

June 30, 2005

The ASSIST Board of Directors maintains ultimate responsibility for authorizing and prioritizing ASSIST enhancements, features, and projects. The following process (Section I) and criteria (Section II and Section III) have been developed to guide the work of the ASSIST Board as new projects are proposed and existing projects are re-prioritized. The criteria are intended to inform Board deliberations as a broad range of issues are considered; they are not intended to serve as a litmus test that every project must meet in order to attain approval.

Organizations or individuals interested in proposing ASSIST projects should consider the process and the criteria to help ensure that proposed projects fall within the overall scope and priority of ASSIST.

The ASSIST Coordination Site is responsible for shepherding the process and shall include analysis of these criteria along with written ASSIST Project Proposals that go to the ASSIST Technical Advisory Committee (TAC) and the ASSIST Board of Directors (Board) for review and approval. The Coordination Site is also responsible for estimating costs of resource related to proposed projects and other ASSIST activities. Section IV outlines the methodology employed by the Coordination Site when developing cost of resource estimates.

Background - The ASSIST Software Development Framework Process

All projects related to new or enhanced functionality of ASSIST software are expected to also follow the ASSIST Software Development Framework (SDF) process. The SDF outlines the general review, reporting, and approval processes that the Coordination Site and Board are to follow when pursuing a software development project. The SDF process does not address the manner in which costs for a project are determined or the criteria the Board should use when reviewing and approving individual projects (that is the purpose of this document). The following is a brief recap of the salient points from the SDF that apply to this document.

The ASSIST SDF calls for written Project Proposals to be developed by the Coordination Site (possibly in collaboration with other agencies, system offices, organizations, or individuals). Project Proposals must be approved by the ASSIST TAC (for review of technical feasibility and issues) and then the ASSIST Board before any significant work continues. For most projects the written Project Proposal will outline the idea in general terms and include as many appropriate details as are known at the time. The intent of the Project Proposal is to provide enough information to ASSIST TAC and Board members so that they can approve the next step which calls for further work to develop specific design specifications and functional requirements. The Definition of Functional Requirements for any project also requires TAC and then Board approval before work continues. It is possible that the Board could approve a Project Proposal, in order to authorize further investigation, but eventually not approve the continuation of the project after reviewing the Definition of Functional Requirements and deciding that the project is either too costly, falls beyond the desired scope of ASSIST, or suffers from some other problem that cannot be resolved by refining the proposal.

June 30, 2005

Section I - Process for Developing, Reviewing, and Approving Proposed Projects

While most ideas for ASSIST projects originate from the ASSIST Board and ASSIST Coordination Site via regular meetings and the ASSIST Strategic Plan, external organizations or individuals as well as the various system offices may also propose projects. The following are key points regarding the process for developing, reviewing, and approving any proposed projects.

- The Coordination Site may develop proposals related to the goals/objectives/activities in the ASSIST Strategic Plan or other ideas that are generated by the Board, segmental offices, campuses, or other collaborations.
- The Coordination Site may also develop proposals related to significant internal projects that are required to maintain the long-term viability of ASSIST and the ASSIST software.
- External organizations or individuals may submit proposals via the ASSIST Coordination Site where Coordination Site staff and the ASSIST Board Workgroup will review them for completeness and assess their viability.
- At the earliest possible time when the Coordination Site begins working on developing an idea for a project (either on its own or in collaboration with a system office, external agency, other organization, or individual) the ASSIST Board Workgroup will be notified of the idea and provided with basic information about the potential proposal. Workgroup members may convey information about initial ideas to their respective communities remembering that ideas at this stage are only proposals and that they will have an opportunity for full review and approval by the Board. This is intended to help ensure that significant work on developing ideas results in written Project Proposals that are acceptable to the principle agencies on the ASSIST Board. It is the responsibility of Board Workgroup members to communicate any potential ideas or issues with others in their system, the Coordination Site, or the full Board.
- The Coordination Site shall work with the Board Workgroup as appropriate to estimate costs and resources required to complete proposed work and provide a preliminary evaluation of proposals using the criteria listed later in this document.
- The Coordination Site shall distribute proposals and related information to the full Board for review, comment, and approval either during regularly scheduled Board meetings or via email. As needed, Board members may direct the Coordination Site to facilitate subsequent meetings or conference calls to discuss proposals in more detail.
- Any projects involving ASSIST software development or enhancement shall follow the process established in the ASSIST Software Development Framework (SDF). A full description of the ASSIST SDF is available on-line via the ASSIST Information Center web site. The ASSIST SDF requires the ASSIST Technical Advisory Committee and ASSIST Board to review and approve work at various steps along the project proposal and development processes.

June 30, 2005

- The ASSIST Board shall approve, reprioritize, or deny projects and shall direct the Coordination Site to do any related development/implementation work.
 - In approving projects the Board shall determine when a proposed enhancement, feature, or project will be accomplished within existing ASSIST resources or when additional revenue will be required.
- The Coordination Site shall report to the Board on the status of projects as appropriate and as described in the ASSIST SDF.

Section II - Criteria/Preferences for Considering New Projects

The following criteria are intended to help guide Board decisions on approving or denying individual written Project Proposals. These criteria are not necessarily intended to serve as a litmus test that every project must meet in order to attain approval.

- Proposed projects should fit within the mission, vision, goals, and objectives of ASSIST as stated in the most current ASSIST Strategic Plan, unless the Board is consciously changing the mission, vision, goals, or objectives in approving a project.
- Proposed projects should address customer needs.
 - If the customer needs that are to be addressed by a proposed project have not been clearly established by the Board, the proposal should provide compelling documentation of customer needs in order to better inform Board deliberations.
 - ASSIST customers include students, counselors, academic advisors, articulation officers, faculty, and other staff (including those at system offices).
- Proposed projects should, to the greatest extent possible, address issues with a scope that is intersegmental, statewide, and covers the breadth of college/university transfer curriculum.
- Proposed projects should represent appropriate benefits for costs.
 - Short-term and long-term benefits and costs should be considered including commitments of staffing, operating costs, hardware/software, and campus/system office staff workload.
- Proposed projects should be able to be developed and implemented within current resources (staffing, technologies, etc.) or identify what **additional** resources will be required.
 - Some proposed projects may include additional funding from an outside organization/agency/system office that is intended to either support additional required resources (staffing, technologies, etc.) or to offset current resources thus allowing additional funding to be used to meet other ASSIST priorities.

June 30, 2005

- Proposed projects should meet established State, California Education Roundtable (CERT), and/or CCC/CSU/UC segmental goals.
- Proposed projects that benefit independent colleges and universities should not detract from services to public institutions.
- Proposed projects should enhance and not duplicate other existing efforts, projects, or initiatives throughout the State.
- Proposed projects should include appropriate collaboration with related projects or initiatives.
- When applicable, consideration of proposed projects should be given to the short-term and long-term consequences of eliminating or integrating existing services.

Section III - Criteria for Prioritizing New and Existing Projects

Most projects will have an impact on existing resources (staff, technologies, etc.) and the ability of the Coordination Site to address other requested enhancements, including those on the ASSIST project Priority List, add new features and accept other projects. The written Project Proposals should address this potential impact and any requests for proposals in the development phase that could be affected. The Coordination Site shall be responsible for informing the Board of internal priorities that may be affected by a proposed project. The Board shall decide significant changes in priority for projects. Additionally, there may be times when multiple, simultaneous projects need to be prioritized by the Board in order to better focus resources. While many of the above criteria will influence priorities, the following items should be used for primary consideration in determining priority:

- The relationship of projects to ASSIST, State, CERT, and/or CCC/CSU/UC system goals.
- Customer groups affected by projects - students, advisors, faculty, articulation officers, system offices, other organizations/agencies, etc..
- The overall scope and impact of projects - intersegmental, statewide, across college/university transfer curriculum, etc..
- The length of time projects are anticipated to require for completion – less important fast projects may be given temporary priority over more important long-term projects.
- The impact projects may have on delaying or lowering the priority of other important activities.

June 30, 2005

Section IV - Methodology for Estimating Resource Costs of ASSIST Activities

The ASSIST Coordination Site, in collaboration with the Board Workgroup when appropriate, is responsible for developing cost of resource estimates for proposed projects and ASSIST activities. The term “resource” in this context is intended to be a broad term encompassing staffing, facilities, equipment, software, networking, other technologies, travel, services, dollars, time, and other items related to ASSIST operations and activities.

The following information is intended to communicate the general methodology and considerations to be used when developing resource estimates for ASSIST activities, including software development projects. Resource estimates are expected to be provided by the Coordination Site in conjunction with written Project Proposals (following the ASSIST Software Development Framework process) and upon request by the Board.

The general purpose of a resource estimate is to help communicate the magnitude of any given activity. Often the description of an activity may not adequately convey the amount of effort that it will take to accomplish. Written resource estimates not only help to assure that the details required to accomplish tasks have been considered, they also help to inform other decisions such as approving/denying projects, prioritizing simultaneous and sequential projects, and determining whether or not additional funding should be sought to support a project.

It is important to consider that for many projects, especially software development projects, an amount of planning and idea development needs to be conducted in order to better understand the scope of activities and determine initial resource estimates. Also, initial resource estimates may not fully reflect the actual resources eventually required to complete a project. As further details of plans are determined and work progresses, important wrinkles may be uncovered that impact on resource requirements. It is for these reasons that the ASSIST Software Development Framework process includes iterative reporting and authorization steps so that refinements in plan details and resource estimates can be communicated.

Since the majority of ASSIST activities are intended to be conducted within available resources, resource estimates for ASSIST will generally reflect the most specific actual numbers that can be reasonably projected. Artificially inflating ASSIST resource estimates does not serve the intent of informing the Board and other constituents of the magnitude of projects. However, at times educated guesses must be made and it may be preferable to error on the high side to help account for unknown variables.

Resource Estimates – Staffing

The intent of staffing resource estimates is to help gauge the magnitude of a project. Often the most significant cost of ASSIST activities is personnel. ASSIST staffing resource estimates are presented in terms of person-work-hours. Staffing estimates usually indicate the type of staff members involved in the work (management, programmer, designer, technical support, administrative, etc.). Staffing estimates reflect the actual number of person-hours directly related to the activity and do not reflect other important activities that may be indirectly involved in an individual staff member’s daily

June 30, 2005

work. For example, if an estimate includes administrative support hours, those hours will reflect direct work related to the project, it will not include overhead hours for general office support, financial tracking/reporting, etc..

It is also important to recognize that most ASSIST staff members work on multiple simultaneous projects throughout a work-week, that some work must be sequenced with the work of other staff members, and that some work may involve external reviews or other factors that impact the overall schedule. Therefore, while a resource estimate may indicate 40 person-hours of programmer time, it should not be assumed that those tasks will be completed within a single calendar week. Project plans will generally include schedules that provide an overall sense of the time needed to complete an activity.

Resource Estimates – Technology

ASSIST technology resource estimates indicate **additional** computer hardware, software, networking, etc. that are required to be purchased or upgraded in order to accomplish a project. Technology estimates will generally not reference existing technologies that will be used during project development and operation. Also, ongoing technology maintenance and upgrades will not generally be referenced in technology estimates (unless the project requires something special) as these are considered to be supported within the core operations of ASSIST.

Usually software development projects can be deployed within the existing ASSIST technology environment without requiring the purchase of additional computers, disk space, software, or networking capacity. While new features may subtract from the overall capacity of available ASSIST technology, the Coordination Site does not generally attempt to quantify the percentage of technology that individual projects will require. Such estimating could be done, but it is difficult and prone to error due to numerous overlapping factors. If addressing technology capacity issues can not be managed within the core operations of ASSIST, a separate project may be proposed to focus on that specific issue.

Resource Estimates – Travel and Meetings

If an activity requires in-person meetings and/or travel for ASSIST/campus/system office staff, a travel/meeting estimate may be provided. Travel estimates are generally expressed in terms of person-trips and may be broken down by automobile, air travel, and accommodations. Meeting estimates are generally expressed in terms of the number of individual meetings and numbers of attendees when those meetings require additional costs such as food or facilities. Travel/meeting estimates will be rough estimates unless full detail is requested (which may require additional work to estimate full details).

June 30, 2005

Resource Estimates – Operational Overhead

Operational overhead is generally not included in ASSIST resource estimates unless specifically requested. If included, operation overhead estimates are generally expressed in terms of a percentage of other costs (personnel, technology, etc.).

Resource Estimates – Time

Most written Project Proposals, Definitions of Functional Requirements, and Project Plans include time estimates. Time estimates are expressed in terms of the total number of weeks or months that an activity is estimated to require for completion. Time estimates do not always account for other activities that may be conducted simultaneously. A calendar-style schedule may be provided that communicates the relationship of multiple simultaneous activities.

Resource Estimates – Dollars

Some resource estimates include the number of dollars required to complete the activity. Generally this information is requested to be included in an estimate because external funding may be available or additional funding may be sought.

In general, dollar estimates are calculated by adding staffing, technology, and travel/meeting estimate costs. If a dollar estimate is aimed at covering all ASSIST-related costs (rather than covering additional costs to complete the activity) estimated operating overhead costs may be added.

Estimated staffing costs are calculated by multiplying the estimated numbers of person-hours times the actual hourly salary (and benefits) for each of the types of staff involved.

Estimated technology costs are calculated by contacting vendors for initial estimates of individual items. Depending upon the nature and amount of technology to be purchased, formal bidding may be required.

Estimated travel/meeting costs are calculated by multiplying the numbers/types of trips and numbers/types of meetings by recent costs for similar trips/meetings. When larger meetings or conferences are involved, bids may be sought.

When requested, estimated operational overhead costs are calculated by multiplying staffing, technology, and travel/meeting costs each by some related percentage factor. Such percentage factors may need to be negotiated and may or may not be included in the written estimate.