enhancement includes a Warranty provision.

The Warranty provision encourages the Contractor to initially deliver quality software and other related contract deliverables, as error free as possible.

Warranty provisions include:

- Each specified development or enhancement deliverable in the Work Plan requires the Contractor to warrant them to be free from Contractor caused errors or omissions for the specified fixed cost.
- The warranty period for each deliverable is 120 calendar days, unless a longer warranty is negotiated and specified in the contract. The warranty commences either:
  - Upon written acceptance of the deliverable by the Task Force, or;
  - upon written acceptance of the deliverable by the Task Force and beginning at an agreed upon date in the future coincident with presumed acceptance of other deliverables. (This second option is normally used to package a series of deliverables for coincident release to the user or licensee community).

The Task Force Chairperson will communicate in writing to the SCOJD and AASHTO staff the formal date and option of acceptance. Warranty beginning and end dates will be established and recorded by AASHTO staff upon receipt of such notification. This will initiate the appropriate actions, which may include:

- The AASHTO staff notifying the Contractor in writing of any warranty start and end dates, including the additional 60 days afforded the Contractor to fix all reported Contractor caused errors or omissions.
- Malfunctions, errors or omissions identified during the warranty period must be transmitted in writing to the Contractor either by the Task Force, a project participant or licensed user, within the warranty period identifying those believed to be warranty items. This reporting is generally done utilizing a special warranty item reporting form and procedure acceptable to the Task Force and the Contractor.

- Following the completion of the specified warranty the Contractor shall have an additional 60 calendar days to correct any remaining reported but uncorrected Contractor caused errors or omissions.
- The project/product Task Force shall have the ultimate responsibility for the determination of whether an error or omission is a warrantable item or not.
- The Contractor shall provide appropriate and acceptable documentation to the Task Force to support any reported errors or omissions that the Contractor feels are non-warrantable.
- The specified warranty period, plus the 60 “correction” days shall not be terminated by the expiration of the Agreement, but shall continue until the total of the 180 days has been completed.
- All warranty corrections shall be completed at no additional cost to AASHTO for the defined deliverable(s).
- Errors or omissions caused by AASHTO or the Task Force in specifying the logic or functionality to be used in the deliverable(s) are excluded from the warranty responsibilities of the Contractor.
- For most project related software development deliverables, since they usually represent creation of new software and are generated for a fixed cost, the research, verification and correction of Contractor caused errors or omissions is to be done at no additional cost to AASHTO.
- For product fixed-cost enhancement deliverables, since they often involve installation into or interface with existing software, the investigation of presumed errors and omission by the Contractor and any testing to verify they are related to a warranted deliverable are outside the warranty and may be reimbursable under the Support and Maintenance (S&M) portion of the Agreement. However, as soon as any reported error or omission is found to relate to an enhancement deliverable, no further S&M charges should occur.

## **B. Other Key Considerations**

Other key considerations related to the warranty provisions include:

- Beta testing must be timely, thorough and complete. (See Testing Standard)
- Obtain written confirmation that each Beta test site has completed testing, including their documentation of any known problems and their resolutions, if any. Problems found during Beta testing and their correction are not part of the warranty period or process since Beta testing error correction is a separate part of the fixed cost of the deliverable.
- If satisfactory forms do not exist, develop and implement written forms and procedures well in advance of the start of a warranty period for reporting errors or omissions during the warranty period, including the date and time communicated to the Contractor.
- Continue to hold the contract designated retainage until after the warranty and correction periods are complete.
- Notify the SCOJD and the AASHTO Project Manager in writing when making any warranty recommendations or decisions that go beyond normal error correction. This includes discussing any questions or concerns about other

appropriate warranty actions or options available prior to initiating any other actions.

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## Estimating Administrative Expenses

Costs other than payments to Contractors and the task force's direct travel, are generally referred to as "indirect" or "administrative expenses" and are assessed to all AASHTOWare projects/products. These administrative expenses and the general basis for allocation include:

- Five percent of all new revenue is allocated to the AASHTOWare Capitalization Fund in accordance with governing policy.
- Direct costs for the salary, benefits and overhead for the professional and administrative staff assigned to work on the project/product. AASHTO Headquarters office overhead charges include such expenses as office space rent, equipment, legal, accounting, telephone, reproduction and mail services, etc.
- The prorated share of SCOJD and the Technical and Application Architecture (T&AA) Task Force, travel, their contracts and incidental expenses of the SCOJD, based upon the dollar value of the estimated revenue for the projects/products.
- The prorated share of AASHTO staff costs when they provide support to the SCOJD, including travel expenses to attend SCOJD meetings.
- AASHTO staff travel expenses to attend project/product task force meetings.
- Other miscellaneous items, such as trade show related costs, plaques, special publications, subscriptions, etc.

Some items that could increase related administrative costs include: Additional travel expenses by project/product task force members (arising from an increase to the number of members or trips over the amount budgeted), SCOJD and AASHTO staff liaison travel; additional AASHTO staff involvement in rebidding a product contract, or negotiating a contract for third-party software associated with a project/product; special services equipment needed to evaluate the project/product deliverables; etc.

Each task force Chairperson should obtain an estimate of project/product administrative expenses as part of the annual budget preparation activities from the AASHTO Project Manager. This information should also be included on the appropriate slide for presentation of the task force's annual budget to the SCOJD and the annual SCOJD/Chairs meeting.

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## Dealing with the Contractor

### **A. Maintain an Appropriate Relationship with the Contractor**

Deal with the Contractor as a valuable resource and member of the joint development process. Ensure that all issues with the Contractor relate to the elements of the contract which AASHTO has signed with the Contractor. Prior to the signing of the contract work to ensure fairness of the contract to both the Contractor and AASHTO. Use the contract to guide all Task Force transactions with the Contractor, even if the contract “appears wrong.” If necessary, seek AASHTO staff guidance and/or modifications to the contract as discussed earlier, but continue to honor the contract until it is amended.

Contracts can only be altered after majority recommendation of the Task Force, with concurrence by the SCOJD, and with approval and execution of a written modification (amendment) signed and executed by the AASHTO Executive Director and the Contractor.

It is imperative to remember that the Contractor works for AASHTO through the project/product Task Force. While the Contractor should be encouraged to and may make recommendations, the Contractor should not control the direction of the project/product.

Although the Task Force should be involved in all dealings with the Contractor, the Contractor should not be involved in all the Task Force discussions and decision making processes. It is important that the Task Force schedule portions of their meetings, or in some cases when appropriate complete meetings, without the Contractor in attendance.

The Contractor must not be the sole source for technical information relating to product development. The Task Force should use technical expertise provided by participating user organizations, AASHTOWare standards, T&AA, and other SCOJD designated technical advisory or working groups.

Task Force members are expected to conduct themselves in a professional manner at all times, and adhere to the ethics rules and policies governing Contractor/Client relationships adopted by their agency or DOT while serving on a Task Force.

### **B. Maintain Clear Communications**

Keep accurate and timely minutes of all meetings and telephone conversations. Minutes of a Task Force meeting are to be distributed only to Task Force members, the SCOJD and AASHTO staff liaisons, but never to the Contractor. Contractor responsibilities or actions determined as a result of a Task Force meeting should be turned over to the Contractor in an “Action Item” or “To-Do” list. When a Task Force conducts “Executive” sessions without the Contractor present, such executive session minutes should not be furnished to the Contractor.

Involve all Task Force members in all major decisions affecting the Contractor. Involvement may be simply full communication with the Task Force as a result of a special meeting or by phone calls made by the Task Force Chairperson. Additional contact with the SCOJD and AASHTO staff liaison may also be appropriate.

Do not provide the Contractor with any internal AASHTO documents, including minutes of closed meetings. If the Contractor needs information, forward it via letter from the appropriate person (you, SCOJD, or AASHTO). “Meeting Summary” reports of actions, but not the basis for or recorded voting as may appear in the actual minutes, may be provided to the Contractor or User Group as deemed appropriate.

### **C. Do Not Overstep Your Authority**

Do not make any commitments to the Contractor outside the contract, either explicitly or implicitly. If necessary, consult with and seek contract interpretation or suggested modifications through the SCOJD and AASHTO staff.

Fully support SCOJD and AASHTO policies. Recommendations for modifications are private communications to which the Contractor should not be privy.

### **D. Additional Considerations**

When seeking and recommending the selection of a Contractor for a project/product, employ appropriate competition to ensure that AASHTO receives the best possible product for resources expended.

Strive to ensure that the Contractor’s proposed or ultimate contract charges are accurate, reasonable, and the lowest possible, commensurate with receiving a quality product.

While Task Force decisions and actions must be fair to both AASHTO and the Contractor, the primary mission and purpose of the Task Force is to adequately represent the interests of AASHTO, its member departments and the joint development activities.

# Documentation Notes

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To support project/product Task Forces in the development of documentation necessary to successfully direct and manage joint development efforts, sample contract language and project/product long range (strategic) plans, work (operating) plans, and status reports are available from AASHTO staff on request.

The level of detail necessary for specific project/product plans depends upon a number of variables including: The AASHTOWare product application area; user-licensee needs and expectations; the number of licensees and total revenue generated; the complexity of the number of modules, options, and versions that are offered for licensing; etc. The managing Task Force, therefore, must generate an appropriate amount of planning and budgeting documentation consistent with these variables.

In all cases, the quality of your work, document content and preparation should be the primary guide, not sheer volume of paper. These need to be true “working and workable” documents, and while the Contractor can help provide certain information for your planning, the plans generated should reflect and represent the intent of the Task Force and its product users, not those of the Contractor. There must be sufficient detail presented so that the project/product Task Force, the SCOJD, AASHTO staff, and the Contractors, plus the licensees-users all can clearly understand the basis for the intended implementation schedule and costs for the respective project’s/product’s support, maintenance and enhancement.

With these considerations in mind, you should be able to get a sense of what is intended and needed when your project/product Task Force is required to generate the planning documents referenced and discussed in this handbook. The SCOJD member liaison assigned to your project/product and the assigned AASHTO staff are available to provide support and answer questions or discuss any aspects of your planning role and responsibilities.

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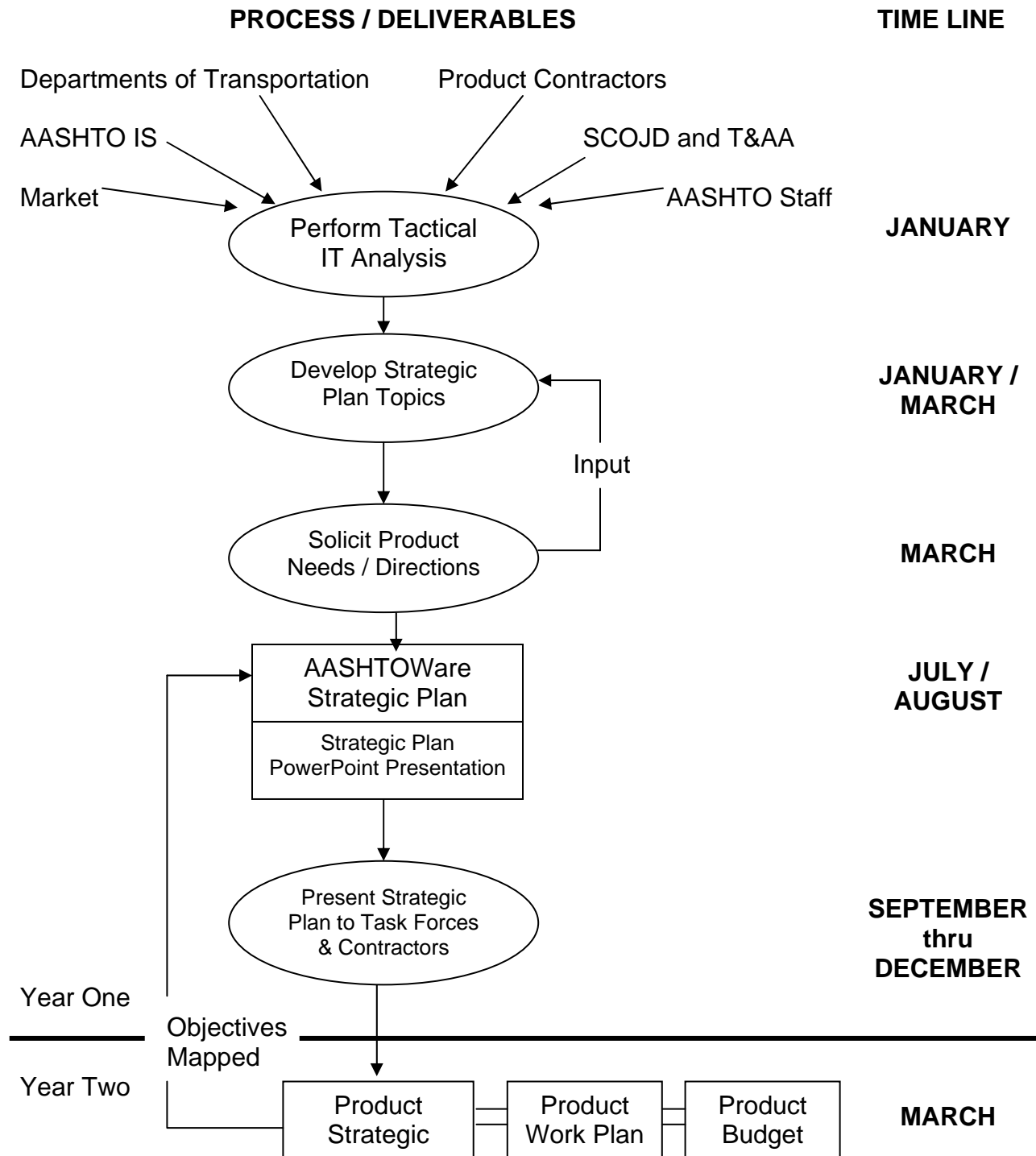
# Appendix A

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# Strategic Planning Cycle



The Strategic Planning Cycle that is described here is diagramed on the preceding page. The dates that are specified in the process are only given as “relative year reference”, because more than one fiscal year is covered in a complete planning cycle.

<b>Time Frame</b>	<b>Forum</b>	<b>Action</b>
January	SCOJD Meeting	<p>SCOJD</p> <ul style="list-style-type: none"> <li>• Review current Strategic Plan Goal, Objectives, Action Items; develop a preliminary list of Strategic Plan topics to be considered for inclusion in the next Strategic Plan.</li> <li>• Forward topics to Task Force Chairpersons for review / discussion during the March meeting.</li> </ul>
March	Annual Task Force Chairpersons Meeting	<p>Task Force Chairpersons</p> <ul style="list-style-type: none"> <li>• Review Strategic Plan topics developed by SCOJD and provide feedback / input on items to be included in AASHTOWare strategic directions. SCOJD</li> <li>• Conduct open group discussion to define / refine strategic planning issues / directions.</li> <li>• Solicit product needs / directions.</li> <li>• Compile complete listing of topics to be included in the next Strategic Plan.</li> <li>• Assign SCOJD member responsibilities to develop the draft components of the next Strategic Plan and Operating Objectives.</li> <li>• Assign responsibility to develop the draft AASHTOWare next Strategic Plan PowerPoint presentation (target audience: Product Task Forces).</li> </ul>
April - July	Discussion Database / Email correspondence	<p>SCOJD</p> <ul style="list-style-type: none"> <li>• Develop draft components of the next Strategic Plan and Operating Objectives.</li> <li>• Forward draft components to SCOJD members and AASHTO Staff for review / comment.</li> </ul>

<b>Time Frame</b>	<b>Forum</b>	<b>Action</b>
July	SCOJD Meeting	<p>SCOJD</p> <ul style="list-style-type: none"> <li>• Review / refine draft components.</li> <li>• Develop the draft next Strategic Plan and Operating Objectives.</li> <li>• Develop the AASHTOWare next Strategic Plan PowerPoint presentation.</li> <li>• Assign SCOJD member responsibilities to finalize the next Strategic Plan and Operating Objectives.</li> </ul>
July - August	Discussion Database / Email correspondence Conference calls	<p>SCOJD • Finalize the next Strategic Plan and Operating Objectives. • Forward to AASHTO Staff for publication. • Finalize the AASHTOWare next Strategic Plan PowerPoint presentation.</p>
September	Discussion Database / Email correspondence Conference calls	<p>AASHTO Staff • Publish the next Strategic Plan and Operating Objectives. • Distribute the Strategic Plan via hard copy as well as through a link on the AASHTOWare.org web site. SCOJD • Inform Project / Product Task Force Chairpersons.</p>
September - December	Product Task Force Meetings	<p>SCOJD • Present the AASHTOWare next Strategic Plan to Project / Product Task Forces.</p> <ul style="list-style-type: none"> <li>• Explain the need to link product strategic planning objectives to the objectives documented in the AASHTOWare Strategic Plan.</li> <li>• Explain the need to link product work plan initiatives to the product strategic plan.</li> </ul>
November	Discussion Database / Email correspondence	<p>SCOJD • Communicate meeting information and product documentation requirements for the March Task Force Chairpersons Meeting.</p>



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