NCI/CBIIT

GreenSheets System

High Level Scope

Version 1.0

Document History

Document Location

Ensure that this document is current. Printed documents and locally copied files may become obsolete due to changes to the master document. The source of this document is located in the SVN documentation repository at: ***https://ncisvn.nci.nih.gov/svn/iscs/greensheets/Requirements/Specs/***[GreenSheets - Scope.docx](https://ncisvn.nci.nih.gov/svn/iscs/greensheets/Requirements/Specs/GreenSheets%20-%20Scope.docx)

Revision History

[Provide a summary of changes for a new version or revision of this document.]

| Version Number | Revision Date | Author | | Summary of Changes |
| --- | --- | --- | --- | --- |
| 1.0 | 05/04/2016 | G. Tulchinskaya | Initial version | |
|  |  |  |  | |
|  |  |  |  | |

Reference Documents

[Provide a complete list of all documents referenced within, or in the formulation of this document.]

| Document Name |
| --- |
| Program Greensheets User Documentation  <https://i2e-test.nci.nih.gov/greensheets/help/GreensheetsPgmGuide.pdf> |
|  |
|  |

Key Terms

The following table provides definitions and explanations for terms and acronyms relevant to the content presented within this document.

[This information may be provided by reference to the eRA Global Glossary (or the project- or system-specific glossary), and in such cases, simply reference those documents and leave the table below blank.]

| Term/Acronym | Definition |
| --- | --- |
| Greensheet |  |
| Payline |  |
| Control system |  |
| Exception greensheet indicator |  |
| Grant's "revision number" in GPMATS |  |

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# Document scope

[Outline the scope of what has been captured in this version of the document. For example, “This Supplementary Specification document describes the functional and non-functional requirements that span Use cases for the ABC system, Release 4”.]

This document provides high level overview, dependencies and outlines current and future high level functional and non-functional requirements of the GreenSheets System

# Business Need Description

Program staff and OGA staff need to fill out questionnaires / checklists helping to ensure that grant recipients satisfy all conditions for receiving an award (e.g., no scientific overlap, grantee trained in protection of human subjects of research, publications comply with NIH Public Access policy, costs are within rules/guidelines, and much more). By answering the needed questions on various grant types and funding mechanisms, the system helps the reviewers determine if all the necessary assurances and reporting requirements have been met and that the grant applicant is in compliance with all the appropriate HHS/NIH/NCI policies and guidelines.

Questionnaire content built flexibly: follow-up questions are only asked if needed; different questions displayed for grants of different types, funding mechanisms, etc.

# GreenSheets users

## User roles

Various features of the system will be secured by roles:

|  |  |  |  |
| --- | --- | --- | --- |
| Role | Description | Scope of Privilege | What can they do? |
| Program Director | Program Directors are NCI officials responsible for programmatic, scientific and/or technical oversight and monitoring of grants. Program Directors work closely with grants management staff. |  | Program Directors are responsible for completing and submitting "program" greensheets for grants. |
| Program Analyst | Program Analysts are NCI employees who are also involved with programmatic, scientific and/or technical oversight and monitoring of grants. They are providing administrative and other assistance to Program Directors. |  | Program Analysts can be completing some questions on "program" greensheets, but they will not have the authority to submit them. |
| Grants Management Specialist | Grants Management Specialists, often referred to as simply Specialists, are selected by the Grants Management Officer to serve as the focal point of the awarding component for all business/management activities associated with the negotiation, award, and administration of a grant or cooperative agreement. They also interpret grant administration policy and provisions. |  | Specialists are responsible for completing and submitting "specialist" greensheets. |
| Document Management User | Document Management Users are individuals in the Office of Grants Administration (OGA), and more specifically, in the Document Management Center, who verify that grant applications intended to be paid meet some of the more simple, "technicality" requirements – such as that face page of an application submitted on paper should be signed or that the date on the assurance that grantee staff are trained in the protection of human subjects in research be within 36 months prior to the proposed start date of the research project. | Can access the system only via specifically constructed URL, associated with a particular grant’s sheet. | Document Management Users are responsible for completing and submitting Document Management (DM) greensheets. They like to refer to them as "DM checklists" rather than "DM greensheets." |
| Guest | Guest users are users who have valid NCI user accounts and thus are able to access the system, but they do not have any of the other roles specified here. |  | Guest users will not have any grants and greensheets assigned to them for completion, but they can search for grants using some limited criteria, and review their greensheets in read-only mode. |
| Diversity Supplement Program Director | Diversity Supplement Program Director is a Program Director who is designated to be responsible for Diversity Supplements program. This program, basically, has a separate budget and can provide supplemental funding for grants already otherwise approved (based on scientific merit and other criteria) if some activities under those grants will be carried out by members of under-represented populations. Diversity Supplement Program Director is responsible for submitting a special type of "program" greensheet.  This role will enable users who have it to submit *program* greensheets for grants that may be officially assigned to some other program director and whose Cancer Activity may not be one of the user's Cancer Activities.  With "regular" grants, a grant has a Program Director and a Cancer Activity; a PD who submits the greensheet for such "regular" grant should be the PD to whom the grant is assigned, or at least a different PD who is assigned as a PD for the same Cancer Activity as the grant's Cancer Activity.  Diversity Supplement grants are always associated with some parent grant that is a "regular" grant. When entries for grants that are diversity supplement grants are created, initially they automatically get assigned to the same Program Director as the parent grant. However, the business rule is that in the first year in which the diversity supplement is being awarded, the Program Director of the parent grant should submit the greensheet for the supplement grant. In subsequent years in which funds are being released per diversity supplement award, a Program Director who has this role (Diversity Supplements Program Director) should be submitting the greensheet. |  | This business rule is difficult to apply because when a grant number is being formed for grants representing subsequent-year funding of diversity supplements, "grant type" remains 3 and does not change to 5, and year-of-support suffix (that follows the dash in grant number) is set to the year of support of the parent grant, not of the supplement award. For this reason, the "crude simplification" implemented in the system is that grants that are minority supplements can be submitted by BOTH a user who has this role (Diversity Supplements Program Director) **and** a PD user who is the "official" PD on the grant or on the same Cancer Activity as that of the grant (which typically would be based on the parent grant). Year of support of the diversity supplement commitment is not taken into consideration |
| Greensheets Administrator | The role of Greensheets Administrator will be a special one, different from the roles described above. It is not required that the web-based part of the system support this role. (In other words, it is not necessary for the system to associate a particular user's user ID with this role and behave differently as a result.) |  | The system as a whole will provide facilities for Greensheets Administrator to make changes to templates of greensheet forms, and to produce attachment reconciliation reports. |
| Super User with change user capability | TBD |  |  |

## User roles maintenance

1. With respect to user roles of Program Director, Program Analyst, and Grants Management Specialist, system will not maintain its own mapping of individual user IDs to those roles. Instead, system will rely on other applications NCI has in place to maintain those roles, and retrieve roles data from I2E database.
2. Role of Diversity Supplement Program Director is specific to Greensheets system and is not maintained by any other system. Greensheets will provide a mechanism to associate individual user IDs with this role.

# Greensheets Types

System will support completion of three general types of greensheets: "program" greensheets, "specialist" greensheets, and "document management" greensheets. System will support one program greensheet, one specialist greensheet, and one document management (DM) greensheet per grant application.

## Program greensheets

"Program greensheets" are filled out by Program Director or Program Analyst users. They will contain questions that users in those roles are able to answer. Program greensheets are accessible by Grants Management Specialists in read-only mode (including printing), but system will allow only Program Director or Program Analyst users to supply answers to questions on Program greensheets.

## Specialist greensheets

"Specialist greensheets" are filled out by Grants Management Specialists, and will contain a different set of questions than "program greensheets". System will allow only Specialist users to access Specialist greensheets.

## Document Management (DM) greensheets

DM greensheets will be filled out by Document Management users. They will contain a set of questions different than program greensheets and different than specialist greensheets. Unlike program greensheets or specialist greensheets, there will not be a way to open a DM greensheet for an individual grant by performing a search or navigation from the home page of the Greensheets application. The only way through which users will be able to access DM greensheets is by directing their web browser to a specially formed URL that meets the specification defined in this document, section “Software interfaces” => Interfaces to expose for other applications => Viewing/completing a greensheet. Normally, users will access DM greensheets for individual grants by selecting a hyperlink within GPMATS application.

Another difference from program and specialist greensheets: the Greensheets application will not be responsible for determining whether a DM greensheet presented to a user should allow him or her to save or submit it depending on the user's role. This determination will be made in GPMATS application. The GPMATS application will pass the "Editable" and "Submittable" parameters to the Greensheets application as a part of HTTP request launching the DM greensheet. Again, see section 6.1.2 for more details.

# Dependencies with other systems

The relationship between the I2E applications is indirect. Each application updates the I2EP database and each application may depend on the updated I2EP information.

## Form Builder

TBD

## GPMATS

* System will allow or not allow users to perform certain actions with greensheets for a grant depending on whether the grant is "on control". This means that system will verify existence of a record for the particular grant in GPMATS' database.
* The GPMATS application will pass the "Editable" and "Submittable" parameters to the Greensheets application as a part of HTTP request launching the DM greensheet. Refer to this document, section “Software interfaces” => Interfaces to expose for other applications => Viewing/completing a greensheet.
* Normally greensheets are required to be completed only for grants with specific combinations of grant type and mechanism (NEED RULES!!!). Only such grants are shown in the grants list in Greensheets system. Although, if a user of the GPMATS manually turned on the "exception greensheet indicator" in GPMATS system, indicating that it does, in fact, require completion of greensheet forms for some unusual reason, then this grant will be eligible to be shown in grants list.
* Since GPMATS replaced old system “OGA Control”, does it mean that Greensheets statuses “Not Started, “on control” and “Saved, “on control” means that ‘grant exists in "GPMATS" system”? And “…not ‘on control’” means it’s not in GPMATS?
* Grant's "revision number" in GPMATS ---need to understand what it is. Plays the role in business rules which grants should be displayed or not (See sec. View Grants Hit List => General rules => Exception Greensheet Indicator in GPMATS)
* "Diversity" flag in GPMATS ---need to understand what it is. Plays the role in business rules which grants should be displayed or not (See sec. View Grants Hit List => Additional rules for “Browse (To-Do)” List => Program Director/Program Analyst Rules)
* “# of days in GPMATS” is displayed on the screen. Are we reading or calculating it?
* “GPMATS Award action associated with its parent grant” ---need to understand what it is. Plays the role in business rules which grants should be displayed or not (See sec. View Grants Hit List => Additional rules for “Browse (To-Do)” List => Program Director/Program Analyst Rules). Is it ‘dummies”?

## Paylist

TBD

## iTrust

TBD

## Workbench

TBD

## Enterprise maintenance

TBD

# Greensheet Statuses

|  |  |
| --- | --- |
| Status | Description |
| Not Started, “on control” | A greensheet that has never been saved AND TBD |
| Not Started, not “on control” | A greensheet that has never been saved AND TBD |
| Saved, “on control” | A greensheet that has been saved at least once AND TBD |
| Saved, not “on control” | A greensheet that has been saved at least once AND TBD |
| Submitted | A greensheet that has been submitted by the appropriate user (with Submit Privileges). Once a greensheet has been SUBMITTED, the system will not allow the users to make any further changes to the answers, unless its status is changed to UNSUBMITTED. |
| Unsubmitted | * A greensheet that has been submitted can be unsubmitted, or "unlocked". Subsequently, the greensheet can be saved and/or submitted again. * The system will allow greensheets of all three types to be unlocked. * Only users with GM Specialist role will have user interface controls enabling them to unsubmit program or specialist greensheets. * A DM greensheet also can have "unsubmitted" status, but the functionality to make such an update of the record in the database will be programmed into GPMATS application. |
| Frozen | After a grant has been awarded, system will change the status of all associated greensheet forms to FROZEN. The system will not allow the users to make any changes to the greensheet after this point. More specifically, what really triggers the change of the greensheet's status to FROZEN is having that grant's "issued date" filled in in GPMATS, which is equivalent, most of the time, to having the grant awarded. Occasionally, "issue date" can be filled in by users of GPMATS and the grant might still end up not awarded, but the system will change the status of the grant's greensheets to FROZEN anyway. |

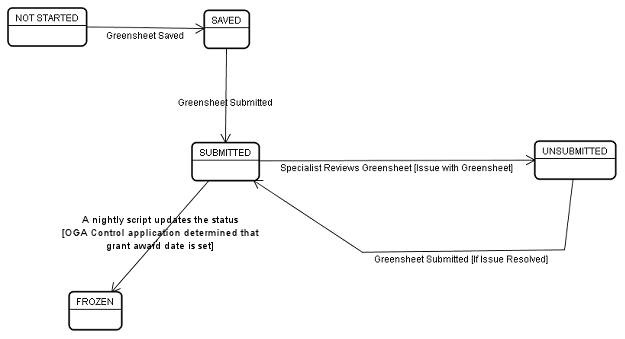
# Diagrams

## Greensheets system place in overall grants management business process

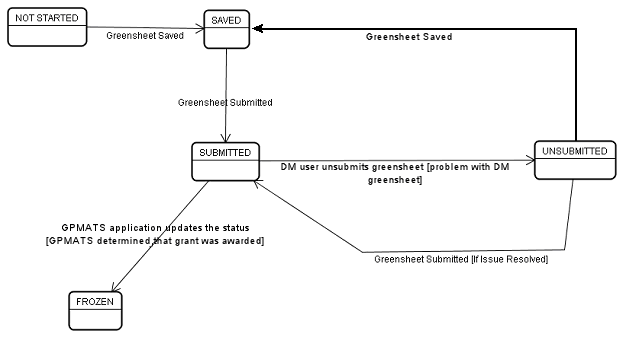


## Workflow diagrams within Greensheets system

System will allow users with appropriate roles to change the status of Program and Specialist greensheets as explained in the diagram below:



With respect to DM greensheets, users will be able to change their status as shown in the following diagram (in other words, if an Unsubmitted DM greensheet is saved, system will change its status to "Saved" rather than leave it as "Unsubmitted"):



# High Level Functional Requirements

## Search for a grant(s)

### Search Options

TBD

### Manage search preferences

TBD

## View Grants Hit List

Grants are displayed on the hit list when ALL ‘general’ (applicable regardless of the user role and search method) AND user/method specific rules are met.

Further, the list of grants to be displayed may be a "Browse" (To-Do) list or a "Search Results" list.

* **“Browse (To-Do)” list:** If the user is NOT searching for a grant by grant number or principal investigator's name, then the grants list will be the "browse" list. The intent of the "browse" list is to act, in a way, as a "To Do" list, meaning that typically it will tell the user on what grants he or she needs to work next (as opposed to the user explicitly asking to see the specific grant they are looking for).

In a "browse" list the system will show only grants falling into the current budget year that have not been paid yet and whose greensheets are not yet submitted. The specific grants will depend on the combination of the user's role and identity. Additionally see sec. "Browse List Rules".

* **“Search Results" list:** If the user searched for a grant(s) with a specific grant number or principal investigator's name, then the grant list will be a "Search results" list. In a "search results" list, the system will display all grants that meet the criteria specified by the user via on-screen interface controls and general rules.

### General rules

The rules below are applicable regardless of the user role and search method:

|  |  |  |  |
| --- | --- | --- | --- |
| Rule Name | Description | Reference | Comments |
| Exception Greensheet Indicator in GPMATS | Any grant that exists in "GPMATS" system AND has its "exception greensheet indicator" turned on will be eligible to be displayed in grants list, regardless of other conditions in section “General Grants List Inclusion Rules.” In other words, system will join this condition using logical OR with the combination of remaining conditions in General Grants List Inclusion Rules – all of which remaining conditions will have to be satisfied simultaneously (logical AND).  For example, a grant may be of a type and mechanism that do not require any greensheets to be completed, and thus normally would not be shown in the grants list of the Greensheets system; however, if a user of the GPMATS manually turned on the "exception greensheet indicator" in that system for sSRh grant, indicating that it does, in fact, require completion of greensheet forms for some unusual reason, then this grant will be eligible to be shown in grants list.  [Refer to Greensheets Business Glossary for explanation of Exception Greensheet Indicator and related concepts.] | SR0010-010-01 | Need code check.  Marked as “**ANATOLI TO COME BACK ON THIS”** |
| Budget Start Date | Grant's Budget Start Date must be on or after June 1, 2004. (because Greensheet application was launched in 2004) | SR0010-010-02 |  |
| Primary IC (Institute/Center) | Grant's "primary" administering organization must be NCI (organization code "CA" in grant number). In other words for grants where NCI co-funds but are administered by other NIH unit as primary don’t need to appear in Greensheets and should not be shown on Grants List | SR0010-010-03 |  |
| Program Director and Cancer Activity Assignment | A grant must have a Program Director (PD) and Cancer Activity (CA) assigned. If the grant is a grant whose "exception greensheet indicator" is turned on, then its *parent* grant must have a PD and CA assigned. (The parent grant will have the same "base" grant number with the exception of "application/grant type" and the "supplement" or "amendment" suffix in the end.) | SR0010-010-04 | Need code check.  Marked as “**ANATOLI TO COME BACK ON THIS”** |
| Serial Number | Grant's record in the database must have a serial number. Records without a grant serial number will not be included in grants list | SR0010-010-05 |  |
| Score or %-le | If the grant is a competing grant, it must have an IRG (Integrated Review Group) percentile OR a priority score assigned | SR0010-010-06 | Need code check for IRG assignment, very strange requirement, looks like a bad choice of words and should be re-phrased |
| Exclusion of Supplements handled by Revision actions | If the grant is a non-competing grant, its application/grant type should be different than type 3 (supplement). The reason for this rule is that type 3 grants (supplements) that are not competing typically do not require completion of greensheets. "Typically" means that if "exception greensheet indicator" is turned on for such a grant as mentioned in "Exception Greensheet Indicator" in GPMATS, then such grant can still be displayed in grants list. | SR0010-010-07 | Need code check.  Marked as “**ANATOLI TO COME BACK ON THIS”** |
| Exclusion of Revision actions in GPMATS | If a grant is "in GPMATS"1, then the grant Grant's "revision number" in GPMATS should be 0. Revision 0 is the revision of the grant that goes through the approval process and thus requires completion of greensheet forms. Sometimes additional "revisions" of the grant may be created in GPMATS at a later time – for example, when PI's name or address changes. Those revisions appear as separate records in GPMATS, but they do not require completion of greensheets.  Note:  1 A grant is said to be "in GPMATS" if its record exists in backend I2E database, specifically the backend tables supporting "GPMATS" application.  Not all grant applications will be "in GPMATS" – for example, applications that were not selected for funding (application denied) typically are not entered into GPMATS. [Refer to Supplementary Specification document for details on the interface with GPMATS application. | SR0010-010-08 | Need code check.  Marked as “**ANATOLI TO COME BACK ON THIS”** |

### Additional rules for “Browse (To-Do)” List

|  |  |  |  |
| --- | --- | --- | --- |
| Rule Name | Description | Reference | Comments |
| Program Director/Program Analyst Rules | a) If user's role is Program Director or Program Analyst, then grants that satisfy the following conditions will be shown in the "browse" list on the "View Grants List" screen:  b) Grants that meet the user's stored "preferences" criteria or default preferences criteria,  *plus,*       if user is a Program Director designated to handle Diversity Supplements Program grant applications – all grants whose "diversity" flag in GPMATS is "on", regardless   of in whose portfolio or Cancer Activity those grants are;  AND  c)  The status of the associated *"program"* greensheet is NOT STARTED or SAVED or UNSUBMITTED; AND  d)  The Latest Budget Start Date of the grant is between the start and end dates of current fiscal year (except that the start date of the current fiscal year can be a date other than October 1 – for example, October 8; which should be a setting configurable externally (rather than hard-coded));  AND  e)  (The grant’s status in IMPAC II belongs to status group “PA – Pending Award” or status group “TP – To Be Paid” or (status group “PC – Pending Council” as long as the actual status is not 25,which is status “Not Discussed” assigned to grant applications that are not competitive and won’t be funded))  OR  (The grant is represented by a GPMATS Award action associated with its parent grant while the corresponding grant application record is not created in IMPAC II yet). | SR0010-020-01 | How to tell if Program Director is designated to handle Diversity Supplements Program grant applications? |
| Grants Management Specialist Rules | If user's role is Grants Management Specialist, then grants that satisfy the following conditions will be shown in the "browse" list on the "View Grants List" screen:  1. The grant is "in GPMATS";  AND  2. The status of the "*specialist*" greensheet is NOT STARTED or SAVED or UNSUBMITTED,  AND  3. User (Grants Management Specialist) is assigned as either the primary or backup specialist for the grant. | SR0010-020-02 |  |
| Guest User Rule | If the user does not have the role of Program Analyst, Program Director, or Grants Management Specialist, then instead of a "browse" list of grants, the system returns a message informing the user that they are accessing the system as a “guest user”. Guest user may search for grants, and system will show the list of grants that meet the guest user's search criteria. For those grants, guest user will be able to access read-only versions of program and specialist greensheets. | SR0010-020-03 |  |

### Additional rules for “Search Results” List

TBD

## Manage a greensheet

### Edit

TBD

### Submit

TBD

### Close

TBD

### Change Lock Status

TBD

## Generate Greensheet form templates

TBD

## Reporting

### Attachment Reconciliation report

1. There are:

* Greensheets attachments repository (Disk)
* Greensheets "backend" database

On Save, attachment is saved on disk. After that the system checks if the same file (by files name/path/size) exists in Greensheets "backend" database.

The results of comparison are sent to the user in (Attachment reconciliation report) with corresponding required actions (if any).

1. Action types indicated on the report:
   * Locate
   * Reconcile
   * None
2. Report can be full or incremental. If report is incremental, it contains only the names of attachments that were attached/altered on or after <report date>
3. Report is send as an attachment to email (SR0080-050).

|  |  |  |
| --- | --- | --- |
| Rule | EA reference | Requirement |
| Report File Names | SR0080-040 | System will give report files such names that will include date and time "stamp" of when the file was generated. |
| Output File Type | SR0080-080 | The system will generate the result of report output in Adobe PDF format/file |
| Cross-Platform Portability | SR0080-070 | The application should be possible to execute in both Windows-based (Development) and UNIX-based (Production) environments |

**Sample Report:**

**NATIONAL CANCER INSTITUTE**

Build Version: v2.1.1

Build Date: 11-Dec-2007

REPORT PREPARED ON: 11/26/2013 03:33 AM

ENVIRONMENT: PROD

REPORT TYPE: INCREMENTAL

Checked on the files that were attached/altered on or after: 11/25/2013

This report contains a table of the files that were uploaded using the GREENSHEETS web application. The files sometimes become dislocated or missing in the Web server file system.

Below is the summary of the results of the Greensheets Document Checker.

|  |  |  |
| --- | --- | --- |
| Files | # of Files | Comments |
| Requiring No Action | 44 |  |
| To be Reconciled | 2 | 2 Empty Files Found |
| To be Located | 0 |  |
| Total | 46 |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **File Name** | **On Disk** | **In DB** | **File Length (in Bytes)** | **Action Required** | **Comments** |
|  |  |  |  |  |  |
| /data/prod/greensheetsdocs/5R01CA142794-4/SPEC/SNCQ\_15/RE\_ 5R01CA142794-04 KIM PD Greensheet .pdf | Y |  | 0 | RECONCILE | FILE EMPTY |
| /data/prod/greensheetsdocs/7R01CA141144-05/PGM/PCQ\_8/Fw 7R01CA141144-04 Pur.msg | Y |  | 0 | RECONCILE | FILE EMPTY |
| /data/prod/greensheetsdocs/5P30CA016058-38/SPEC/SNCQ\_92/AOs email of FFR bal.pdf | Y | Y | 50111 | NONE |  |
| /data/prod/greensheetsdocs/5R01CA172743-02/SPEC/SNCQ\_33/172743 IRB.pdf | Y | Y | 105018 | NONE |  |
|  |  |  |  |  |  |

## Change User

TBD

## Additional high level requirements

### Grants in Control System

TBD

Only grants with asterisk \* next to the grant number can be submitted; this represents grants that are in Control system.

### Grants with/without Payline

TBD

### System validation

|  |  |  |  |
| --- | --- | --- | --- |
| Rule Name | Triggering Event | Description | Errors/Warnings |
| Completions of the questions | On click of “Submit” button when greensheet is submitted | All appropriate questions must be completed. | TBD |
|  |  |  |  |
|  |  |  |  |

### Attachments Rules

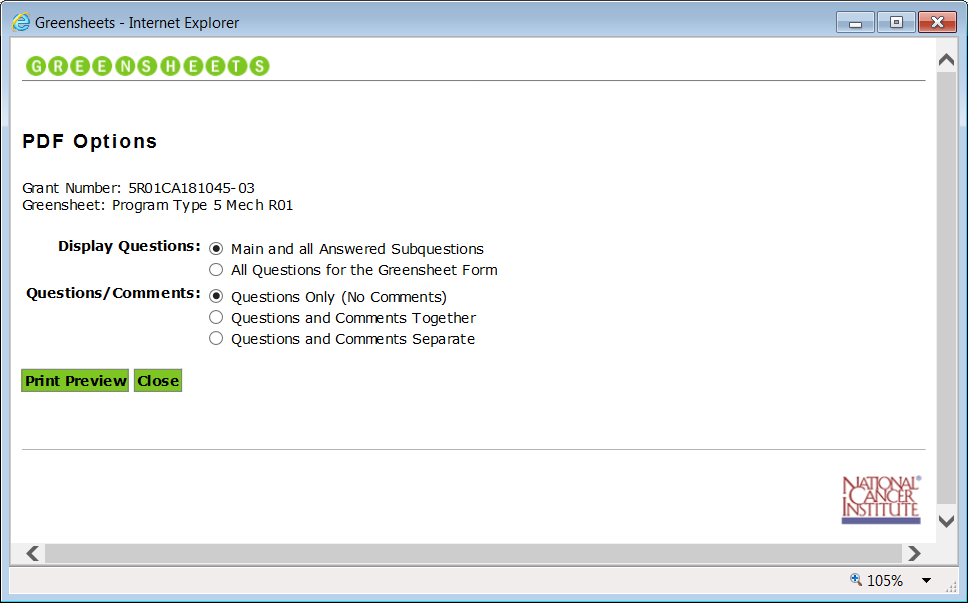
The system provides an ability to attach/view/delete one or more electronic documents to each question of the greensheet.

|  |  |  |
| --- | --- | --- |
| Rule # | Description | Error |
| 1 | The name of the file user tries to attach to the same question must be unique. | A file with the specified name already exists. Please rename the file before attempting to attach |
| 2 | If user tries to attach to a particular question a file whose name matches name(s) of files attached to a different question on the same greensheet form, or to any question(s) on a form for any different grant, system will support the ability to accomplish that | n/a |

TBD (size, number, type, versioning, etc.)

### Printing options

TBD



# General Business Rules

## Access to the system

TBD (can describe access via Workbench, direct URL and related issues, probably in the future we can add something about phones, etc.)

## Navigation to other NCI systems

TBD

Will describe Workbench and impacii, possibly eGrants

## TBD

* See something strange about scoring and %-le for Type 5, need investigation
* Will say something about lack of subprojects
* Need to investigate contracts and multi-years, intramurals
* Awarded grants
* How to handle grants from different ICs
* Need to investigate if there is a dependencies between PD GS and GMS GS

## Relationship between a grant and Green Sheet

TBD (need to describe the relationships between grant and form and between the form and answers)

## Data Versioning

TBD

## E-mail notifications to Support Staff

### Unexpected errorsUnexpected errors

The system should send an automated e-mail to the Support Staff in case of Unexpected Error(s) - SR0110-010

### Redundant Records

* In case of Redundant grant records detected when retrieving a greensheet or changing the lock status of a greensheet, system will behave as follows (SR0110-030):
  + The system will analyze the status of all the GPMATS actions related to the grant in question.
  + If after factoring out all GPMATS action in closed or cancelled status, there are still multiple records remaining, then the system will send an e-mail notification.
* In case of Redundant grant records detected when retrieving a greensheet, system will generate the following message and send to the support staff. SR0110-020
* System will not allow generation of repeated e-mails for the same redundant grant record, if it has been sent within last 30 days. SR0110-040

## Pagination

System will allow user to paginate 50 grant application records per page. Sort options should be propagated to all pages.

## Sort options

TBD

# Non-Functional Requirements

[This section describes the non- functional requirements specific to this system which span multiple Use cases.]

## Time out

In order to maintain security, system will "time out" user's session after a period of five (5) hours since user logged in, regardless of use case being carried out Separate Browser windows

[Document any performance requirements specific to this system which span multiple Use cases. Do not include performance requirements specific to an individual Use case within this system or maintained globally (see the “eRA Global System Specification” document for details). Reference all Use cases within this system to which a performance requirement applies. If there is a specific response time requirement, it is typically stated as a range of values (i.e., average and maximum) for a specific action. For example, “Performance Requirement One: User requires acknowledgement of action “Open Account” within X seconds (where X = average). If Y seconds pass (where Y = maximum) without system acknowledgment, display a progress bar”. This applies to Use Cases: “Open Checking Account”, “Open Savings Account“, and “Open Certificate of Deposit”.]

## Browser compatibility

TBD

## Security

TBD

## Monitoring

[Document any monitoring requirements specific to this system which span multiple Use cases. Do not include monitoring requirements specific to an individual Use case within this system or maintained globally (see the “eRA Global System Specification” document for details). Reference all Use cases within this system to which a monitoring requirement applies. Monitoring requirements are typically linked to critical functions and actions where error or failure conditions initiate certain events. For example: “Monitoring Requirement One: If action “Write transactions to back-up file” fails, notify Operations staff with email alert. This applies to Use cases: “Back-up Checking Transactions”, “Back-up Savings Transactions”, and “Back-up Certificate of Deposit Transactions”.]

TBD

## 508 compliance

TBD

## Data Archiving and Retention

TBD

# Data Entities and mapping

[This section defines the data entities that are maintained within this system. Data entities should be defined ONCE (in one Supplementary Specification), but may be referenced in many places. Where one exists, make reference to the existing Enterprise Domain Model rather than duplicate any information here.

Do not define data here that is contained in a database maintained by an external system. If data crosses the boundary between this system and an external system, those data definitions should be included in the external system’s Supplementary Specification and referenced in the interfaces section of this system’s Supplementary Specification.

This section should not become a Data Model. Document the key data elements from a requirements perspective, not a design or an implementation perspective. Focus on the data specifications (properties, constraints, etc.), and not how the specifications are represented in a database. For example, don’t define keys (primary or foreign). Where you need to define a relationship between entities, simply note that there is a relationship, not how it should be represented.]

## Grant number

Grant # - throughout the system grant number should be hyperlinked to TBD

| Property | Description | Constraints | Data Mapping |
| --- | --- | --- | --- |
| Application type | Application type | 1 Character Max.  Valid Values are 1, 2, 3, 4, 5, 7, 8, 9 | TBD |
| Activity Code | Activity Code | 3 Characters Max  Must be a valid value from the provided List of Values |
| IC | Admin IC of the grant | Must be a valid value from the provided List of Values;  2 characters max. |
| Serial Num | The serial Number of the grant | Must be a number field, 6 digits max. Valid values must exist in the database |
| Support year | The support Year of the grant | Must be a number from 1 (01 is allowed) to 99  Valid values must exist in the database |

## Other entities and terminology

| Property | Description | Data Mapping |
| --- | --- | --- |
| Grant type | Application type  Values:   * Competing Grants (Application Type 1, 2, 9, competing type 3 and 4) * Non-Competing Grants (Type 5, 8, non-competing type 3 and 4, type 6 and 7) * Both Competing and Non-competing |  |
| Mechanism | Activity Code |  |
| # of days in GPMATS | TBD | Number from 0 to 9999999999 |
| Budget Start Date | TBD | MM/DD/YYYY |
| PD | TBD |  |
| PI Last Name | Principal Investigator’s (PI) <Last name>  The Last name of the PI on  **single application or parent** application - contact PI on the grant application | 30 Characters max |
| PI First Name | Principal Investigator’s (PI) <First name>  The First name of the PI on  **single application or parent** application - contact PI on the grant application |  |
| PI | Principal Investigator’s (PI) <Last name> comma <First Name>  The name of the PI on  **single application or parent** application - contact PI on the grant application |  |
| CA | Cancer Activity  TBD |  |
| Score |  |  |
| % |  |  |
| Board Date |  |  |
| PD GS Status |  |  |
| GMS GS Status |  |  |
|  |  |  |
|  |  |  |

# Interfaces

[This section describes the interfaces through which this system interacts with users and other systems. Do not include interfaces specific to individual Use cases within this system or maintained globally (see the “eRA Global System Specification” document for details). Reference all Use cases within this system to which a particular interface applies.]

## Screen flows

TBD

## Icon Glossary

TBD

## User Interfaces

TBD, possibly will be just pointers to the detailed docs if too much

## Software Interfaces

### Interfaces for accessing other applications

#### I2E (IMPAC II Extensions)

1. Grant Data

System will use the existing I2E database at NCI to access data on grant applications.

1. Grant Information Presentation

System will allow users to view detailed information regarding grant applications on whose greensheets they are working by launching a different NCI application, Your Grants, via a hyperlink on Greensheets screens. Specifically, it will launch the "Everything You Ever Wanted to Know About…" screen of Your Grants.

System will accomplish it by hyperlinking to a URL that meets the following specification:

https://<YourGrants\_server\_host\_name>/yourgrants/jsp/**GrantDetails.jsp**?applId=999999

* applID: The applId identifier for the grant

1. User Roles

Data on associations of individual user IDs to roles such as Program Director, Program Analyst, and Grants Management Specialist are maintained using Enterprise Maintenance application and its data structures in I2E database.

#### GPMATS

System will allow or not allow users to perform certain actions with greensheets for a grant depending on whether the grant is "on control". This means that system will verify existence of a record for the particular grant in in GPMATS' database.

#### NCI LDAP Services

Detailed specification for accessing LDAP services at NCI for the purpose of user authentication will be provided by Client's IT organization.

### Interfaces to expose for other applications

#### Viewing/completing a greensheet

System will make it possible to access the "View/Complete Greensheet" screen associated with a particular grant's greensheet by navigating directly to a properly formed URL – i.e., without launching the Greensheets application and thus accessing the "View Grants List" screen first. The purpose of this requirement is to enable the integration of direct access to the greensheet from other applications via a hyperlink whose target URL meets a defined specification.

The specification is as follows:

https://<greensheets\_server\_host\_name>/greensheets/**retrievegreensheet.do**?GS\_GROUP\_TYPE=AAAA&APPL\_ID=999999&USER\_ID=BBBBBB&EXTERNAL=TRUE&EDITABLE=X&SUBMITTABLE=X

* GS\_GROUP\_TYPE: possible values are PGM or SPEC or DM (respectively for "program" greensheet, "specialist" greensheet, and DM greensheet)
* APPL\_ID: The applId for the grant
* USER\_ID: the oracleId of the user.
* EXTERNAL=TRUE: required for applications calling this API from "outside" of Greensheets
* EDITABLE=Y (or EDITABLE=N): significant only for DM greensheets (ignored for program and specialist greensheets); tells the system whether it should allow the user to modify and save responses to the questions on the greensheet form.
* SUBMITTABLE=Y (or SUBMITTABLE=N): significant only for DM greensheets (ignored for program and specialist greensheets); tells the system whether it should allow the user to submit the greensheet form.

#### Changing lock status of a greensheet

System will make it possible to change the lock status of a greensheet by accessing from another application a properly formed URL – without having to navigate to Greensheets' "View Grants List" screen first. System will change the status of a greensheet between "SUBMITTED" and "UNSUBMITTED" if a URL is invoked that meets the following specification:

https://<greensheets\_server\_host\_name>/greensheets/**changelock.do**?GS\_GROUP\_TYPE=AAAA  
&APPL\_ID=999999&USER\_ID=BBBBBB

* GS\_GROUP\_TYPE: possible values are PGM or SPEC or DM (respectively for "program" greensheet and "specialist" and DM greensheet)
* APPL\_ID: The applId identifier for the grant
* USER\_ID: the oracleId of the user.

If the greensheet that is being unsubmitted is a program or GMS greensheet, then the system will only allow a user with Grants Management Specialist role to unsubmit it.If the greensheet that is being unsubmitted is a Program or Specialist greensheet, then the system will only allow a user with Grants Management Specialist role to unsubmit it.

[Describe each software interface, including its data entities, which must be supported by this system. Do not include software interfaces which apply to all systems and are maintained globally (see the “eRA Global System Specification” document for details). If a data entity included within a software interface has not been defined within this system’s Supplementary Specification, reference the Supplementary Specification which maintains that data entity. There should be one subsection for each external software system actor in this system’s Use case Model, as well as a subsection for any software that is being used internally by the system, but is not being developed as part of the system (e.g., purchased components, or components reused from another application).]

# Online User Documentation and Help Systems Requirements

[Document any requirements for on-line user documentation or help systems associated with this system. Do not include requirements specific to individual Use cases within this system or maintained globally (see the “eRA Global System Specification” document for details). Consider how much should be provided, where it needs to be, and how it should be presented—Windows Help System, Web Pages, PDF files, printed and bound documents, etc. NIH eRA systems typically require some subset of the following: User Guide, User Reference, Quick Reference Card, System Administrator’s Guide, System Administrator’s Reference, Installation Guide, Upgrade Guide, and Release Notes.]

Program Greensheets User Documentation

<https://i2e-test.nci.nih.gov/greensheets/help/GreensheetsPgmGuide.pdf>

# Issues

[Document any issues related to the formulation of this system’s Supplementary Specification. Include their resolution while the log is in progress.]

| Issue Number | Issue Severity (from NOW and JIRA) | Issue Description | Prioritization | Resolution Description |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

# FUTURE business needs

## Additional Search capabilities

The system needs to provide additional search capabilities

## Reporting capability

* Provide Office of Grants Management the ability to leverage the checklist responses and generate it into a detailed data analysis report (report on statistics on the type of responses to specific questions).
* **Dashboard report**: The system needs to provide a user-friendly dashboard report to easily access the grants and the underlying Greensheets and also to help visualize some of the key metrics

## UI upgrade

The system needs to have a consistent look and feel with other I2E applications

## Upgrade Technology Stack

The current system was built on an open-source web application framework “Apache Struts 1”, which has reached its end of life and is no longer officially supported. There are security vulnerabilities that have been identified in Struts 1. Therefore, the Greensheets system must be built with a newer technology that will comply with NIH and NCI security requirements that will support the NCI business processes more efficiently.