

# IRSA User Guide

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Draft

IRSA User Guide .....	1
Introduction .....	1
Installation .....	2
Running IRSA .....	2
Login Screen.....	3
Welcome Screen.....	4
Data Entry .....	4
Spraying Activity totals .....	9
Deleting Records .....	12
Paging Controls .....	12
Reports in IRSA .....	13
Report Screenshots.....	14
Reports website .....	16
Report Menu.....	16
Screenshots of Reports: .....	17
Administration .....	20
Login status .....	20
Site Id .....	20
Locations .....	22
Staff.....	23
Output Database .....	23
Data Center Administration .....	24
Process Uploads .....	24
MySQL Preferences .....	26
MySQL database views .....	27

## ***Introduction***

IRSA (Indoor Residual Spraying Application) is an application for the collection of data for indoor residual spraying programs. Data for each day's spraying is entered into the main form, and details about each house spraying or the day's spraying totals may also be

entered. Data may be exported to a delimited text file. The application has an administrative utility that enables these delimited text files to be imported into an external MySQL database and viewed using a web application. Some of the options that appear in dropdowns may be set by a user logged-in with administrative privileges, enabling some changes to be made without the aid of a programmer.

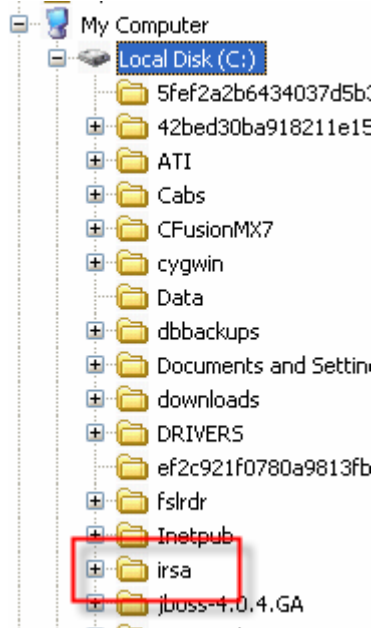
IRSA uses the Eclipse RCP framework for the user interface. BIRT is used for reports.

The author worked with Pablo Destefanis from RTI in the creation of IRSA – Pablo provided the specification for many of the features in IRSA.

## ***Installation***

**Requirements:** you must have Java JRE5 installed on the pc.

The file irsa.rar must be decompressed on the C:\ drive, so that the path “C:\irsa” is created:



After installing the application, you may launch IRSA. It is in the C:\irsa\app directory:

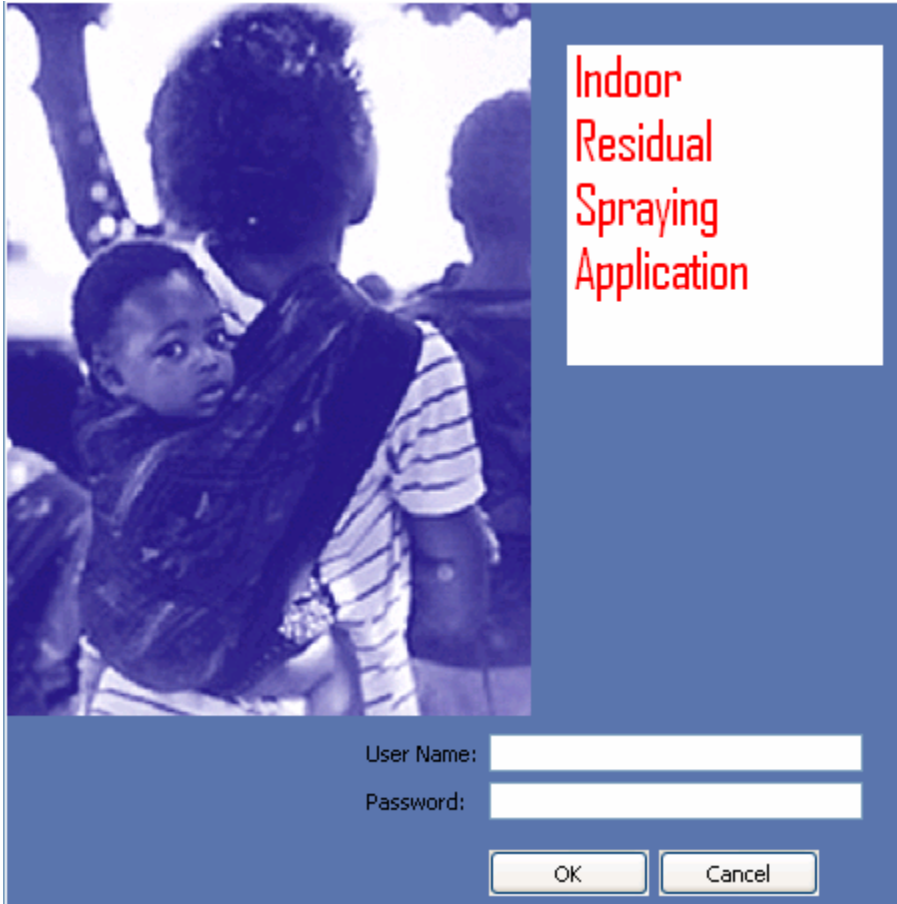


## ***Running IRSA***

Double-click the file irsa.exe to launch the app. After a moment, the splash screen will appear:



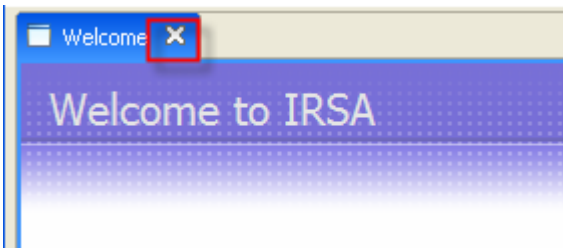
**Login Screen**



After the initial splash screen displays, the login screen appears. If you need to do any Administration, login as “admin”, password “admin”. Enter any other Username to login as a user.

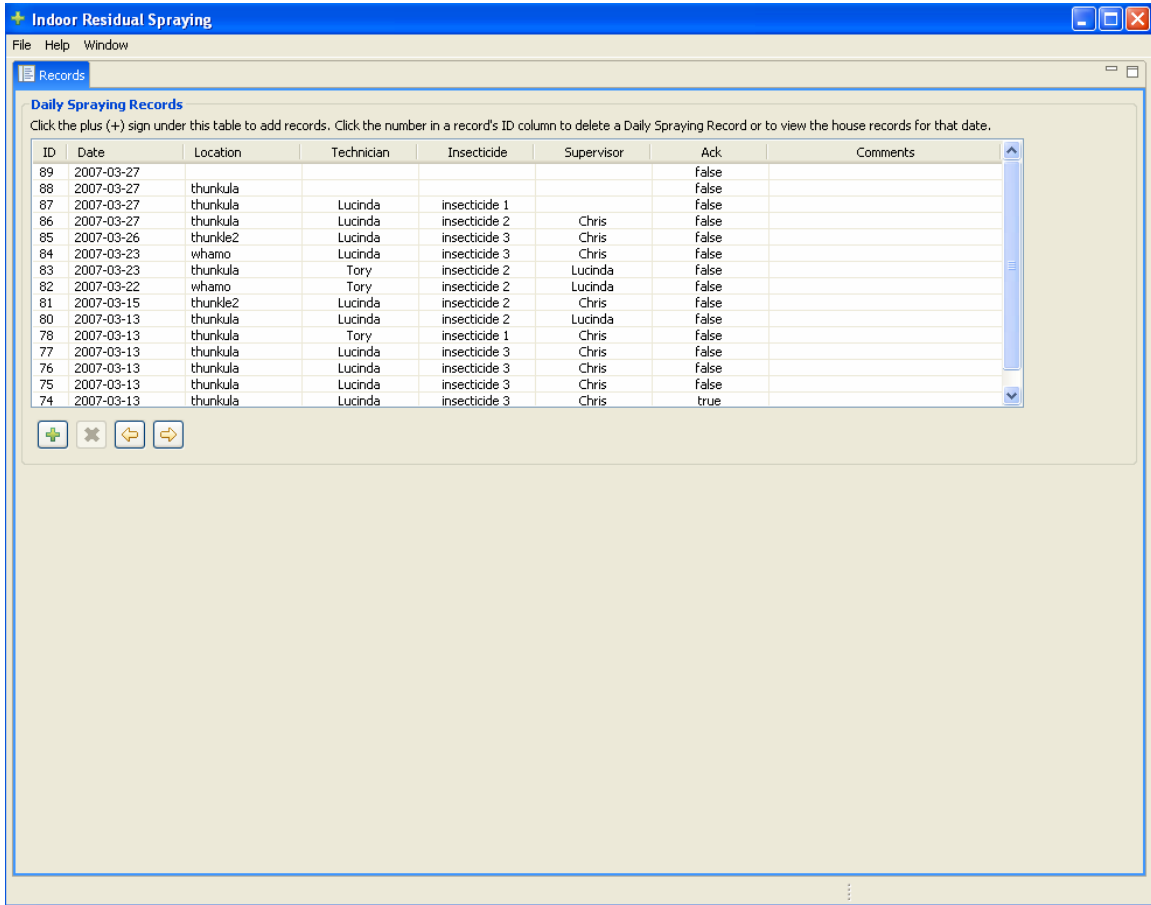
## Welcome Screen

The first time IRSA is run a Welcome screen appears that instructs the administrator to setup the Site Preferences. Click the “x” at the top left corner to close this message.

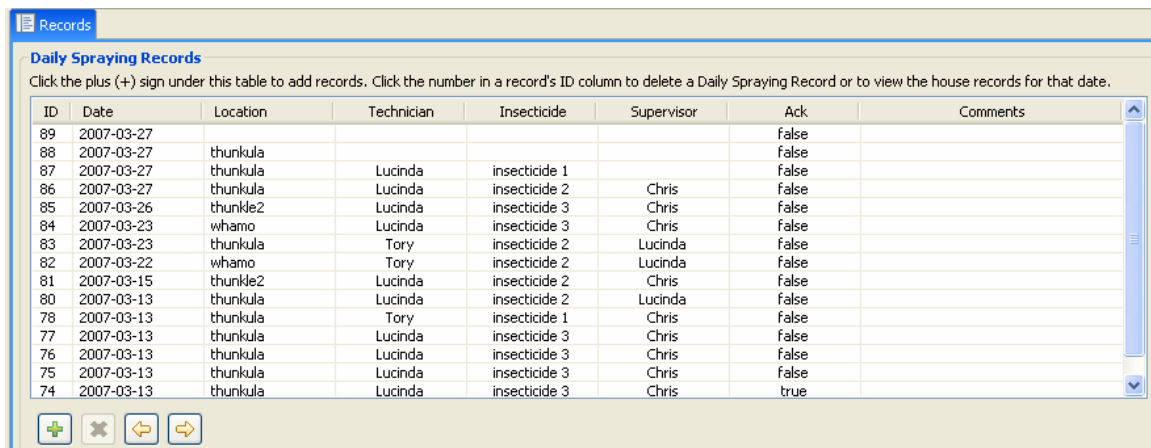


## Data Entry

Once the application has loaded, the main data entry screen appears:



The Records tab is the main data entry screen.



To add a new record, click the "+" (Add Daily Spraying Record) button. This will place a new row in the table.

**Daily Spraying Records**

Click the plus (+) sign under this

ID	Date	Loc
89	2007-03-27	
88	2007-03-27	thur
87	2007-03-27	thur
86	2007-03-27	thur
85	2007-03-26	thur
84	2007-03-23	wha
83	2007-03-23	thur
82	2007-03-22	wha
81	2007-03-15	thur
80	2007-03-13	thur
78	2007-03-13	thur
77	2007-03-13	thur
76	2007-03-13	thur
75	2007-03-13	thur
74	2007-03-13	thur

New row appears:

ID	Date	Location	Technician	Insecticide	Supervisor	Ack	Comments
63	2007-02-22					false	
62	2007-02-21	thunkle2	Chris	insecticide 1	Ben	true	

The date is prefilled when you create a new record. You may change the date, but be sure to use the same format – yyyy-mm-dd. You may fill out the other fields by tabbing or clicking on them:

Location
thunkle2
whamo

Initially the fields in the dropdowns appear empty, but if you click the down arrow, a list will appear.

etc a Daily spraying record or to vit

Location	Te
whamo	
thunkula	
thunkle2	
seven	
hola dude	

You may also press the Alt button and the down arrow at the same time (ALT + Down) to expand the dropdown list. Type a letter to scroll to an item that begins with the same letter.

After you make a choice, the choice appears:

... a Daily spraying record or to view

Location	Tech
thunkula	
thunkle2	Cl
whamo	Cl

Your choice is saved when you move to another field or press the Tab key.

## Validation

Most of the input fields require whole numbers. The system delivers an error message if a letter is entered:

ula	Lucinda	insecticide 2	Chris	false
e2	Lucinda	insecticide 3	Chris	false
o	Lucinda	insecticide 3	Chris	false
ula	Tory	insecticide 2	Lucinda	false
o	Tory	insecticide 2	Lucinda	false
e2				
ula				
ula				
ula				

**Error**

Please enter a number.

OK

type	Sprayed	Not Sprayed	Reason Not Sprayed	Males	Females	Kids	Treated
	7	7		2	2	3	5
	6	3	Locked (L)	4	3	1	
	6	4	Sick (S)	6	1		

## House Records

To add a house record, click the ID field for a Daily Spraying record:

**Daily Spraying Records**

Click ID to add or delete a Daily sp

ID	Date	Loca
63	2007-02-22	thunk
62	2007-02-21	thunk
61	2007-02-21	whar
60	2007-02-21	sever
59	2007-02-21	.....

This will create a new table below the Daily Spraying record table:



**House Records**

Click the number in the ID column to delete a house spraying record. To add a new record, first click a record.

ID	House	Structure	Sprayed	Not Sprayed	Reason Not Sprayed
24	123 jump st.	I	2	2	Not home
25					

You may quickly tab through all of the fields or click on a field to enter data:

24	123 jump st.	I			
25	444 Polimer Lane				

Click the number in the ID column to delete a house spraying record.

ID	House	Structure	Sprayed	Not Sprayed	Reason Not Sprayed
24	123 jump st.	I			
25	444 Polimer Lane	F			

Click the number in the ID column to delete a house spraying record.

ID	Sprayed	Not Sprayed
24	2	2
25	0	5

## Spraying Activity totals

In case you need to enter only the totals for spraying activity rather than record-by-record, click the “Add/Edit Summary Record” button after clicking the ID field of the record:

**Daily Spraying Form - site1**

Click the plus (+) sign under this table to add records.

ID	Date	Location Code	Spr
93	2007-04-04	seven	
92	2007-04-04	thunkula	
91	2007-04-02	durango	
90	2007-03-29	thunkula	
89	2007-03-27		
88	2007-03-27	thunkula	
86	2007-03-27	thunkula	
85	2007-03-26	thunkle2	
84	2007-03-23	whamo	
83	2007-03-23	thunkula	
82	2007-03-22	whamo	
81	2007-03-15	thunkle2	
80	2007-03-13	thunkula	
78	2007-03-13	thunkula	
77	2007-03-13	thunkula	

**Spraying Activity** Add/Edit Summary Record

Click the plus (+) sign under this table to add records.

This will dismiss the Spraying Activity form (if open) and render the Spraying Activity totals form:

**Spraying Activity totals**

**Houses**  
 Totals - F  Totals - I  Total #

**Rooms**  
 Sprayed  Not Sprayed

**Reasons for Not Spraying**  
 Sick (S)  Locked (L)  Newborn (N)  Funeral (F)  Other (O)

**People Protected**  
 Males  Females  Kids

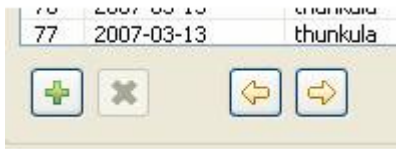
**Nets**  
 Treated  Not Treated  Ppl Under

All of the fields in this new form are input fields – it’s very fast to enter the data by tabbing from field-to-field. When you click submit, the system gives you some confirmation (“Saved”):

Ppl Under

**Saved**

If you move to another Daily spraying form record that has multiple spraying activity records already, the new “Add/Edit Summary Record” button does not appear:



This totals form only appears when there are no spraying activity records already for that record.

When you return to a record that has a Spraying totals record, it displays that form w/ the data pre-filled:

**Daily Spraying Form - site 1**

Click the plus (+) sign under this table to add records. Click the number in a record's ID column

ID	Date	Location Code	Sprayer Name/Number	Insecticide
144	2007-04-05	thunkula	John	insecticide 2
143	2007-04-05	whamo	Tory	insecticide 2
142	2007-04-05			
141	2007-04-05	whamo	Tory	insecticide 2
140	2007-04-05	whamo	Lucinda	insecticide 2
139	2007-04-05	thunkula	Tory	insecticide 2
138	2007-04-05	thunkula	Lucinda	insecticide 2
137	2007-04-05			
136	2007-04-05	thunkula	Tory	insecticide 2
135	2007-04-05	thunkula	Lucinda	insecticide 3
134	2007-04-05	whamo	Lucinda	insecticide 3
133	2007-04-05	whamo	Lucinda	insecticide 2
132	2007-04-05	thunkula	Lucinda	insecticide 3
131	2007-04-05	thunkula	Lucinda	insecticide 3
130	2007-04-05	thunkula	Lucinda	insecticide 3

**Spraying Activity totals**

**Houses**  
 Totals - F  Totals - I  Total #

**Rooms**  
 Sprayed  Not Sprayed

**Reasons for Not Spraying**  
 Sick (S)  Locked (L)  Newborn (N)  Funeral (F)  Other (O)

**People Protected**  
 Males  Females  Kids

**Nets**  
 Treated  Not Treated  Ppl Under

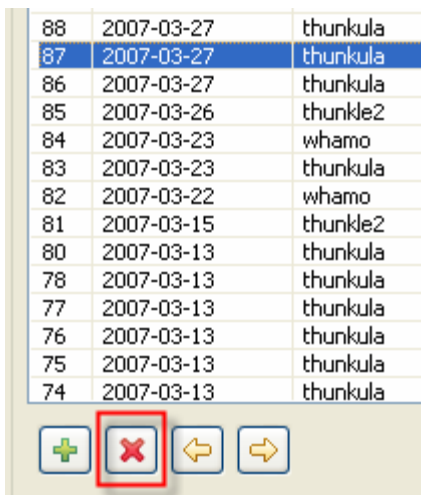
Changing data in the form and pressing “submit” updates this record.

The “Delete” button does what it is supposed to do: deletes the record. The totals form goes away.

## Deleting Records

You may delete a Daily Spraying Record by clicking the ID field for the record and then clicking the “X” (Delete Daily Spraying Record) button.

88	2007-03-27	thunkula
87	2007-03-27	thunkula
86	2007-03-27	thunkula
85	2007-03-26	thunkle2
84	2007-03-23	whamo
83	2007-03-23	thunkula
82	2007-03-22	whamo
81	2007-03-15	thunkle2
80	2007-03-13	thunkula
78	2007-03-13	thunkula
77	2007-03-13	thunkula
76	2007-03-13	thunkula
75	2007-03-13	thunkula
74	2007-03-13	thunkula



Deleting a Daily Spraying record will also delete any associated House records.

## Paging Controls

You may use the paging controls to view Daily Spraying records not currently displayed.

**Daily Spraying Records**

Click the plus (+) sign under this table t

ID	Date	Location
89	2007-03-27	
88	2007-03-27	thunkula
86	2007-03-27	thunkula
85	2007-03-26	thunkle2
84	2007-03-23	whamo
83	2007-03-23	thunkula
82	2007-03-22	whamo
81	2007-03-15	thunkle2
80	2007-03-13	thunkula
78	2007-03-13	thunkula
77	2007-03-13	thunkula
76	2007-03-13	thunkula
75	2007-03-13	thunkula
74	2007-03-13	thunkula

Navigation icons: +, x, ←, →

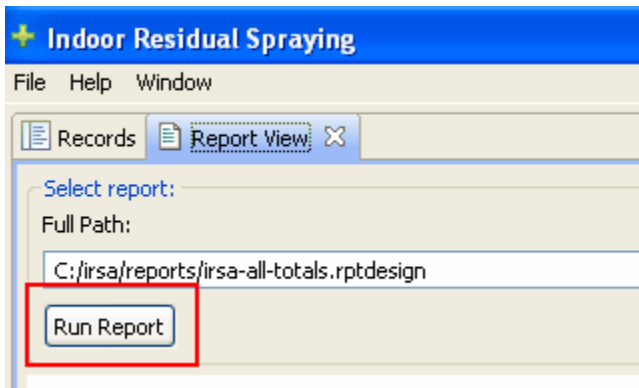
## Reports in IRSA

A basic report is available from selecting File -> View Reports.

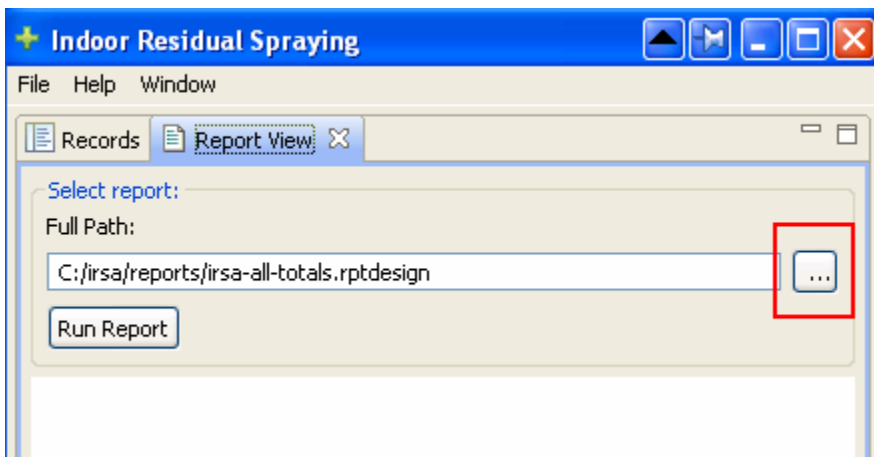


It takes a few moments for the report engine to start. IRSA uses an embedded version of the BIRT Report Viewer for reports. IRSA features a very simple report that can serve as an example of how to create reports for IRSA.

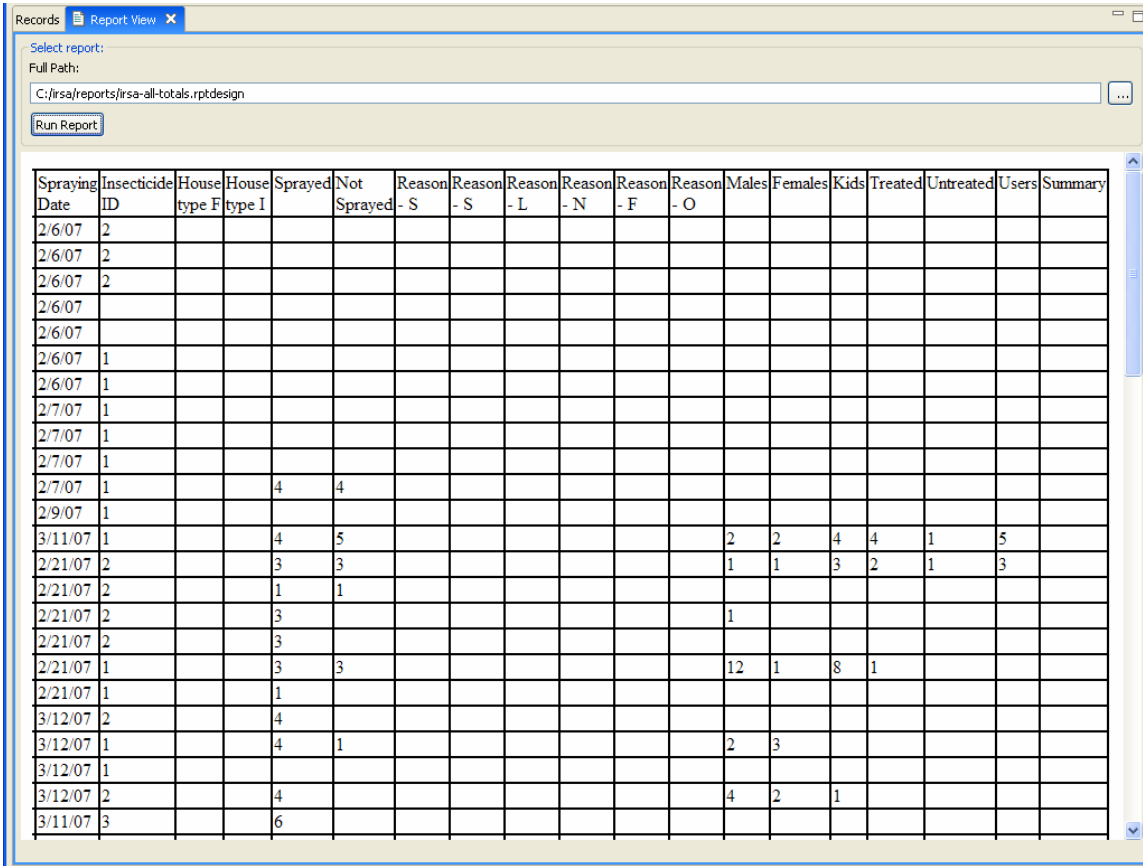
Click "Run report" to run the report.



To load another report, click the “browse” button to find the file.



## Report Screenshots



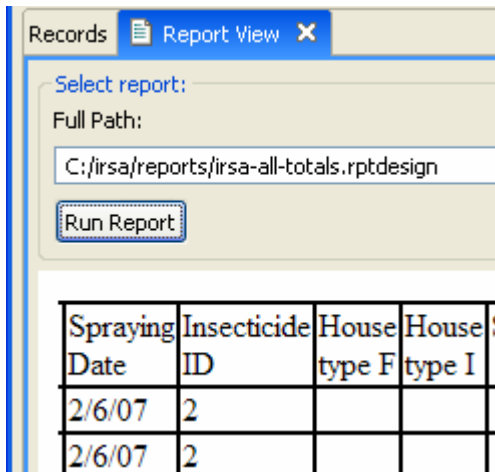
The “Summary” field (if value = 1) indicates if the record was entered using the “Spraying Activity totals” form.

Spraying Date	Insecticide ID	House type F	House type I	Sprayed	Not Sprayed	Reason - S	Reason - S	Reason - L	Reason - N	Reason - F	Reason - O	Males	Females	Kids	Treated	Untreated	Users	Summary
4/5/07	2		1	5	6	1	1					5	6	5	4	3	4	
4/5/07	2	1		5	6			1				4	5	4	3	4	5	
4/5/07	2	4	3	3	2	3	3	4	3	4	3	1	1	2	3	2	3	1

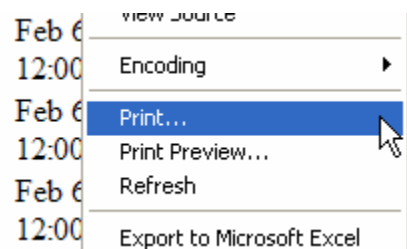
When a Spraying Activity record (as opposed to a totals record) is submitted, Summary = 0. Also, the value selected for House type F or House type I = 1, depending on the value selected in the dropdown.

Spraying Date	Insecticide ID	House type F	House type I	Sprayed	Not Sprayed	Reason - S	Reason - S	Reason - L	Reason - N	Reason - F	Reason - O	Males	Females	Kids	Treated	Untreated	Users	Summary
4/5/07	2		1	5	6	1	1					5	6	5	4	3	4	
4/5/07	2	1		5	6			1				4	5	4	3	4	5	
4/5/07	2	4	3	3	2	3	3	4	3	4	3	1	1	2	3	2	3	1

If you have prepared reports with BIRT, simply point the viewer to the .rptdesign file and press “Run Report.”



To print the report, right-click on the report and select “Print.”



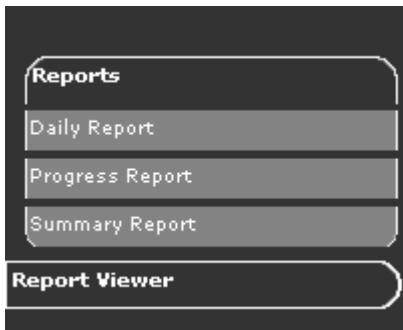
There’s another sample report available in C:\irsa\reports that gives a view of the spraying\_headers table; however, it needs to be updated to the new schema.

## ***Reports website***

The author has created a sample reporting website to demonstrate how aggregate reports may be viewed on the web. If you downloaded and installed the irsa report web application to your pc, reports are available from the IRSA Reporting site, <http://www.idg-rti.org:8080/irsaweb>. This is currently not being distributed – some of the code needs revision due to schema changes.

## **Report Menu**

Select the desired report from the menu:



## Screenshots of Reports:

### Daily Report Parameter Selection:

### Daily Report Params

Please select the desired parameters then click on Generate Report.

- locations
  - Country 1 (Co1)
    - State 1 (S1)
  - Continent 2 (C2)
    - Neighborhood 1
    - City 1 (ci1)
    - Village 1
  - Continent 1 (C1)**
    - Neighborhood on C1 (NC1)
    - Village on C1 (VC1)
    - City on C1 (CIC1)
    - Country on C1 (CoC1)

**Team Leader:**

**Initial Date:**

**Final Date:**

## Daily summary of spraying, by team

Leader team's name : Juan  
 Location: Continent 2 (C2)  
 Contact number: 654654  
 Supervisor's name: Martin

Date	Sprayer	Houses Sprayed	Houses not Sprayed	Insecticide Used (Sachets)	Type F	Type I	Rooms Sprayed	People Protected			Nets		
								M	F	<5	T	U/T	Under
01/20/2007													
	Andres 2	3	0		1	2	6	4	6	7	6	4	6
	Felipe	3	0		1	2	6	8	8	8	11	7	9
02/20/2007													
	Andres 2	2	1		3	0	6	5	7	10	10	8	13
Total		8	1		5	4	18	17	21	25	27	19	28

Aug 9, 2007 11:00 AM

### Progress Report Parameters:

#### Progress Report Params

Please select the desired parameters then click on Generate Report.

- locations**
  - Country 1 (Co1)**
    - State 1 (S1)**
  - Continent 2 (C2)**
    - Neighborhood 1**
    - City 1 (ci1)**
    - Village 1**
  - Continent 1 (C1)**
    - Neighborhood on C1 (NC1)**
    - Village on C1 (VC1)**
    - City on C1 (CIC1)**
    - Country on C1 (CoC1)**

**Initial Date:** Jan 9 2007

**Final Date:** Aug 9 2007

Intermediate step – simply press enter (do not change dropdown value)

**Parameter** ✖

Parameters marked with \* are required.

{ } Location: \*

0 ▼

OK Cancel

**Progress Report**

Week Start Date	Population Covered Each Week	Population Covered (Cumulative)	Houses Sprayed	Houses not Sprayed	Houses Visited Cumulative
Jan 8, 2007	25	25	2	3	0
Jan 15, 2007	33	58	4	6	0
Feb 5, 2007	24	82	3	3	0
Feb 19, 2007	24	106	1	3	0

Aug 9, 2007 11:03 AM

**Summary Report**

### Summary Report

Date	Total Houses Found	Total Houses Sprayed	% Houses Sprayed	Houses Sprayed (Cumulative )	Houses sprayed / insecticide sachet	Population Protected (Cumulative )
01/12/2007	6	5	83.33%	5	5	44
01/15/2007	3	1	33.33%	6	1	60
01/20/2007	6	6	100.00%	12	6	101
02/20/2007	6	3	50.00%	15	3	147

Aug 9, 2007 10:54 AM

## Administration

### Login status

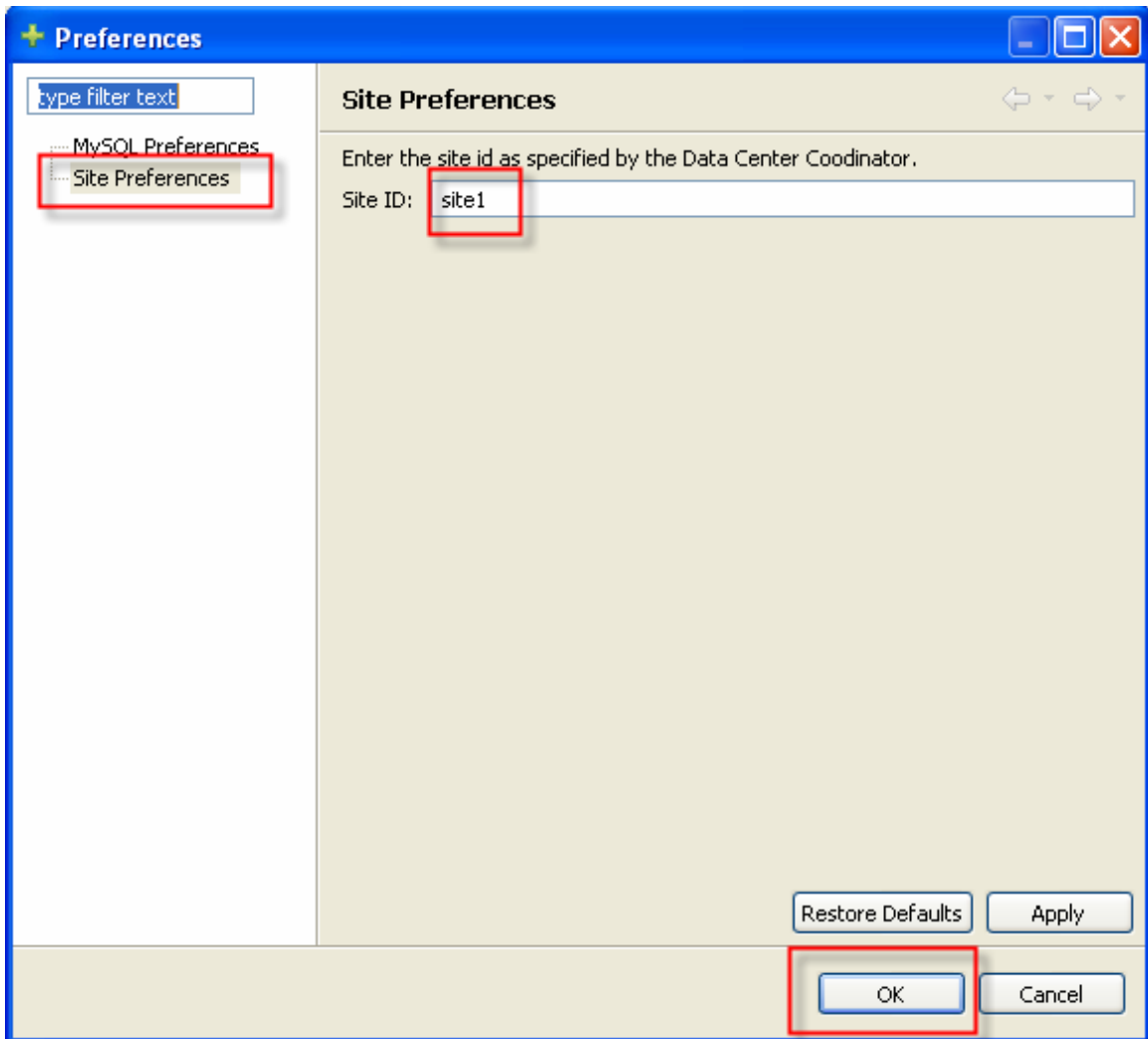
Note: Be sure to login as “admin” to gain access to the following capabilities.

### Site Id

In order to export records properly, you must set the Site Id. Setting the Site ID sets the filename for the record exports. To set the Site ID, go to Windows -> Preferences.



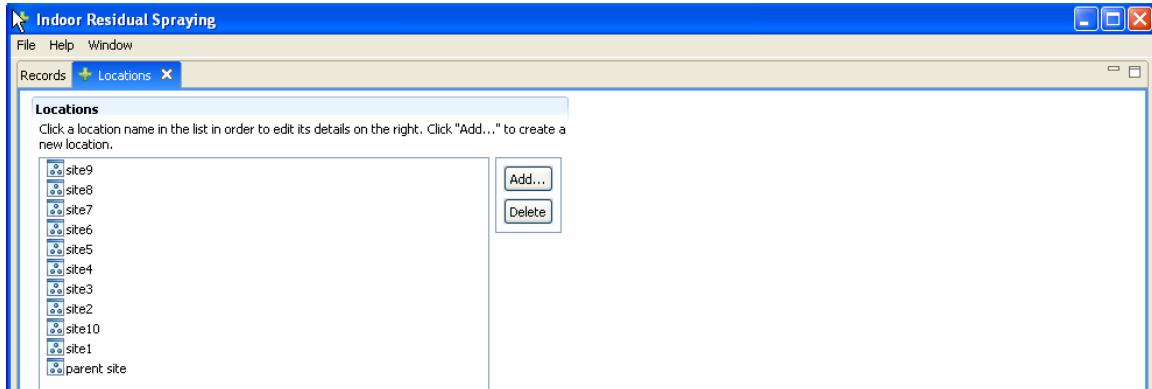
Click the Site Preferences item on the left pane, enter the Site ID in the right pane, and click “OK”.



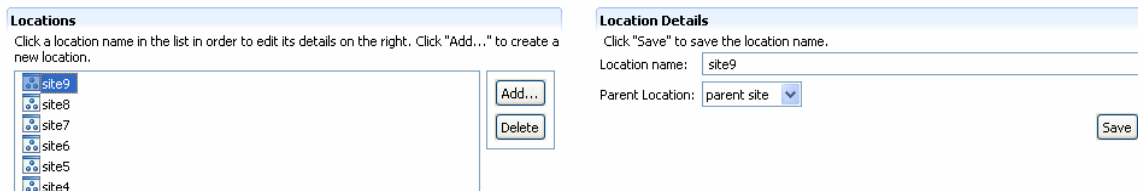
You may customize Staff and Location dropdowns from the Administration menus. Go to the File menu and select one of the choices:



# Locations



Click a location to edit its name:



Every Location must have a Parent location.

---

**Location Details**

Click "Save" to save the location name.

Location name:

Parent Location:

If you're editing the "top" parent location, make its parent location itself.

---

**Location Details**

Click "Save" to save the location name.

Location name:

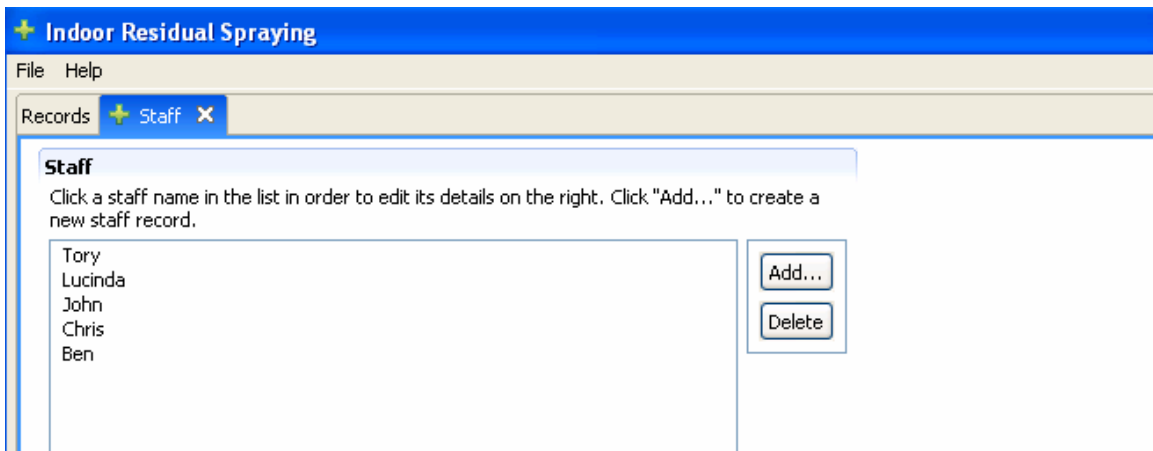
Parent Location:

Once you are done adding or editing locations, click the close button:

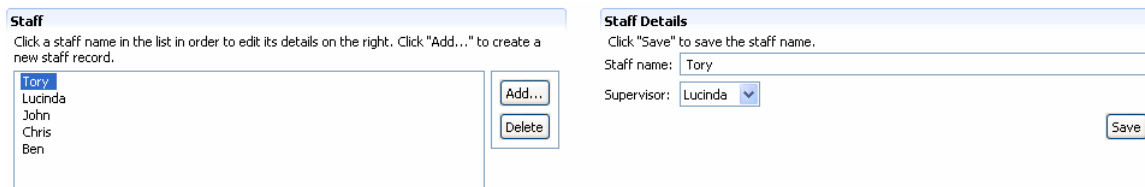


Changes in the dropdowns will not appear until you exit and restart the application.

## Staff

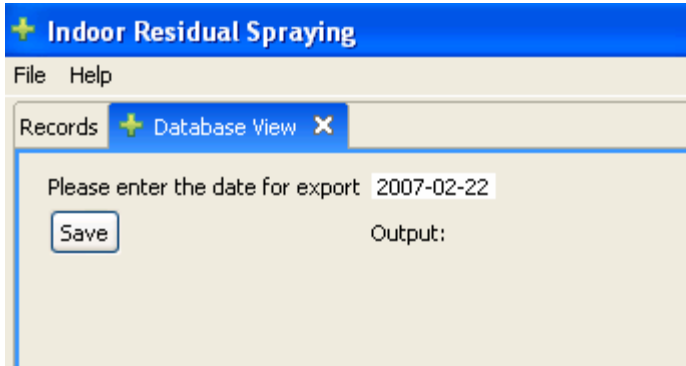


Click a staff name to edit.

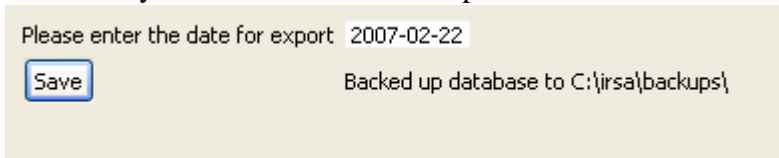


## Output Database

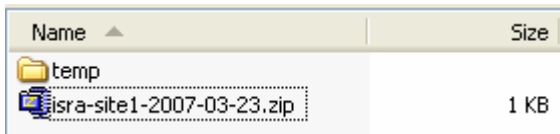
Enter the date you'd like to output, and press "Save."



It will tell you where to find the output:



It will create a file with the export date in C:\irsa\backups. The filename is in the format “irsa-SiteId-date.zip”. Data is stored in a comma-delimited format.

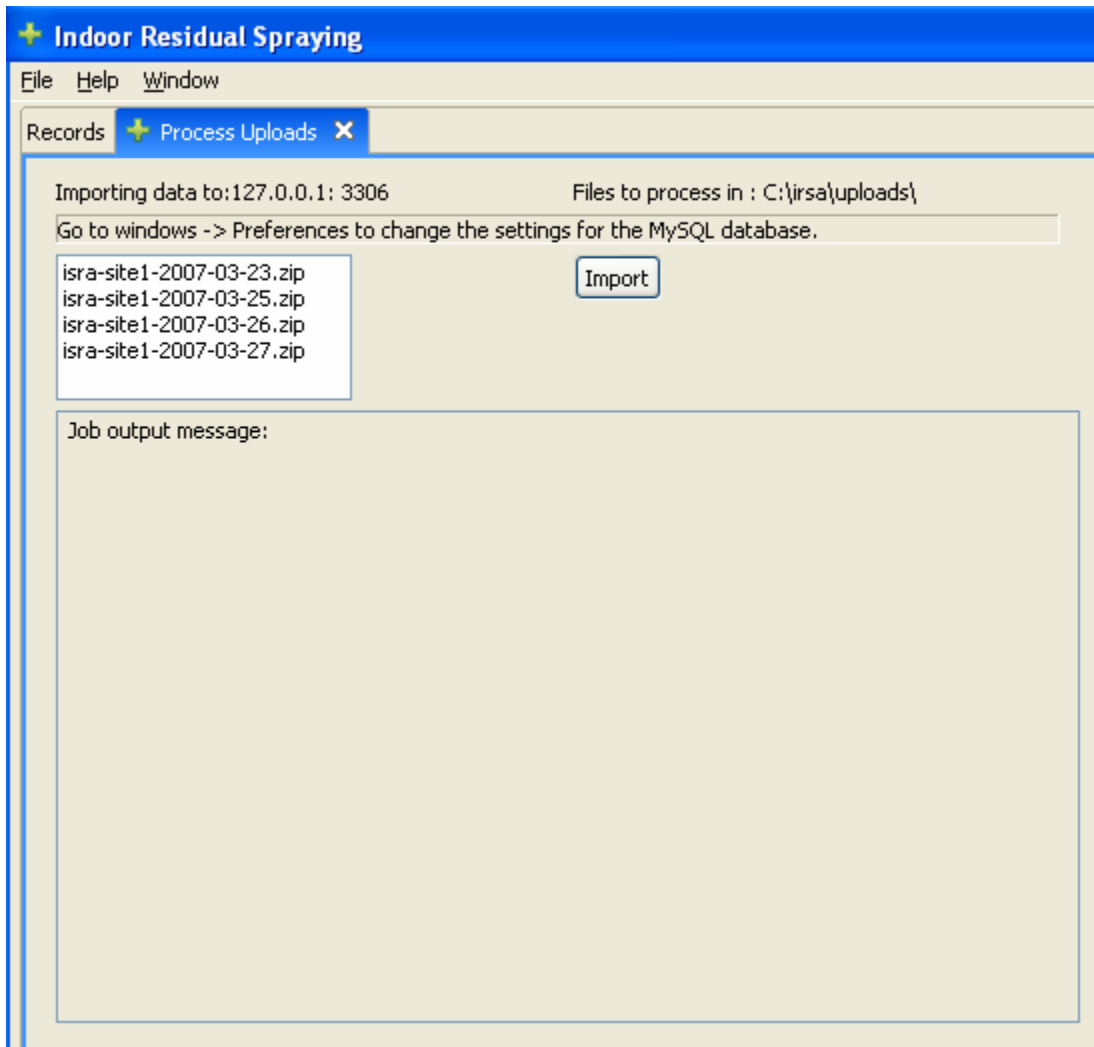


## ***Data Center Administration***

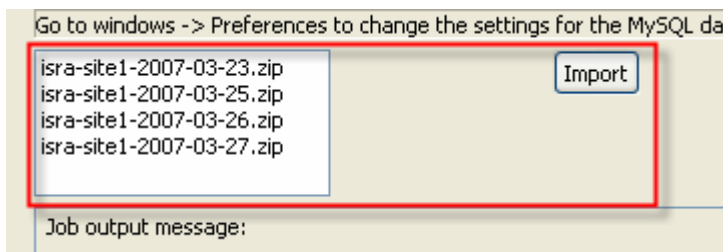
The following information pertains to the aggregation of data from remote sites – it is not useful for local data entry operators. This functionality is currently included in the application, but it may be extracted and made into a separate application if needed.

### **Process Uploads**

The Process Uploads utility enables the data center admin to insert new data into the main reporting database.



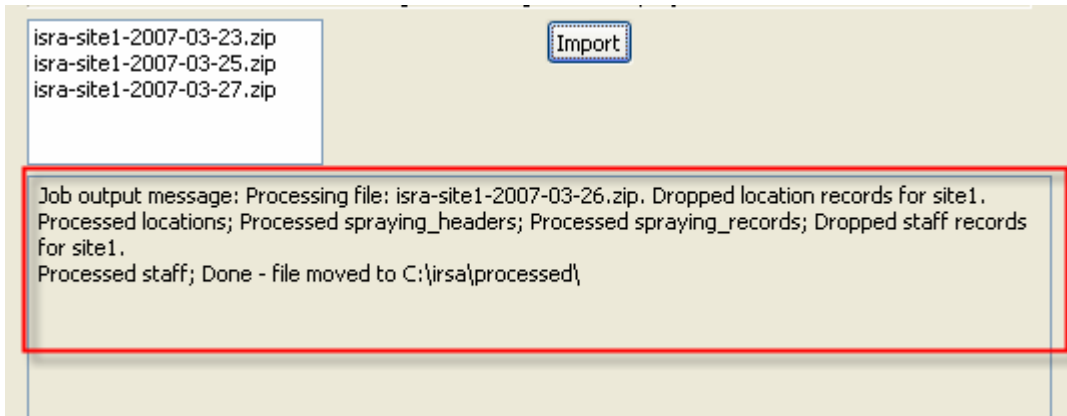
Zip file archives will be sent to an e-mail address used by the administrator. The administrator will download these archives into the C:\irsra\uploads directory. A list of the current files to be processed appears in the Process Uploads listing:



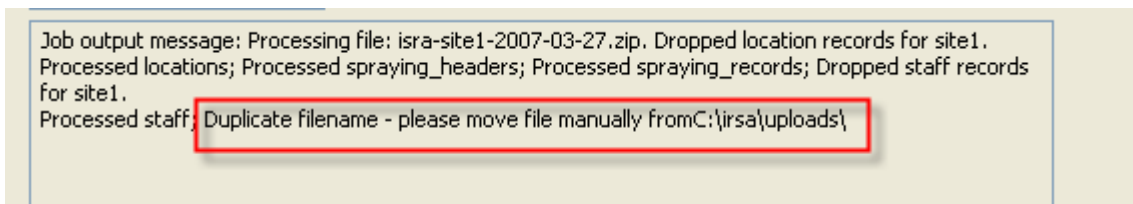
Select a file name and click “Import” to process the site’s daily files. Files are expanded into C:\irsra\uploads\temp. Each file is processed to convert the null values into “\N” which is expected my MySQL. The application adds any new Spraying headers or records and completely refreshes the locations and staff tables.

Each time a file is processed, it is moved to C:\irsa\processed dir. If you have a duplicate filename, the file will be “stuck” in C:\irsa\uploads – you’ll have to manually move the file. See error message below.

A simple log display progress:



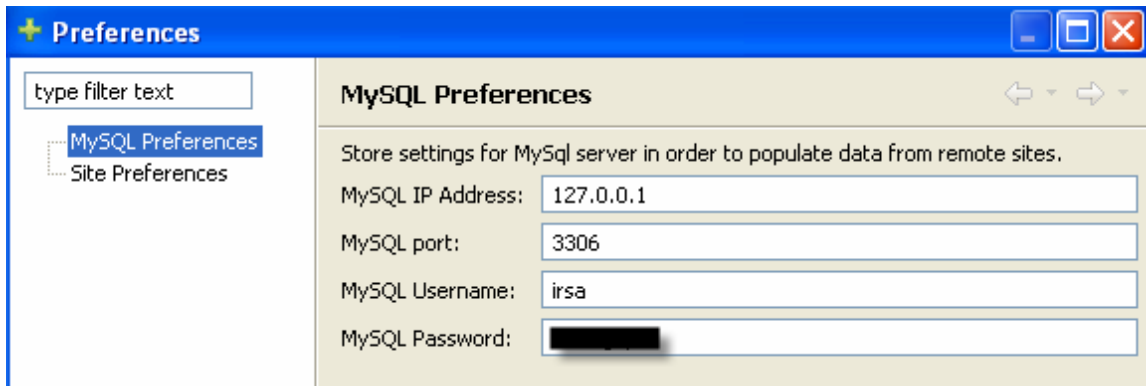
Duplicate filename error:



The system always deletes any records that have the same spraying date and data center id as the file you are currently importing. If you need to update records that have already been imported, ask the data center to send a new backup from that date. When you import the archive, the system deletes any records from that date and inserts the updated records.

## MySQL Preferences

You may change the settings for the MySQL reporting database from Windows -> Preferences if you are logged-in as admin.



## MySQL database views

The irsa database provides some views that may be useful for checking progress of uploads. The “reports” view joins the spraying\_headers and spraying\_records tables. These views can be helpful for debugging upload problems.

spraying_date	date_center_id	orig_header_id	header_id_fk	orig_record_id	insecticide_id	house_name	rooms_sprayec
3/27/2007	site1	86	86	80	2	test	3
3/27/2007	site1	88	88	81	Null	23 poker lane	3
3/27/2007	site1	88	88	82	Null	44 crescent	1
3/27/2007	site1	88	88	83	Null	55 here now	Null
3/27/2007	site1	88	88	84	Null	222	Null