



Agriculture and
Agri-Food Canada

Agriculture et
Agroalimentaire Canada



SCIENCE SCAN DATABASE USER GUIDE

Version 1.1

Table of Contents

1	Introduction	1
2	Installation, download and system requirements	1
2.1	Supported operating systems	1
3	Science Scan table relationships	2
4	Data import & manipulation	3
4.1	Data	3
4.2	Data fields	3
4.3	Data Manipulation	5
4.4	Data import	6
4.5	Direct entry (through forms).....	6
4.5.1	Core Data Form	7
4.5.2	Alternative method to add new “Person” data	9
4.5.3	Alternative method to add new “People Roles”	10
4.5.4	Alternate method to add new “Project Data”	12
4.5.5	Alternative method to add new “Data set”	13
4.5.6	Alternative method to add new “Institution data”	14
4.5.7	Alternative method to add new “Sub Organization data”	16
4.5.8	Alternate method to add new “Funding Source data”	17
4.6	From MS Excel.....	18
5	Science Scan Database “Main” form	25
5.1	Searching the Science Scan	26
5.2	Science Scan Project Information Form	27
5.3	Method of linking Funding Assignments and People Assignment to Projects	28
5.3.1	Linking Funding Assignment to Projects	28
5.3.2	Linking Project Assignments to Projects	31
5.3.3	Alternative method to link Funding Assignments to Projects	33
5.3.4	Alternative method to link people assignments to projects.....	35
5.4	Generate and View Reports	38
5.4.1	Generating “Projects” report	39
5.4.2	Generating “Funding Assignments” report.....	40
5.4.3	Generating “People Assignments” report.....	41

5.4.4	Modification of reports: labels and fields	42
5.4.5	Help button	43
6	Trouble-shooting and FAQ.....	44
6.1	Frequently Asked Questions	44
6.2	Troubleshooting.....	45
7	Annex	46
7.1	Categories of Deliverables	46
7.2	Research Discipline	46
7.3	Area of Application	47
7.4	Commodities/non-commodities.....	48
7.5	Software developer contact information	48
7.6	Science Scan table relationships	49

1 Introduction

The Science Scan database is a tool designed to help organizations manage their project-level metadata for research projects. In this manual, metadata refers to administrative data that summarizes information about a specific project. The Science Scan allows users to input their data, query it, view it, and run summary reports. It is a structured database designed to host a variety of metadata, such as project title, principal investigator, the institution at which the research was conducted, or a project's funding source. While the database was developed at Agriculture and Agri-Food Canada, it is not limited to agricultural metadata; the data fields, tables, forms, and reports in the database are designed to accommodate project-level metadata for any field of research.

Data is entered/inputted using either database forms to facilitate the organization of data or bulk uploads of data through Microsoft Excel (see below). The data is organized within the database in a structured format using relational tables. Once data is entered into the database, it can be viewed using the database forms or the pre-defined reports (forms and reports can be modified to meet your organization's needs, though this requires in-depth knowledge of, and experience with, Microsoft Access—see section 6 for further information).

2 Installation, download and system requirements

The Science Scan Database has been developed using Microsoft Access 2010 and works with Microsoft access 2007 and 2013 (Note: the database has not been tested with other previous versions of Microsoft Access).

Microsoft offers free runtime versions of Microsoft Access: Access 2013 Runtime, Access 2010 Runtime, and Access 2007 Runtime, which allow users to run an Access desktop application without needing to purchase or install a full version of Microsoft Access. The Runtime version allows users to view, edit and delete data, as well as to run queries, forms, reports, macros and VBA module code. But the Runtime version does not allow users to change the design of Microsoft Access objects or code. The Runtime versions are similar to the corresponding full (paid) versions of Access and are usually compatible with earlier versions. Users can run the Runtime application using the 2010 version, as well as 2007 through 2000 versions.

Note on French translation: Please be advised that the screen prints of the actual MS Access database appear only in English, as the database was built using the English language versions of the Microsoft software. However, the forms and reports have been translated into French as well. This applies also to the error messages. If you wish to find a specific form in French in the database, please select the form with the name that is preceded by a "F_", which indicates that the form is in French.

The Microsoft Access 2010 Runtime version can be downloaded at:

<http://www.microsoft.com/en-ca/download/details.aspx?id=10910>

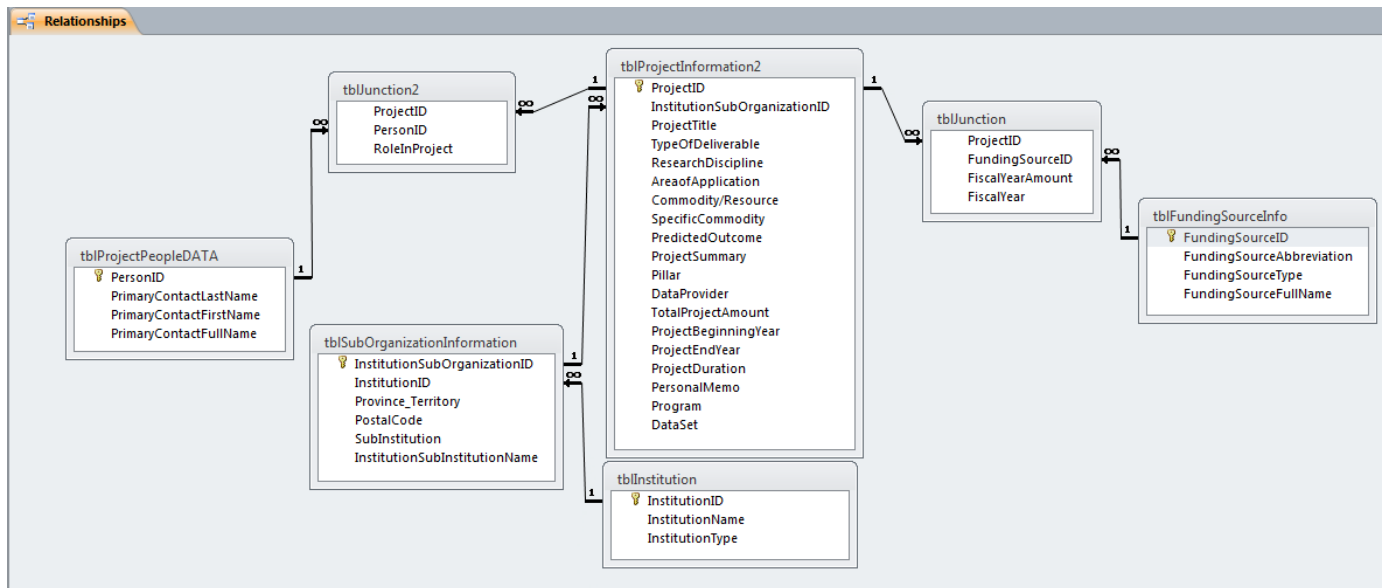
2.1 Supported operating systems

The following operating systems support Microsoft Access:

- Windows 7
- Windows 8

- Windows Server 2003 R2 (32-Bit x86)
- Windows Server 2003 R2 x64 editions
- Windows Server 2008 R2
- Windows Server 2008 Service Pack 2
- Windows Vista Service Pack 1
- Windows XP Service Pack 3
- Only the 32-bit Access 2010 Runtime is supported on Windows XP Service Pack 3.

3 Science Scan table relationships



A larger image of the Science Scan relationship table can be found in the Annex of this manual. (Note: this image appears only in English, as the database was created using an English version of MS Access)

The Science Scan database entails seven tables and 37 fields. Amongst the seven tables, there are two junction tables, which establish a many-to-many relationship. The junction tables, also known as the bridge tables, contain fields that pertain to both connected tables. Therefore, in the table relationships shown above, there are many-to-many relationships as well as direct one-to-many relationships. The design of the tables and associated fields is intended to group relevant information and ultimately to connect them to the main table, which is the Project Information table. The table organization and relationships enhance the search function, in addition to creating a more effective medium for querying and generating reports.

4 Data import & manipulation

4.1 Data

Typically, documentation associated with research projects (e.g., grant applications; final reports) provide sufficient information to populate the Science Scan's data fields. The following steps can be taken to fill in missing information:

- I. Read the project summary to obtain missing information necessary to complete the Science Scan template.
- II. Read the description of the principal investigator on the University or Institution website. If a lab website is available, it may be consulted as well.
- III. Find a recent publication by the principal investigator or main investigator (if a student) on the research project.
- IV. Contact the researcher.

4.2 Data fields

The collected data is organized into the 37 fields in the Science Scan database, described in the table below.

Data Field	Description
Contact last name	Last name of the main researcher (principal investigator) receiving the funding.
Contact First name	First name of the main researcher (principal investigator) receiving the funding.
Contact Middle name	Middle name of the main researcher (principal investigator) receiving the funding.
Role in Project	The named individual's role (Principle investigator, Project Lead, Collaborator, Administrative, Other).
Province/ Territory	Location of the researcher at the time of fund distribution.
Postal Code	Postal or zip code of the location where the research is conducted.
Institution Type	Type of institution where the research is being conducted.
Institution Name	Name of the research institution where the research is being conducted.

Sub Institution	For a university, the department (faculty) to which the researcher belongs; for a government, the department (ministry) or agency; in the case of a private organization, a department or head office.
Project Title	Title of project identified on grant application or project report.
Type of deliverable	The anticipated immediate outcome of the research project (see Appendix 7.1).
Total Project Amount	Total funds (in Canadian dollars) allocated to the project, from all funding sources.
Program	The name of the program through which the funds are being allocated.
Funding Source Name	The organization distributing the funds (e.g., National Science and Engineering Research Council).
Funding Source Abbreviation	Abbreviation of the funding source's name.
Funding Source Type	Provincial, federal, foreign, check-off, granting council, university, non-for-profit, private sector.
Fiscal year	Fiscal year corresponding to the amount awarded.
Fiscal Year Amount	Funds allocated to the project in a given fiscal year (in Canadian dollars).
Research Discipline	The discipline or academic field of study of the research project (see Appendix 7.2).
Area of application	The industrial or economic area where the research outcome will be applied (see Appendix 7.3).
Commodity/resource	The category of commodity or resource (e.g., crop, bovine, etc.) associated with the project (see Appendix 7.4).
Specific Commodity	The name of the commodity or resource being investigated (e.g., wheat bran).
Project Summary	A description of the research project (e.g., as it would appear in the research proposal).
Project Beginning Year	Starting year of the research project (formatted as YYYY).

Project End year	The year in which the project will be completed (formatted as YYYY).
Project Duration	The total duration of the research project.
Predicted Outcome	The hypothesized outcome and/or vision of the research project.
Dataset	The year that the project metadata were provided.
Data Provider	The organization providing the data (this can be, but is not necessarily, the same as the research organization; it could also be a third-party organization).
Pillar	A field identifying a project's alignment with one of three categories of research, defined by Agriculture and Agriculture Canada's Science and Technology Branch for the agri-food sector: Pillar 1 - Providing science that enhances the sector's resiliency; Pillar 2 - Fostering new areas of opportunity for the sector; or, Pillar 3 - Supporting sector competitiveness.
Personal Memo/keywords	Any personal notes and/or keywords extracted from "Project Summary" (to assist in searches).
*Person ID:	Assigned identification number to assist in uniquely identifying an individual.
*Institution ID	Assigned identification number to assist in uniquely identifying an institution.
*Institution sub org ID	Assigned identification number to assist in uniquely identifying sub-institutions (units within institutions).
*Project ID	Assigned identification number to assist in uniquely identifying a project.
*Funding Source ID	Assigned identification number to assist in uniquely identifying a source of funds.

* *Mandatory fields*

4.3 Data Manipulation

The data manipulation method depends on the import method: either (i) direct entry or (ii) import from MS Excel (see sections 4.5 and 4.6, below). Direct entry is a simple data entry method and is facilitated by data forms, where the user manipulates the data and inserts it in the appropriate forms; forms are in turn linked to the database tables as well as the reports and queries. If the import method through MS Excel is chosen, the data manipulation must be done in a MS Excel file. This method is more complicated

and requires advanced knowledge of data transfer from MS Excel to MS Access. Each table in the MS Access database has its equivalent table in MS Excel, with the same fields and formats, in order to ensure consistency and proper data transfer. Data manipulation means alteration of the original formatting of the data (i.e., the formatting of the data when they were provided to the administrator/user of the Science Scan) to match that of the MS Excel spreadsheets and Access tables. For example, “Project End Year” data may have been provided in the DD/MM/YYYY format; however, this field requires the YYYY format. The data manipulator (whoever is managing the database) must alter the format and also ensure this change is made under the appropriate field in the MS Excel table. Furthermore, data manipulation also entails assigning personal identification (ID) numbers for the following five fields: “Person ID”, “Institution ID”, “Institution sub org ID”, “Project ID” and “Funding Source ID”. These mandatory fields have ID numbers assigned to them in order to organize the data in the database and to generate accurate reports and queries.

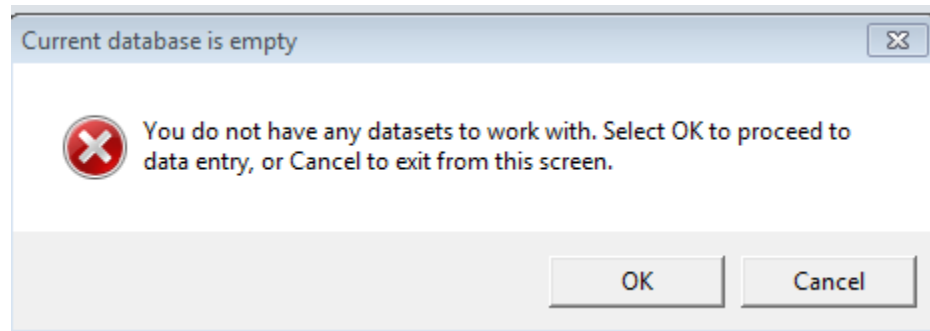
4.4 Data import

As noted above, data can be imported in through direct entry (see section 4.5) and from MS Excel (see section 4.6).

4.5 Direct entry (through forms)

The direct entry method requires the use of the forms made available in the MS Access database to insert the appropriate data. These will be updated and ‘synched’ with not only the forms, but also the queries, reports, and data tables in MS Access.

IMPORTANT NOTE: Initially, the database will be empty. Upon first use, you will be presented with a warning message, when the main form of the Science Scan database (described in section 5) is opened. This is due to the absence of any datasets in the database—the dataset concept is integral to the Science Scan database. You must start by imputing a dataset year in the YYYY-YYYY format (e.g., 2015-2016). If this dual-year concept does not apply to you, then simply use 0000-0000, as described below. See the FAQ section at the end of this document for further explanation.



By clicking “OK” to the error message, the “Core Data” form is displayed. The user is then able to create a dataset as described in section 4.5.5. The dataset can be created/registered/defined as 0000-0000, to begin running the database. Once the dataset is registered, the user can access the main (“Main”) form of the Science Scan database (described in section 5), selecting the registered dataset (by selecting the dataset in question and then clicking “OK” on the main form) to begin inputting project data (described in section 5.2).

To summarize, the direct entry is a quick and efficient method for data entry. There are three ways to add data:

1. The “Core Data” form described in section 4.5.1;
2. Alternatively, individual forms (as described in sections 4.5.2-4.5.8);
3. The “Project Information” form described in section 5.2.

The order of the forms used to input the data is critical to the proper functioning of the database and should be completed in the following sequence:

1. You must use the “Core Data” form to input a dataset;
2. Through the “Main” form, you will be directed to the “Project Information” form, in order to input project information data;
3. From the “Project Information” form, you will be directed to the “Core Data” form, again for general data input.

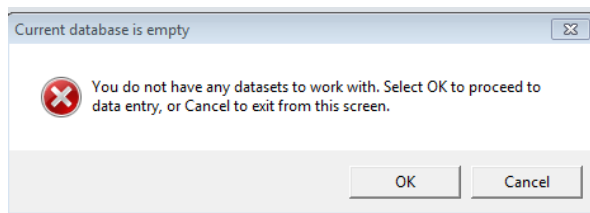
To note: In the following section, you will learn how to add metadata using the forms in the database. Alternate methods to add data are also presented. *For new users, it is strongly recommended that the instructions and the sequence of forms used (described above) be followed closely*, in order to ensure the proper functioning of the database. Please also be advised that after clicking the “Save” button, there is no display confirming that your input has been saved; however, you can verify success by returning to the selected category, where the saved information will be found. If the “Save” button is clicked twice, an error message will appear.

4.5.1 Core Data Form

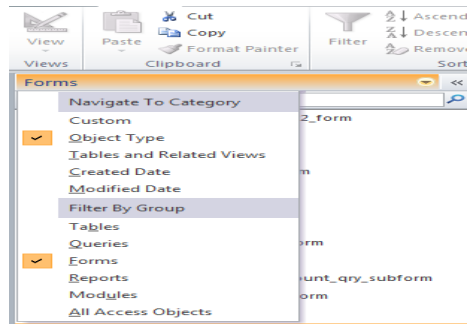
The “Core Data” form is a summary form of the six categories, including “Institution”, “Sub Organization”, “Funding source”, “People”, “Roles”, and “Datasets” combined in one form using tabs. This is an alternate way to add new data. For instance, you can choose to add data in this general form or via the “Datasets” form described in section 4.5.5 below.

There are 3 ways to access the “Core Data” form:

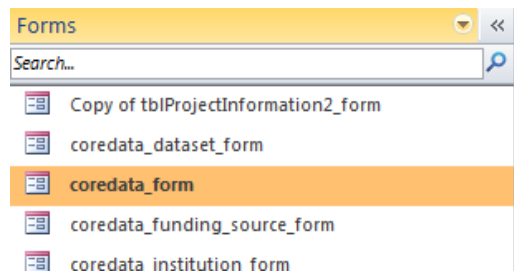
- I. Upon first use of the database, after clicking on the “Main” form described in section 5, the user will be presented with an error message. By clicking OK, the user will be prompted to the “Core Data” form;



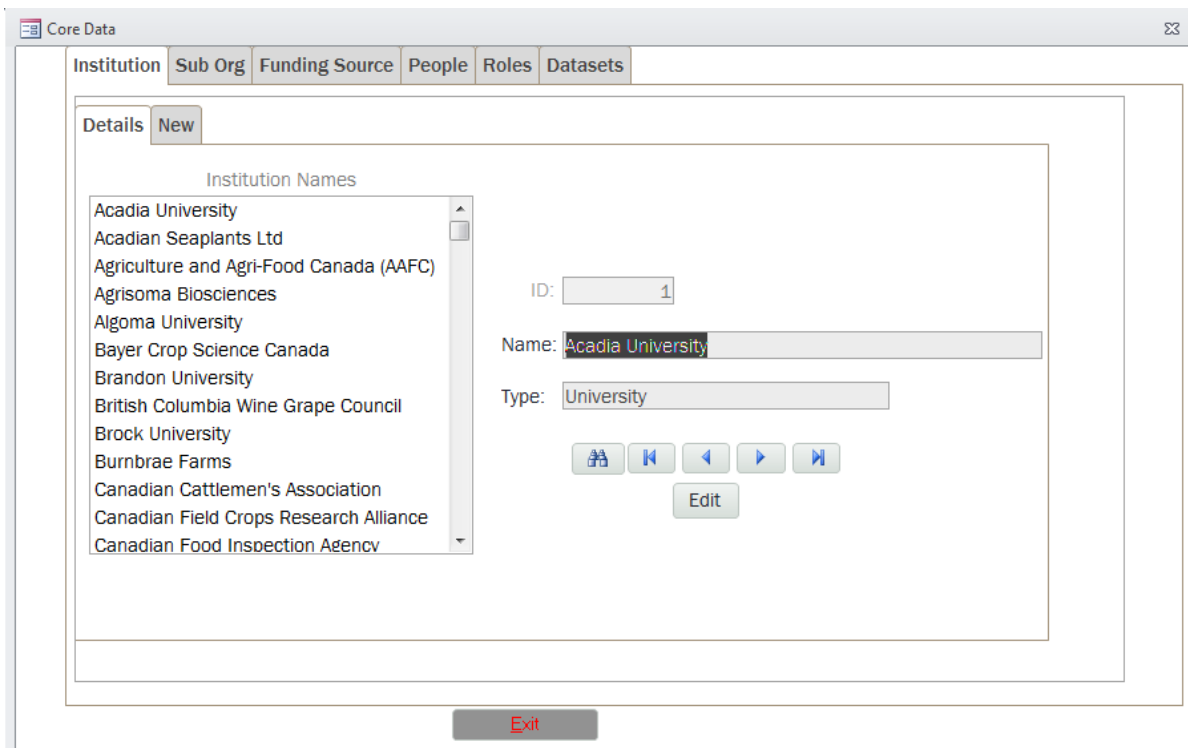
- II. The “Core Data” form can be accessed through the “Project information” form described in section 5.2
- III. Or, through the MS Access form look-up.



- a. Open the Science Scan Database and select forms from the category list located at the far left of the screen.



- b. Select and double-click “coredata_form”.

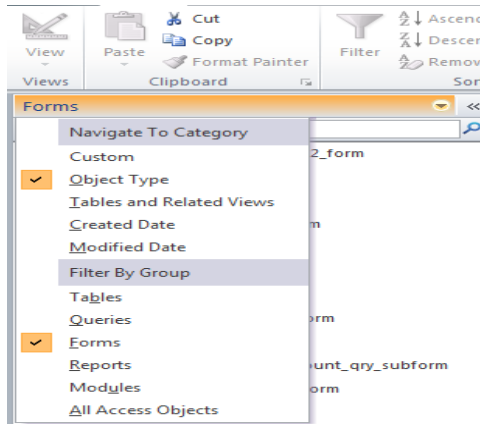


- c. A form will appear with multiple tabs including “Institution”, “Sub Organization”, “Funding Source”, “People”, “Roles”, and “Datasets”.
- d. To add data, click on one of the tabs at the top of the form and then click the “New” tab underneath.

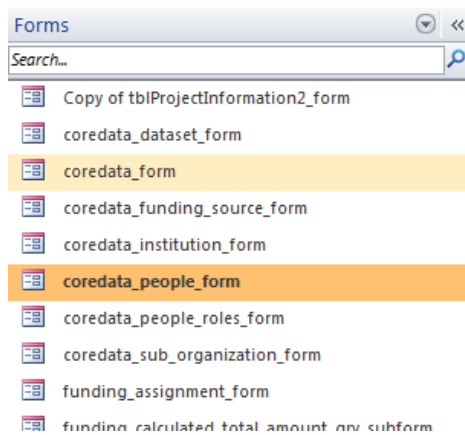
- e. Complete the required information on the form and select the “Save” button when finished.

To note: The “People Assignment” to projects and the “Funding Assignment” linking to the projects must be done in the “Project Information” form, or in their respective forms, and cannot be done in this general input form. Please refer to section 5.3 for more information on “Assignment” linking.

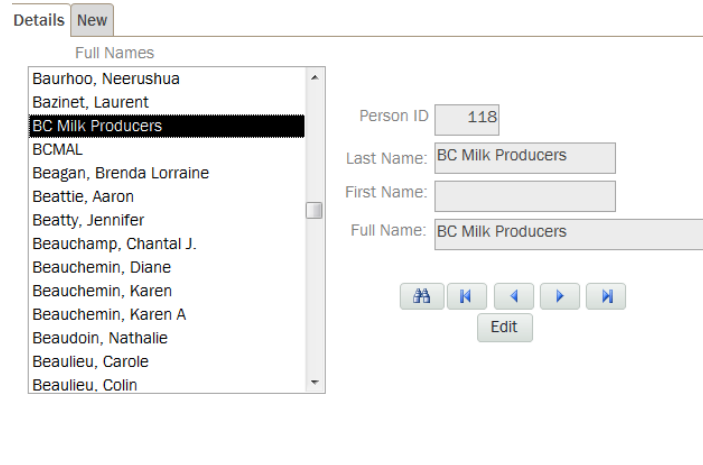
4.5.2 Alternative method to add new “Person” data



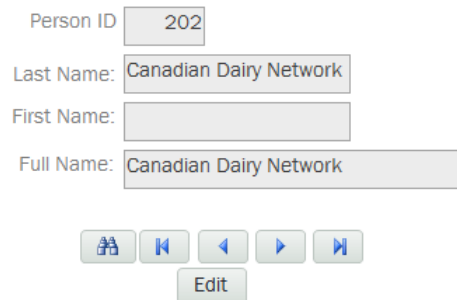
- a. Open the Science Scan Database and select Forms from the drop-down category list located at the far left of the screen.




- b. Select and double-click “Coredata_people_form”



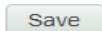
c. A form will pop-up; select the “New” tab



d. Four fields are available to be completed, including “Person ID”, “Last Name”, “First Name”, and “Full Name”

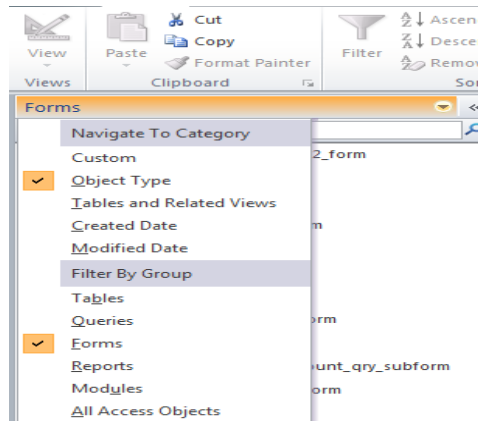
e. For “Person ID”, click on the dotted button  to generate an ID number.

f. Complete the form using the appropriate information provided and select the save button

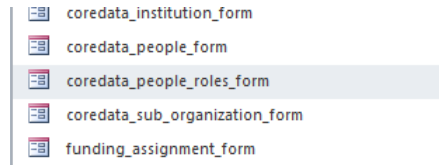


when finished.

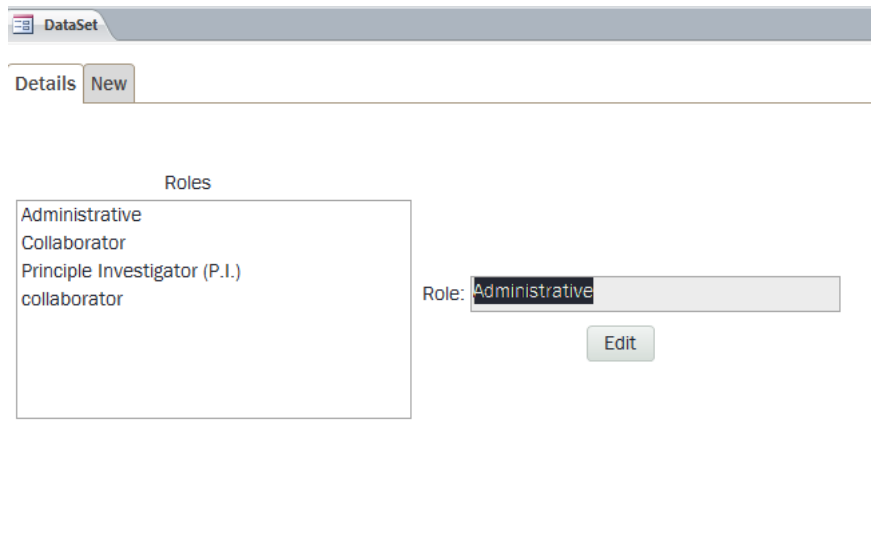
4.5.3 Alternative method to add new “People Roles”



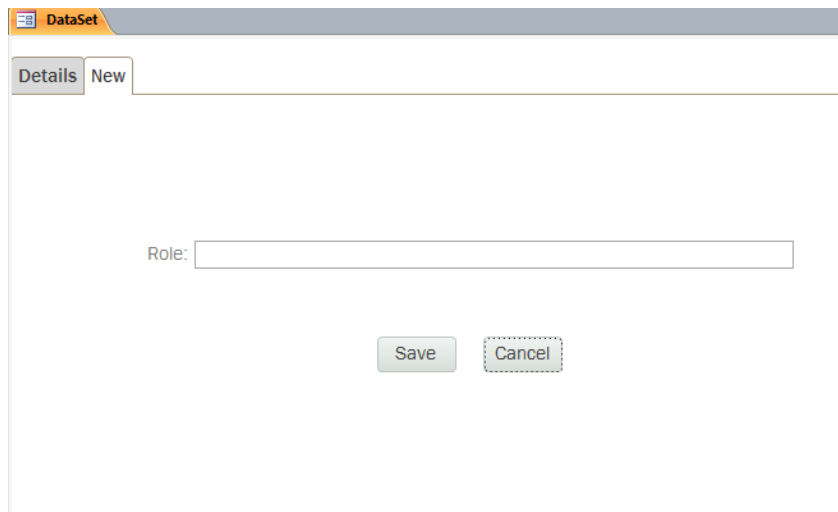
- a. There are three people roles that are pre-populated in the database being “Administrative”, “Collaborator”, and “Principle Investigator”. If you require a role to be added, open the Science Scan Database and select “Forms” from the category list located at the far left of the screen.



- b. Select and double-click “Coredata_people_roles_form”.

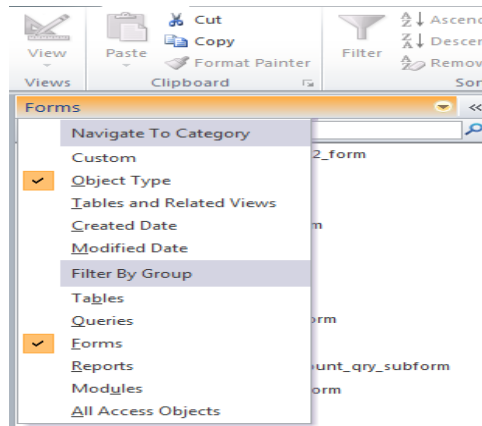


- c. A form will pop-up; select the “New” tab on the top left side of the form and type the new role that you wish to add.

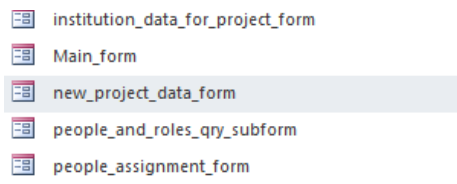


- d. Click on the save button  when finished.

4.5.4 Alternate method to add new “Project Data”



- a. Open the Science Scan Database and select “Forms” from the category list located at the far left of the screen.



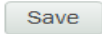
- b. Select and double-click “new_project_data_form”.

The screenshot shows the 'New Project Data' form. The form contains the following fields:

- Project ID: (with a dotted button to the right)
- Institution Sub Org. ID:
- Project Title:
- Type Of Deliverable:
- Research Discipline:
- Area of Application:
- Commodity/Resource:
- Specific Commodity:
- Predicted Outcome:
- Project Summary:
- Pillar:
- Data Provider:
- Total Project Amount:
- Project Beginning Year:
- Project End Year:
- Project Duration:
- Personal Memo:
- Program:
- DataSet:

At the bottom of the form, there are two buttons: 'Save' and 'Exit'.

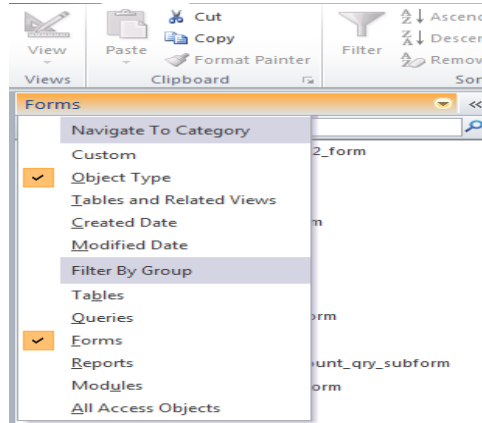
- c. A form will appear on your screen with multiple fields to be filled.
- d. To generate project ID click on the dotted button



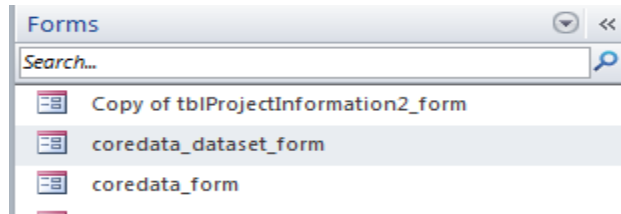
- e. Complete the required information on the form and select the “Save” button when finished.

To note: If the drop-down lists for the fields are not populated, you are required to pre-populate these lists using the appropriate forms provided.

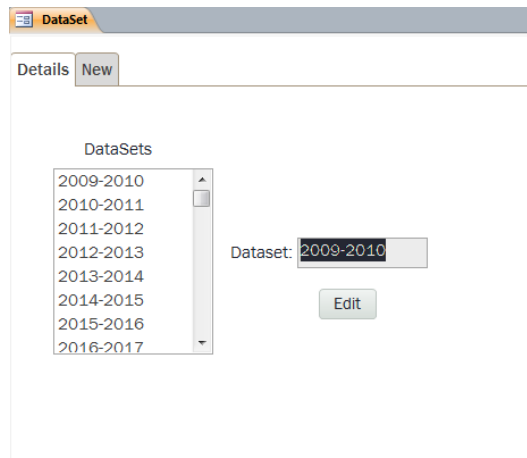
4.5.5 Alternative method to add new “Data set”



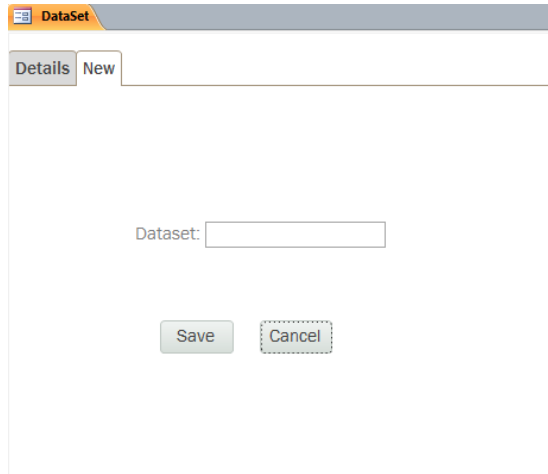
- a. Open the Science Scan Database and select “Forms” from the category list located at the far left of the screen.



- b. Select and double-click “coredata_dataset_form”



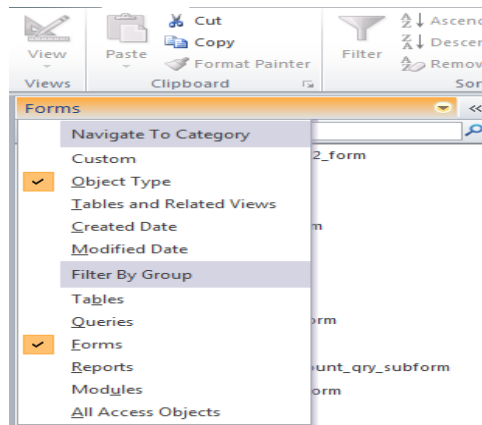
- c. A form will pop-up; select the “New” tab



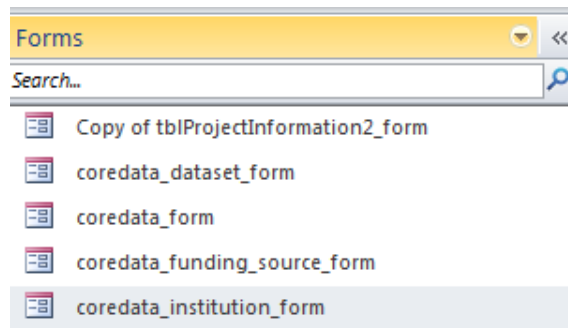
- d. Type the new dataset you wish to be added

To note: The dataset must be in the YYYY-YYYY format.

4.5.6 Alternative method to add new “Institution data”



- a. Open the Science Scan Database and select “Forms” from the category list located at the far left of the screen.




- b. Select and double-click “coredata_institution_form”

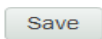
The screenshot shows a web application window titled "Institution Data". At the top left, there are two tabs: "Details" and "New". Below the tabs is a large rectangular area containing a list of institution names on the left and a form on the right. The list includes: Acadia University, Acadian Seaplants Ltd, Agriculture and Agri-Food Canada (AAFC), Agrisoma Biosciences, Algoma University, Bayer Crop Science Canada, Brandon University, British Columbia Wine Grape Council, Brock University, Burnbrae Farms, Canadian Cattlemen's Association, Canadian Field Crops Research Alliance, and Canadian Food Inspection Agency. The form on the right has three input fields: "ID:" with the value "1", "Name:" with the value "Acadia University", and "Type:" with the value "University". Below the form are several navigation buttons: a search icon, a back arrow, a left arrow, a right arrow, a forward arrow, and an "Edit" button.

c. A form will pop-up; select the “New” tab on the top left side of the form

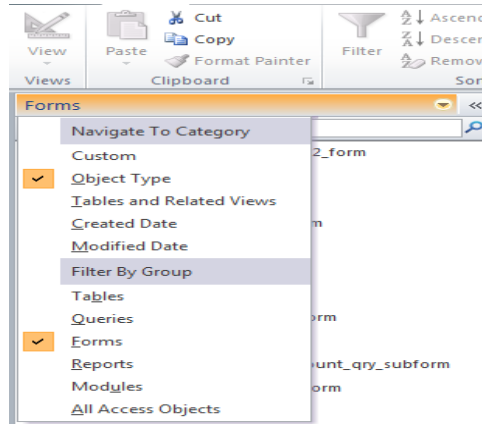
The screenshot shows a pop-up form window. At the top left, there are two tabs: "Details" and "New". The "New" tab is selected. The form contains three input fields: "Institution ID:" with a small dotted button to its right, "Name:", and "Type:". At the bottom of the form are two buttons: "Save" and "Cancel".

d. To generate “Institution ID”, click on the dotted button 

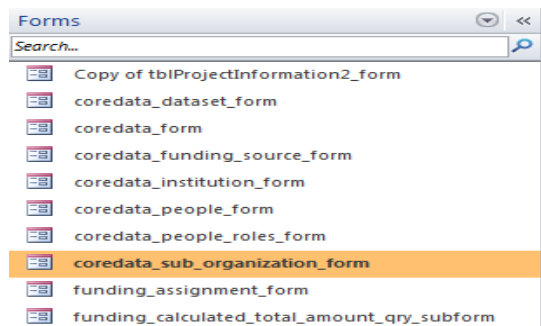
e. Complete the required information on the form and select the “Save” button when finished.



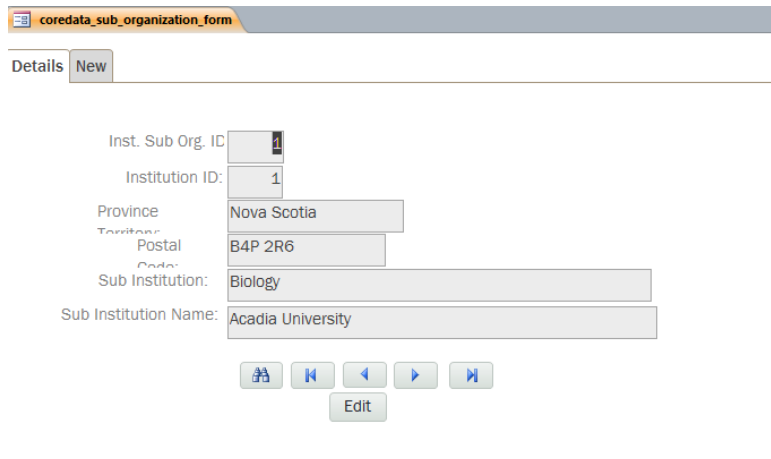
4.5.7 Alternative method to add new “Sub Organization data”




- a. Open the Science Scan Database and select “Forms” from the category list located at the far left of the screen.

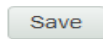


- b. Select and double-click “coredata_sub_organization_form”.



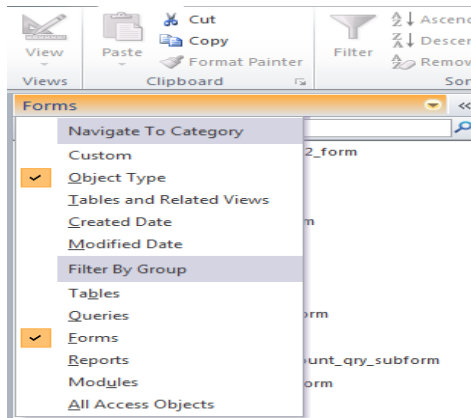
- c. A form will pop-up; select the “New” tab on the top left side of the form.

- d. To generate “Institution sub-org. ID” click on the dotted button. 
- e. Complete the required information on the form and select the “Save” button

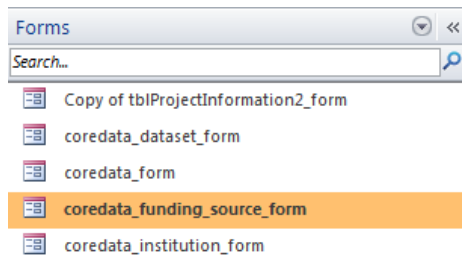


when finished.

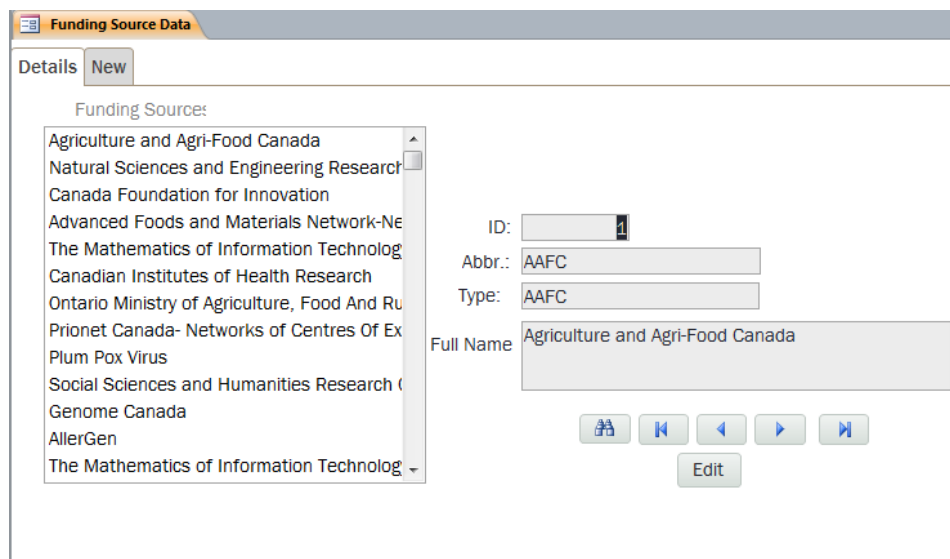
4.5.8 Alternate method to add new “Funding Source data”



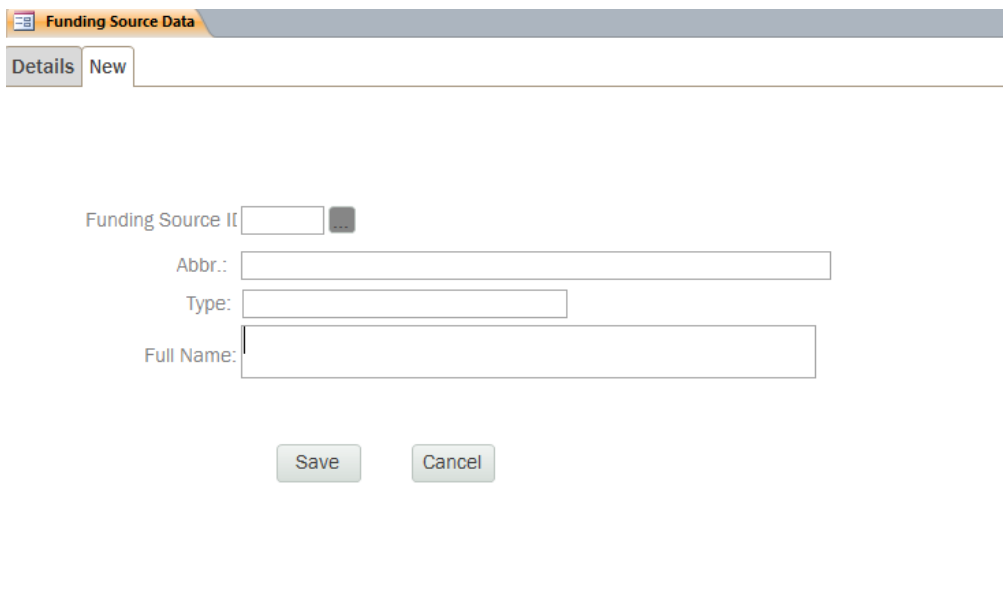
- f. Open the Science Scan Database and select “Forms” from the category list located at the far left of the screen.



- g. Select and double-click “coredata_funding_source_form”.



h. A form will pop up; select the “New” tab.



i. To generate “Funding source ID” click on the dotted button.

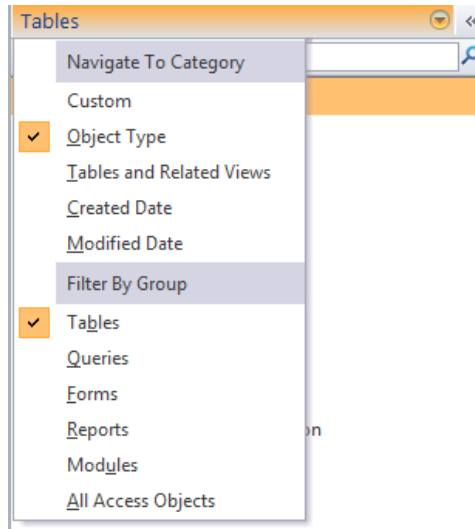
j. Complete the required information on the form and select the save button when finished.



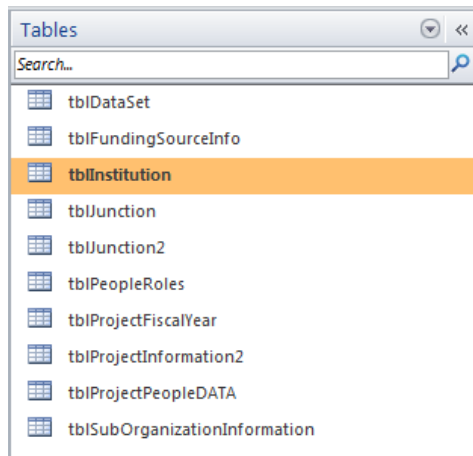
4.6 From MS Excel

Data input from MS Excel allows the user to import large volumes of data directly into the Science Scan database. This method of data input is efficient, as it allows for the manipulation of data in MS Excel before inserting it in the Science Scan.

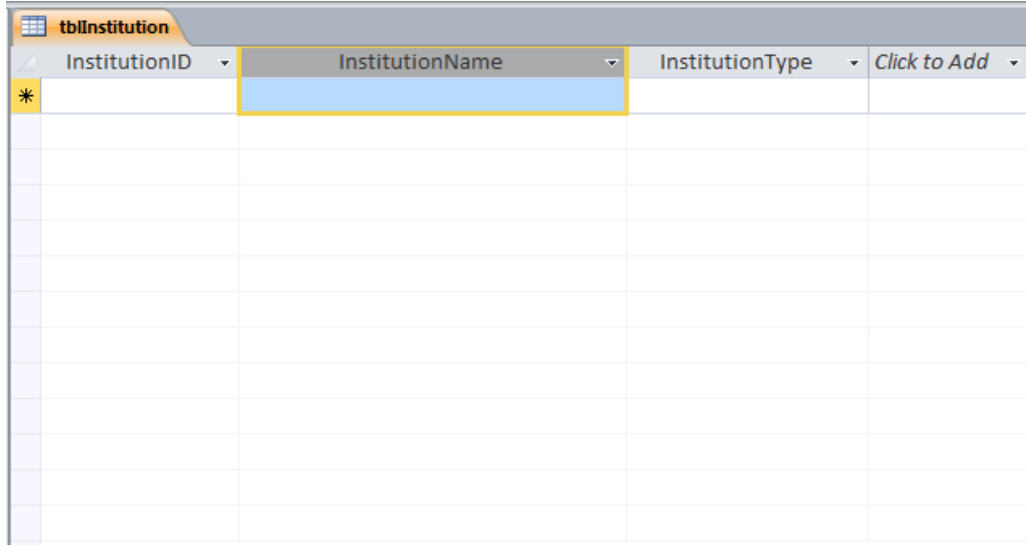
However, please note that ***this method requires an in-depth knowledge of MS Access and Excel for proper data transfer***. Caution is advised—the format of the data must match that of the MS Access tables in order for the transfer to be correct and complete. For example, if the data entry in the MS Excel sheet for the “Project End Year” is 12/12/2016, the data would not be transferred to the MS Access table, since the field format in Access is of the YYYY type (and not DD/MM/YYYY). The following example will demonstrate the import of data to MS Access from Excel, using the “Institution” table.



- a. Open the Science Scan Database and select “Tables” from the category list located at the far left of the screen.



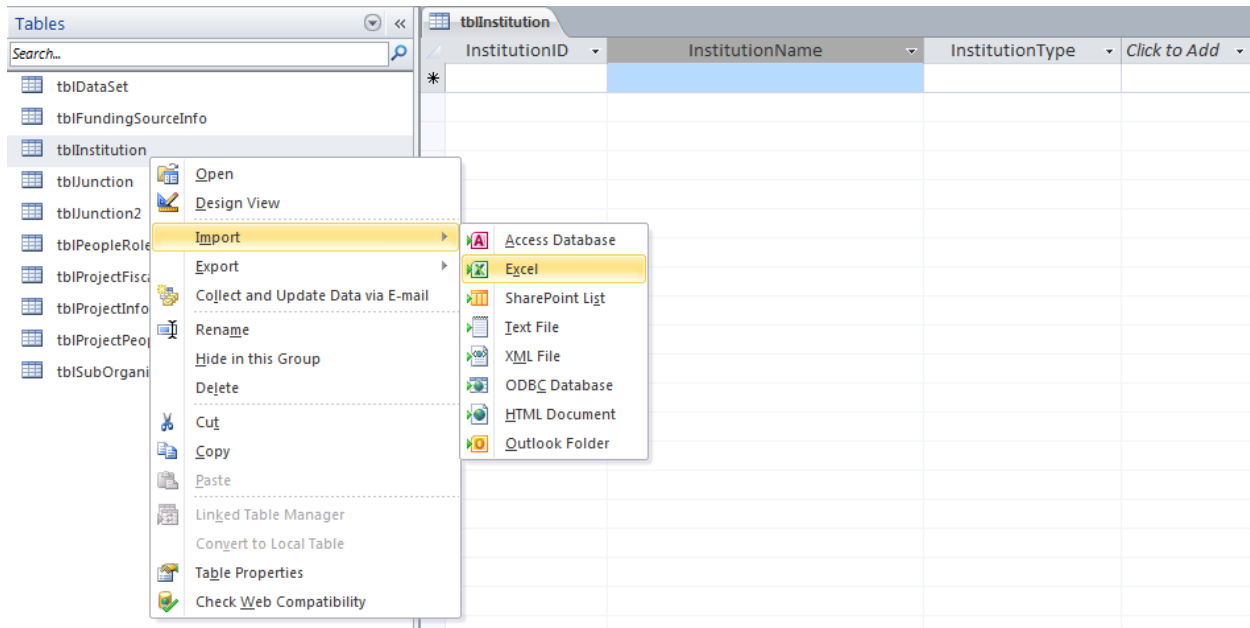
- b. Select the table to be updated. In this example, the institution table will be used. Select “tblInstitution”.



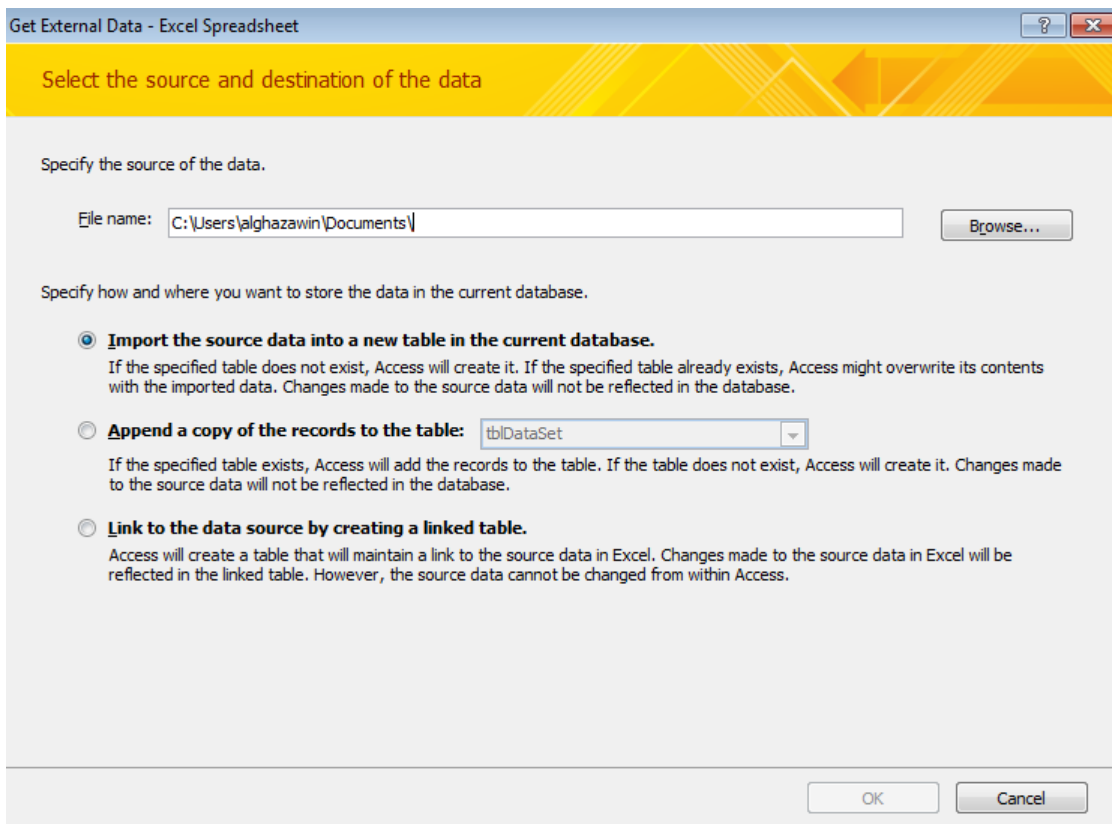
- c. A table will appear with three fields being the “Institution ID”, “Name of Institution” and “Type of Institution”.

Institution ID	Name of Institution	Type of Institution
00001	Acadia University	University
00002	Acadian Seaplants Ltd	Industry
00003	Agriculture and Agri-Food Canada (AAFC)	Federal Government
00004	Agrisoma Biosciences	Industry
00005	Algoma University	University
00006	Bayer Crop Science Canada	Industry
00007	Brandon University	University
00008	British Columbia Wine Grape Council	Non-Profit Corporation
00009	Brock University	University
00010	Burnbrae Farms	Industry
00011	Canadian Cattlemen's Association	Non-Profit Corporation
00012	Canadian Field Crops Research Alliance	Non-Profit Corporation
00013	Canadian Food Inspection Agency	Government
00014	Canadian Hemp Trade Alliance	Non-Profit Corporation
00015	Canadian Horticultural Council	Non-Profit Corporation
00016	Canadian Poultry Research Council	Non-Profit Corporation

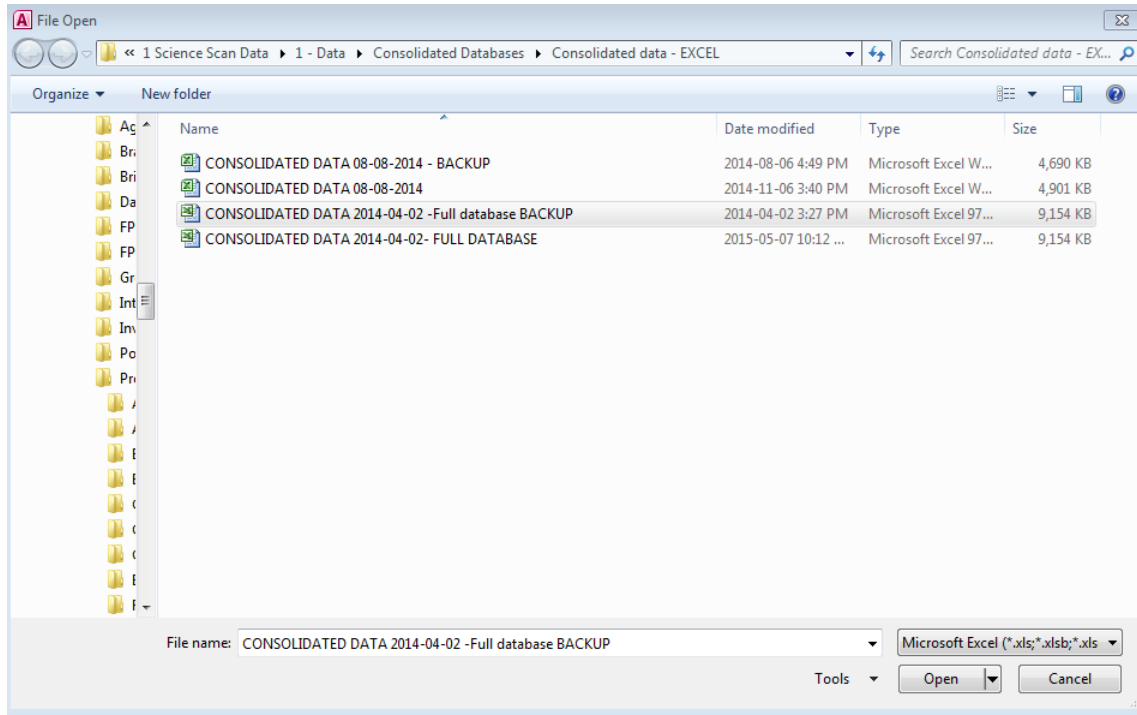
- d. Prepare a table in MS Excel with the same properties as the corresponding one in MS Access. Populate/ manipulate the fields in the MS Excel table, keeping in mind the format of the corresponding field in MS Access. Once the MS Excel table is complete, save the file.



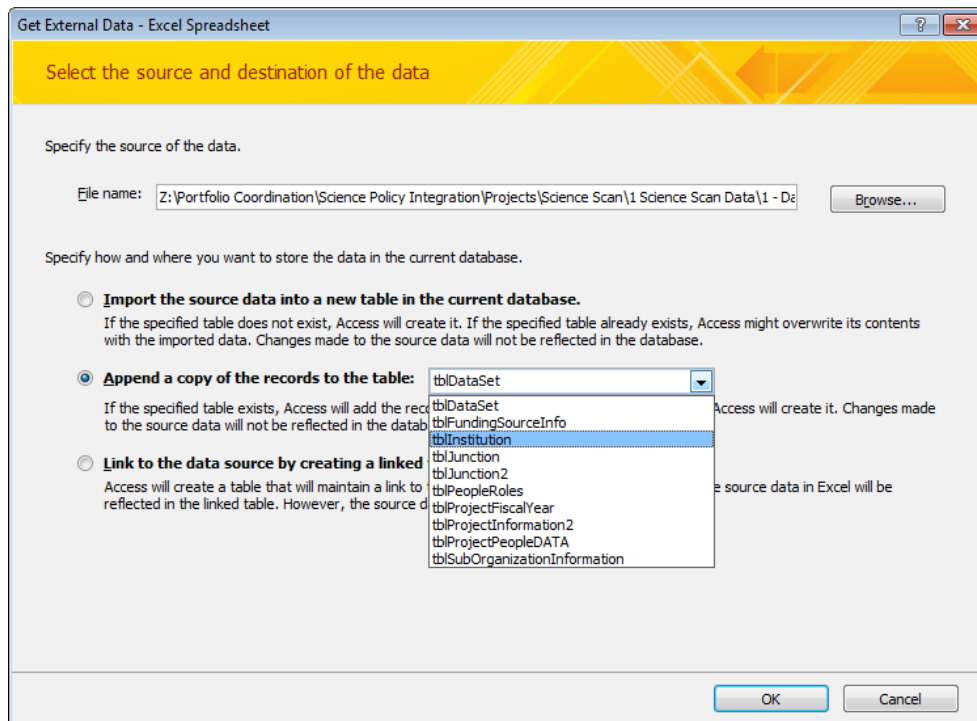
- e. From MS access, navigate to tables, Select the table to be updated and right-click on the table. Select the “Import” option.



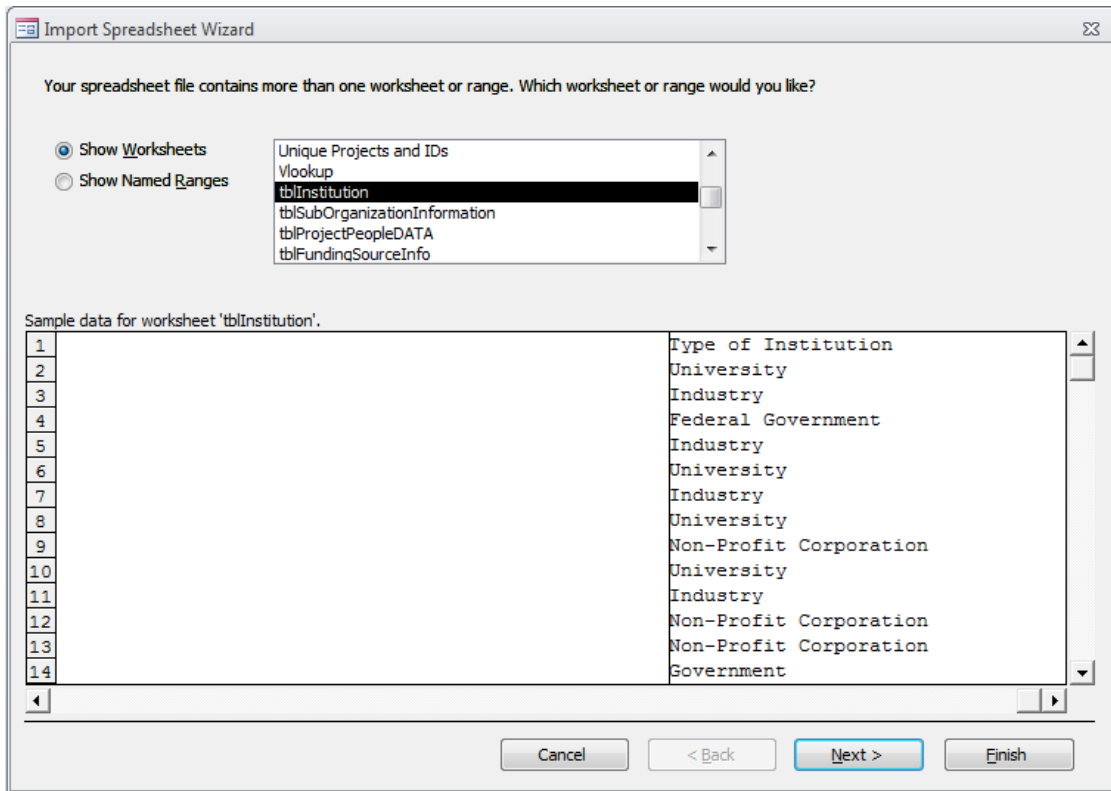
- f. MS Access will prompt you to a new window, where you can browse for the Excel file you prepared. Click the “Browse” button to locate your file.



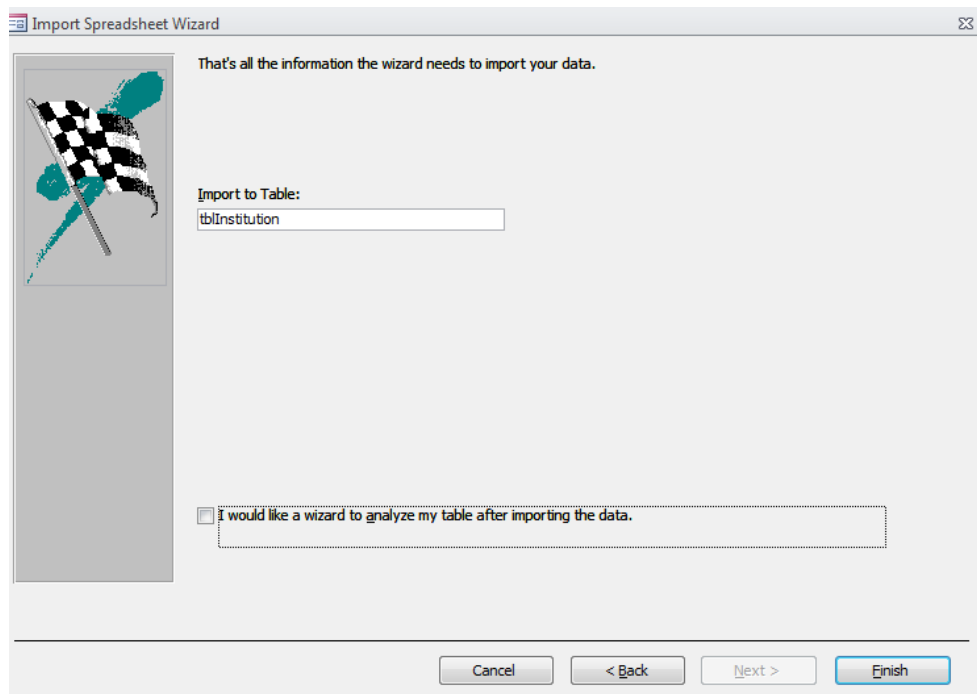
g. Select the file and click “Open”.



h. Under the file name, you will be provided with three options. To update the existing table, select the second option, “Append a copy of the records to the table”. Then select the table you want to update. Click “OK” when done.



- i. You will be prompted to choose the MS Excel file worksheet to be updated from the Excel file, should there be multiple worksheets. Choose the appropriate MS Excel worksheet. Click “Next”



- j. You will be prompted to analyse the data and/or rename the table. If no analysis or table name change is required, select “Finish”.

tblInstitution				
	InstitutionID	InstitutionName	InstitutionType	Click to Add
+	00001	Acadia University	University	
+	00002	Acadian Seaplants Ltd	Industry	
+	00003	Agriculture and Agri-Food Canada (AAFC)	Federal Government	
+	00004	Agrisoma Biosciences	Industry	
+	00005	Algoma University	University	
+	00006	Bayer Crop Science Canada	Industry	
+	00007	Brandon University	University	
+	00008	British Columbia Wine Grape Council	Non-Profit Corporation	
+	00009	Brock University	University	
+	00010	Burnbrae Farms	Industry	
+	00011	Canadian Cattlemen's Association	Non-Profit Corporation	
+	00012	Canadian Field Crops Research Alliance	Non-Profit Corporation	
+	00013	Canadian Food Inspection Agency	Government	
+	00014	Canadian Hemp Trade Alliance	Non-Profit Corporation	
+	00015	Canadian Horticultural Council	Non-Profit Corporation	
+	00016	Canadian Poultry Research Council	Non-Profit Corporation	

- k. The MS Access table is now updated via MS Excel with all the data.

To note: If there are any error messages, please follow the source of the error and fix accordingly. Refer to the following Microsoft website for more information on data import.

<https://support.microsoft.com/en-us/kb/141228>

5 Science Scan Database “Main” form

The screenshot shows the 'Main' form of the Science Scan Database. The window title is 'Main'. The header features a landscape image with the text 'Science Scan Database'. Below the header are two main sections: 'View a dataset' and 'View a report'. The 'View a dataset' section has a text input field containing '0000-0000' and an 'OK' button. The 'View a report' section has three buttons: 'Projects', 'Funding Assignments', and 'People Assignments'. Below these is a 'Search Projects' section with a text input field, a search button (three dots), and a checkbox labeled 'Selected Dataset Only'. At the bottom of the form are 'Exit' and 'Help' buttons.

The “Main” form of the database is designed to facilitate the retrieval of data. This form can be accessed in two ways, which are described in the following section. It allows the user to retrieve all projects relating to a specific dataset using the “View a dataset” function, or to run reports through “View a report”.

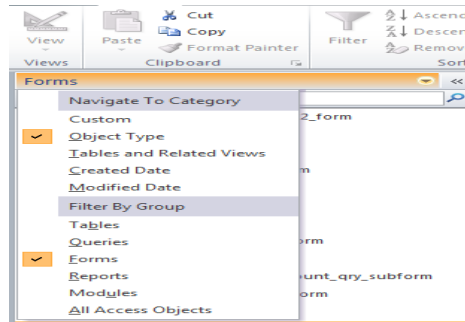
There are three pre-defined reports: “Projects”, “Funding Assignments”, and “People Assignments”. The “Projects” report can be matched to a selected dataset by clicking on the “Selected Dataset Only” checkbox; otherwise, all projects within the database, regardless of the dataset, are returned as output. “Funding Assignments” and “People Assignments” do not have a corresponding dataset; as a result, all records within the database are returned as output in these two reports.

As an added feature, the “Projects” report has a basic search function, for more targeted output in the report results. Use the “Search Projects” text box to input your search string and click on to run the report.

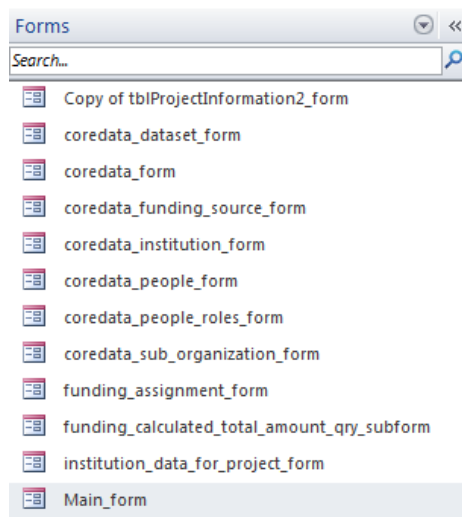
5.1 Searching the Science Scan

The Science Scan database allows for keyword searching. Search results will capture all records in the database with the chosen string.

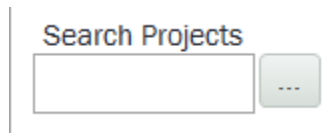
The primary method of searching in the Science Scan is through the Science Scan “Main” form, which is accessible in two ways: (i) when the database starts-up, the “Main” form is automatically loaded on the front page of the database; and, (ii) the form can be opened through the side-bar.




- a. Open the Science Scan Database and select forms from the category list located at the far left of the screen.



- b. Select and double-click “main_form”.



- c. The form will appear. A search button (“Search Projects”) can be found on the bottom right side of the form.

- d. In this box, you can search the database using a keyword or the title of the research project they are looking for. Following that, click the dotted button 

5.2 Science Scan Project Information Form



To access the “Science Scan Project Information” form, select the data set you wish to access on the main form and click “OK”.

Science Scan Project Information

<p>Project Title: <input type="text" value="Alternative splicing in polyploids and hybrids"/></p> <p>Discipline: <input type="text" value="Plant and Tree Biology"/></p> <p>Application: <input type="text" value="Advancement Of Knowledge"/></p> <p>Commodity/Res: <input type="text" value="Crops or Plants"/></p> <p>Commodity: <input type="text" value="Polyploid Plants"/></p> <p>Predicted Outcome: <input type="text"/></p> <p>Data Provider: <input type="text"/></p> <p>Program: <input type="text" value="Discovery Grants Program- Individual"/> Pillar: <input type="text" value="1"/></p>	<p>Summary: <input type="text" value="Polyploids, organisms with an extra set of chromosomes, are common among plants and several crop plants are polyploid. Polyploidy can lead to novel morphological and developmental characteristics, larger cell sizes, and new gene functions and expression patterns. The formation"/></p> <p>Total Amount: <input type="text"/></p> <p>Beginning Year: <input type="text"/></p> <p>End Year: <input type="text"/></p> <p>Duration (Yrs): <input type="text"/></p> <p>Project ID: <input type="text" value="00001"/></p> <p>Sub Org ID: <input type="text" value="00233"/></p> <p>DataSet: <input type="text" value="2009-2010"/></p> <p>Deliverable Type: <input type="text" value="New Knowledge"/></p> <p>Personal Memo: <input type="text"/></p>
---	--

Project Funding:

FS	Beginning Year	End Year	Funding Source	Fiscal Year Amount

People and Roles in Project

First Name	Last Name	Role in Project
Abedi	Jalal	Collaborator
Abiewe	Abimbola	Principle Investigator (P.I.)

Institution:

Type:


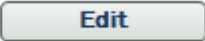

Prov/Terr.:

Code Postal:

Organization:

The form, shown above, displays all associated project information, including the following fields: “Project Title”, “Discipline”, “Application”, “Commodity/Resource”, “Commodity”, “Predicted Outcome”, “Data Provided”, “Program”, “Summary”, “Total Amount”, “Beginning Year”, “End Year”, “Duration”, “Project ID”, “Sub-Organization ID”, “Data Set”, “Deliverable Type” and “Personal Memo”. The middle of the form displays the project funding data on a fiscal year basis, including the funding source. On the lower left side of the form, “People” and “Roles in Project” are displayed. Finally, on the lower right side of the form the institutional information is displayed.

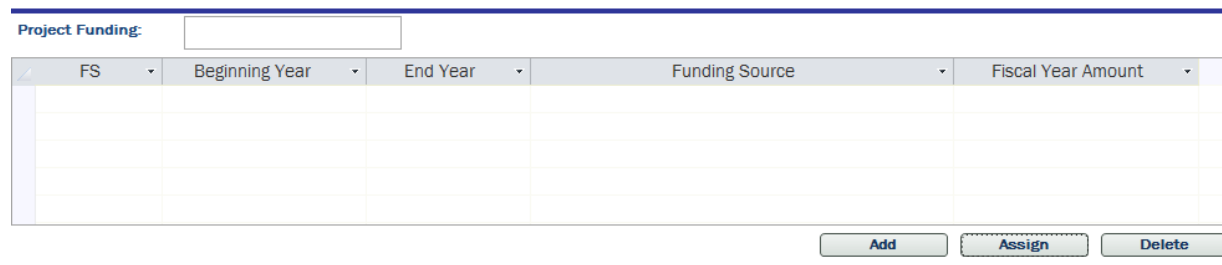
The “Science Scan Project Information” form can also be used to add data to the project information. This data can only be added once the project record has been created using the forms described in section 4.5. This form can be used to add additional information, with the “Add” button:

 in the top section of the form, to add project information data; in the middle section, to add project funding data; or, in the bottom left section, to add person information. If the selected information needs to be edited, click on the “Edit” button  to edit the information on this form. The Core Data button  brings the user back to the “Core Data” form described in section 4.5.1, which contains all 6 categories of information. Finally, to assign funding or people to the selected project, please refer to the following section.

5.3 Method of linking Funding Assignments and People Assignment to Projects

To link “Funding Assignment” to “Projects”, you must use the “Science Scan Project Information” form.

5.3.1 Linking Funding Assignment to Projects



FS	Beginning Year	End Year	Funding Source	Fiscal Year Amount

- a. In the middle section of the form, the project funding information is displayed. To link “Funding Assignment” to “Projects”, click on the “Assign” button.

Funding Assignment to Projects

Projects	Funding Sources
01825 Agricultural Forum	00047 AB Innovation & Science
00570 Agricultural Impacts and BMPs in Thomas Bro	00004 Advanced Foods and Materials Network-Netw
02844 Agriculture and Agri-Food Program Initiative S	00042 Agence Nationale De La Recherche
03719 Agriculture et climat : Vers des fermes 0 cart	00001 Agriculture and Agri-Food Canada
04109 Agri-fibres and reinforcements for biocompos	00176 Agriculture and Rural Development
01491 Agro- and environmental microbiology	00117 Agriculture New Zealand
02065 Agronomic and quality impact of midge on wr	00165 AIBIO
03927 Agronomic Investigations of Irrigated Soybea	00164 AIHS
02348 Agronomic programs for newly released pota	00168 AITF
02178 Agronomics of Fall Planted Haskap	00077 Alberta Crop Industry Development Fund (ACI
02058 Agronomy of Brassica carinata and Camelina	00069 Alberta Department of Energy
01222 Agronomy, genetics and breeding of wheat fc	00101 Alberta Government
00633 Alleviating heat stress in leafy vegetable thro	00099 Alberta Ingenuity Fund - Dae Kyun Ro
02870 Alleviation of the metabolic syndrome throug	00097 Alberta Ingenuity Fund - J Huntington
02024 Alternate Management of Blueberry Flea Bee	00098 Alberta Ingenuity Fund - Scott Farrow
03194 Alternative à l'emploi des fongicides pour les	00100 Alberta Ingenuity Fund - Thu Thuy Dang
02784 Alternative management practices for the sw	00078 Alberta Innovates
00543 Alternative management practices for the sw	00086 Alberta Innovation and Science
02970 Alternative methods to control swine enteric	00087 Alberta Research Council
01912 Alternative oxidase of plant mitochondria	00111 ALGP
01925 Alternative splicing in polyploids and hybrids	00013 AllerGen
00001 Alternative splicing in polyploids and hybrids	00112 ALMA
01584 Alternative visions of agriculture and justice a	00108 Amvris

Fiscal Year:

FY Amount:

Save Exit

b. This will bring you to the “Funding Assignments” form, as shown above, with the “Projects” section on the left side highlighting the project the user originally selected.

Funding Assignment to Projects

Projects	Funding Sources
01825 Agricultural Forum	00047 AB Innovation & Science
00570 Agricultural Impacts and BMPs in Thomas Bro	00004 Advanced Foods and Materials Network-Netw
02844 Agriculture and Agri-Food Program Initiative S	00042 Agence Nationale De La Recherche
03719 Agriculture et climat : Vers des fermes 0 cart	00001 Agriculture and Agri-Food Canada
04109 Agri-fibres and reinforcements for biocompos	00176 Agriculture and Rural Development
01491 Agro- and environmental microbiology	00117 Agriculture New Zealand
02065 Agronomic and quality impact of midge on wr	00165 AIBIO
03927 Agronomic Investigations of Irrigated Soybea	00164 AIHS
02348 Agronomic programs for newly released pota	00168 AITF
02178 Agronomics of Fall Planted Haskap	00077 Alberta Crop Industry Development Fund (ACI
02058 Agronomy of Brassica carinata and Camelina	00069 Alberta Department of Energy
01222 Agronomy, genetics and breeding of wheat fc	00101 Alberta Government
00633 Alleviating heat stress in leafy vegetable thro	00099 Alberta Ingenuity Fund - Dae Kyun Ro
02870 Alleviation of the metabolic syndrome throug	00097 Alberta Ingenuity Fund - J Huntington
02024 Alternate Management of Blueberry Flea Bee	00098 Alberta Ingenuity Fund - Scott Farrow
03194 Alternative à l'emploi des fongicides pour les	00100 Alberta Ingenuity Fund - Thu Thuy Dang
02784 Alternative management practices for the sw	00078 Alberta Innovates
00543 Alternative management practices for the sw	00086 Alberta Innovation and Science
02970 Alternative methods to control swine enteric	00087 Alberta Research Council
01912 Alternative oxidase of plant mitochondria	00111 ALGP
01925 Alternative splicing in polyploids and hybrids	00013 AllerGen
00001 Alternative splicing in polyploids and hybrids	00112 ALMA
01584 Alternative visions of agriculture and justice a	00108 Amvris

Fiscal Year:

FY Amount:

Save Exit

Alberta Ingenuity Fund - Scott Farrow

c. Select the funding source associated to the selected project.

- d. From the drop-down list at the center of the form, select the fiscal year to which these funds are being applied.

Fiscal Year Amount

- e. Enter the fiscal year amount associated to the selected project.
- f. Complete the required information on the form and select the “Save” button when finished.

5.3.2 Linking Project Assignments to Projects

People and Roles in Project

First Name	Last Name	Role in Project
Abedi	Jalal	Collaborator
Abiewe	Abimbola	Principle Investigator (P.I.)

- a. On the bottom left side of the “Project Information” form, “People” and “Roles” are displayed. To assign new people, click the “Assign” button .

People Assignment to Projects

<p style="text-align: center; margin: 0;">Available People</p> <div style="border: 1px solid gray; padding: 2px; min-height: 300px;"> <p>02858 ,</p> <p>02753 A.,Lammerding</p> <p>00008 AAFC (Agassiz)</p> <p>00012 AAFC Lethbridge, AB</p> <p>00014 AAFC PARC Summerland</p> <p>00016 AAFC scientific and technical te</p> <p>00030 Aalhus, Jennifer</p> <p>00019 Ab Vista Feed Ingredients</p> <p>00032 Abbasi, Pervaiz</p> <p>00034 Abdelaal, Elsayed</p> <p>01829 Abdul Careem, Mohamed Faiza</p> <p>00036 Abedi, Jalal</p> <p>00022 Aberdeen</p> <p>00038 Abiola, Abimbola</p> <p>02451 Ablett, Gary</p> <p>00024 Acharya, Surya</p> <p>00039 Acharya, Surya N</p> <p>02302 Adam Dale</p> <p>00040 Adamchuk, Viacheslav</p> <p>01806 Adams, Gregg</p> <p>00001 Adams, Keith</p> <p>00042 Adl, Sina</p> <p>00027 Advanced Biorefinery Inc.</p> <p>02019 Agnew, Joy</p> <p>00020 Adribrando Purina Canada Inc</p> </div>	<p>Role In Project</p> <div style="border: 1px solid gray; width: 100%; height: 20px; margin: 5px 0;"></div>	<p style="text-align: center; margin: 0;">Projects</p> <div style="border: 1px solid gray; padding: 2px; min-height: 300px;"> <p>02068 Ag Bio-Economy Commercialization</p> <p>01704 Agricultural pesticides: atmospheric traci</p> <p>01825 Agricultural Forum</p> <p>00570 Agricultural Impacts and BMPs in Thoma</p> <p>02844 Agriculture and Agri-Food Program Initiat</p> <p>03719 Agriculture et climat : Vers des fermes O</p> <p>04109 Agri-fibres and reinforcements for bioco</p> <p>01491 Agro- and environmental microbiology</p> <p>02065 Agronomic and quality impact of midge c</p> <p>03927 Agronomic Investigations of Irrigated So</p> <p>02348 Agronomic programs for newly released</p> <p>02178 Agronomics of Fall Planted Haskap</p> <p>02058 Agronomy of Brassica carinata and Cam</p> <p>01222 Agronomy, genetics and breeding of whe</p> <p>00633 Alleviating heat stress in leafy vegetable</p> <p>02870 Alleviation of the metabolic syndrome th</p> <p>02024 Alternate Management of Blueberry Flea</p> <p>03194 Alternative à l'emploi des fongicides pou</p> <p>02784 Alternative management practices for th</p> <p>00543 Alternative management practices for th</p> <p>02970 Alternative methods to control swine en</p> <p>01912 Alternative oxidase of plant mitochondri</p> <p>01925 Alternative splicing in polyploids and hyb</p> <p style="background-color: #e0e0e0;">00001 Alternative splicing in polyploids and hyb</p> <p>01584 Alternative visions of agriculture and ius</p> </div>
<input type="button" value="Save"/> <input type="button" value="Exit"/>		

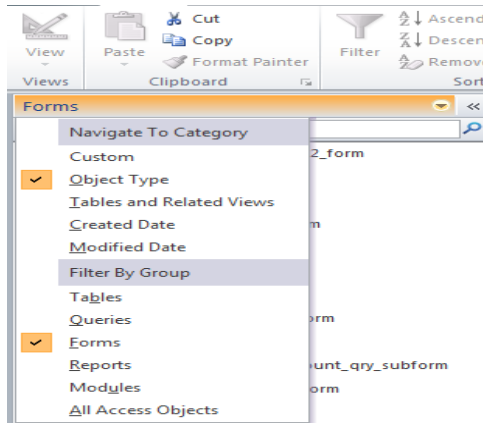
- b. This will bring you to another form, “People Assignment to Projects”, where the project that was originally selected by the user is highlighted on the left side of the form, under “Projects”.

The screenshot shows a software interface titled "People Assignment to Projects". It is divided into three main sections:

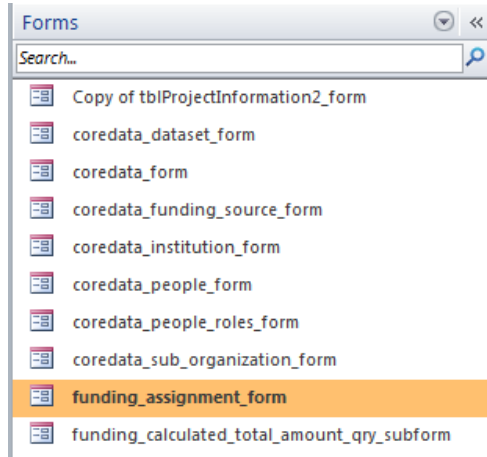
- Available People:** A list of individuals with their IDs and names. The entry "00039 Acharya, Surya N" is highlighted.
- Projects:** A list of various agricultural and scientific projects. The entry "00001 Alternative splicing in polyploids and hybrid" is highlighted.
- Role In Project:** A central dropdown menu with a list of roles including "Monitor2", "Collaborator", "Principle Investigator (P.I.)", "Monitor", "NewRole", and "qfweqef". An "Exit" button is located below this menu.

- c. Select the person whose information you want to update and “Role in Project” from the drop-down list located between the two columns. To see the update, the record needs to be refreshed using the forward and backward record navigation buttons.
- d. Complete the required information on the form and select the “Save” button when finished.

5.3.3 Alternative method to link Funding Assignments to Projects



- g. Open the Science Scan Database and select forms from the category list located at the far left of the screen.



- h. Select and double-click “funding_assignment_form”.

The screenshot shows a web form titled "Funding Assignment to Projects". It is divided into two main columns: "Projects" on the left and "Funding Source:" on the right. Both columns contain scrollable lists of items. In the center, between the two columns, there are two input fields: "Fiscal Year" (a dropdown menu) and "Fiscal Year Amount" (a text box). Below these fields are two buttons: "Save" and "Exit". At the bottom of each column, there is a larger text area for additional information.

- i. A form will appear with two columns, one for projects and one for funding source. In the middle section of the form between the two columns, a drop-down button is assigned to the fiscal year and a field is assigned for the fiscal year amount.

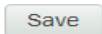
This screenshot shows the same "Funding Assignment to Projects" form, but with specific selections. In the "Projects" list, the item "00610 3.1.3 - Enhancing Canola Emergence with Innovative Stubble Management Practices and use of Crop Establishment Aids" is highlighted. In the "Funding Source:" list, the item "00100 Alberta Ingenuity Fund - Thu Thuy Dang" is highlighted. The "Fiscal Year" dropdown is set to a value, and the "Fiscal Year Amount" field is empty. The "Save" and "Exit" buttons are visible. At the bottom of the form, the selected project name and funding source are displayed in a larger text area.

- j. Select the project you want to update, and select the funding source associated to the selected project.

- k. From the drop-down list at the centre of the form, select the fiscal year to which these funds are being applied.

Fiscal Year Amount

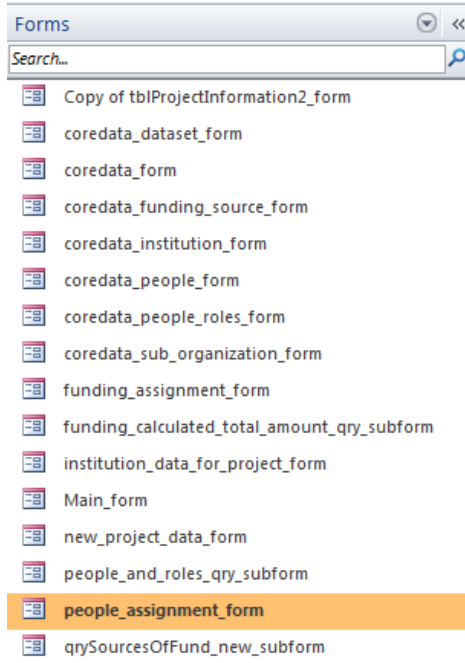
- l. Enter the fiscal year amount associated to the selected project.
- m. Complete the required information on the form and select the "Save" button when finished.



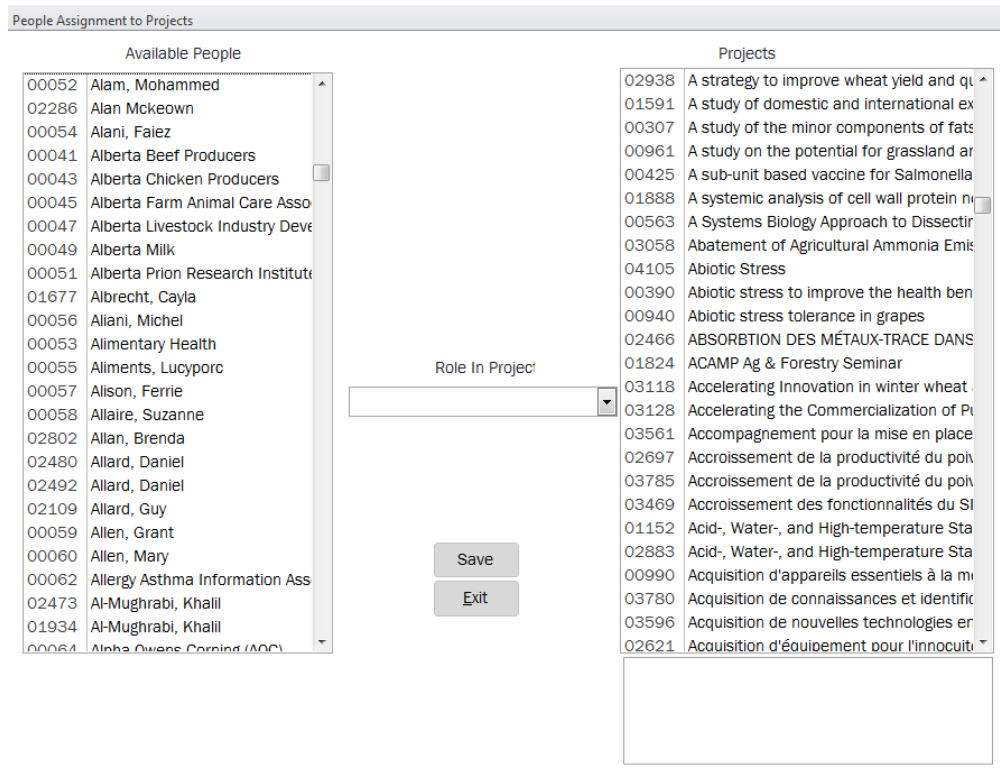
To note: This funding assignment cannot be done until the project and funding information has been entered using the appropriate forms.

5.3.4 Alternative method to link people assignments to projects

- a. Open the Science Scan Database and select forms from the category list located at the far left of the screen.



- b. Select and double-click “people_assignment_form”.



- c. A form will appear with two columns one for “available people” and one for “projects”. In the middle section of the form between the two columns, a drop-down button is assigned to the role in project.

The screenshot shows a web application window titled "People Assignment to Projects". It features two vertical lists of data. The left list, "Available People", contains 30 entries with IDs and names. The right list, "Projects", contains 20 entries with IDs and titles. In the center, there is a "Role In Project" dropdown menu, a "Save" button, and an "Exit" button. The entry "00057 Alison, Ferrie" is selected in the "Available People" list, and the entry "03469 Accroissement des fonctionnalités du Si..." is selected in the "Projects" list.

Available People		Projects	
00052	Alam, Mohammed	02938	A strategy to improve wheat yield and qu
02286	Alan Mckeown	01591	A study of domestic and international ex
00054	Alani, Faiez	00307	A study of the minor components of fats
00041	Alberta Beef Producers	00961	A study on the potential for grassland ar
00043	Alberta Chicken Producers	00425	A sub-unit based vaccine for Salmonella
00045	Alberta Farm Animal Care Asso	01888	A systemic analysis of cell wall protein n
00047	Alberta Livestock Industry Deve	00563	A Systems Biology Approach to Dissectir
00049	Alberta Milk	03058	Abatement of Agricultural Ammonia Emit
00051	Alberta Prion Research Institue	04105	Abiotic Stress
01677	Albrecht, Cayla	00390	Abiotic stress to improve the health ben
00056	Aliani, Michel	00940	Abiotic stress tolerance in grapes
00053	Alimentary Health	02466	ABSORPTION DES MÉTAUX-TRACE DANS
00055	Aliments, Lucyporc	01824	ACAMP Ag & Forestry Seminar
00057	Alison, Ferrie	03118	Accelerating Innovation in winter wheat
00058	Allaire, Suzanne	03128	Accelerating the Commercialization of Pt
02802	Allan, Brenda	03561	Accompagnement pour la mise en place
02480	Allard, Daniel	02697	Accroissement de la productivité du poi
02492	Allard, Daniel	03785	Accroissement de la productivité du poi
02109	Allard, Guy	03469	Accroissement des fonctionnalités du Si
00059	Allen, Grant	01152	Acid-, Water-, and High-temperature Sta
00060	Allen, Mary	02883	Acid-, Water-, and High-temperature Sta
00062	Allergy Asthma Information Ass	00990	Acquisition d'appareils essentiels à la m
02473	Al-Mughrabi, Khalil	03780	Acquisition de connaissances et identifi
01934	Al-Mughrabi, Khalil	03596	Acquisition de nouvelles technologies er
00064	Alpha Owens Corning (AOC)	02621	Acquisition d'équipement pour l'innocuit

- d. Select the available person whose information you want to update, and select the project associated to the selected person.

People Assignment to Projects

Available People	Role In Project	Projects
00052 Alam, Mohammed		02938 A strategy to improve wheat yield and qu
02286 Alan Mckeown		01591 A study of domestic and international ex
00054 Alani, Faiez		00307 A study of the minor components of fats
00041 Alberta Beef Producers		00961 A study on the potential for grassland ar
00043 Alberta Chicken Producers		00425 A sub-unit based vaccine for Salmonella
00045 Alberta Farm Animal Care Asso		01888 A systemic analysis of cell wall protein n
00047 Alberta Livestock Industry Deve		00563 A Systems Biology Approach to Dissect
00049 Alberta Milk		03058 Abatement of Agricultural Ammonia Emis
00051 Alberta Prion Research Institut		04105 Abiotic Stress
01677 Albrecht, Cayla		00390 Abiotic stress to improve the health ben
00056 Aliani, Michel		00940 Abiotic stress tolerance in grapes
00053 Alimentary Health		02466 ABSORPTION DES MÉTAUX-TRACE DANS
00055 Aliments, Lucyporc		01824 ACAMP Ag & Forestry Seminar
00057 Alison, Ferrie	Administrative	03118 Accelerating Innovation in winter wheat
00058 Allaire, Suzanne	Collaborator	03128 Accelerating the Commercialization of Pt
02802 Allan, Brenda	Principle Investigator (P.I.)	03561 Accompagnement pour la mise en place
02480 Allard, Daniel	collaborator	02697 Accroissement de la productivité du poiv
02492 Allard, Daniel		03785 Accroissement de la productivité du poiv
02109 Allard, Guy		03469 Accroissement des fonctionnalités du SI
00059 Allen, Grant		01152 Acid-, Water-, and High-temperature Sta
00060 Allen, Mary		02883 Acid-, Water-, and High-temperature Sta
00062 Allergy Asthma Information Ass		00990 Acquisition d'appareils essentiels à la m
02473 Al-Mughrabi, Khalil		03780 Acquisition de connaissances et identif
01934 Al-Mughrabi, Khalil		03596 Acquisition de nouvelles technologies er
00064 Alpha Omega Corning (AOC)		02621 Acquisition d'équipement pour l'innocuit

Save

Exit

- From the drop-down list at the centre of the form, select the role of the person in the selected project.
- Complete the required information on the form and select the “Save” button

Save

when finished.

To note: This assignment cannot be done until the project, role in project and people (personnel) information has been entered using the appropriate forms.

5.4 Generate and View Reports

A report in MS Access is a way to view metadata in a summarized and organized way. Reports are based on information that exists in the database tables. This information is then queried by the database and presented in a report format. Any changes to the report, other than cosmetic changes, will require changes to the tables/fields, queries impacting the report, as well as the report itself.

There are three pre-existing reports available to display different aspects of the metadata: “Projects”, “Funding Assignment” and “People Assignment”. These reports are accessed through the “Main” form of the Science Scan. All three reports may be accessed without selecting a dataset. The “Projects” report may be associated with a specific dataset.

5.4.1 Generating “Projects” report



To generate the “Projects” report via the “Main” form, select the dataset, check the “Selected Dataset Only” box and click on “Projects”. This will generate a report like the following one:

RPT_Project_Information

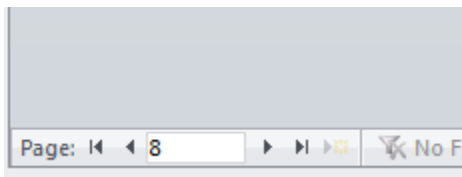
Title / Discipline Specific Commodity Application	Deliverable / Commodity/Resource / Predictd Outcome / Program	Beginnig Yr End Yr Duration / DataSet / Total Project Amount/ data Provider	Project ID / Sub Org ID / Pillar/
Alternative splicing in polyploids and hybrids	New Knowledge		1
Plant and Tree Biology	Crops or Plants	2009-2010	233
Polyploid Plants		<input type="text"/>	1
Advancement Of Knowledge	Discovery Grants Program- Individual		

Project Summary: Polyploids, organisms with an extra set of chromosomes, are common among plants and several crop plants are polyploid. Polyploidy can lead to novel morphological and developmental characteristics, larger cell sizes, and new gene functions and expression patterns. The formation of polyploids often involves hybridization (crossing) between two species. The goal of this research is to understand the consequences of polyploidy and cross-species hybridization on gene expression with a focus on patterns of RNA splicing (removal of regions of the RNA during gene expression). I will assay the expression and RNA splicing of genes duplicated by polyploidy in Brassica napus, canola, including genes involved in specifying traits of agronomic importance such as seed oil synthesis and disease resistance. I will detect novel RNA splicing patterns that appear in plant hybrids during the first generation after a cross is made, using new technology to study RNA splicing patterns on a genome-wide scale in a model plant hybrid. The proposed research will provide the first insights into differences in RNA splicing patterns between duplicated genes in polyploid plants, and the first information on the prevalence of novel RNA splicing patterns that occur in hybrid plants and the types of genes that are affected. This research on RNA splicing in polyploids and hybrids is likely to have an impact on the fields of plant molecular biology, plant genomics, and molecular evolution. Some duplicate genes play a role in specifying traits of agronomic significance in plants, and some RNA splicing patterns in duplicated genes may be involved in conferring traits selected for during plant breeding. In particular, polyploid canola is important to Canada's economy and food supply and what is learned from studying RNA splicing in canola may lead to improvement of this crop plant. Understanding how RNA splicing patterns can change gene expression and function may lead to using RNA splicing as a tool for biotechnology applications to design crops with altered expression of genes of interest to create or improve desired characteristics.

Page 1 of 2538

Page: 1 of 1 No Filter

This report contains various fields, including: title of the project, discipline, specific commodity, application, deliverable, commodity, resource, predicted outcome, program, beginning and ending year, total project amount, data provider, project ID, sub organization ID and pillar and a summary of the project.



The user can browse through all the projects via the arrow buttons located on the bottom left side of the report.

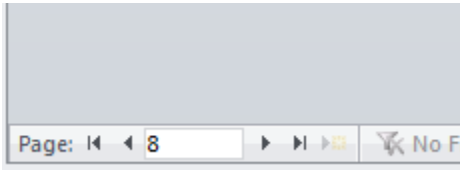
5.4.2 Generating “Funding Assignments” report

To generate the funding assignment report via the “Main” form, click the “Funding Assignment” report button. This will generate a report like the following one:

Project Title	Funding Source Abbr./ Funding Source Full Name		Beginning	End Year	Fiscal Year Amt
			Year		
Alternative splicing in polyploids and hybrids					
Environmental Impact of Prion Diseases	CFI	Canada Foundation for Innovation			
Appetite control in the regulation of body energy reserves: Effects of diet, exercise and functional foods on blood-borne gastrointestinal peptides.	CIHR	Canadian Institutes of Health Research	2009	2010	
Human clinical trial to investigate the effects of high rosmarinic acid spearmint tea on measures of disease activity and cartilage degradation in rheumatoid arthritis	OMAFRA-UoGP	Ontario Ministry of Agriculture, Food and Rural A	2010	2012	\$123,014
Minimal food processing to control traditional and non-traditional pathogenic microorganisms	AAFC	Agriculture and Agri-Food Canada	2009	2011	
Novel value-added applications for industrial waste eggshell membrane to benefit human health	NSERC	Natural Sciences and Engineering Research Co	2009	2010	
Improving Bioremediation of polluted soils through Environmental Genomics	Genome Canada	Genome Canada			
An Evaluation of Manure Nitrogen (N) Credit Calculations Using Data from Ontario Field Research	OMAFRA-UoGP	Ontario Ministry of Agriculture, Food and Rural A	2010	2012	\$242,224
Insulin resistance, immune function, and uterine health in dairy cows	OMAFRA-UoGP	Ontario Ministry of Agriculture, Food and Rural A	2010	2011	\$48,791
The microbial production of recombinant enzymes and bioactive molecules	AAFC	Agriculture and Agri-Food Canada	2007	2011	

Page 1 of 437

In this report, the user can display the project title, funding source, start and end years and the funding allocated on a fiscal year basis.



The user can browse through all the projects via the arrow buttons located on the bottom left side of the report.

5.4.3 Generating “People Assignments” report

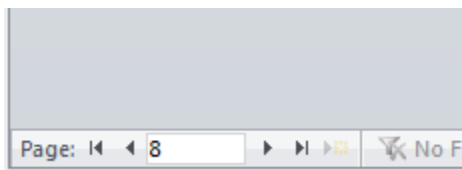
To generate the “Funding Assignment” report through the “Main” form, click the “People Assignment” report button. This will generate a report like the following:

Project Title	Primary Contact Full Name	Role In Project
Alternative splicing in polyploids and hybrids	Adams, Keith	Principle Investigator (P.I.)
	Adams, Keith	Principle Investigator (P.I.)
	Adams, Keith	Principle Investigator (P.I.)
Environmental Impact of Prion Diseases	Adams, Keith	Administrative
	Adams, Keith	Administrative
	Adams, Keith	Administrative
	Adams, Keith	Administrative
Appetite control in the regulation of body energy reserves: Effects of diet, exercise and functional foods on blood-borne gastrointestinal peptides.	Aitken, Melanie	Principle Investigator (P.I.)
Human clinical trial to investigate the effects of high rosmarinic acid spearmint tea on measures of disease activity and cartilage degradation in rheumatoid arthritis	Aiken, Judd	Principle Investigator (P.I.)
Minimal food processing to control traditional and non-traditional pathogenic microorganisms	Doucet, Eric	Principle Investigator (P.I.)
	Doucet, Eric	Principle Investigator (P.I.)
	Doucet, Eric	Principle Investigator (P.I.)
	Doucet, Eric	Principle Investigator (P.I.)

Page 1 of 477

Page: 1 | 1 | No Filter

This report can display three fields, including the project title, primary contact name and role in project.



The user can browse through all the projects via the arrow buttons located on the bottom left side of the report.

5.4.4 Modification of reports: labels and fields

The three reports described in the previous sections are general reports covering a wide range of metadata. There are ways to modify these reports to fit your needs. But to do so, an advanced knowledge of MS Access and the Science Scan database is required. To change an item on the report, it is necessary to change the queries, as well as the tables, that are associated with that report.

Please refer to the following Microsoft link for additional information on how to create/modify reports;

<https://support.office.com/en-us/article/Introduction-to-reports-in-Access-e0869f59-7536-4d19-8e05-7158dcd3681c>

5.4.5 Help button

To access this help manual from the Science Scan database, click on the “Help” button located on the

lower left corner of the main screen.



6 Troubleshooting and FAQ

6.1 Frequently Asked Questions

I. What is a dataset?

A dataset in the Science Scan refers to the period of time (two consecutive years, e.g. 2009-2010) that the project information was provided for (datasets do not refer to calendar years because the Science Scan database was designed for use by Agriculture and Agri-Food Canada, which operates on a federal fiscal year basis).

If your organization's fiscal year matches a calendar year, you can use the same year twice. For example, if your fiscal year is from January 1, 2015 to December 31, 2015, you can use 2015-2015 as a dataset.

To note: The year the project was conducted does not necessarily match the reference year of the dataset. For example, if a project was conducted in 2008 and its data was provided database custodian/host in 2010, the project will fall in the 2010-2011 dataset.


II. The same principle investigator is working on two different projects; do I have to create a different person ID?

No. Only one ID is assigned to each individual. However, the same person can be associated with multiple projects. This association can be executed in the "People Assignment" form described in section 5.3 above. This same principle of unique identifiers applies to institutions, sub-organizations, funding sources, programs etc. The user needs to input the funding source only once and this funding source can be associated with multiple projects.

III. I misspelled the name of an institution, how can I fix it in the form?

To edit any data in any form, select the data you would like to change and click the "Edit" button. The system will present you with an editing screen where you can edit the data. To finish, click "Update".

IV. I want to search for someone in the form, how can I do that?

Use the search option by clicking the button showing binoculars  .

V. How do I create a report?

There are multiple ways a report can be created in MS Access. To facilitate this task, the "Main" form has been created to generate multiple relevant reports. Please refer to section 5.4 of this document.

If you wish to create another personalized report or to modify one of the three pre-existing ones, it is possible to do so via the design view of the report section. Please be advised that in order to modify or create new reports, it is important to have a strong command of MS Access and the Science Scan database structure. Please refer to section 5.4.4 above for details how to create or modify reports. If

needed, the designer of the database can be contacted in order to create or modify reports. Please refer to contact section at the end of this manual.

Please refer to the following Microsoft link for additional information on how to create other types of reports:

<https://support.office.com/en-us/article/Create-a-simple-report-408e92a8-11a4-418d-a378-7f1d99c25304>

VI. Can I store content in the form of a pdf or scanned images or attach a document to a certain project?

No. The Science Scan database stores only metadata. It is not a content repository. Content storage is a functionality that could be added, but advanced knowledge of MS Access and the Science Scan database is required to do so. If needed, the designer of the database can be contacted in order to create this specific function. Please refer to the contact section at the end of this manual

Please refer to the following Microsoft link for additional information on how to create attachments for repository purposes.

<https://support.office.com/en-ca/article/Attach-files-and-graphics-to-the-records-in-your-database-d40a09ad-a753-4a14-9161-7f15baad6dbd>

VII. I require an additional feature in the Science Scan database that is not currently present. How can I create that feature?

Additional features can be enabled, but advanced knowledge of MS Access and the Science Scan database is required to do so. If needed, the designer of the database can be contacted in order to create this specific function. Please refer to the contact section at the end of this manual

6.2 Troubleshooting

I. I get the following error: “Run-time error ‘3022’ “. What can I do to fix it?

Error 3022 arises when the user is trying to create an ID that has been already created. It signals that you do not need to re-create that particular ID. Simply search for the same ID in the “Details”, since it is already there.

II. I get the error message: “The value you entered isn’t valid for this field”. What can I do to fix it?

This error indicates that the user is trying to enter data in the incorrect format. For example, you may have entered a numeric value as a person’s name. To fix this error, be sure to check each field to ensure you are following the appropriate format.

7 Annex

7.1 Categories of Deliverables

New Knowledge	Research aimed at acquiring a fuller understanding of a mechanism. The objective may be to create knowledge that can be applicable to a specific system or simply to create knowledge where lacking. This category covers both Basic (Fundamental) or Applied Research (ie. Determination of genetic properties related to a certain trait in plants, or sequencing of a plant genome)
New Product	Research aimed at creating a new product. It involves the application of knowledge to create new and useful products and services. In the innovation continuum it may be at the technology development and demonstration stage. (ie. Research aimed at the development of a new biofuel using biomass).
Beneficial Management Practices	Research aimed at improving or creating techniques and methods used in current agricultural practices that enhance the maintenance of existing procedures. (ie. The development of better techniques to monitor contamination during meat processing)
Remediation	Research aimed at solving an existing problem in terms of agricultural impact on environment. (ie. Development of methods to limit contamination of water reservoirs around agricultural lands)

7.2 Research Discipline

Research Discipline	
Agricultural engineering	Genome analysis
Agricultural waste management	Geochemistry and geochronology
Analytical chemistry	Hydrogeochemistry
Animal biology	Hydrology
Animal ecology	Immunology
Animal nutrition and husbandry	Industrial engineering
Animal physiology and metabolism	Irrigation
Animal production and breeding	Life sciences research related to human health and disease
Animal reproduction	Lipids
Aquatic ecology and limnology	Mechanical engineering
Atmospheric science	Metabolism
Bacteriology	Microbial ecology
Biochemical engineering	Microbiology
Biochemistry	Modelling and simulation studies
Biology and microbiology	Molecular biology
Bio-organic chemistry	Molecular genetics
Biopolymers	Mycology
Cell biology	Natural products

Chemical engineering	Nutrition
Chemistry and mineralogy	Nutrition and metabolism, photosynthesis
Combustion	Organic chemistry
Computer vision	Organic syntheses
Crop and pasture production, breeding	Other sources of energy (solar, wind, etc.)
Crop management (pest, disease control and breeding)	Plant and Tree biology
Cytoskeleton	Plant ecology
Earth science	Plant growth and development
Ecotoxicology	Plant pathology
Electrical and electronic engineering	Plant reproduction
Endocrinology	Polymers and coatings
Environmental engineering	Proteins and peptides, amino acids
Environmental engineering : Waste water treatment	Reaction fundamentals and reactor design
Enzymes	Remote sensing
Evolution and ecology	Separation processes
Fertility of soils	Soil science
Food chemistry and analysis	Stress physiology
Food microbiology	Terrestrial ecology
Food processing, packaging, preservation and storage	Transport processes
Food science and technology	Waste water treatment
Gene regulation	Water and minerals in plants
Genetics	

7.3 Area of Application

Area of Application
Agriculture and Primary Food Production
Commercial Services
Construction, Urban And Rural Planning
Energy Resources
Health, Education and Social Services
Environment
Information and Communication Services
Manufacturing Processes and Products
Transportation Systems and Services
Natural Resources (Economic Aspects)
Northern Development
Natural Resources

7.4 *Commodities/non-commodities*

Commodities/resources	Specific Commodities
Crops or Plants	Canola, barley, alfalfa, wheat etc
Bio-products	Bio-pharmaceuticals, natural health products, nutraceuticals, functional foods
Biomass	Rendered animal waste, crop waste
Processed Foods	Beverages, wines, packaged foods, oils etc
Farming Practices	Use of pesticides, agricultural machinery, chemicals, fertilizers etc
Livestock	Cattle, swine all live animal
Emerging Issues	Trade policy, food security, allergies etc
Dairy	Milk, husbandry of dairy cattle, cheese
Farmlands	Soil, ecosystems, grasslands, pastures etc
Fruits/Vegetables	Strawberries, grapes/potato, lettuce etc
Poultry	Chicken, turkey, duck, eggs
Water	Wetlands, macrophyte species
Agricultural Waste	Animal manure, veterinary medicine waste, organic waste
Meat Products	Pork, beef, lamb, all processed meat products
Insectary industry	Pollinators, bees
Fisheries	Fish enzymes, fish bi-products

7.5 *Software developer contact information*

This database has been developed by Global Interfaces Consulting Inc. 613-371-1187.

7.6 Science Scan table relationships

