

Key 1 - Requirements		Key 2 - Install Base	
A	Standard	1	Currently installed at one or more institutions
B	Requires non-code modification of system	2	Currently available to demonstrate
C	Requires code modification of system	3	In Final Beta Testing
D	Requirement met by third party utility		
E	Available in future release		
F	Requirement cannot be met		

Pre-award - Functional Requirements		Key 1	Key 2	Notes
1.1.0	Identification of Funding Opportunities and Repository for Researcher Biographical Information			
1.1.1	Allow complete development, submission, review and communication through a web-based application			
1.1.2	Includes or integrates with external databases containing the biographical and professional information about research personnel			
1.1.3	Provides targeted funding opportunities announcements matched to research interests maintained in biographical information profiles of researchers, e.g. supports search by keyword interests			
1.1.4	Provides a facility to store original funding announcements, RFPs, etc			
1.1.5	Notify a user on a set, regular basis (based on customizable preferences or profile settings) about potential sources of funding, either via e-mail or within the system.			
1.1.6	Search using Boolean and advanced types of queries.			
1.1.7	Support the creation of sponsor-specific biographical sketch templates,			
1.1.8	Select relevant publications from integrated personnel biographical information			
1.2.0	Proposal Preparation			
1.2.1	Has table-driven information with easy look-ups for things such as:			
1.2.1.1	- Activity types, for example: instruction, research, public service			
1.2.1.2	- Proposal types, for example: new, renewal, continuation, supplement, pre-proposal			
1.2.1.3	- Special activities and considerations, for example: animal, human subjects, hazardous materials, Conflict of Interest and other approvals required for electronic submission			
1.2.1.4	- Locations of space to be used for proposed research			
1.2.1.5	- Division/department codes for project personnel, division/department/section providing cost sharing, etc.			
1.2.1.6	- Institutional profile data, for example: fringe benefit rates and indirect cost rate types, locations, and rates			
1.2.1.7	- Employee identification numbers matching unique name from HR system			
1.2.2	Ability to look up and select data (biographical information, effort, etc) for Investigators who reside in other departments, when developing a cross-departmental (collaborative) proposal			
1.2.3	Stores institutional profile information, such as DUNS and other identifying numbers, assurance numbers, congressional districts, etc.			
1.2.4	Stores sponsor profile information such as indirect cost rates, forms, standard terms/conditions, contact information, website, multiple addresses (billing, contact) etc.			

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1.2.5	Collects and stores responses to all compliance and “yes/no” questions in the federal grant submission data dictionary			
1.2.6	Provides a means for collecting responses to any institutional compliance or management questions of the kind currently collected on the Proposal Transmittal Form (PTF)			
1.2.7	Allows proposals to be saved as a template to be used for new proposals, along with the ability to change any and all information in the proposal			
1.2.8	Provides “form maker” utility for the creation of additional reusable sponsor form templates			
1.2.9	Supports producing a paper version of the proposal, even for proposals submitted electronically			
1.2.10	Indicates when a grantor is using funds provided by another entity and identifies the original funding source			
1.2.11	Stores due dates and how they are characterized (e.g., target, receipt, mailed, etc.)			
1.2.12	Provides a comments field associated with the proposal			
1.2.13	Allows for Notifications to be generated by a proposal user to any of the other users holding roles in that proposal.			
1.2.14	Allows emails to be generated while in a proposal, to any person id maintained, any rolodex person, or to defined roles maintained in the proposal.			
1.2.15	Establishes relationship between supplements, modifications, continuations, and renewals and the original proposal and award			
1.2.16	Collects the information required for cover pages, including all the information specified in the official federal grant submission data dictionary			
1.2.17	Allows for inclusion of an unlimited number of co-investigators			
1.2.18	Provides for the addition of multiple PIs			
1.2.19	Ability to add personnel not affiliated with the institution			
1.2.20	Track PI of record (a.k.a. sponsor awardee) along with sponsor if different from Institution PI			
1.2.21	Provides a mechanism for generating a table of contents			
1.2.22	Provides a field to store abstracts as ASCII text			
1.2.23	Provides a means to store abstracts as an attachment and/or rich text			
1.2.24	Ability to search proposed and funded abstracts			
1.2.25	Provides ability to select relevant information from shared personnel biographical data for inclusion in biographical sketches, publications, etc.			
1.2.26	Minimizes data entry for biographical information maintained in other systems, or if biographical information is maintained in the system, provides it to other systems			
1.2.27	Provide means for entering biographical information or copying/pasting information that exists in other places			
1.2.28	Provide means for entering publications and citations or copying/pasting information that exists in other places			
1.2.29	Tracks the accurate current and pending support of individuals (both compensated and contributed) as of the last proposal or sponsor action			

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1.2.30	Current and pending support can be modified and/or supplemented by user during the proposal development process			
1.2.31	Provide for attachment of a file for biographical information			
1.2.32	Store multiple biographical files, e.g. one for each Sponsor (DHHS (NIH), NSF, DOD etc.) as available to select for inclusion in a proposal			
1.2.33	Provide for attachment of files for publications and citations			
1.2.34	Provide for attachment of and access to project narrative contained in a separate file in PDF or Word format			
1.2.35	Support all types of sponsored projects (federal, state, other government, private industry, non-profit, internal programs, subcontracts/subawards, etc.).			
1.2.36	Support the creation of multi-year, multi-investigator, multi-campus, and multi-disciplinary proposals and allow for necessary collaboration to maintain such proposals.			
1.2.37	Support the independent development of proposal items (e.g., the ability to attach scanned images and electronic documents to a proposal record, etc.).			
1.2.38	Support the creation and maintenance of sponsor proposal checklists.			
1.2.39	Provide the ability to create business rules pertaining to campus space requirements or track space requirements based on an individual's profile.			
1.2.40	Support the use of generic equipment templates that describe common resources at the institution but can also be saved and modified at the PI, department or school level.			
1.2.41	Require the mandatory entry of specified fields (e.g., project title, PI, department, amount, logical dates, budget narrative, etc.).			
1.2.42	Require logical field entry (e.g., end dates cannot precede begin dates, etc.).			
1.2.43	Capture all proposal resubmissions to sponsors and require identification of the reason for the resubmission (e.g., change in scope of work, change in budget, change in terms, etc.).			
1.2.44	Recognize when the workload—the culmination of current, pending, and proposed work hours—of personnel exceeds the threshold and allow for workload adjustments to be made.			
1.2.45	Support data capture of tertiary (a.k.a. flow through) funding sources.			
1.2.46	Impose any sponsor-required text limitations (e.g., number of pages, size of font, margin width, etc.).			
1.2.47	Support the development of sponsor-specific abstracts for supported sponsors as well as generic abstracts for non-supported sponsors.			
1.2.48	Support the entry and maintenance of personnel information when the identity of the person is unknown. (e.g., If the name of a Graduate Student Researcher is yet to be determined, the system will accept TBD as a name for the individual, etc.).			
1.2.49	Identify and select relevant certifications and trainings received from shared personnel biographical data that can flow down to protocol-specific requirements, etc.			
1.2.50	Allow authorized users to edit (add/modify/delete) biographical sketch information to meet the specific requirements of a proposal and/or sponsor.			

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1.2.51	Allow users to work/develop/edit in native formats, such as LaTeX, while developing the narrative.			
1.3.0	Budget			
1.3.1	Budget development tool provides commonly used categories on sponsor budgets and all categories found in the official federal grant submission data dictionary			
1.3.2	Budget development incorporates relevant rates maintained by the system, e.g. indirect cost, fringes, with ability to override as necessary.			
1.3.3	An annual inflation factor can be applied to multi-year budgets, but can be easily overridden			
1.3.4	Ability to update the salary cap and stipend amounts yearly, based on federal guidelines.			
1.3.5	Budget periods can be as numerous as needed, and can vary as to the number of days in a period			
1.3.6	A change in project dates, rates applied, etc. can recalculate the budget			
1.3.7	Budget can be displayed in various levels of detail, such as project totals, project period totals, project or period totals by major expense category, or budget details			
1.3.8	Payroll and/or appointment data from external HR and Financials systems can be accessed for budget creation purposes			
1.3.9	Ability to use salary data, when authorized, that belongs to personnel in other university departments for budget development			
1.3.10	Supports utilization of sponsor-specific business rules during proposal development (e.g., whether effort is shown in person-months or percent effort, when cost categories are restricted, etc.)			
1.3.11	Maintains information about cost sharing, including the type of cost being contributed, the amount (or percentage of effort), the division/department/section providing it, and record of authorization			
1.3.12	Provides a means to capture budget justification information			
1.3.13	Supports development of modular budgets as specified by NIH			
1.3.14	Budget categories may be mapped to GL sub-accounts			
1.3.15	Multiple versions of budgets can be developed and stored with comments attached to clarify the purpose of each version (e.g. tasks, center grants, sub-project grants or scenarios of main budget)			
1.3.16	Ability to track, based on all available data, committed effort for PI and all personnel listed in proposal budget			
1.3.17	Ability to roll-up sub-project grants to a master budget or split out a master budget to sub-project grants			
1.3.18	Provides a tool for building and creating budgets and budget templates within the system			
1.3.19	Provide users with the ability to select the appointment type of a project.			
1.3.20	Provide a mechanism to capture PI eligibility and/or PI exception information, based on institutional policy.			
1.3.21	Support the calculation of salary support based on sponsor-specific salary caps.			
1.3.22	Allow for detailed salary input (base salary, appointment type, % of effort, % of charge to the project, requested salary, employee benefits, and total personnel expense).			

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1.3.23	Limit the review of salary information to those individuals who have a need to-know (as determined by the access rights the proposal creator grants to other proposal users).			
1.3.24	Allow the proposal creator to assign independent inflation or escalation rates to each individual salary budget item (e.g., proposal inflation is 3%, PI's salary inflation is 4.5%, Graduate Student Researcher's salary inflation is 3%, etc.).			
1.3.25	Allow the administrator to create budget specific validations rule, requiring or warning before allowing it to be saved, linked to a hierarchy, or routed for approval.			
1.3.26	Allow the proposal creator to use Anniversary Date for annual salary inflation date, using rates maintained for salary budget categories.			
1.3.27	Support the development and maintenance of detailed multi-year budgets.			
1.3.28	Support production of detailed budgets at the object or sub-object code level for each year of a multi-year award.			
1.3.29	Flag all sponsor-initiated budget revisions.			
1.3.30	Sponsor category definitions and descriptions shall match the sponsors' category definitions and descriptions. The application must support the creation of sponsor specific category definitions and list the budget items (or financial system object codes) that are associated with the various categories.			
1.3.31	Provide the ability to alter the inflation rate by budget line item and by period.			
1.3.32	Allow the budget creator to copy the year one budget to all subsequent budget periods and to allow for user revisions to the copied budget periods.			
1.3.33	Allow the budget creator the option to not assess F&A, employee benefit, and/or inflation rates to individual budget line items.			
1.3.34	Support the creation and maintenance of cost sharing and matching, and must adhere to institutional Match/Cost Share Policy and OMB Circulars A-21 and A-110 for matching and cost share regulations and allowability rules, etc. The system must also delineate the amount and source (account number, etc.) of the shared funds.			
1.3.35	Support the creation and maintenance of waiver documentation and approvals. (F&A Waivers, Vendor as Sub., PI Exemptions, etc.)			
1.3.36	Capture sponsor-specific limits on indirect cost calculations, with the ability for authorized users to override these limits if necessary.			
1.3.37	Capture under-recovery amounts for projects using reduced indirect cost rates.			
1.4.0	Subcontracts			
1.4.1	Supports table-driven selection of subcontracts in a proposal			
1.4.2	Provides data fields in which to store detailed information (e.g., subcontract institution, dates, amounts, contacts, etc.) about proposed subcontracts and maintained in the proposal record			
1.4.3	Provides means to keep track of receipt of necessary materials from subcontractors (budget, scope of work, and institutional authorization)			
1.4.4	Link to vendor table or setup of new vendor			
1.4.5	Select subcontractor from Procurement system vendor table			

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1.5.0	Additional Proposal Development and Management			
1.5.1	Has standard representations and certifications available for insertion in the proposal via file attachments			
1.5.2	Automatically inserts needed PI and institutional representations and certifications, according to sponsor or program requirements			
1.5.3	PI's and Co-PI's, when Co-PI is included, certify or otherwise indicate their intent to comply and/or concur with sponsor, institutional policies, salary release, etc.			
1.5.4	Provides means for entering or interfacing conflict of interest information or copying/pasting information that exists in other places			
1.5.5	Provide means for entering description of appendices if they are not attached as separate files or included in the PDF narrative file			
1.5.6	Provide means for attaching appendices as separate files and describe size limitations, if any, when attaching files to the proposal record			
1.5.7	Provides an indicator that the sponsor has acknowledged receipt of the proposal			
1.5.8	Provides a field in which to store sponsor proposal number and project year			
1.5.9	Can accept sponsor proposal number should it be submitted electronically			
1.5.10	Ability to interface with external and internal systems			
1.5.11	Provision of an easy-to-use, secure, searchable central repository for research proposal data for collaboration			
1.5.12	Roles-based, password-protected access to ensure that only authorized users view sensitive data			
1.5.13	Support an integrated calendar function that allows for tracking of impending deadlines, appointments, reminders, tasks, and other events as needed.			
1.5.14	Allow the proposal creator to copy parts of other proposals or awards for inclusion into a new proposal or to designate this right to others. The module shall allow the proposal creators and their designees to copy parts of proposals that have previously been submitted or awarded, including sections of the budget, science, narrative, abstract, etc.			
1.6.0	Internal Routing and Approval			
1.6.1	Ability to validate proposal is complete before allowing it to be routed for approval			
1.6.2	Completeness validation is configurable according to proposal type (e.g., pre-proposal or continuing proposal, as compared to full proposal)			
1.6.3	Web-based review and approval by departmental and institutional officials			
1.6.4	Ability to "lock" proposal for further changes when it is submitted for internal approvals			
1.6.5	Proposal can be submitted for routing only by the PI or other user who is authorized to submit it on behalf of the PI			
1.6.6	Supports the maintenance and implementation of default routing paths for each proposal that begins with each division/department/section and terminates in sponsored projects office (authorized institutional submitter)			
1.6.7	Tracks approval routing actions by user and time			

Pre-award - Functional Requirements		Key 1	Key 2	Notes
1.6.8	Permits insertion of additional approval stops by the person submitting the proposal for approval			
1.6.9	Permits insertion of additional approval stops by any approvers			
1.6.10	Allows simultaneous reviews when more than one division/department/section is involved in the proposal			
1.6.11	Allows more than one user to access the proposal for review simultaneously			
1.6.12	Permits building of approval routing paths depending on characteristics of the proposal, e.g., sponsor, division, department, proposal type, proposed funding amount			
1.6.13	Supports abbreviated routing path for modifications; that is, the ability to redefine the routing path for approval of proposals modified in response to reviewer's concerns			
1.6.14	Approval is non-refutable because of application security associated with user logons			
1.6.15	Reviewers can be notified both by the application and email that a proposal or other item is awaiting their review			
1.6.16	The message to the reviewer can be generated to include selected data elements, such as due date, PI name, department, etc.			
1.6.17	The message to the reviewer can be generated to include a hyperlink that will take the reviewer directly to the proposal (through system security if the reviewer isn't logged on to the system when they click the link)			
1.6.18	Automatically flags when non-standard rates have been applied, for easier review			
1.6.19	Supports automated notification to compliance offices that a proposal with features they need to know about is being submitted			
1.6.20	Visual cues in application "inbox" about what reviewer is expected to do, and what the level of urgency is			
1.6.21	Re-notification to approvers of proposals pending approval sent at some specified interval			
1.6.22	Provide a field where reviewers can include comments that can be viewed by other users			
	Provides location where reviewers can upload a document that can be viewed by other users.			
1.6.23	Maintain and display a list of approvals and associated times that can be viewed by any user authorized to view the proposal			
1.6.24	Provides for substitute approver if the designated approver is unavailable			
1.6.25	Allows multiple users to affix a given approval (e.g., any of three assistant deans may approve for the dean)			
1.6.26	Ability to control whether the system automatically by-passes some approvers if approval not obtained in time to meet submission deadline			
1.6.27	Option to return rejected proposals to any selected person in the approval map, rather than "cascading" messages			
1.6.28	The proposal can be "unlocked" for revisions by authorized users upon rejection by any reviewer			
1.6.29	The proposal can be "unlocked" for revisions by the sponsored projects office			

Pre-award - Functional Requirements		Key 1	Key 2	Notes
1.6.30	The system allows authorization to be set at different levels among various divisions/departments/sections at the same level of an org structure, i.e. not all departments in a single division must have the same authorization and privileges			
1.6.31	Supports a "negative approval" process and policy, i.e. if no action from an approver in X-number of days, the item under review will be deemed "approved" and will advance in the workflow			
1.6.32	Support the validation of specific institution business rules.			
1.6.33	Support completion of institutional-specific routing forms			
1.6.33.1	Email notification/certification to any employee named on a proposal			
1.7.0	Submission to external sponsor			
1.7.1	Translates proposal elements into the official federal grant submission data dictionary, equivalent XML transaction set, or whatever format is specified by the federal government			
1.7.2	Supports transmission of the technical proposal content in some way that does not compromise its appearance to reviewers (i.e. manages high-resolution graphics)			
1.7.3	Provides direct electronic link to the Grants.gov portal to allow submission of entire proposals in one operation, including completion of accompanying forms			
1.7.4	Maintains a record of electronically transmitted proposal transactions (record who sent and when)			
1.7.5	Receives and records electronic confirmation of proposal receipt			
1.7.6	Stores information about who assumed responsibility for mailing paper proposals			
1.7.7	Stores information about the means used to mail or otherwise deliver paper proposals			
1.7.8	Ability to store information about the date and time a paper proposal was mailed or released by the division/department/section.			
1.7.9	Generates an editable (by sponsored projects office) form transmittal letter to sponsors, building in data elements from the proposal			
1.7.10	Pre-validation of proposal components against opportunity, agency and Grants.gov rules prior to submission to reduce or eliminate errors			
1.7.11	Allow EDI, XML or any other agency-defined submission protocols if the sponsoring agency supports it.			
1.7.12	Notify the relevant investigator(s), central administrators, and unit administrators when each proposal is submitted (via e-mail).			
1.7.13	The system should notify a user of the four Grants.gov submission confirmations for each proposal submitted via Grants.gov: a. Submission Receipt, b. Submission Validation Receipt, c. Grantor Agency Retrieval Receipt, d. agency Tracking Number Assignment - also provide relevant tracking number if possible.			
1.7.14	Provides "form maker" utility for the creation of additional reusable sponsor form templates.			
1.8.0	Tracking Sponsor Response, Processing Status, and Relevant Documents			
1.8.1	Proposals have a default status after submission of Pending unless changed by the sponsored projects office			

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1.8.2	Maintains and displays intermediate status information (for example, sponsor has indicated that funding will be provided after some event), and this status can be used to trigger other application events, including communication to the PI			
1.8.3	Ability for PI or administrator to communicate an update to the status of pending award			
1.8.4	Indicates that the award has been received and is in the process of obtaining approvals (award acceptance), and this status can be used to trigger other application events			
1.8.5	Setting of status to "awarded" triggers the application to initiate an award record (by sponsored projects office)			
1.8.6	Displays the final disposition/proposal decision (entered by sponsored projects office)			
1.8.7	Sponsored projects office can reverse incorrectly entered funding action			
1.8.8	Provides a facility for maintaining status information about the processing of proposals (after they are submitted to the sponsor) and awards			
1.8.9	Provides a facility for maintaining status information about the processing of subcontracts and consultant agreements, linked to the main award			
1.8.10	Provides a means to limit the view of actions to those users designated by sponsored projects office			
1.8.11	Information in the system is accessible to authorized personnel should they wish to enter data and view information, including comments			
1.8.12	Information can be accessed through individual proposals and awards by users with permission to view and/or update these records			
1.8.13	Information is coded according to the type of action, the user initiating the action, the date/time of the action, and possibly additional University-defined data elements			
1.8.14	Permits entering free-form notes associated with a given action			
1.8.15	Permits attaching documents associated with a given action			
1.8.16	Indicates which grants manager within the institution is responsible for the proposal and award			
1.8.17	Sponsored projects office personnel can access an aggregate view of processing status (such as proposals or awards assigned to a given grants managers, proposals or awards for which an action has been pending for a specified length of time, proposals or awards pending)			
1.8.18	Ability to prevent revision or deletion of negotiation and communication management details			
1.8.19	Maintains electronic versions of documents sent to or received from the sponsor subsequent to initial submission			
1.8.20	Maintains attachment sites for informational documents associated with the proposal award, but not part of the official information submitted to sponsors			
1.8.21	Support the recording of all correspondence or interactions pertaining to a proposal/award between the institution and sponsor.			
1.8.22	Capture critical proposal processing dates (date in/date out/date submitted) to facilitate benchmarking and production measurement.			

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1.8.23	Provide e-mail notification of outstanding assurance and certification information.			
1.9.0	Award Management			
1.9.1	Ability to transfer award and budget details from proposal to award			
1.9.2	Generates a detailed notice of award (to sponsored projects office, Division, Department, Restricted Funds, PI, etc.) when an award notification or modification is received from the sponsor			
1.9.3	Generates a detailed notice of a change in award when an award change is entered and approved			
1.9.4	Records all deliverables (e.g., technical reports, invention disclosure requirements, etc.)			
1.9.5	Generates automatic notifications about upcoming dates for deliverables			
1.9.6	Maintains references to sponsor terms and conditions that apply to the award			
1.9.7	Attaches uploaded image files of sponsors' paper award documents			
1.9.8	Permits "copy and paste" of award data received through electronic media, e.g. e-mail notification or Web-page notification			
1.10.0	Subcontract Management			
1.10.1	Clearly denotes when a proposal has a commitment to a subcontractor, including the proposed amount			
1.10.2	Ability to transfer subcontract details from proposal to award			
1.10.3	Ability to create a subcontract agreement using templates and data maintained in system			
1.10.4	Maintains information about funds committed and obligated to subcontractors			
1.10.5	Tracking of subcontract amounts authorized by sponsor vs. actual subcontract issued and expended			
1.10.6	Ability to track negotiation process (The system provides a way for a user to track the dates of events, enter notes, updated documents, etc).			
1.10.7	Track A-133 audits on file for subcontractors			