



U.S. DEPARTMENT OF AGRICULTURE  
COOPERATIVE STATE RESEARCH, EDUCATION, AND  
EXTENSION SERVICE

**Search and Query (SAQ)**

**Functional Requirements Specification**

**Version 1.2**

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Prepared by



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### Revision Page

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Search and Query Functional Requirements Specification, Version 1.0	January 29, 2008	Initial submission
Search and Query Functional Requirements Specification, Version 1.1	February 01, 2008	- Updates from 01/30 meeting, - Combined Security Requirements Specification - Re-organized document
Search and Query Functional Requirements Specification, Version 1.2	February 6, 2008	- Change in terminology from “Results” to “List”. - Other edits and clarifications.

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# **1 Introduction**

## ***1.1 Document Purpose***

The goal of this project was to document functional, process, and security requirements sufficient for CSREES to task the design, development, and testing of General Search and Query functions within the CIS family of databases including CRIS, Plan of Work, and REEIS.

The purpose of this document is to document the functional and security requirements for General Search and Query system. This entails to outline any limitations to content or functionality by user role

## ***1.2 Scope***

This document represents requirements gathered from the Project Steering Committee from October 2007 to January 2008. The primary focus with the CIS family of database was CRIS, REEIS, and Plan of Work. Of the above, CRIS was identified as the most critical, where majority of the focus has been dedicated to providing search and query capabilities (both internal and external) to this data source.

Because of the large number of data items in the CIS domain, and the relatively few that have been determined to have limited access; our approach is to outline the data items to be excluded from a particular use role. It is important to note that focus is on CIS General Search and Query requirements. This does not include special security requirements in LMD or CRIS relational databases. For example, the CRIS public web site allows each State Partner to review the contents of pending projects submitted by that partner. This is not a general search request, but a report generated by submitting a Division/Station code (e.g. TEX).

This document will describe the functional requirements for the General Search and Query System; it will not address methods of meeting the requirements. Neither will it attempt to justify the requirements. Its sole purpose is to document what the system is to do.

## ***1.3 Background***

CRIS serves as a foundation database for the CIS requirements and is migrating to a relational database and associated Java application environment. REEIS provides a data warehouse and web based application for searching REE databases and related external sources. Previous search methods used by REEIS have proven to be costly to maintain, cumbersome to use, and deficient in meeting the need for search support.

In the CRIS legacy application, there are three levels of Search and Query functionality. Included are Assisted Search and Professional Search on the CRISTEL server that supports the public web access to CRIS information. There is also powerful native search environment on the CRISOPS server utilized internally by the CRIS staff.

Each of the three search environments has different characteristics and each provides a different level of capability for executing both ad-hoc searches and saved searches.

The Plan of Work (POW) application has been developed with the assumption that the REEIS web application Search and Query functions currently being performed by Concept Search would provide all required support.

REEIS has recently introduced the Leadership Management Dashboard (LMD) application into the CSREES work environment. The LMD primary data sources are CSREES databases, including the REEIS core data and CSREES foundation databases C-REEMS, CRIS and POW.

### ***1.4 Methodology***

All information regarding functional use cases and functional requirements was gathered during weekly meetings with the Project Steering Committee and from supporting documentation regarding the current CRIS, REEIS, and Plan of Work systems.

The following members were in the Project Steering Committee:

<b>Project Steering Committee</b>			
<b>Search and Query Requirements Engineering Project</b>			
	<b>Name</b>	<b>Title</b>	<b>Business Area</b>
1	Deb Hamernik	National Program Leader	PAS
2	Ali Mohamed	National Program Leader	SERD
3	Antonio McLaren	Program Specialist	Economic and Community Systems
4	Bruce Mertz	Program Specialist	NRE
5	Karen Hunter	Program Specialist	PAS
6	Maxwell Mayeaux	Program Specialist	PAS
7	Bart Hewitt	Accountability and Reporting Leader	Planning and Accountability
8	Andrew Wilson	Public Affairs Specialist	SBIR/Communications
9	Eula Jordan	Awards Liaison	OEP (Awards Management)
10	Debbie Ogden	Grants and Agreements Specialist	OEP (Policy)
11	Alexandra Raver	Program Analyst	CP
12	Joe Barbano	REEIS Project Manager	ISTM
13	John Mingee	Project Manager	ISTM
14	Ed Kane	IT Specialist	ISTM
15	Allen Moore	IT Specialist	ISTM

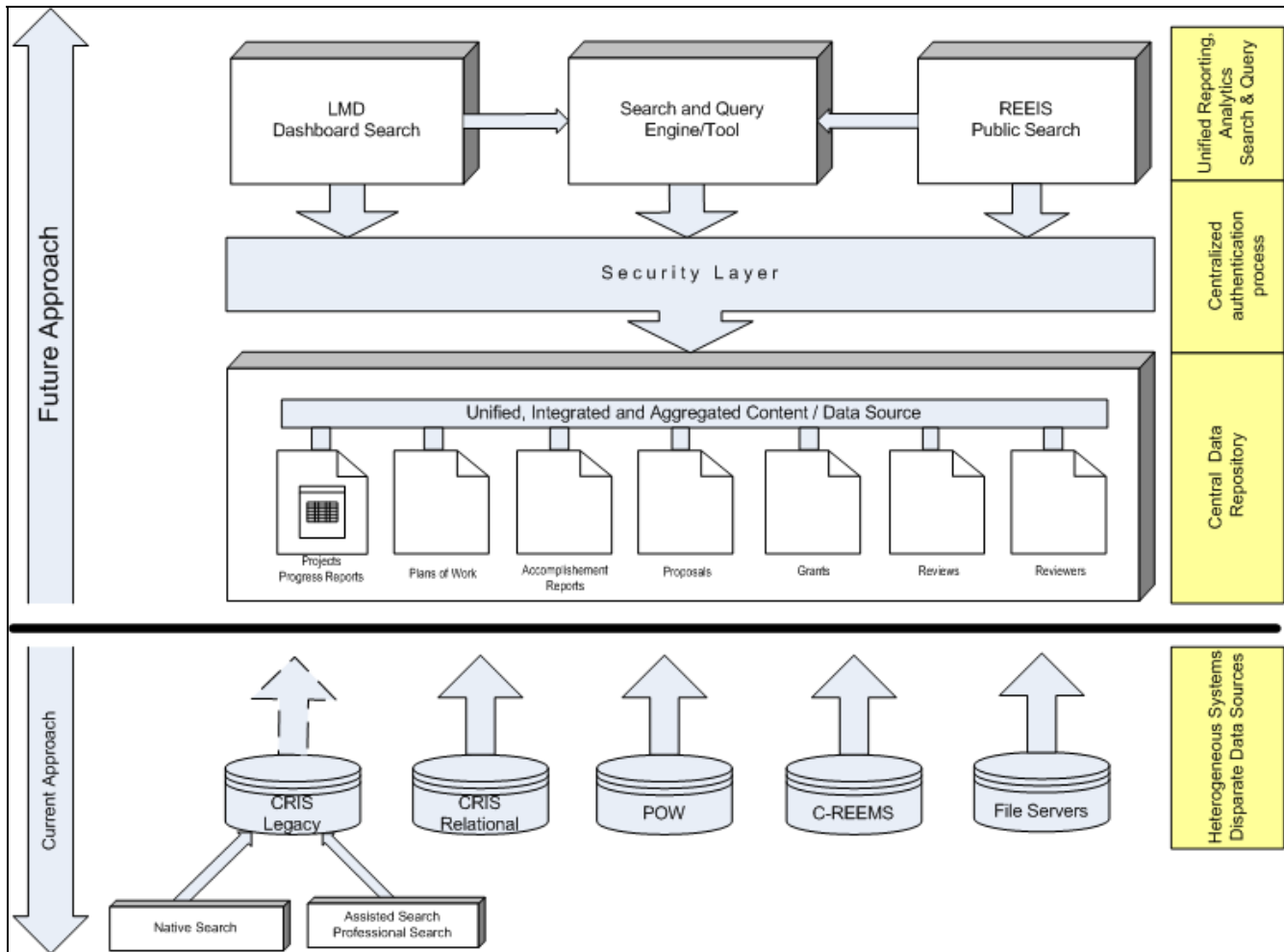
### ***1.5 References***

All documentation for the project is located in this shared folder:

Csrees-wf1\General (Shared)\1 - System Development\Search and Query Project\Project Artifacts

## 2 Security Requirements

### 2.1 Architecture Overview



**Exhibit 1: Search and Query Security Architecture**

### 2.2 Central Data Repository

Exhibit 1 above illustrates the proposed architecture for the General Search and Query system and how REEIS and LMD access this functionality.

Heterogeneous data from multiple enterprise source systems are extracted, cleansed, reorganized and integrated into searchable data marts that have access controlled from a centralized security layer.

### 2.3 Centralized Security Layer

Exhibit 1 above illustrates that multiple entry points to the Search and Query system. All pass through a centralized security layer that determines which data are accessible from each entry point.

For example, public REEIS user would access Search and Query through the REEIS portal. The security layer is aware of the entry point, and restricts both content and features as listed below.

## 2.4 User/Role Requirements

For purposes of CIS General Search and Query requirements gathering there have been three primary user roles identified:

- CSREES General Staff (CSREES)
- State Partners (SP)
- The Public (Public)

However, from a security/sensitivity standpoint, State Partners and the Public have the same requirements. This may change if applications like the Leadership Management Dashboard (LMD) are customized to fit the needs of State Partners.

Therefore, for this document we will consider two primary constituents:

1. CSREES General Staff (CSREES)
2. The Public (Public)

### **CSREES General Staff (CSREES)**

CSREES refers to any of the approximate 400 employees and contractors within CSREES. Each has a secure user id and password. Access to the CSREES role in the Search and Query system will require authentication with a current CSREES user id and password

### **The Public (Public)**

One of the primary mandates for the legislation that created REEIS is to provide information to the public. Therefore, any person with a web browser and access to the internet will have the same permissions.

**Search and Query Role Matrix**

	USER ROLE	
	CSREES	PUBLIC
FUNCTION		
CRIS Basic Query	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CRIS Basic Query	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Plan of Work Basic Query	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Plan of Work Advanced Query	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Export Query Results	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Thesaurus/Synonyms	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Spell Checking	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Stemming	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Save Query Results	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Share Query Results	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Retrieve Shared Queries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Query System Personalization	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Financial Report Templates	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Exhibit 2: Matrix of User Roles and Functions Available to User Roles**

	USER ROLE	
	CSREES	PUBLIC
CONTENT		
Pending CRIS Projects	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Project Level Expenditures	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CRIS Proposals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C-REEMS Proposals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CRIS Project Reviews	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Exhibit 3: Matrix of User Roles and Content Available to User Roles**



## 2.5 Output Specific Security Requirements

One our most complex challenges is to limit the use of certain financial reporting templates when the source of the data comes in whole or in part from text searches for “topics” or “concepts” and might lead two different users to retrieve very different sets of records. For example, a subject matter expert may define the topic “Biotechnology” by a complex combination of terms, but a novice might only enter the single term “Biotechnology” into one of the query screens. The complex, “officially approved” search might return 1,423 CRIS projects. Another simple search similar to the one below might return a different number:

### CRIS Assisted Search

**Search CRIS Full Text** Help

In the boxes below, enter words or phrases separated by semicolons (the ";" means "OR"). If you need a different search interface, click on "Exit to Menu" button.

Fulltext Terms

...AND these

...NOT these

Subfile  (Any)  CRIS  HNRIMS

Records retrieved: 866      Max Records to Display: 50

---

**Search CRIS by Individual Data Fields** Help

Results from searches in boxes below (including classification codes) will be "ANDed" together, as well as with Full Text searches above.

Project Type

Project Status

**Exhibit 4: Sample Query Using CRIS Assisted Search**

Using one of the financial templates listed in Exhibit 5 as output for the records returned for the query shown in Exhibit 4 would be inappropriate and misleading if used in the policy or budgeting arena.

### Report Template Library (Matrix/Chart)

Choose report template to apply to the result of your search

Report Template	Report Content
FTEs by Portfolio and by Institution Type	Plans of Work
FTEs by Knowledge Area by Institution Type	Plans of Work
FTEs by Goal and by Institution Type	Plans of Work
FTEs by Portfolio and by Institution Type	Plans of Work
FTEs by Portfolio and by Region	Plans of Work
FTEs by Portfolio and by Institution Type	Plans of Work
Formula Projects by FY and By Fund Type	Projects
Funding by KA and by Topic Area	Projects
Funding by Funding Sources and by Year	Projects
Funding by Knowledge Area Topic	Projects
Funding by KA and Topic Area	Projects
Projects by KA	Projects
Funding by Source by Year	Projects

Report Design    Chart Design

**FTE'S BY PORTFOLIO AND BY INSTITUTION TYPE**

Portfolio	1862				1898				Totals
	Research		Extension		Research		Extension		
	#	%	#	%	#	%	#	%	
International Economic Development	22.8	0.4%	19.3	0.2%	0.9	0.2%	0.0	0.0%	42.9
Agricultural Structures and Farm Management	202.0	3.1%	304.8	3.3%	16.3	3.7%	28.4	3.4%	549.5
Agricultural Markets & Trade	157.0	2.4%	250.8	2.7%	15.1	3.7%	18.5	2.4%	442.2
<b>Totals</b>	<b>6456.0</b>	<b>100.0%</b>	<b>9239.1</b>	<b>100.0%</b>	<b>434.2</b>	<b>100.0%</b>	<b>794.1</b>	<b>100.0%</b>	<b>1989.3</b>

This report/chart template presents the result as a summary of FTE's and percentage of FTE's by Institution type (funding line)

**Exhibit 5: Sample Financial Report Templates**

The solution to this issue is to restrict the available template libraries and custom field outputs by the type of query. Exhibit 6 summarizes the available options:

	TEMPLATES	
	FINANCIAL	GENERAL
QUERY TYPE		
Structured Fields Only	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Structured Fields with Text Query	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Text Query Only	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Exhibit 6: Query Type by Available Templates**

### 3 Functional Requirements Summary

	FUNCTIONAL REQUIREMENTS	COMMENT
1.	<p>The system should provide a variety of query building modes, to support novice users as well as highly technical power users.</p>	<p>When constructing a query, the user should have the option to choose an appropriate query building method:</p> <p>With Menu Assisted mode, the system should provide toolbars or menu items of common operators so that the user can construct the query using a point and click method.</p> <p>With Advanced Command-Based mode, the user should be able to construct a query using the native syntax.</p> <p>With Saved Query mode, the user should be able to create new query by customizing a previously created query.</p>
2.	<p>The system should provide the ability to query a wide range of cross-program content including:</p> <ul style="list-style-type: none"> <li>▪ Projects</li> <li>▪ Proposals</li> <li>▪ Grants</li> <li>▪ Reviewers</li> <li>▪ Reviews</li> <li>▪ Plans of Work (POW) <ul style="list-style-type: none"> <li>▪ Overviews (Including Stakeholders and Merit Reviews)</li> <li>▪ Planned Programs</li> </ul> </li> <li>▪ POW Annual Reports <ul style="list-style-type: none"> <li>▪ Overviews (Including Stakeholders and Merit Reviews)</li> <li>▪ Planned Programs</li> </ul> </li> </ul>	
3.	<p>The system should provide the ability to query both current and historical information.</p>	<p>For example when searching projects, the user should be able to search active projects, terminated projects, or both.</p>
4.	<p>The system should support a wide range of content format including</p> <ul style="list-style-type: none"> <li>▪ Databases</li> <li>▪ PDFs</li> <li>▪ Documents</li> <li>▪ Spreadsheets</li> <li>▪ Others</li> </ul>	<p>Though much of the agency information is captured in databases, there is still a significant amount of information in PDFs, spreadsheets, documents, stored on file servers. These include, for example, Plans of Work and Accomplishment reports from 2000-2006 captured in PDF files and Project Reviews in word documents. The system must provide the ability to search these files as well.</p>

	FUNCTIONAL REQUIREMENTS	COMMENT
5.	There should be at least four independent steps to the search process: (1) Constructing the query, or asking the initial questions; (2) Getting the query results; (3) Refining the results; (4) Reporting the refined results.	The system should provide a range of features to streamline each of these steps.
6.	The system should provide the user with the ability to perform spelling checks on any word or phrase used to construct a query.	The query spelling checker suggests alternatively spelled words and allows the user to select the correct spelling.  The spelling checker should use all the vocabulary contained in CSREES information systems, and works with proper names and technical words used by the agency. All actions must occur in real-time and are transparent to the user.
7.	The system should provide the user with the ability to perform queries using a 'sounds like' ("soundex") function.	This enables the user to find other words that sound similar to the ones provided in a query, compensating not only for the user's spelling errors, but also for errors within the data itself.
8.	The system should be able to automatically pick up common words with similar meanings and synonyms.	The use of a custom synonym dictionary or "thesaurus" improves query results and assists the user by expanding query terms with related keywords that may not have occurred to the user but were intended and perhaps implicit.  A thesaurus that can be custom-defined to include terms and phrases relevant to USDA in general, and CSREES in particular.
9.	The system should support wide range of query building features including: <ul style="list-style-type: none"> <li>▪ Starts with, Ends with</li> <li>▪ Wildcarding (*,?, %, ...)</li> <li>▪ Stemming</li> <li>▪ Proximity searching (ex., "plants" within 2 words of "animals")</li> <li>▪ Boolean operators</li> </ul>	
10.	The user should be able to save a query and share it with other users.	The system should allow the user to annotate the query describing its purpose and use, so that others can benefit from it.

	FUNCTIONAL REQUIREMENTS	COMMENT
11.	The system should provide some form of relevancy ranking, so that the most relevant results are presented at the top of the results list.	<p>For example:</p> <p>Term frequency: How frequently a query term appears in a record should determine record's relevance.</p> <p>Location of terms: The location (data elements) — in which a term occurs— should indicate its significance to the record. Terms occurring in the title of a project that match a query term should be weighted more heavily than terms occurring in the detail summary of the project.</p> <p>Relative Proximity of query terms: When the terms in a query occur near to each other within a record; it should be more likely that the record is relevant to the query than if the terms occur at greater distance.</p>
12.	The system should provide the ability to display useful attributes such as relevancy rating and number of 'hits' (query words found) within each item in the results list.	
13.	The system should provide the ability to refine or narrow the results list by conducting another query on the first results list returned; i.e. a query within a query.	
14.	The system should provide the ability to "peek" at the contents of each item in the returned results list without going through the time-consuming process of clicking on each result to determine the relevancy of the content.	The words in the search query are used to generate a dynamic summaries based on the phrases
15.	The system should provide the ability to sort/re-sort the results list by dynamically generated query attributes such as number of hits and relevancy ranking, as well as by a variety of data elements that are specific to the content or domain of information being queried upon.	
16.	The system should provide the ability to navigate through the results set by going to the first hit within unstructured data fields in the record or segment of the document, and thereon to the next or previous hits as required.	This means that the user can avoid having to read through large text fields of records before finding the relevant section, making it much more efficient.
17.	The system should provide the ability to identify hits by highlighting the keywords used in search criteria.	Hit highlighting is when the keywords in a record or document are highlighted in a different color. When combined with hit-to-hit navigation, hit highlighting enables the user to immediately see the relevant section of the record or document.

	FUNCTIONAL REQUIREMENTS	COMMENT
18.	The system should provide the ability to refine (narrow down or expand) the results list returned by drilling up and drilling down using a pre-defined hierarchical category or category tree.	For example, the user should be able to filter or narrow the results list returned to a specific region, or to specific state or to a specific institution type: National Regional State Institution type
19.	The system tool should quickly adapt to new or updated data sources.	
20.	The system should provide the ability to tag relevant results, annotate them with notes for later search and reference, and extraction for further analysis or discovery.	
21.	The system should provide the ability to enterprise query results from variety of contents and time frames.	To account for information scattered across silos of data sources, the ability to federate results generated would allow user to have a complete picture of all relevant cross-program activities.
22.	The system should provide the ability to save query results in a variety of common formats.	To further review and analyze query results, the user should have the ability to save or export query results to a variety of file types including excel spreadsheet, documents, and PDFs
23.	The system should provide the ability to export the results list, or a portion of the results list, for further review, analysis and manipulation.	
24.	The system should provide the ability to measure and analyze query activity and behavior of users to enhance the query process.	This in turn enables them to optimize the query experience.
25.	The system should provide the ability to restrict access to query results or functionality based on authenticated access level or permission	

## 4 Source System Matrix

### 4.1 Plans of Work

#### **PLANS OF WORK - OVERVIEW (Including Merit Review and Stakeholder Input)**

#	SECTION NAME	#	SECTION CONTENTS	Search Using		2 - Key display fields for results	3 - Refine Results (2 to 5 fields)	4 - Hierarchy	5 - Advanced Search/Export Fields
				Code Field	Text Field				
I.	<b>Plan Overview</b>							1-Region	
			<i>Year</i>	X		X	X		
			<i>State (and Outlying Areas)</i>	X		X	X	2	
			<i>Institution Name</i>	X		X	X	3	
		1.	Summary		X				X
		2.	FTE Forecast						
II.	<b>Merit Review Process</b>								
		1.	Processes to be Employed						
			Brief Summary		X				X
III.	<b>Evaluation of Multis and Joint Activities</b>								
		1.	Critical Issues		X				X
		2.	Underserved Populations		X				X
		3.	Outcomes and Impacts		X				X
		4.	Program Effectiveness		X				X
IV.	<b>Stakeholder Input</b>	1.	Actions Taken to Seek Input						
			Brief Explanation		X				X
		2(A).	Methods to Identify Stakeholders						
			Brief Explanation		X				X
		2(B).	Methods to Collect Input						
			Brief Explanation		X				X
		3.	How the Input be Considerd						
			Brief Explanaiton		X				X
V.	<b>Planned Program List</b>		Program Titles		X				X

## PLANS OF WORK – PLANNED PROGRAMS

#	SECTION	#	CONTENTS	Search Using		2 - Key display fields for results	3 - Refine Results (2 to 5 fields)	4 - Hierarchy	5 - Advanced Search/Export Fields
				Code Field	Text Field				
						Year, State		Region, State	
						Institution		Institution	
V.	<b>Program Summary</b>								
		1.	Name of Planned Program		X				X
		2.	Brief Summary		X				X
		3.	How Long Existed						
		4.	Expected Future Duration						
		5.	Expending Formula or Matching Funds?						
		6.	Expending Other Funds?						
V(A).	<b>Program Knowledge Areas</b>								
		1.	Knowledge Area Code	X			X		
			Knowledge Area Percentage						
V(B).	<b>Situation and Scope</b>								
		1.	Situation and Priorities		X				X
		2.	Scope of the Program						
V(C).	<b>Assumptions and Goals</b>								
		1.	Assumptions Made		X				X
		2.	Ultimate Goals		X				X
V(D).	<b>Inputs</b>								
		1.	FTEs/SYs Budgeted						
V(E).	<b>Activity</b>								
		1.	Activity		X				X
		2.	Methods to Reach Contacts						
		3.	Description of Targeted Audience		X				X
V(F).	<b>Standard Output Measures</b>								
		1.	Target Contacts						
		2.	Patents						
		3.	Peer Reviewed Publications						
V(G).	<b>State Defined Output Measuers</b>								
			Target Name		X				X
			Target Number						
V(H).	<b>State Defined Outcome Measures</b>								
		1.	Target Name		X				X
		2.	Target Type						
		3.	Target Number						
			Associated Knowledge Area(s)	X			X		
V(I).	<b>External Factors</b>								
		1.	Factors which May affect Outcomes						
			Brief Summary		X				X
V(J).	<b>Evlauation Studies and Data Collection</b>								
		1.	Evaluation Studies Planned						
			Description		X				X
		2.	Data Collection Methods Planned						
			Description		X				X



**ANNUAL REPORT - OVERVIEW (Including Merit Review and Stakeholder Input)**

#	SECTION	#	CONTENTS	Search Using		2 - Key display fields for results	3 - Refine Results (2 to 5 fields)	4 - Hierarchy	5 - Advanced Search/Export Fields
				Code Field	Text Field				
	<b>I. Report Overview</b>							1-Region	
			<i>Year</i>	X		X	X		
			<i>State (and Outlying Areas)</i>	X		X	X	2	
			<i>Institution Name</i>	X		X	X	3	
		1.	Brief Summary		X				X
		2.	Total FTEs/SYS in State						
	<b>II. Merit Review Process</b>								
		1.	Process Employed This Year						
		2.	Brief Explanation		X				X
	<b>III. Stakeholder Input</b>								
		1.	Actions Take to Seek Input						
			Brief Explanation		X				X
		2(A).	1. Methods to Identify						
			Brief Explanation		X				X
		2(B).	1. Methods to Collect Input						
			Brief Explanation		X				X
		3.	How Was the Input Considered						
			Brief Explanation - How Used?		X				X
			Key Stakeholder Input Items						
	<b>V. Expenditure Summary</b>								
		1	Formula Dollars Allocated						
		2	Actual Dollars for Planned programs						

**ANNUAL REPORT – PLANNED PROGRAM**

#	SECTION	CONTENTS	Search Using		2 - Key display fields for results	3 - Refine Results (2 to 5 fields)	4 - Hierarchy	5 - Advanced Search/Export Fields
			Code Field	Text Field				
					State, Year Institution		Region, State Institution	
<b>IV.</b>	<b>Planned Program</b>							
	(All for EACH Program)	Program Name		X				X
	(A)	Knowledge Areas						
		1. Knowledge Area Code(s)	X			X		X
		2. Knowledge Area Percentage(s)						
	(B)	Inputs						
		1. Scientist Years Expended						
		2. Dollars Expended						
	(C)	Activity and Participation						
		1. Description of Activity						X
		2. Description of Audience						X
	(D)	Outputs						
		1. # of Persons Reached						
		2. # of Patents Applications Submitted						
		3. List of Patents						
		4. # of Peer Reviewed Publications						
	(E)	State Defined Outputs						
		1. Output Measure Name		X				X
		2. Target						
		3. Actual						
	(F)	State Defined Outcomes						
		1. Outcome Measure Name		X				X
		2. Outcome Type	X			X		X
		3. Target						
		4. Actual						
		5. Qualitative Outcome - Issue		X				X
		Qual.Outcome - What Has Been Done		X				X
		Qual. - Results		X				X
		Associated Knowledge Area(s)	X			X		X
		Associated Institution Type	X					
	(G)	Outcomes						
		External Factors Affecting Outcomes						
		Brief Explanation		X				X
	(H)	Evaluation						
		Evaluation Studies Completed						
		Evaluation Results		X				X
		Key Items of Evaluation		X				X

4.2 CRIS

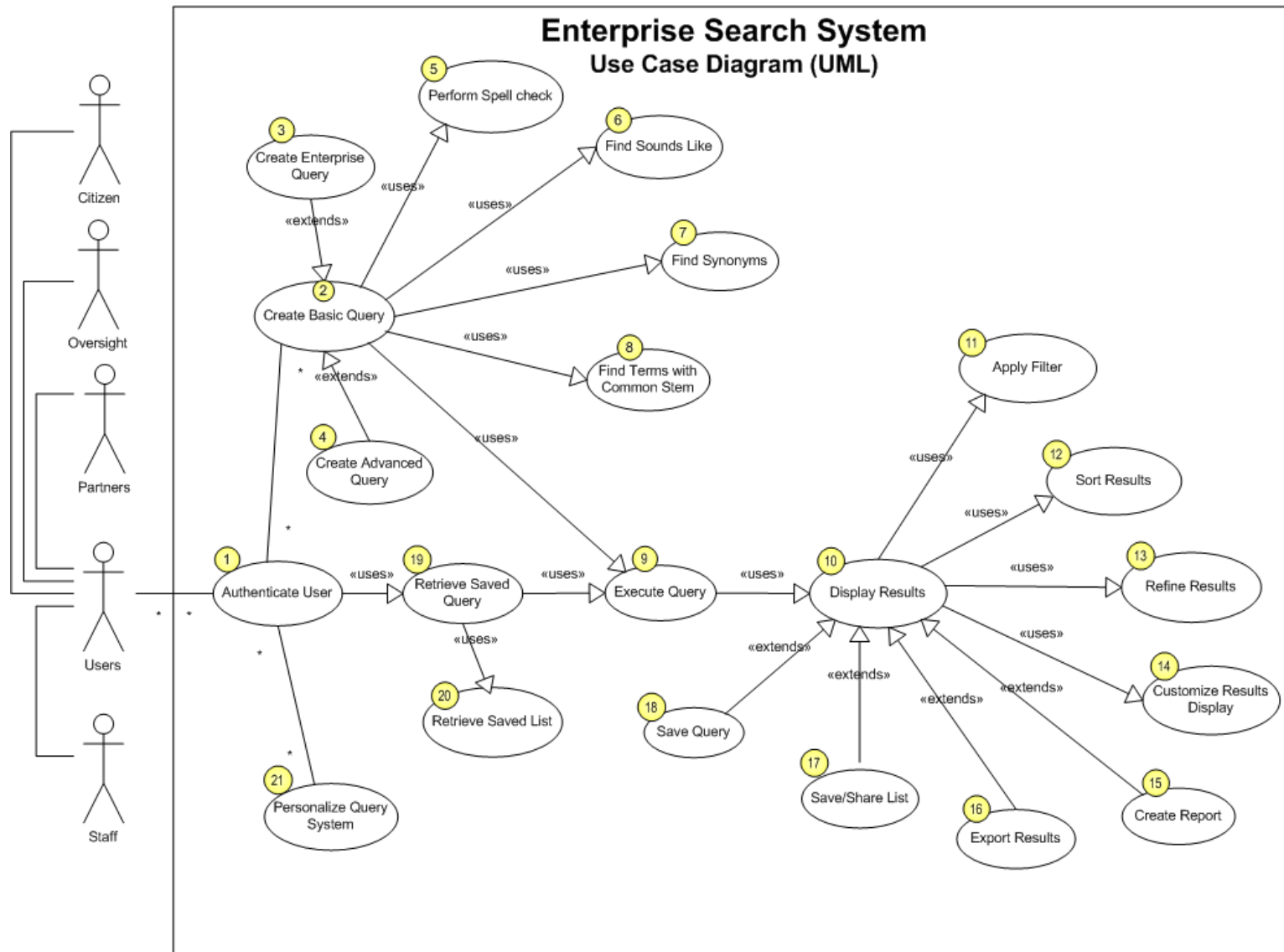
#	Data Elements	Derived Data	Existing Search	Search Using		Search within By	Sort By	Filter By	View	Export
				Code Field	Text Field					
1	Project Accession No		X				x		X	X
2	Primary Project Accession No						x		X	X
3	Project Status						x		X	X
4	Agency Code		X				x		X	X
5	Institution Type						x		X	X
6	Project ID No Text						x		X	X
7	Project Type		X				x		X	X
8	Project Termination Date						x		X	X
9	Project Start Date						x		X	X
10	Project Start FY	X					x		X	X
11	Project Start FQ	X					x		X	X
12	Project Start MM	X					x		X	X
13	Project Length/Duration	X					x		X	X
14	Project FY						x		X	X
15	Is Integrated Reseach Project						x		X	X
16	Project Grant Award Amount						x		X	X
17	Project Grant Award Date						x		X	X
18	Grant Code						x		X	X
19	Project Basic Percent						x		X	X
20	Project Development Percent						x		X	X
21	Project Applied Percent						x		X	X
22	Is USDA project						x		X	X
23	Project Regional Reseach No						x		X	X
24	Geographic Hierarchy						x	x	X	X
25	Project Region						x	x	X	X
26	Project State/Country		X				x	x	X	X
27	Institution Code		X				x	x	X	X
28	Department Code						x		X	X

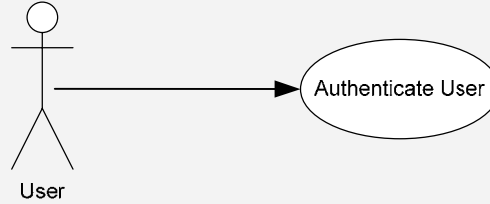
*CRIS (continued)*

	Data Elements	Derived Data	Existing Search	Search Using		Search within By	Sort By	Filter By	View	Export
				Code Field	Text Field					
29	Division/Station Code		X				x		X	X
30	Project Grant Award FY		X				x		X	X
31	Project Contact Name						x		X	X
32	Project Contact Phone						x		X	X
33	Project Contact Fax						x		X	X
34	Project Contact E-Mail						x		X	X
35	Project Contact URL						x		X	X
36	Project Contact Phone Ext						x		X	X
37	Knowledge Area						x	x	X	X
38	Knowledge Area Percent						x		X	X
39	Field Of Science						x	x	X	X
40	Field Of Science Percent						x		X	X
41	Subject of Investigation						x	x	X	X
42	Subject of Investigation Percent						x		X	X
43	Title		X			x	x		X	X
44	Publication		X			x			X	X
45	Impact Statement		X			x			X	X
46	Project Objective		X			x			X	X
47	Approach		X			x			X	X
48	Project Original Keyword				x				X	X
49	Project Progress Report		X		x	x			X	X
50	Objective				x	x			X	X

# 5 Functional Use Cases

## Use Case Diagram

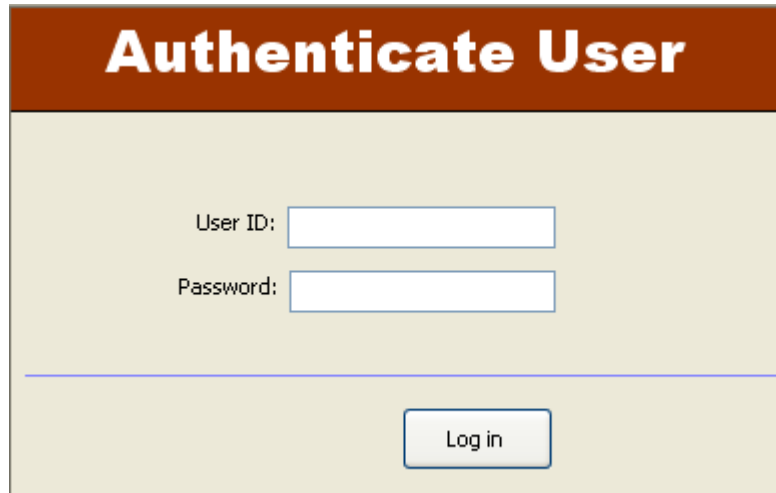




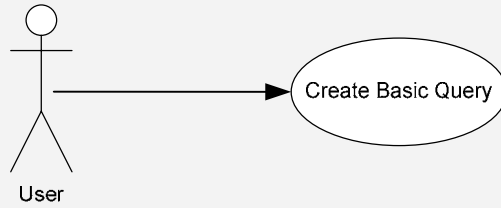
<b>Use Case No:</b>	UC-01
<b>Use Case Name:</b>	<i>UC-01: Authenticate User</i>
<b>Summary</b>	All users who request entry to the system must prove they are who they say they are (Authentication). This applies inside CSREES as well as outside. Who the user is determines what information he/she has access to (Authorization).
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the user requires access to the system.</li> <li>2. The system responds by prompting the user for User ID and Password.</li> <li>3. The user provides User ID and Password.</li> <li>4. The system responds by verifying the combination of User ID and Password against the recorded list of valid users.</li> <li>5. The system notifies the User that the User ID and password are valid and allows the user access to the system.</li> </ol>
<b>Alternative Paths:</b>	None
<b>Exception Paths</b>	<p>In Step 4, If the User ID and Password combination is not valid,</p> <ol style="list-style-type: none"> <li>4a) the system responds by notifying the user that the login failed and prompts the user to try again.</li> <li>4b) If the user tries three times unsuccessfully, the system responds by disallowing the user and marking the user record as suspended.</li> <li>4c) The system notifies the user to contact C2IT.</li> </ol>
<b>Extension Points</b>	None
<b>Trigger:</b>	The user requires access to the system.

<b>Preconditions</b>	The system is operational.
<b>Post conditions:</b>	The valid is allowed access to the system.

**Supporting Documentation**



The image shows a screenshot of a web-based authentication form. At the top, there is a dark red header with the text "Authenticate User" in white, bold font. Below the header, the form has a light beige background. It contains two input fields: "User ID:" followed by a white text box, and "Password:" followed by a white text box. A horizontal blue line is positioned below the password field. At the bottom center of the form, there is a button with a light beige background and a dark border, labeled "Log in".



<b>Use Case No:</b>	UC-02
<b>Use Case Name:</b>	<i>UC-02: Create Basic Query</i>
<b>Summary</b>	The Basic Query provides the user the ability to define and execute a text search within a single domain of information.
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the user decides to create a basic query against a single domain.</li> <li>2. The system responds by presenting the user with a list of available searchable domains which includes CRIS, POW, Annual Report, Grants, Awards, Reviewers, and Project Reviews.</li> <li>3. The user selects the CRIS domain from the list.</li> <li>4. The system responds by prompting the user for search criteria by presenting:             <ol style="list-style-type: none"> <li>a. A series of standardized CRIS-specific data fields and associated values to pick from:                 <ol style="list-style-type: none"> <li>i. Project Project Type Project Status</li> <li>ii. Project Related Years Reporting Fiscal Year Grant Fiscal Year</li> <li>iii. Classifications Knowledge Area Subject of Investigation Field of Science Program FDC Keywords</li> <li>iv. Unique Identifiers Accession Number Proposal Number</li> </ol> </li> </ol> </li> </ol>



	<p style="text-align: center;">Grant Number Award Number Project Number Multi-State Project Number</p> <p>v. Organization Agency Division/Station Institution/Department Investigator</p> <p>vi. Geographic Area City State Region Country</p> <p>b. One or more terms and phrases; or combinations of terms and phrases to include in the query. c. One or more terms to exclude from the query results.</p> <p>5. The user constructs the search criteria: a. By picking from associated list of values or by typing directly one, multiple or range of values into one or more data fields desired b. By typing one or more terms and phrases or combinations of terms and phrases to be included in the query. c. By typing one or more terms to be excluded from the search results.</p> <p>6. The system presents the user with a list of advanced options for expanding the scope of query which includes a. synonyms b. stemming c. sounds like</p> <p>7. The user responds by selecting one or more of the advanced options for expanding the scope of the query.</p> <p>8. The user submits the search requests for processing.</p> <p>9. The system responds by validating the query syntax; and accepting the query for processing and notifying the user that the request is being processed.</p>
<p><b>Alternative Paths:</b></p>	<p>In step 4, if the user selects the POW domain from the list, then 4a) The system responds by prompting the user for query criteria by presenting:</p>

	<ul style="list-style-type: none"> <li>a. A series of standardized POW-specific data fields and associated values to pick from: <ul style="list-style-type: none"> <li>i. Classification <ul style="list-style-type: none"> <li>Portfolio</li> <li>Knowledge Area</li> </ul> </li> <li>ii. Project Related Years <ul style="list-style-type: none"> <li>Plan/Annual Report Year</li> </ul> </li> <li>iii. Organization <ul style="list-style-type: none"> <li>Institution Type <ul style="list-style-type: none"> <li>a. Extension 1862</li> <li>b. Extension 1890</li> <li>c. Research 1862</li> <li>d. Research 1890</li> </ul> </li> <li>Institution Name</li> </ul> </li> <li>iv. Geographic Area <ul style="list-style-type: none"> <li>City</li> <li>State</li> <li>Region</li> <li>Country</li> </ul> </li> <li>v. Outcome <ul style="list-style-type: none"> <li>Change in Knowledge</li> <li>Change in Action</li> <li>Change in Condition</li> <li>Associated Knowledge Areas</li> <li>Associated Institution Type</li> </ul> </li> </ul> </li> <li>b. One or more terms and phrases; or combinations of terms and phrases to include in the search.</li> <li>c. One or more terms to exclude from the search results.</li> </ul>
<b>Exception Paths</b>	In Step 9, If the system determines that the basic query does not meet the syntax requirements, then the system notifies the user about the syntax violation and prompts the user to correct the query.
<b>Extension Points</b>	Use Synonyms, Use Stemming, Use Sounds like
<b>Trigger:</b>	The user requests to perform a basic query against a single domain of content.

<b>Pre-conditions</b>	The user is logged in to the system.
<b>Post-conditions:</b>	The basic query is processed and search results displayed.

### Supporting Documentation

## CRIS Basic Query

Select domain of information you would like to query:

Query all active and recently terminated projects     Query all historical projects (1998 - 2006)

**Field Query:**

**Project:**  
 Project Type:  ...  
 Project Status:  ...

**Project Associated Years:**  
 Reporting Fiscal year:  ...  
 Award Fiscal Year:  ...

**Classifications:**  
 Knowledge Area:  ...  
 Subject of Investigation:  ...  
 Field of Science:  ...  
 Program:  ...  
 FDC:  ...  
 Keywords:  ...

**Unique Identifiers of CRIS Projects:**  
 Accession Number:   
 Project Number:   
 Multi-state Project Number:   
 Proposal Number:   
 Award Number:

**Geographic Area:**  
 City:  ...  
 State:  ...  
 Region:  ...  
 Country:  ...

**Organization:**  
 Agency:  ...  
 Division Station:  ...  
 Department:  ...  
 Institution:  ...  
 Investigator:  ...

**Select Knowledge Areas you would like to query for**

Selection	Code	Knowledge Area
<input checked="" type="checkbox"/>	101	Appraisal of Soil Resources
<input checked="" type="checkbox"/>	102	Soil, Plant, Water, Nutrient Relationships
<input type="checkbox"/>	103	Management of Saline and Sodic Soils and Salinity
<input type="checkbox"/>	104	Protect Soil from Harmful Effects of Natural Element
<input type="checkbox"/>	111	Conservation and Efficient Use of Water
<input type="checkbox"/>	112	Watershed Protection and Management
<input type="checkbox"/>	121	Management of Range Resources
<input type="checkbox"/>	122	Management and Control of Forest and Range Fires
<input checked="" type="checkbox"/>	123	Management and Sustainability of Forest Resources
<input checked="" type="checkbox"/>	124	Urban Forestry
<input checked="" type="checkbox"/>	125	Agroforestry
<input checked="" type="checkbox"/>	131	Alternative Uses of Land
<input checked="" type="checkbox"/>	132	Weather and Climate
<input checked="" type="checkbox"/>	133	Pollution Prevention and Mitigation
<input type="checkbox"/>	134	Outdoor Recreation
<input type="checkbox"/>	135	Aquatic and Terrestrial Wildlife
<input type="checkbox"/>	136	Conservation of Biological Diversity
<input type="checkbox"/>	141	Air Resource Conservation and Management
<input type="checkbox"/>	201	Plant Breeding, Genome, Genetics, and Genetic Med
<input type="checkbox"/>	202	Plant Genetic Resources and Biodiversity
<input type="checkbox"/>	203	Plant Biological Efficiency and Abiotic Stresses Affr
<input type="checkbox"/>	204	Plant Product Quality and Utility (Preharvest)

**Text Query:**

Projects that contain at least one of:     AND ALSO contain at least one of:     BUT DO NOT contain any of:

Query Expansion Options:  Use Synonyms     Use Stemming     Use Sounds Like

Your current Query is: \_\_\_\_\_

*All active and recently terminated projects that meet the Text Query Criteria AND ALSO meet all of the following criteria*

1) Knowledge Area is in (101, 102, 123-133)    2) Reporting Fiscal year is 2006    3) Agency is "CSREES"    4) State is in ("VA", "MD", "NJ")

# POW Basic Query

Select domain of information you would like to query:

Plans of Work:

- Overviews  
 Planned Programs

Annual Reports:

- Overviews  
 Planned Programs

Field Query:

Knowledge Area:  ...

Plan/Annual Report Year:  ...

Organization:

Institution Type:

- Extension  
 Research  
 1862  
 1890

Geographic Area:

State:  ...

Region:  ...

Country:  ...

Institution:  ...

Outcome:

Associated Knowledge Area:  ...

Associated Institution Type:  ...

Outcome Type:

- Change in knowledge outcome measure  
 Change in action outcome measure  
 Change in condition outcome measure

Select Knowledge Areas you would like to query for

Selection	Code	Knowledge Area
<input checked="" type="checkbox"/>	101	Appraisal of Soil Resources
<input checked="" type="checkbox"/>	102	Soil, Plant, Water, Nutrient Relationships
<input type="checkbox"/>	103	Management of Saline and Sodic Soils and Salinity
<input type="checkbox"/>	104	Protect Soil from Harmful Effects of Natural Element
<input type="checkbox"/>	111	Conservation and Efficient Use of Water
<input type="checkbox"/>	112	Watershed Protection and Management
<input type="checkbox"/>	121	Management of Range Resources
<input type="checkbox"/>	122	Management and Control of Forest and Range Fires
<input checked="" type="checkbox"/>	123	Management and Sustainability of Forest Resources
<input checked="" type="checkbox"/>	124	Urban Forestry
<input checked="" type="checkbox"/>	125	Agroforestry
<input checked="" type="checkbox"/>	131	Alternative Uses of Land
<input checked="" type="checkbox"/>	132	Weather and Climate
<input checked="" type="checkbox"/>	133	Pollution Prevention and Mitigation
<input type="checkbox"/>	134	Outdoor Recreation
<input type="checkbox"/>	135	Aquatic and Terrestrial Wildlife
<input type="checkbox"/>	136	Conservation of Biological Diversity
<input type="checkbox"/>	141	Air Resource Conservation and Management
<input checked="" type="checkbox"/>	201	Plant Breeding, Genome, Genetics, and Genetic Mec

Apply

Cancel

Text Query:

Records that contain at least one of:

AND ALSO contain at least one of:

BUT DO NOT contain any of:

Query Expansion Options:

- Use Synonyms  
 Use Stemming  
 Use Sounds Like

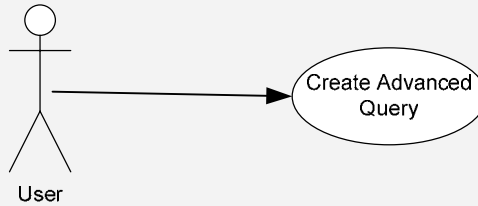
Submit

Cancel

Your current query is:

All planned programs that meet the Text Query Criteria AND ALSO meet all of the following criteria

- 1) Knowledge Area is in (101, 102, 123-133)    2) Plan Year is 2006    3) State is "VA"



<b>Use Case No:</b>	UC-03
<b>Use Case Name:</b>	<i>UC-03: Create Advanced Query</i>
<b>Summary</b>	The Advanced Query provides the experienced user with the ability to define and execute complex queries using any combination of structured data fields, derived fields, and text fields.
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the user selects the Advanced Query option from the CIS Query Home Page.</li> <li>2. The user selects the one domain to include in the search. Options currently include CRIS and Plans of Work/Annual Report.</li> <li>3. The Advanced Query page is divided into two major blocks. The first is called <b>Field Search</b> and the second <b>Text Search</b>.</li> <li>4. Each query definition line in the <b>Field Search</b> area consists of a combination of <b>Data Field, Operator, Field Value(s), and Continuation Operator</b>.</li> <li>5. To create a line, the user selects from a drop-down list of data fields, then chooses an operator, and finally enters one or more field values delimited by semicolons. A List Box of available values can be used by choosing the <b>List Box</b> option for any data field. <i>(For a complete list of available fields, see the CRIS Data Fields Matrix.)</i></li> <li>6. When the user selects the <b>List Box</b> option for a field, the system displays a list of all available values for the field, along with an associated check box for each value.</li> <li>7. The user selects one of more values from the list by checking each associated box and then selecting the <b>Apply</b> option.</li> <li>8. To create a query definition with more than one line, a value for the Continuation Operator (“And Also” or “Or”) must be selected from the drop-down list.</li> <li>9. Each query definition line in the <b>Text Field Query</b> area consists of a combination of <b>Text Field, Operator, Search Term, Comparison Operator, Comparison Term, and Continuation Operator</b>.</li> <li>10. The user first selects a Text Field from the drop-down list provided. For CRIS these fields include <b>Title, Non-Technical Summary, Objectives, Progress, Impact, Keywords, and</b></li> </ol>

**Publications.** There is also a Text Field called **Full Text** which includes a combination of all above except **Publications**.

11. Once the user selects a value for the **Text Field** prompt, the user must next select an **Operator** from the drop-down list. The options are **Contains** and **Does Not Contain**.
12. The user next enters one or more values in the **Search Term** field. Multiple values must be delimited by semicolons. The system will consider the semicolon as an OR instruction.
13. Next to the **Search Term** box is a **Terminology** option. When the user selects this option with a single entry in the Search Term box the system displays another window with the following options:
  - a. Spell Check (UC-05: Use Case 05)
  - b. Thesaurus (UC-06: Use Case 06)
  - c. Sounds Like (UC-07: Use Case 07)
  - d. Stemming (UC-08: Use Case 08)

See the associated use case document for more details about each option.

14. The user may further enhance a Text Field Query by specifying a **Comparison Operator** and a **Comparison Term**. Options for the **Comparison Operator** are:

Within 1 Word Of
Within 2 Words Of
Within 3 Words Of
Within 4 Words Of
Within The Same Paragraph
Within The Same Sentence
Adjacent To
But Does Not Contain
And Which Also Contain
Followed Anywhere By
Preceded Anywhere By

15. To add additional lines to a **Text Search** definition, select a **Combination Operator** on the previous line. The options are **And Also** or **Or**.
16. The user may select one or more Advanced Options. These options include **Use Thesaurus**, **Use Stemming**, and **Use Sounds Like**.
17. The user selects the range of projects to be searched. For CRIS, the options are “active and recently terminated” and “historical projects (1998-2006).” The default option is “active and recently terminated” projects.
18. The user selects the **Submit** option.

	19. After the <b>Submit</b> option is selected, the form passes all of the query definition and processing options to the Query Server for execution.
<b>Alternative Paths:</b>	17 b. For Plans of Work, the search domain options are: <b>Plans of Work –</b> <ul style="list-style-type: none"> <li>- Overviews (Including Stakeholder Input and Merit Review),</li> <li>- Planned Programs</li> </ul> <b>Annual Report</b> <ul style="list-style-type: none"> <li>- Overviews (Including Stakeholder Input and Merit Review)</li> <li>- Planned Programs</li> </ul>
<b>Exception Paths</b>	19 b. If <b>Submit</b> is selected, and there is no complete entry in either the <b>Field Search</b> or <b>Text Search</b> areas, the form will not call the Query Server, .and a message similar to “Query definition not complete” will be displayed
<b>Extension Points</b>	None
<b>Trigger:</b>	The user requires access to the system
<b>Pre-conditions</b>	The user has entered the home page for the CIS Query System
<b>Post-conditions:</b>	No.
<b>Supporting Documentation</b>	

# CRIS Advanced Query

Select domain of information you would like to query:

- Query all active and recently terminated projects
  Query all historical projects (1998 - 2006)

## Field Query

Data Field	Operator	Query Value(s)	Join Operator
<input checked="" type="checkbox"/> Knowledge Area	Does Not Match Any Of	101; 102; 123-133	And Also
<input checked="" type="checkbox"/> State	Matches At Least One Of	VA; MD; NJ; PA; NY	And Also
<input checked="" type="checkbox"/> Grant Award Amount	Greater Than	1,000,000	Or
<input checked="" type="checkbox"/> Project Length/Duration	Less Than	365	And Also
<input checked="" type="checkbox"/> Termination Date	Greater Than or Equal To	1/1/1998	And Also
<input checked="" type="checkbox"/> Termination Date	Less Than or Equal To	12/31/2004	

## Text Query

Data Field	Operator	Query Term	Operator	Query Term	Join Operator
<input checked="" type="checkbox"/> Objectives	Contains	Oak	Within 2 Words Of	Tree	And Also
<input checked="" type="checkbox"/> Impact Statement	Contains	improvement	Within The Same Sentence	resistance	
<input checked="" type="checkbox"/>					

Query Expansion Options:

- Use Synonyms
  Use Stemming
  Use Sounds Like

Submit

Cancel

Your current query is:

Query Translation: TBD



# POW Advanced Query

Select domain of information you would like to query:

- |   |   |
|---|---|
| Plans of Work<br><input checked="" type="checkbox"/> Overviews<br><input type="checkbox"/> Planned Programs | Annual Reports<br><input type="checkbox"/> Overviews<br><input type="checkbox"/> Planned Programs |
|---|---|

**Field Query**

	Data Field	Operator	Query Value(s)	Join Operator
<input checked="" type="checkbox"/>	Year	Equal To	2007	And/Also
<input checked="" type="checkbox"/>	State	Matches At Least One Of	VA; MD; DC	
<input checked="" type="checkbox"/>				

**Text Query:**

	Data Field	Operator	Query Term		Operator	Query Term	Join Operator
<input checked="" type="checkbox"/>	Plan Summary	Contains	Ozone		Within 1 Word Of	Layer	
<input checked="" type="checkbox"/>							

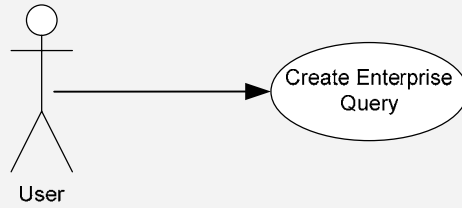
Query Expansion Options:

- Use Synonyms   
  Use Stemming   
  Use Sounds Like

Your current query is:

Query Translation: TBD



<b>Use Case No:</b>	UC-04
<b>Use Case Name:</b>	<i>UC-04: Create Enterprise (Federated) Query</i>
<b>Summary</b>	The Enterprise (Federated) Query provides the user the ability to define and execute a text search across multiple domains of information at the same time.
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the user requests to perform a search across multiple domains or source systems</li> <li>2. The system responds by presenting the user with a list of available searchable domains</li> <li>3. The user selects one ore more domains from the list of searchable domains</li> <li>4. The system prompts the user for search criteria:             <ol style="list-style-type: none"> <li>a. One or more terms and phrases; or combinations of terms and phrases to include in the search</li> <li>b. One or more terms to exclude from the search results</li> </ol> </li> <li>5. The user enters:             <ol style="list-style-type: none"> <li>a. One of more terms and phrases or combinations of terms and phrases to include in the search</li> <li>b. One or more terms to exclude from the search result</li> </ol> </li> <li>6. The system presents the user with a list of options for expanding the scope of search with             <ol style="list-style-type: none"> <li>a. synonyms</li> <li>b. stemming</li> <li>c. sounds like</li> </ol> </li> <li>7. The user chooses to use             <ol style="list-style-type: none"> <li>a. synonyms</li> <li>b. stemming</li> <li>c. sounds like</li> </ol> </li> <li>8. The user submits the search requests for processing</li> <li>9. The system responds by checking the query syntax; and accepting the query for processing and notifying the user that the request is being processed</li> </ol>

<b>Alternative Paths:</b>	None
<b>Exception Paths</b>	In Step 9, if the system determines that the Enterprise (Federated) query does not meet the syntax requirements, then the systems notifies the user about the syntax violation and prompts the user to correct the query
<b>Extension Points</b>	Use Synonyms, Use Stemming, Use Sounds like
<b>Trigger:</b>	The user requires to perform search across multiple domains
<b>Pre-conditions</b>	The user is logged in to the system
<b>Post-conditions:</b>	The Enterprise (Federated) query is processed and search results displayed
<b>Supporting Documentation</b>	

# Enterprise Query

Select domain of information you would like to query:

CRIS:

- Projects
- Proposals

C-REEMS:

- Proposals
- Reviewer Expertise

POW:

Plans of Work

- Overviews
- Planned Programs

Annual Reports

- Overviews
- Planned Programs

Text Query:

Records that contain at least one of:

AND ALSO contain at least one of:

BUT DO NOT contain any of:

Query Expansion Options:

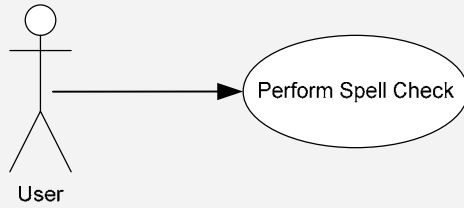
- Use Synonyms
- Use Stemming
- Use Sounds Like

Submit

Cancel

Your current query is:

All CRIS projects and proposals that contain at least one of the following ("sustainable", "green") and also contain at least one of the following ("energy", "fuels") but do not contain "corn".



<b>Use Case No:</b>	UC-05
<b>Use Case Name:</b>	<i>UC-05: Perform Spell Check</i>
<b>Summary</b>	The feature allows the user to perform a spell check on all terms entered into a <b>Search Term</b> or <b>Comparison Term</b> text box.
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the user selects the <b>Spell Check</b> option from the <b>Terminology</b> page.</li> <li>2. The System checks each term against a common dictionary, and displays a list of suggestions spelling corrections if it detects a possible error.</li> <li>3. The user selects one of the suggested spelling correction terms and selects the <b>OK</b> option.</li> <li>4. The system brings the corrections back to the <b>Search Term</b> box from which the <b>Terminology</b> option was selected.</li> <li>5. When the user selects the <b>Cancel</b> option, the system returns the display to the <b>Search Term</b> box from which the <b>Terminology</b> option was selected without returning any terms.</li> </ol>
<b>Alternative Paths:</b>	None
<b>Exception Paths</b>	None
<b>Extension Points</b>	None
<b>Trigger:</b>	None
<b>Pre-conditions:</b>	The user has selected the <b>Terminology</b> option from the Advanced Search page after entering text in the <b>Search Term</b> field
<b>Post-conditions:</b>	The valid user is allowed access to the system.

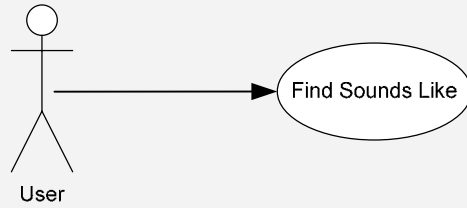
## Supporting Documentation

### Spelling suggestions for the query term "faarme"

Suggestions	Term appears in the database	Select
Organic	2	<input checked="" type="checkbox"/>
Organique	3	<input checked="" type="checkbox"/>
Farmer	99	<input type="checkbox"/>
Farmed	102	<input type="checkbox"/>
Farm	203	<input type="checkbox"/>
Farms	77	<input type="checkbox"/>

OK

Cancel



<b>Use Case No:</b>	UC-06
<b>Use Case Name:</b>	<i>UC-06: Find Sounds Like</i>
<b>Summary</b>	The feature allows the user to review other terms in the database that are related to the provided term and load selected terms into the <b>Search Term box</b> . (Soundex is an algorithm for encoding a word so that similar sounding words encode the same.)
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the user selects the <b>Sounds Like</b> option from the <b>Terminology</b> page.</li> <li>2. The System displays a list of terms in the current database that are related by the Soundex Algorithm. Next to each term is a count of how many records in the database contain that term.</li> <li>3. The user adds a check mark next to each term to be returned and selects the <b>OK</b> option.</li> <li>4. When the user selects the <b>OK</b> option, the system returns the selected terms to the <b>Search Term</b> box from which the <b>Terminology</b> option was selected.</li> <li>5. When the user selects the <b>Cancel</b> option, the system returns the display to the <b>Search Term</b> box from which the <b>Terminology</b> option was selected without returning any terms.</li> </ol>
<b>Alternative Paths:</b>	None
<b>Exception Paths</b>	None
<b>Extension Points</b>	None
<b>Trigger:</b>	The user requires access to the system
<b>Pre-conditions</b>	The user has selected the <b>Terminology</b> option from the Advanced Search page after entering text in the <b>Search Term</b> field

**Post-conditions:** None

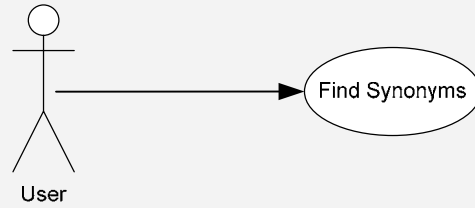
### Supporting Documentation

**Words that sound like the query term "farm"**

Sounds like	Term appears in the database	Select
Farme	3 times	<input checked="" type="checkbox"/>
Firm	7 times	<input checked="" type="checkbox"/>
Form	66 times	<input type="checkbox"/>
Faarm	3 times	<input type="checkbox"/>

OK Cancel





<b>Use Case No:</b>	UC-07
<b>Use Case Name:</b>	<i>UC-07: Find Synonyms</i>
<b>Summary</b>	The feature allows the user to review other terms in the database that are related via one or more Thesauri to the provided term and to load selected terms of interest into the <b>Search Term box</b> .
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the user selects the <b>Synonyms</b> option from the <b>Terminology</b> page.</li> <li>2. The System displays a list of terms in the current database that are considered <b>Related Terms</b> or <b>Narrower Terms</b> by one or more Thesauri (e.g. The National Agricultural Library). Next to each term displayed is a count of how many records in the database contain the related (synonym) term.</li> <li>3. The user adds a check mark next to each term to be returned and selects the <b>OK</b> option.</li> <li>4. When the user selects the <b>OK</b> option, the system returns the selected related terms to the <b>Search Term</b> box from which the <b>Terminology</b> option was selected.</li> <li>5. When the user selects the <b>Cancel</b> option, the system returns the display to the <b>Search Term</b> box from which the <b>Terminology</b> option was selected without returning any terms.</li> </ol>
<b>Alternative Paths:</b>	None
<b>Exception Paths</b>	None
<b>Extension Points</b>	None
<b>Trigger:</b>	The user requires access to the system
<b>Pre-conditions</b>	The user has selected the <b>Terminology</b> option from the Advanced Search page after entering text in the <b>Search Term</b> field

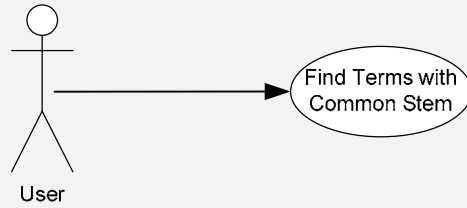
**Post-conditions:** None

### Supporting Documentation

**Synonyms of the query term "farm"**

Synonyms	Term appears in the database	Select
Agriculture	2	<input type="checkbox"/>
Cultivate	122	<input type="checkbox"/>
Plow	22	<input type="checkbox"/>
Grow	23	<input type="checkbox"/>
Raise	4	<input type="checkbox"/>
Plant	3	<input type="checkbox"/>

OK Cancel



<b>Use Case No:</b>	UC-08
<b>Use Case Name:</b>	<i>UC-08: Find Terms with Common Stems</i>
<b>Summary</b>	The feature allows the user to review other terms in the database that are related to the provided term via a common stem. For example, all of the terms "fishing", "fished", "fish", and "fisher" are related to the root word, "fish"
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the user selects the <b>Stemming</b> option from the <b>Terminology</b> page.</li> <li>2. The System displays a list of terms in the current database that are related by a common stem. Next to each term is a count of how many records in the database contain that term.</li> <li>3. The user adds a check mark next to each term to be returned and selects the <b>OK</b> option.</li> <li>4. When the user selects the <b>OK</b> option, the system returns the selected terms to the <b>Search Term</b> box from which the <b>Terminology</b> option was selected.</li> <li>5. When the user selects the <b>Cancel</b> option, the system returns the display to the <b>Search Term</b> box from which the <b>Terminology</b> option was selected without returning any terms.</li> </ol>
<b>Alternative Paths:</b>	None
<b>Exception Paths</b>	None
<b>Extension Points</b>	None
<b>Trigger:</b>	The user requires access to the system
<b>Pre-conditions</b>	The user has selected the <b>Terminology</b> option from the Advanced Search page after entering text in the <b>Search Term</b> field
<b>Post-conditions:</b>	None

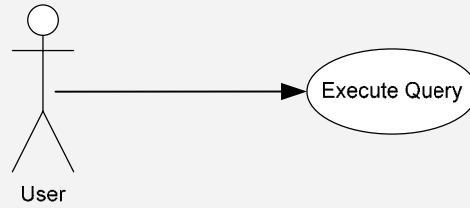
## Supporting Documentation

### Words that stem from the query term "farm"

Stemming	Term appears in the database	Select
Farming	122 times	<input checked="" type="checkbox"/>
Farmer	133 times	<input checked="" type="checkbox"/>
Farmed	5 times	<input type="checkbox"/>

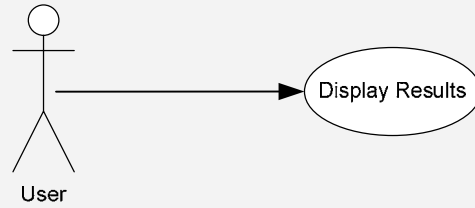
OK

Cancel



<b>Use Case No:</b>	UC-09
<b>Use Case Name:</b>	<i>UC-09: Execute Query</i>
<b>Summary</b>	A query definition is passed to the Query Server when the user fills out one of the search forms (Enterprise (Federated) Query, Basic Query, and Advanced Query) and selects the <b>Submit Query</b> option. The resulting record set is processed and displayed as specified in the <b>Display Results</b> use case.
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the user selects the <b>Submit Query</b> option from any of the Query forms (e.g.: CRIS Basic Query).</li> <li>2. The system passes the query definition parameters from the form to the query server.</li> <li>3. The query server translates the query criteria and selection domain options into one or a series of SQL queries that are sent to the database server.</li> <li>4. The database server returns the results to the query server.</li> <li>5. The query server stores the resulting query hits in a set of tables that identifies the user and query session uniquely.</li> </ol>
<b>Alternative Paths:</b>	None
<b>Exception Paths</b>	None
<b>Extension Points</b>	None
<b>Trigger:</b>	The user requires access to the system
<b>Pre-conditions</b>	The user has filled out one of the query definition forms
<b>Post-conditions:</b>	Tables are populated with lists of records that satisfy the query conditions and identifies the user and query session uniquely

<b>Supporting Documentation</b>
<b>N/A</b>



<b>Use Case No:</b>	UC-10
<b>Use Case Name:</b>	<i>UC-10: Display Results</i>
<b>Summary</b>	Once the set of records that match the search criteria are specified in the query, the result is ranked, categorized and clustered to ensure the result is presented in a way that allows for further refinement and analysis.
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. The system identifies records that match the query criteria.</li> <li>2. The system applies security restrictions to the result set based on the user's access privileges</li> <li>3. The system ranks the relevancy of records based pre-determined relevancy criteria</li> <li>4. The system categorizes the result and displays the result set as specified in the user settings or uses the system default (if no user settings are identified).</li> <li>5. The system generates content specific filters and user settings for further refinement</li> <li>6. The system displays the result</li> </ol>
<b>Alternative Paths:</b>	None
<b>Exception Paths</b>	None
<b>Extension Points</b>	None
<b>Trigger:</b>	The user requires access to the system
<b>Pre-conditions</b>	The query submitted must meet all syntax requirements
<b>Post-conditions:</b>	All the records that meet the query criteria and relevant filters are displayed

**Supporting Documentation**

# CRIS Query Results

Your query for "Organic" and "Farm" found:

▶ [Active and recently terminated CRIS projects \(44\)](#)    ▶ [CRIS project history \(100\)](#)

View: [Detail](#) | [Summary](#)

1 - 25 of 144 CRIS Projects

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	Accession No	Project Title	Institution	Hits	Related Records	
					POW	Awards
<input type="checkbox"/>	<a href="#">0085372</a>	Degradation of agricultural and natural toxins present in livestock	UNIV OF CALIFORNIA	11	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0081132</a>	Dynamics of Livestock Insects and Associated Vector-borne	UNIV OF MINNESOTA	9	<a href="#">3</a>	<a href="#">1</a>
<input checked="" type="checkbox"/>	<a href="#">0089841</a>	USE OF NMR SPECTROSCOPY IN CONFORMATIONAL ANALY	TEXAS A&M UNIV	9	<a href="#">2</a>	<a href="#">1</a>
<input checked="" type="checkbox"/>	<a href="#">0068123</a>	GENETIC STUDIES IN VEGETABLE CROPS	OREGON STATE UNIVERSITY	8	<a href="#">3</a>	<a href="#">2</a>
<input checked="" type="checkbox"/>	<a href="#">0074045</a>	PLANT GENETIC RESOURCES CONSERVATION AND UTILIZAT	VIRGINIA POLYTECHNIC INSTITUT	6	<a href="#">1</a>	<a href="#">1</a>
<input checked="" type="checkbox"/>	<a href="#">0084840</a>	WEED CONTROL IN CROPLAND AND NON-CROPPED AREAS C	OREGON STATE UNIVERSITY	8	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0081625</a>	DEVELOPMENT OF CROPPING PRACTICES FOR PROFITABILIT	OREGON STATE UNIVERSITY	10	<a href="#">1</a>	<a href="#">2</a>
<input type="checkbox"/>	<a href="#">0014308</a>	PLANT GENETIC RESOURCE CONSERVATION AND UTILIZATIC	OREGON STATE UNIVERSITY	4	<a href="#">3</a>	<a href="#">2</a>
<input type="checkbox"/>	<a href="#">0081620</a>	SUSTAINABLE MANAGEMENT FOR POTATO PRODUCTION AN	OREGON STATE UNIVERSITY	9	<a href="#">2</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0079420</a>	ANTHOCYANIN PIGMENTS AND POLYPHENOLICS IN FRUITS A	OREGON STATE UNIVERSITY	3	<a href="#">3</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0080957</a>	ROOTSTOCK AND INTERSTEM EFFECTS ON POME AND STON	OREGON STATE UNIVERSITY	6	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0057761</a>	BIOLOGICAL CONTROL OF WEEDS	OREGON STATE UNIVERSITY	8	<a href="#">3</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0056503</a>	Breeding and Genetics of Hazelnut	OREGON STATE UNIVERSITY	5	<a href="#">2</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0014885</a>	ORCHARD FLOOR MANAGEMENT PRACTICES FOR IMPROVIN	OREGON STATE UNIVERSITY	7	<a href="#">3</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0011635</a>	REPRODUCTIVE PERFORMANCE IN DOMESTIC RUMINANTS	OREGON STATE UNIVERSITY	7	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0082978</a>	THE NATIONAL ATMOSPHERIC DEPOSITION PROGRAM	UNIV OF MASSACHUSETTS	6	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0004446</a>	weed Management in Horticultural Crops	OREGON STATE UNIVERSITY	9	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0030355</a>	Multistate Research Coordination, Northeastern Region	UNIV OF MASSACHUSETTS	4	<a href="#">3</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0087962</a>	ROOTSTOCK AND INTERSTEM EFFECTS ON POME AND STON	UNIV OF MASSACHUSETTS	11	<a href="#">2</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0071358</a>	Multistate Research Coordination, Southern Region	UNIVERSITY OF GEORGIA	9	<a href="#">3</a>	<a href="#">2</a>
<input type="checkbox"/>	<a href="#">0075198</a>	THE NATIONAL ATMOSPHERIC DEPOSITION PROGRAM (NADF	UNIVERSITY OF ILLINOIS	9	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0073727</a>	ROOTSTOCK AND INTERSTEM EFFECTS ON POME- AND STON	UNIVERSITY OF ILLINOIS	8	<a href="#">3</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0079288</a>	MANAGEMENT OF GRAIN QUALITY AND SECURITY FOR WOF	UNIVERSITY OF ILLINOIS	6	<a href="#">2</a>	<a href="#">2</a>
<input type="checkbox"/>	<a href="#">0073640</a>	CONSERVATION, MANAGEMENT, ENHANCEMENT AND UTILIZ.	UNIVERSITY OF ILLINOIS	8	<a href="#">3</a>	<a href="#">2</a>

Select All

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Refine Results (keyword):

In

[Query](#)

Knowledge Area

- 102 Soil, Plant, Water Nutrient (22)
- 212 Pathogens and Nematodes (55)
- 311 Animal Diseases (77)
- All Knowledge Area

Subject of Investigation

- 3299 Poultry, general/other (33)
- 3310 Beef cattle, live animal (70)
- Sheep, live animal (43)

Geographic Area

- Eastern Region (74)
  - VA (44)
  - MD (30)
- Western Region (30)
  - CA (15)
  - OR (15)
- More >>

[Apply](#)

[Clear](#)



# POW Query Results

Your query for "Organic" and "Farm" found:

[Plans of Work](#)

[Annual Reports](#)

[▶ Overviews \(22\)](#)

[▶ Overviews \(13\)](#)

[▶ Planned Programs \(47\)](#)

[▶ Planned Programs \(29\)](#)

View: [Detail](#) | [Summary](#)

1 - 25 of 44 Plans of Work

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	Plan Name	Institution	State	Hits	Related Records		
					Plan Progs	Annu. Reports	Report Progs
<input type="checkbox"/>	2007 Kentucky State University and University of Kentucky Comk	Kentucky State University	Kentucky	25	<a href="#">25</a>	<a href="#">25</a>	<a href="#">25</a>
<input type="checkbox"/>	2007 Louisiana State University Combined Research and Extensi	Louisiana State University	Louisiana	28	<a href="#">28</a>	<a href="#">28</a>	<a href="#">28</a>
<input type="checkbox"/>	2007 Southern University and A&M College Combined Research :	Southern University and A&	Louisiana	8	<a href="#">8</a>	<a href="#">8</a>	<a href="#">8</a>
<input type="checkbox"/>	2007 University of Maine Research Plan of Work	University of Maine	Maine	28	<a href="#">28</a>	<a href="#">28</a>	<a href="#">28</a>
<input type="checkbox"/>	2007 University of Maine Extension Plan of Work	University of Maine	Maine	27	<a href="#">27</a>	<a href="#">27</a>	<a href="#">27</a>
<input type="checkbox"/>	2007 University of Maryland and University of Maryland - Easterr	University of Maryland	Maryland	30	<a href="#">30</a>	<a href="#">30</a>	<a href="#">30</a>
<input type="checkbox"/>	2007 University of Maryland and University of Maryland - Easterr	University of Maryland - Ea	Maryland	29	<a href="#">29</a>	<a href="#">29</a>	<a href="#">29</a>
<input type="checkbox"/>	2007 University of Massachusetts Research Plan of Work	University of Massachusett	Massachus	32	<a href="#">32</a>	<a href="#">32</a>	<a href="#">32</a>
<input type="checkbox"/>	2007 University of Massachusetts Extension Plan of Work	University of Massachusett	Massachus	31	<a href="#">31</a>	<a href="#">31</a>	<a href="#">31</a>
<input type="checkbox"/>	2007 Michigan State University Combined Research and Extensic	Michigan State University	Michigan	29	<a href="#">29</a>	<a href="#">29</a>	<a href="#">29</a>
<input type="checkbox"/>	2007 University of Minnesota Combined Research and Extension	University of Minnesota	Minnesota	33	<a href="#">33</a>	<a href="#">33</a>	<a href="#">33</a>
<input type="checkbox"/>	2007 College of Micronesia Combined Research and Extension Pl	College of Micronesia	Micronesia, I	10	<a href="#">10</a>	<a href="#">10</a>	<a href="#">10</a>
<input type="checkbox"/>	2007 Mississippi State University Combined Research and Extens	Mississippi State University	Mississippi	30	<a href="#">30</a>	<a href="#">30</a>	<a href="#">30</a>
<input type="checkbox"/>	2007 Alcorn State University Combined Research and Extension	Alcorn State University	Mississippi	6	<a href="#">6</a>	<a href="#">6</a>	<a href="#">6</a>
<input type="checkbox"/>	2007 University of Missouri Research Plan of Work	University of Missouri	Missouri	35	<a href="#">35</a>	<a href="#">35</a>	<a href="#">35</a>
<input type="checkbox"/>	2007 University of Missouri Extension Plan of Work	University of Missouri	Missouri	34	<a href="#">34</a>	<a href="#">34</a>	<a href="#">34</a>
<input type="checkbox"/>	2007 Alabama A&M University and Tuskegee University and Aub	Auburn University	Alabama	5	<a href="#">5</a>	<a href="#">5</a>	<a href="#">5</a>
<input type="checkbox"/>	2007 Alabama A&M University and Tuskegee University and Aub	Alabama A&M University	Alabama	4	<a href="#">4</a>	<a href="#">4</a>	<a href="#">4</a>
<input type="checkbox"/>	2007 Alabama A&M University and Tuskegee University and Aub	Tuskegee University	Alabama	3	<a href="#">3</a>	<a href="#">3</a>	<a href="#">3</a>
<input type="checkbox"/>	2007 Alabama A&M University and Auburn University Combined I	Auburn University	Alabama	2	<a href="#">2</a>	<a href="#">2</a>	<a href="#">2</a>
<input type="checkbox"/>	2007 Alabama A&M University and Auburn University Combined I	Alabama A&M University	Alabama	1	<a href="#">1</a>	<a href="#">1</a>	<a href="#">1</a>

Select All

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[Save Query](#)

[Save List](#)

[Export Results](#)

[Create Report](#)

Refine Results (keyword):

In



[Query](#)

Knowledge Area

- 102 Soil, Plant, Water Nutrient (22)
- 212 Pathogens and Nematodes (55)
- 311 Animal Diseases (77)
- All Knowledge Area

Plan Year

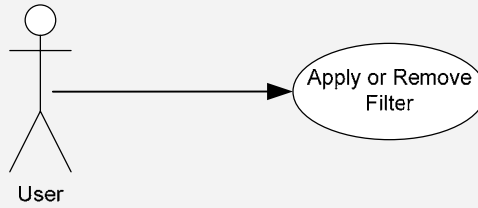
- 2007 (8)
- 2008 (8)
- 2009 (6)

Geographic Area

- Eastern Region (74)
  - VA (44)
  - MD (30)
- Weastern Region (30)
  - CA (15)
  - OR (15)
- More >>

[Apply](#)

[Clear](#)



<b>Use Case No:</b>	UC-11
<b>Use Case Name:</b>	<i>UC-11: Apply or Remove Filter</i>
<b>Summary</b>	The Apply and Remove Filter provides the user the ability to apply/remove filters on the result set.
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the query results are returned to the user.</li> <li>2. The default filters for the result set is customizable. If the user has not customized his/her settings, then the default filters will be presented.</li> <li>3. The user can define up to 3 multi-select (check boxes).</li> <li>4. For CRIS Query results, the default filters are:             <ol style="list-style-type: none"> <li>a. Knowledge Area</li> <li>b. Subject of Investigation</li> <li>c. Geographic Area</li> </ol> </li> <li>5. For CRIS, the filters can be applied on the following fields:             <ol style="list-style-type: none"> <li>a. Geographic Hierarchy</li> <li>b. Project Region</li> <li>c. Project State/Country</li> <li>d. Institution Code</li> <li>e. Knowledge Area</li> <li>f. Field Of Science</li> <li>g. Subject of Investigation</li> </ol> </li> <li>6. The default CRIS filters will be applied for an Enterprise (Federated) Query Results. When the user selects a specific domain, the default filters for that domain will be applied</li> <li>7. The user selects the desired filters and selects the <b>Apply</b> button.</li> <li>8. After the <b>Apply</b> button is selected, the query results are filtered on the selected filters.</li> <li>9. To remove the selection of filters before it is applied, the user selects the <b>Clear</b> button which clears all the selections.</li> </ol>

<b>Alternative Paths:</b>	<p>4a. For Plans Of Work and Annual Reports, the default filters are:</p> <ul style="list-style-type: none"> <li>a. Year</li> <li>b. State</li> <li>c. Geographic Area – Region, State, Institution</li> </ul> <p>5a. For Plans of Work and Annual Report, filters can be applied on the following fields:</p> <ul style="list-style-type: none"> <li>a. Year</li> <li>b. State</li> <li>c. Institution</li> <li>d. Geographic Area – Region, State, Institution</li> <li>e. Knowledge Area Code (POW Planned Program and Annual Report Planned Programs)</li> <li>f. Knowledge Area’s associated to Outcome (POW Planned Program and Annual Report Planned Programs)</li> <li>g. Institution Type associated to Outcome (Annual Report Planned Program)</li> </ul>
<b>Exception Paths</b>	6a. If <b>Apply</b> is selected, and there are no new filters, the user will be prompted to select new filters.
<b>Extension Points</b>	None
<b>Trigger:</b>	The user requires access to the system
<b>Pre-conditions</b>	The user has executed a query from the CIS Query System that has returned some results.
<b>Post-conditions:</b>	None
<b>Supporting Documentation</b>	

# Enterprise Query Results

Your query for "Organic" and "Farm" found:

CRIS:

- [Projects \(144\)](#)
- [Proposals \(145\)](#)

C-REEMS:

- [Proposals \(12\)](#)
- [Reviewer Expertise \(12\)](#)

POW:

- [Plans of Work](#)
- [Annual Reports](#)
- [Overviews \(2\)](#)
- [Overviews \(3\)](#)
- [Planned Programs \(13\)](#)
- [Planned Programs \(12\)](#)

Refine Results (keyword):

In

Query

Knowledge Area

- 102 Soil, Plant, Water Nutrient (22)
- 212 Pathogens and Nematodes (55)
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- All Knowledge Area

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- Eastern Region (74)
  - VA (44)
  - MD (30)
- Western Region (30)
  - CA (15)
  - OR (15)
- More >>

Apply

Clear

View: [Detail](#) | [Summary](#)

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	Accession No	Project Title	Institution	Hits	Related Records	
					POW	Awards
<input type="checkbox"/>	<a href="#">0085372</a>	Degradation of agricultural and natural toxins present in livestock	UNIV OF CALIFORNIA	11	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0081132</a>	Dynamics of Livestock Insects and Associated Vector-borne f	UNIV OF MINNESOTA	9	<a href="#">3</a>	<a href="#">1</a>
<input checked="" type="checkbox"/>	<a href="#">0089841</a>	USE OF NMR SPECTROSCOPY IN CONFORMATIONAL ANALY	TEXAS A&M UNIV	9	<a href="#">2</a>	<a href="#">1</a>
<input checked="" type="checkbox"/>	<a href="#">0068123</a>	GENETIC STUDIES IN VEGETABLE CROPS	OREGON STATE UNIVERSITY	8	<a href="#">3</a>	<a href="#">2</a>
<input checked="" type="checkbox"/>	<a href="#">0074045</a>	PLANT GENETIC RESOURCES CONSERVATION AND UTILIZAT	VIRGINIA POLYTECHNIC INSTITUT	6	<a href="#">1</a>	<a href="#">1</a>
<input checked="" type="checkbox"/>	<a href="#">0084840</a>	WEED CONTROL IN CROPLAND AND NON-CROPPED AREAS C	OREGON STATE UNIVERSITY	8	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0081625</a>	DEVELOPMENT OF CROPPING PRACTICES FOR PROFITABILIT	OREGON STATE UNIVERSITY	10	<a href="#">1</a>	<a href="#">2</a>
<input type="checkbox"/>	<a href="#">0014308</a>	PLANT GENETIC RESOURCE CONSERVATION AND UTILIZATIC	OREGON STATE UNIVERSITY	4	<a href="#">3</a>	<a href="#">2</a>
<input type="checkbox"/>	<a href="#">0081620</a>	SUSTAINABLE MANAGEMENT FOR POTATO PRODUCTION AN	OREGON STATE UNIVERSITY	9	<a href="#">2</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0079420</a>	ANTHOCYANIN PIGMENTS AND POLYPHENOLICS IN FRUITS A	OREGON STATE UNIVERSITY	3	<a href="#">3</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0080957</a>	ROOTSTOCK AND INTERSTEM EFFECTS ON POME AND STON	OREGON STATE UNIVERSITY	6	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0057761</a>	BIOLOGICAL CONTROL OF WEEDS	OREGON STATE UNIVERSITY	8	<a href="#">3</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0056503</a>	Breeding and Genetics of Hazelnut	OREGON STATE UNIVERSITY	5	<a href="#">2</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0014885</a>	ORCHARD FLOOR MANAGEMENT PRACTICES FOR IMPROVIN	OREGON STATE UNIVERSITY	7	<a href="#">3</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0011635</a>	REPRODUCTIVE PERFORMANCE IN DOMESTIC RUMINANTS	OREGON STATE UNIVERSITY	7	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0082978</a>	THE NATIONAL ATMOSPHERIC DEPOSITION PROGRAM	UNIV OF MASSACHUSETTS	6	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0004446</a>	weed Management in Horticultural Crops	OREGON STATE UNIVERSITY	9	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0030355</a>	Multistate Research Coordination, Northeastern Region	UNIV OF MASSACHUSETTS	4	<a href="#">3</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0087962</a>	ROOTSTOCK AND INTERSTEM EFFECTS ON POME AND STON	UNIV OF MASSACHUSETTS	11	<a href="#">2</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0071358</a>	Multistate Research Coordination, Southern Region	UNIVERSITY OF GEORGIA	9	<a href="#">3</a>	<a href="#">2</a>
<input type="checkbox"/>	<a href="#">0075198</a>	THE NATIONAL ATMOSPHERIC DEPOSITION PROGRAM (NADF	UNIVERSITY OF ILLINOIS	9	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0073727</a>	ROOTSTOCK AND INTERSTEM EFFECTS ON POME- AND STON	UNIVERSITY OF ILLINOIS	8	<a href="#">3</a>	<a href="#">1</a>

Select All

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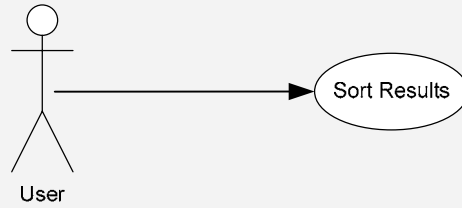
Customize Display

Save Query

Save List

Export Results

Create Report



<b>Use Case No:</b>	UC-12
<b>Use Case Name:</b>	<i>UC-12: Sort Results</i>
<b>Summary</b>	The Sort Result feature provides the user the ability to sort on fields in the result set.
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the query results are returned to the user.</li> <li>2. The sort order is customizable.</li> <li>3. The default sort order is “Ascending”</li> <li>4. For CRIS Query results, the default sort is in ascending order of Accession Number.</li> <li>5. The default CRIS sort order will be applied for an Enterprise (Federated) Query Result. When the user selects a specific domain, the sort order for that domain will be applied.</li> <li>6. The user can customize the sort fields and sort order.</li> <li>7. The user can click on the column name (title) to sort on that column.</li> </ol>
<b>Alternative Paths:</b>	4a. For Plans Of Work and Annual Reports, the default sort is in ascending order of Year, followed by State and Institution name
<b>Exception Paths</b>	None
<b>Extension Points</b>	None
<b>Trigger:</b>	The user requires access to the system
<b>Pre-conditions</b>	The user has executed a query from the CIS Query System that has returned some results.
<b>Post-conditions:</b>	None

**Supporting Documentation**

# Enterprise Query Results

Your query for "Organic" and "Farm" found:

CRIS:

- [Projects \(144\)](#)
- [Proposals \(145\)](#)

C-REEMS:

- [Proposals \(12\)](#)
- [Reviewer Expertise \(12\)](#)

POW:

- [Plans of Work](#)
- [Annual Reports](#)
- [Overviews \(2\)](#)
- [Overviews \(3\)](#)
- [Planned Programs \(13\)](#)
- [Planned Programs \(12\)](#)

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	Accession No	Project Title	Institution	Hits	Related Records	
					POW	Awards
<input type="checkbox"/>	<a href="#">0085372</a>	Degradation of agricultural and natural toxins present in livestock	UNIV OF CALIFORNIA	11	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0081132</a>	Dynamics of Livestock Insects and Associated Vector-borne	UNIV OF MINNESOTA	9	<a href="#">3</a>	<a href="#">1</a>
<input checked="" type="checkbox"/>	<a href="#">0089841</a>	USE OF NMR SPECTROSCOPY IN CONFORMATIONAL ANALY	TEXAS A&M UNIV	9	<a href="#">2</a>	<a href="#">1</a>
<input checked="" type="checkbox"/>	<a href="#">0068123</a>	GENETIC STUDIES IN VEGETABLE CROPS	OREGON STATE UNIVERSITY	8	<a href="#">3</a>	<a href="#">2</a>
<input checked="" type="checkbox"/>	<a href="#">0074045</a>	PLANT GENETIC RESOURCES CONSERVATION AND UTILIZAT	VIRGINIA POLYTECHNIC INSTITUT	6	<a href="#">1</a>	<a href="#">1</a>
<input checked="" type="checkbox"/>	<a href="#">0084840</a>	WEED CONTROL IN CROPLAND AND NON-CROPPED AREAS C	OREGON STATE UNIVERSITY	8	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0081625</a>	DEVELOPMENT OF CROPPING PRACTICES FOR PROFITABILIT	OREGON STATE UNIVERSITY	10	<a href="#">1</a>	<a href="#">2</a>
<input type="checkbox"/>	<a href="#">0014308</a>	PLANT GENETIC RESOURCE CONSERVATION AND UTILIZATIC	OREGON STATE UNIVERSITY	4	<a href="#">3</a>	<a href="#">2</a>
<input type="checkbox"/>	<a href="#">0081620</a>	SUSTAINABLE MANAGEMENT FOR POTATO PRODUCTION AN	OREGON STATE UNIVERSITY	9	<a href="#">2</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0079420</a>	ANTHOCYANIN PIGMENTS AND POLYPHENOLICS IN FRUITS A	OREGON STATE UNIVERSITY	3	<a href="#">3</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0080957</a>	ROOTSTOCK AND INTERSTEM EFFECTS ON POME AND STON	OREGON STATE UNIVERSITY	6	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0057761</a>	BIOLOGICAL CONTROL OF WEEDS	OREGON STATE UNIVERSITY	8	<a href="#">3</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0056503</a>	Breeding and Genetics of Hazelnut	OREGON STATE UNIVERSITY	5	<a href="#">2</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0014885</a>	ORCHARD FLOOR MANAGEMENT PRACTICES FOR IMPROVIN	OREGON STATE UNIVERSITY	7	<a href="#">3</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0011635</a>	REPRODUCTIVE PERFORMANCE IN DOMESTIC RUMINANTS	OREGON STATE UNIVERSITY	7	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0082978</a>	THE NATIONAL ATMOSPHERIC DEPOSITION PROGRAM	UNIV OF MASSACHUSETTS	6	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0004446</a>	weed Management in Horticultural Crops	OREGON STATE UNIVERSITY	9	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0030355</a>	Multistate Research Coordination, Northeastern Region	UNIV OF MASSACHUSETTS	4	<a href="#">3</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0087962</a>	ROOTSTOCK AND INTERSTEM EFFECTS ON POME AND STON	UNIV OF MASSACHUSETTS	11	<a href="#">2</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0071358</a>	Multistate Research Coordination, Southern Region	UNIVERSITY OF GEORGIA	9	<a href="#">3</a>	<a href="#">2</a>
<input type="checkbox"/>	<a href="#">0075198</a>	THE NATIONAL ATMOSPHERIC DEPOSITION PROGRAM (NADF	UNIVERSITY OF ILLINOIS	9	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0073727</a>	ROOTSTOCK AND INTERSTEM EFFECTS ON POME- AND STON	UNIVERSITY OF ILLINOIS	8	<a href="#">3</a>	<a href="#">1</a>

Select All

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[Save Query](#)

[Save List](#)

[Export Results](#)

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Refine Results (keyword):

In

[Query](#)

Knowledge Area

- 102 Soil, Plant, Water Nutrient (22)
- 212 Pathogens and Nematodes (55)
- 311 Animal Diseases (77)
- All Knowledge Area

Subject of Investigation

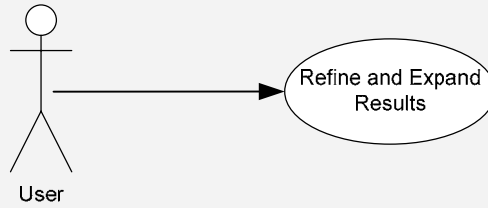
- 3299 Poultry, general/other (33)
- 3310 Beef cattle, live animal (70)
- Sheep, live animal (43)

Geographic Area

- Eastern Region (74)
  - VA (44)
  - MD (30)
- Western Region (30)
  - CA (15)
  - OR (15)
- More >>

[Apply](#)

[Clear](#)



<b>Use Case No:</b>	UC-13
<b>Use Case Name:</b>	<i>UC-13: Refine and Expand Results (keyword)</i>
<b>Summary</b>	The Refine and Expand Results feature provides the user the ability to refine or Expand the query results without having to go back to the Query screen
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the query results are returned to the user.</li> <li>2. The system will display the queried keywords under the “Current Search” with an option to <b>Undo</b> the keyword(s) searched on.</li> <li>3. If the user clicks on <b>Undo</b>, the keyword term that was undone will be removed from the query and the result set will reflect the query results without that keyword.</li> <li>4. Under “Refine Results” the user can enter additional keywords to be included in the <i>Current Search</i> or in <i>All Projects</i>.</li> <li>5. The <i>Current Search</i> or <i>All Projects</i> is available as dropdown list options.</li> <li>6. The user can enter one or more terms and phrases or combinations of terms and phrases to be included in the <i>Current Search</i> or to be searched under <i>All Projects</i></li> <li>7. The user submits the refined search request for processing.</li> <li>8. The system responds by validating the query syntax; and accepting the query for processing and notifying the user that the request is being processed</li> </ol>
<b>Alternative Paths:</b>	4a. For Plans Of Work and Annual Reports, the user can search within the <i>Current Search</i> or within the <i>Plan/Annual Report/both</i> depending on the domain specified by the user.
<b>Exception Paths</b>	None
<b>Extension Points</b>	None
<b>Trigger:</b>	The user requires access to the system

<b>Pre-conditions</b>	The user has executed a query from the CIS Query System that has returned some results
<b>Post-conditions:</b>	The refined query is processed and refined search results are displayed

### Supporting Documentation

## Enterprise Query Results

Your query for "Organic" and "Farm" found:

**CRIS:**

[Projects \(144\)](#)

[Proposals \(145\)](#)

**C-REEMS:**

[Proposals \(12\)](#)

[Reviewer Expertise \(12\)](#)

**POW:**

[Plans of Work](#)

[Annual Reports](#)

[Overviews \(2\)](#)

[Overviews \(3\)](#)

[Planned Programs \(13\)](#)

[Planned Programs \(12\)](#)

View: [Detail](#) | [Summary](#)
1 - 25 of 144 CRIS Projects
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	Accession No	Project Title	Institution	Hits	Related Records	
					POW	Awards
<input type="checkbox"/>	<a href="#">0085372</a>	Degradation of agricultural and natural toxins present in livestock	UNIV OF CALIFORNIA	11	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0081132</a>	Dynamics of Livestock Insects and Associated Vector-borne F	UNIV OF MINNESOTA	9	<a href="#">3</a>	<a href="#">1</a>
<input checked="" type="checkbox"/>	<a href="#">0089841</a>	USE OF NMR SPECTROSCOPY IN CONFORMATIONAL ANALY	TEXAS A&M UNIV	9	<a href="#">2</a>	<a href="#">1</a>
<input checked="" type="checkbox"/>	<a href="#">0068123</a>	GENETIC STUDIES IN VEGETABLE CROPS	OREGON STATE UNIVERSITY	8	<a href="#">3</a>	<a href="#">2</a>
<input checked="" type="checkbox"/>	<a href="#">0074045</a>	PLANT GENETIC RESOURCES CONSERVATION AND UTILIZAT	VIRGINIA POLYTECHNIC INSTITUT	6	<a href="#">1</a>	<a href="#">1</a>
<input checked="" type="checkbox"/>	<a href="#">0084840</a>	WEED CONTROL IN CROPLAND AND NON-CROPPED AREAS C	OREGON STATE UNIVERSITY	8	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0081625</a>	DEVELOPMENT OF CROPPING PRACTICES FOR PROFITABILIT	OREGON STATE UNIVERSITY	10	<a href="#">1</a>	<a href="#">2</a>
<input type="checkbox"/>	<a href="#">0014308</a>	PLANT GENETIC RESOURCE CONSERVATION AND UTILIZATIC	OREGON STATE UNIVERSITY	4	<a href="#">3</a>	<a href="#">2</a>
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<input type="checkbox"/>	<a href="#">0079420</a>	ANTHOCYANIN PIGMENTS AND POLYPHENOLICS IN FRUITS A	OREGON STATE UNIVERSITY	3	<a href="#">3</a>	<a href="#">1</a>
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<input type="checkbox"/>	<a href="#">0056503</a>	Breeding and Genetics of Hazelnut	OREGON STATE UNIVERSITY	5	<a href="#">2</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0014885</a>	ORCHARD FLOOR MANAGEMENT PRACTICES FOR IMPROVIN	OREGON STATE UNIVERSITY	7	<a href="#">3</a>	<a href="#">1</a>
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<input type="checkbox"/>	<a href="#">0004446</a>	weed Management in Horticultural Crops	OREGON STATE UNIVERSITY	9	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0030355</a>	Multistate Research Coordination, Northeastern Region	UNIV OF MASSACHUSETTS	4	<a href="#">3</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0087962</a>	ROOTSTOCK AND INTERSTEM EFFECTS ON POME AND STON	UNIV OF MASSACHUSETTS	11	<a href="#">2</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0071358</a>	Multistate Research Coordination, Southern Region	UNIVERSITY OF GEORGIA	9	<a href="#">3</a>	<a href="#">2</a>
<input type="checkbox"/>	<a href="#">0075198</a>	THE NATIONAL ATMOSPHERIC DEPOSITION PROGRAM (NADF	UNIVERSITY OF ILLINOIS	9	<a href="#">1</a>	<a href="#">1</a>
<input type="checkbox"/>	<a href="#">0073727</a>	ROOTSTOCK AND INTERSTEM EFFECTS ON POME- AND STON	UNIVERSITY OF ILLINOIS	8	<a href="#">3</a>	<a href="#">1</a>

Select All
Back
Customize Display
Save Query
Save List
Export Results
Create Report

**Refine Results (keyword):**

**In**

Query

**Knowledge Area**

- 102 Soil, Plant, Water Nutrient (22)
- 212 Pathogens and Nematodes (55)
- 311 Animal Diseases (77)
- All Knowledge Area

**Subject of Investigation**

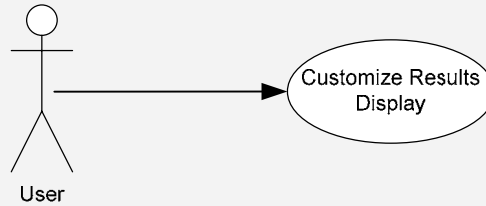
- 3299 Poultry, general/other (33)
- 3310 Beef cattle, live animal (70)
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**Geographic Area**

- Eastern Region (74)
  - VA (44)
  - MD (30)
- Western Region (30)
  - CA (15)
  - OR (15)
- More >>

Apply
Clear





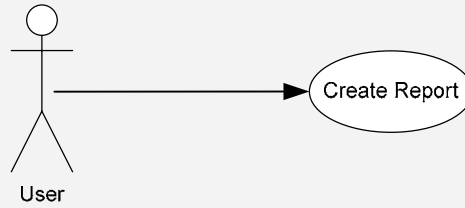
<b>Use Case No:</b>	UC-14
<b>Use Case Name:</b>	<i>UC-14: Customize Results Display</i>
<b>Summary</b>	The number of data elements that can be displayed as part of the query result is limited by the amount of screen space available. By default, the user is presented with a pre-determined subset of data elements when the result of a query is returned. Occasionally, users may require customizing the subset of data elements initially displayed—adding to, or removing data elements from, the initial subset.
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the user requires to customize the subset of data elements displayed as part of the query result</li> <li>2. The system responds by presenting the user with a list of all data fields associated with the query result</li> <li>3. The user selects the desired data elements from the list of fields</li> <li>4. The system accepts the selection and customizes the displayed result to reflect user's selections</li> </ol>
<b>Alternative Paths:</b>	None
<b>Exception Paths</b>	In step 3, if the user selects more data fields that can fit in to the available screen space, then the system must display the first set of user selected data elements that can fit into the available space; the system must then notify the user about the insufficient screen space for displaying all selections
<b>Extension Points</b>	None
<b>Trigger:</b>	The user requires to add or remove data elements from the displayed query result
<b>Pre-conditions</b>	A query has been processed and the result has been presented
<b>Post-conditions:</b>	A query result with a set of data elements that reflect user's selection is displayed

## Supporting Documentation

**Select data elements to be displayed**

Select	Data Field
<input checked="" type="checkbox"/>	Accession No
<input type="checkbox"/>	Primary Project Accession No
<input checked="" type="checkbox"/>	Project Status
<input checked="" type="checkbox"/>	Agency Code
<input type="checkbox"/>	Institution Type
<input checked="" type="checkbox"/>	Project Type
<input type="checkbox"/>	Termination Date
<input type="checkbox"/>	Project Start Date
<input type="checkbox"/>	Project Start FY
<input type="checkbox"/>	Project Start FQ
<input type="checkbox"/>	Project Start MM
<input type="checkbox"/>	Project Length/Duration
<input type="checkbox"/>	Project FY
<input type="checkbox"/>	Integrated Research Project
<input type="checkbox"/>	Grant Award Amount

Apply Cancel



<b>Use Case No:</b>	UC-15
<b>Use Case Name:</b>	<i>UC-15: Create Report</i>
<b>Summary</b>	After the initial set of records that meet the search criteria has been identified and displayed, the user may desire to create functionally rich and visually appealing reports quickly—reports that deliver more meaningful information by grouping, categorizing and aggregating the result of the query.
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. The use case begins when the user request to generate/create report based on the query result displayed.</li> <li>2. The system responds by presenting the user with a report/chart library with pre-defined set of report and chart templates.</li> <li>3. The user selects a report template from the library</li> <li>4. The system accepts the selected report template</li> <li>5. Based on the result of the query, the system produces a report that reflects the selected report template</li> </ol>
<b>Alternative Paths:</b>	In Step 3, if the user selects a chart template, then the system accepts the selected report template 3a. Based on the result of the query, the system produces a chart that reflects the selected chart template
<b>Exception Paths</b>	In step 3, if the user cancels the request to create or chart, the system then redisplay the query result
<b>Extension Points</b>	None
<b>Trigger:</b>	The user requires to create a report
<b>Pre-conditions</b>	A query has been processed and the result has been presented
<b>Post-conditions:</b>	User desired report or chart that is based on the query result is created.

## Supporting Documentation

### Report Template Library (Matrix/Chart)

Chose Report Template to apply to the result of your query

Report Template	Report Content
FTEs by Portfolio and by Institution Type	Plans of Work
FTEs by Knowledge Area by Institution Type	Plans of Work
FTEs by Goal and by Institution Type	Plans of Work
FTEs by Goal by Portfolio and by Institution	Plans of Work
FTEs by Portfolio and by Region	Plans of Work
FTEs by Portfolio and by Institution Type	Plans of Work
<b>Formula Projects by FY and By Fund Type</b>	<b>Projects</b>
Funding by KA and by Topic Area	Projects
Funding by Funding Sources and by Year	Projects
Funding by Knowledge Area Topic	Projects
Funding by KA and Topic Area	Projects
Projects by KA	Projects
Funding by Source by Year	Projects

Report Design    Chart Design

#### Formula Fund Projects and Approvals by Year by Funding Types

FY	Formula Fund Type	Approved Per Fiscal Year	
		Number Approved	Number Not Approved
2003	Hatch	237	0 (8 deferred)
	Mc-Stn	1	0 (0 deferred)
	Evans Allen	12	0 (3 deferred)
	1433 Animal Health	21	0 (0 deferred)
2004	Hatch	226	0 (0 deferred)
	Mc-Stn	2	0 (0 deferred)
	Evans Allen	10	0 (0 deferred)
	1433 Animal Health	22	0 (0 deferred)
2005	Hatch	206	1 (5 deferred)
	Mc-Stn	2	0 (0 deferred)
	Evans Allen	7	0 (0 deferred)
	1433 Animal Health	23	2 (1 deferred)

Displays number of projects approved and not approved by Fiscal Year and Formula Fund Type. Typically used by first selecting a range of years and a Portfolio or list of Knowledge Areas

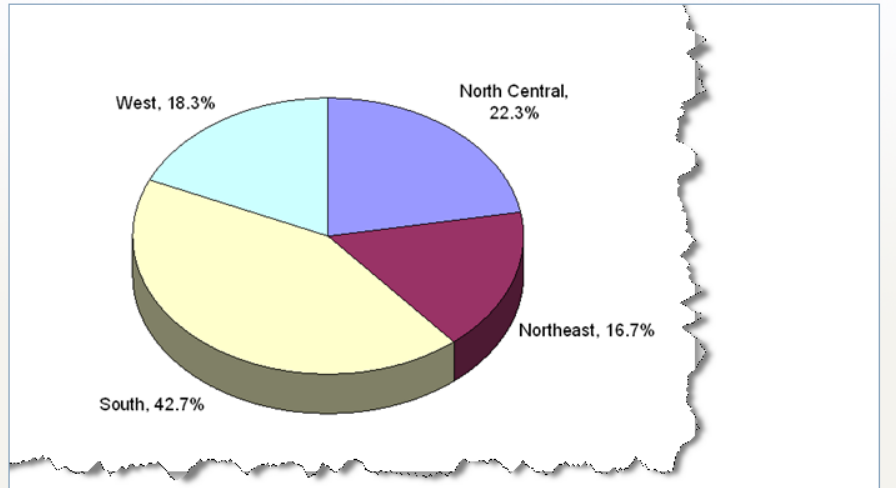
## Report Template Library (Matrix/Chart)

Chose Report Template to apply to the result of your query

Report Template	Report Content
FTEs by Portfolio and by Institution Type	Plans of Work
FTEs by Knowledge Area by Institution Type	Plans of Work
FTEs by Goal and by Institution Type	Plans of Work
FTEs by Goal by Portfolio and by Institution	Plans of Work
<b>FTEs by Portfolio and by Region</b>	<b>Plans of Work</b>
FTEs by Portfolio and by Institution Type	Plans of Work
Formula Projects by FY and By Fund Type	Projects
Funding by KA and by Topic Area	Projects
Funding by Funding Sources and by Year	Projects
Funding by Knowledge Area Topic	Projects
Funding by KA and Topic Area	Projects
Projects by KA	Projects
Funding by Source by Year	Projects

Report Design

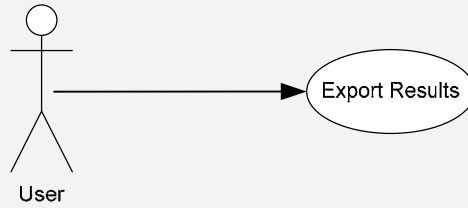
Chart Design



This report/chart template presents the percentage of FTE's by Portfolio and by Region from Plan of Work data

Apply

Cancel



<b>Use Case No:</b>	UC-16
<b>Use Case Name:</b>	<i><b>UC-16: Export Results</b></i>
<b>Summary</b>	After a set of records that meet user’s search criteria has been identified and displayed, the user may need to export the result to excel, word or other tools for further analysis and reporting.
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the user requests to export the result of the query to other tools</li> <li>2. The system responds by presenting the user with a list of all data fields associated with the query result that can be exported</li> <li>3. The user selects the desired data elements from the list of fields</li> <li>4. The system presents a list of export file formats that includes (Excel, Word, Adobe, Text, XML)</li> <li>5. The user selects export file format from the list</li> <li>6. The system generates the export file in the desired format and prompts the user for file name and location</li> <li>7. The user indicates the file name and location.</li> <li>8. The system saves the export file using user specified file name and location</li> </ol>
<b>Alternative Paths:</b>	None
<b>Exception Paths</b>	If the system is unable to export the file in the selected format or to the specified name and location then an appropriate message will be displayed to the user.
<b>Extension Points</b>	None
<b>Trigger:</b>	The user requires to export the result
<b>Pre-conditions</b>	A query has been processed and the result has been presented

**Post-conditions:**

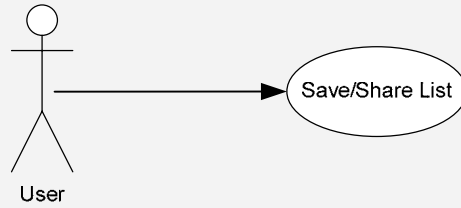
User desired export file based the query result is created.

**Supporting Documentation**

**Select data elements to be exported**

Select	Data Field
<input checked="" type="checkbox"/>	Accession No
<input type="checkbox"/>	Primary Project Accession No
<input checked="" type="checkbox"/>	Project Status
<input checked="" type="checkbox"/>	Agency Code
<input type="checkbox"/>	Institution Type
<input checked="" type="checkbox"/>	Project Type
<input type="checkbox"/>	Termination Date
<input type="checkbox"/>	Project Start Date
<input type="checkbox"/>	Project Start FY
<input type="checkbox"/>	Project Start FQ
<input type="checkbox"/>	Project Start MM
<input type="checkbox"/>	Project Length/Duration
<input type="checkbox"/>	Project FY

Export File Type:



<b>Use Case No:</b>	UC-17
<b>Use Case Name:</b>	<i>UC-17: Save/Share List</i>
<b>Summary</b>	Once the processing of the query is completed and the query results are displayed, the user may choose to save and share the results. Unlike saving the query, which is actually saving the <u>definition</u> of the query criteria used, saving the <u>results</u> of the query is saving a list of the record identifiers that satisfied the query criteria at that point in time. This enables the user to create a “snapshot in time” that will not change if new records are modified or added to the database.
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the user desires to save and share the results of the query</li> <li>2. The system responds by prompting the user for query results:             <ol style="list-style-type: none"> <li>a. Name</li> <li>b. Purpose</li> <li>c. Date Created</li> <li>d. Created by</li> </ol> </li> <li>3. The user enters the information.</li> <li>4. The system accepts the query results information and prompts the user to specify whether to share the query results with other users.</li> <li>5. The user agrees to share the result with others.</li> <li>6. The system responds by saving the results, which will make it available to other users.</li> </ol>
<b>Alternative Paths:</b>	In step 5, if the user does not agree to share the results of the query, then the query results are saved but not made available for viewing by other users. (The query results record is tagged as private, not public.)
<b>Exception Paths</b>	In step 4, the system determines that the query results name provided by user already exists in the system, then the system prompts the user for another query, If the user does not supply another name, the existing query will be replaced



<b>Extension Points</b>	No
<b>Trigger:</b>	The user requests to save and share the result of a query
<b>Pre-conditions</b>	A query has been processed and the results has been presented to user
<b>Post-conditions:</b>	The query results are saved with user-specified descriptive information and made available to other users.

### Supporting Documentation

**Save/Share List**

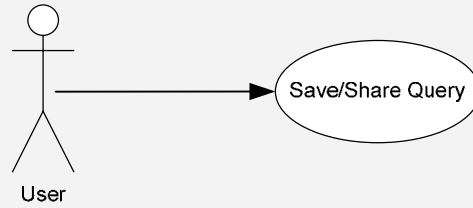
List name:

Describe the purpose of the list (what is it used for)

Date List Created:

List Created By:

Do you want to share this list with others?

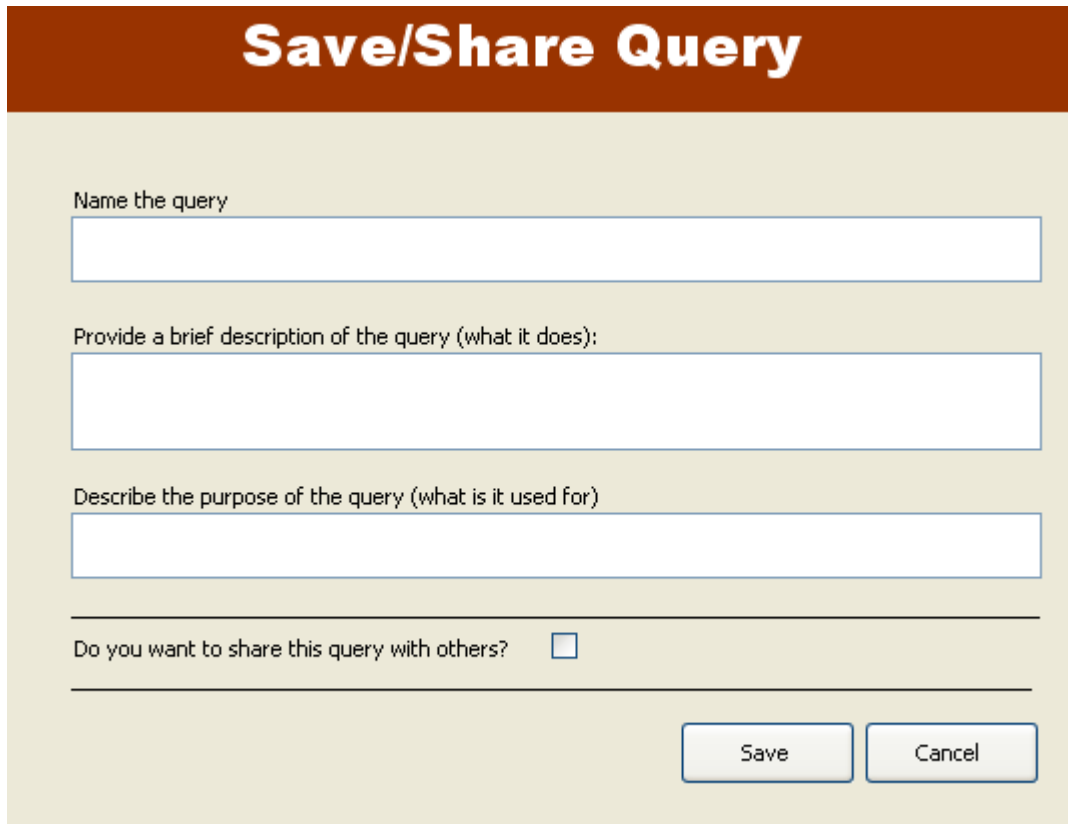


<b>Use Case No:</b>	UC-18
<b>Use Case Name:</b>	<i>UC-18: Save/Share Query</i>
<b>Summary</b>	Once the processing of the query is completed and the query result is displayed, users may chose to save and share the query. Unlike saving the results, saving the query enables the user to produce results that are reflective of the most current information in the system.
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the user desires to save and share the query</li> <li>2. The system responds by prompting the user for query:             <ol style="list-style-type: none"> <li>a. Name</li> <li>b. Description</li> <li>c. Purpose</li> </ol> </li> <li>3. The user enters the information.</li> <li>4. The system accepts the query information and prompts the user to specify whether to share the query with other users.</li> <li>5. The user agrees to share the query with other users.</li> <li>6. The system responds by saving the query and making it available to other users.</li> </ol>
<b>Alternative Paths:</b>	In step 5, if the user does not agree to share the query, then the query is saved but not made available to other users. (The query is tagged as private, not public.)
<b>Exception Paths</b>	In step 4, if the system determines that the query name provided by the user already exists in the system, then the system prompts the user for another query name. If the user does not supply another name, the existing query will be replaced
<b>Extension Points</b>	None
<b>Trigger:</b>	The user requests to save and share the query
<b>Pre-conditions</b>	A query has been processed and the results have been presented

**Post-conditions:**

The query is saved with user-specified descriptive information and made available to other users .

**Supporting Documentation**



**Save/Share Query**

Name the query

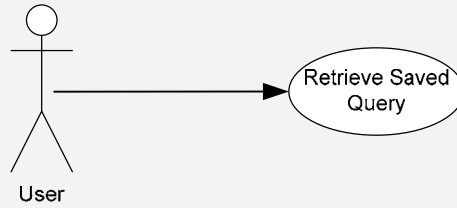
Provide a brief description of the query (what it does):

Describe the purpose of the query (what is it used for)

---

Do you want to share this query with others?

---



<b>Use Case No:</b>	UC-19
<b>Use Case Name:</b>	<i><b>UC-19: Retrieve Saved Query</b></i>
<b>Summary</b>	The user can retrieve a query previously created and saved. The user can retrieve private queries created by him/her, or queries defined as public by other users.
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the user requests to retrieve a previously saved query.</li> <li>2. The system responds by prompting the user for the type of query? (Public vs. Private)</li> <li>3. The user selects “Private Query.”</li> <li>4. The system responds by presenting the user with a list of previously saved private queries.</li> <li>5. The user selects a query from the list</li> <li>6. The system responds by processing the selected query and displaying the results.</li> </ol>
<b>Alternative Paths:</b>	<ol style="list-style-type: none"> <li>1. In step 3, if the user selects “Public Query”, the system responds by presenting the user with a list of previously saved public queries.</li> <li>2. The user selects a query from the list.</li> <li>3. The system responds by processing the selected query and displaying the results.</li> </ol>
<b>Exception Paths</b>	None
<b>Extension Points</b>	None
<b>Trigger:</b>	The user requests to retrieve a previously saved query.
<b>Pre-conditions</b>	The user is logged in to the system.
<b>Post-conditions:</b>	The results of the selected query are displayed.

**Supporting Documentation**

# Retrieve Saved Query

Private Query

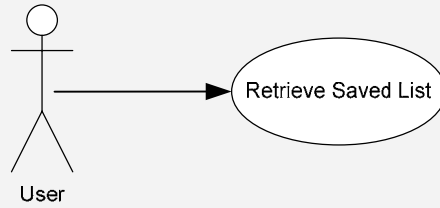
Public Query

## Private saved queries (accessible only by the author of the query)

Query Name	Author	Date Created	Domain	Category
Projects conducted by University of Wisconsin in 2003	Deb Hamernik	1/22/2008	Projects	Advanced Search
Projects related to ecosystem between 1999-2007	Deb Hamernik	1/22/2008	Projects	Basic Search

Retrieve

Cancel



<b>Use Case No:</b>	UC-20
<b>Use Case Name:</b>	<i>UC-20: Retrieve Saved List</i>
<b>Summary</b>	The user can retrieve a previously created and saved list (list of records). The user can retrieve a private list created by him/her, or a list defined as public by other users.
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. This use case begins when the user requests to retrieve a previously saved list.</li> <li>2. The system responds by prompting the user for the type of list (Public vs. Private)</li> <li>3. The user selects “Private List”</li> <li>4. The system responds by presenting the user with a list of previously saved private lists.</li> <li>5. The user selects one from the displayed list.</li> <li>6. The system responds by displaying the selected list.</li> </ol>
<b>Alternative Paths:</b>	<ol style="list-style-type: none"> <li>1. In step 3, the user selects “Public List”, the system responds by presenting the user with a list of previously saved public lists.</li> <li>2. The user one from the displayed list.</li> <li>3. The system responds by displaying the selected list.</li> </ol>
<b>Exception Paths</b>	None
<b>Extension Points</b>	None
<b>Trigger:</b>	The user requests to retrieve a previously saved list.
<b>Pre-conditions</b>	None
<b>Post-conditions:</b>	The selected list of records is displayed.

**Supporting Documentation**

# Retrieve Saved List

Private List

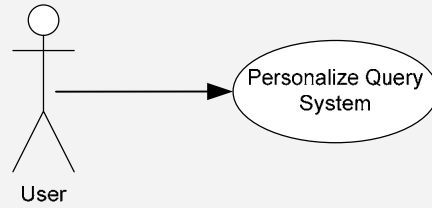
Public List

## Private saved list (accessible only by the author of the list)

Query Name	Author	Date Created	Domain	Category
Projects conducted by University of Wisconsin in 2003	Deb Hamernik	1/22/2008	Projects	Advanced Search
Projects related to ecosystem between 1999-2007	Deb Hamernik	1/22/2008	Projects	Basic Search

Retrieve

Cancel



<b>Use Case No:</b>	UC-21
<b>Use Case Name:</b>	<i>UC-21: Personalize Query System</i>
<b>Summary</b>	<p>Each authenticated user can personalize four features of the Query System. These features include:</p> <ul style="list-style-type: none"> <li>• List of data elements that are displayed in the <b>Display Results</b> screen for each source system.</li> <li>• The sort order of the data elements in the <b>Display Results</b> screen.</li> <li>• List of filters that appear on the <b>Display Results</b> screen for each source system.</li> <li>• List of fields that appear in the <b>Export Results</b> screen.</li> </ul>
<b>Basic Course of Events</b>	<ol style="list-style-type: none"> <li>1. <b>Modify</b> option displayed next to each list.</li> <li>2. When the user selects the <b>Modify</b> option, a list of all possible values is displayed.</li> <li>3. The user selects the a) values to be used and b) the associated order in which the value will be displayed.</li> <li>4. When the user selects <b>Apply</b>, the selections for list of interest are saved.</li> <li>5. When the user selects <b>Cancel</b>, the selections for the list of interest are ignored and the previous collection of selections is restored.</li> <li>6. The user selects the <b>Save</b> option to save the updates that have been entered for all lists.</li> <li>7. The user selects the <b>Cancel</b> option to cancel the edits and return all values to their previous state</li> </ol>
<b>Alternative Paths:</b>	None
<b>Exception Paths</b>	None
<b>Extension Points</b>	None
<b>Trigger:</b>	The user requires access to the system



<b>Pre-conditions</b>	The user must be logged in as an authenticated user. Public users do not have access to this feature.
<b>Post-conditions:</b>	Tables are populated with lists of records that satisfy the query conditions and identifies the user and query session uniquely.

**Supporting Documentation**

**Personalize Query System - CRIS**

Display Results Screen - Fields for One Line Record Display:

Field Name	Sort Order
Accession No	1
Institution	5
Project Type	2
Proposal Number	3

Display Results Screen - Fields for Filter Panel:

Geographic Hierarchy  
Knowledge Area  
Subject of Investigation

Fields for Export Selection List:

Accession No  
Primary Project Accession No  
Project Status  
Agency Code  
Institution Type  
Project Type  
Termination Date  
Project Start Date  
Project Start FY