



IPHis Data Collector (IDC)

Mobile Application

USER GUIDE



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Overview

Designed for iOS (iPhone) or iPadOS (iPad), the USDA APHIS PPQ's Integrated Plant Health Information System (IPHIS) Data Collector, known as IDC, is a survey tool facilitating field data collection. This mobile application allows for interfacing with the IPHIS database by both internal employees and external cooperators and contractors who have a valid USDA eAuthentication User ID and Password.

Users must have eAuthentication Level 1 and an IPHIS user role granted. Data collection requires supervisory approved access to specific data forms.

To work offline, users download an assignment and workbook to their device while connected to a reliable Wi-Fi network for offline data entry in the field. Upon return to a reliable Wi-Fi network, users upload the workbook data to the IPHIS database.

Before entering field data, the user must select the office, assignment, and workbook under which they are entering data (Figure 1: A-C). Next, the user may begin entering field data.

Field data is organized into four tiers: location, site, activity, and sample. (Figure 1: D-G)

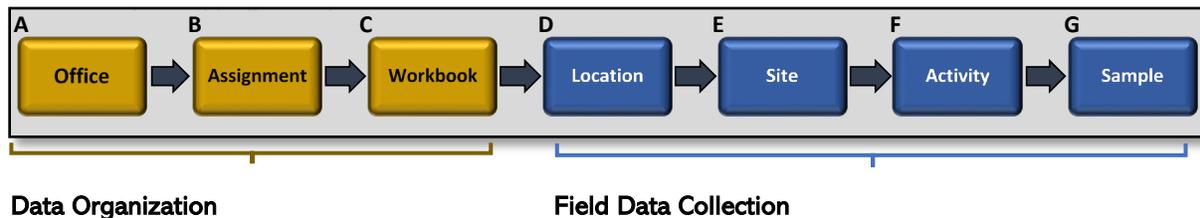


Figure 1 IPHIS database structure

For more detail:

See [Appendix C: Troubleshooting Tips](#)

See [Appendix D: Glossary \(IPHIS Lexicon of Words\)](#)

A few icons should help draw attention where needed:



When a step requires a reliable internet connection on a mobile device



Reminders of special note.



Performed using the desktop



Performed using a mobile device

2022 Disclaimer: Training techniques or workflows held within are designed as basic job aids. Mobile collection tools and technology used are constantly being improved upon. End users should consult with management for current workflows and standards.

Access Requirements

Federal employees and Cooperators

eAuthentication



You are required to have a USDA eAuthentication (Level 1) account to use IPHIS.

If you are an employee of USDA, you should already have Level 2 eAuth access for other USDA programs such as AgLearn and do not need to request an account.

If you are a cooperator with access to USDA's PCIT or ePermits, you have a Level 1 eAuth access and do not need to request an account.

If you need eAuth credentials:

- Register at [eAuthentication Account Registration](#).
- An e-mail account (work or personal) is required.
- Approvals typically occur within the hour.

Computer setup



To access USDA PPQ's IPHIS system you need, at a minimum, Internet access and a web browser.

**This includes Microsoft, Linux, or Apple operating systems. IPHIS has been tested with Chrome, Microsoft Internet Explorer 10.0, IE 8.0 (in compatibility mode), and Mozilla Firefox 3.6.

Microsoft Excel is required for managing spreadsheets used to upload data. In testing, many third-party Excel imitators do not correctly emulate ".xls/.xlsx" file formats and therefore have not worked when uploading data to IPHIS.

Mobile Device



An iOS/iPadOS device is required to collect data using the IDC mobile application. This means either an iPhone or iPad.

IPHIS Access



Video training outlining the steps to gain approved access to IPHIS are hosted with public access allowed on the APHIS YouTube channel: [IPHIS Desktop Basics: Access to IPHIS](#)

Steps to gain access to IPHIS

1. Obtain [eAuthentication](#) (Level 1)



Keep track of your eAuthentication User ID and Password!

To recover a forgotten User ID or Password, choose the Manage Account tab here:
[eAuthentication Account Registration](#)

2. Supervisory information – IPHIS Office name and approved IPHIS user role
See [Getting Help](#) for support on identifying these, if needed.
3. From a web browser, locate [USDA APHIS | Integrated Plant Health Information System](#) and select [Access IPHIS](#). (Figure 2)

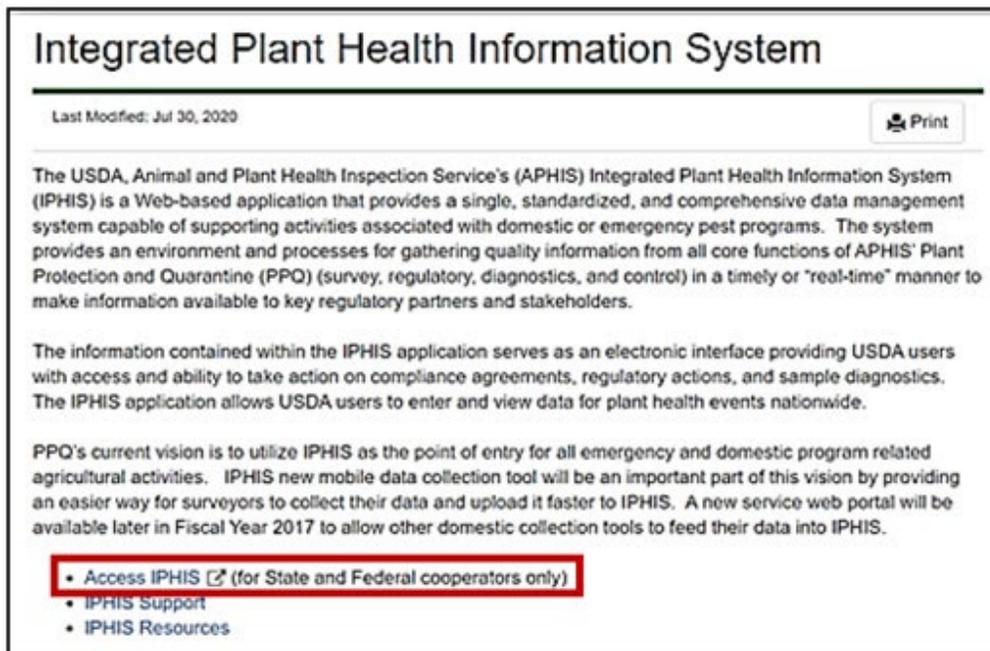


Figure 2. IPHIS web landing page

4. The system will direct you to <https://www.eauth.usda.gov> unless already signed in. (Figure 3)

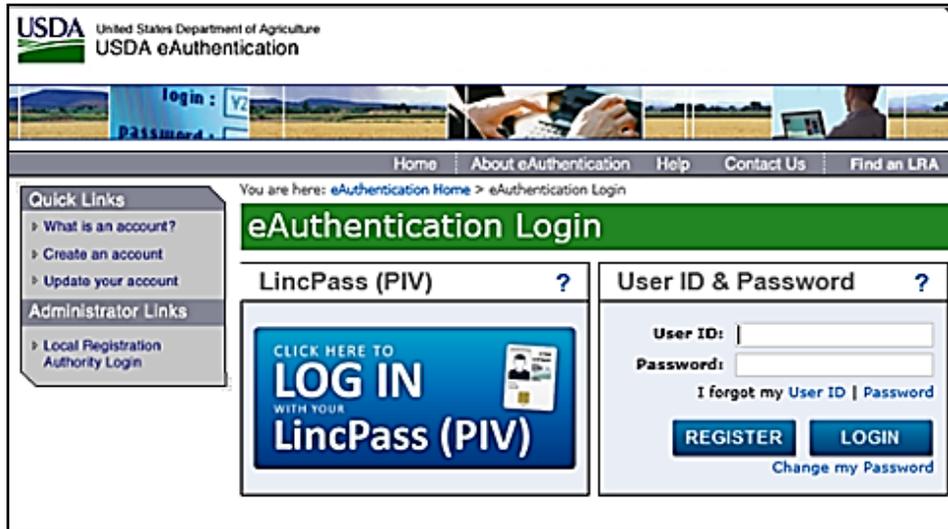


Figure 3. eAuthentication Login

5. Sign in using your Linc Pass (PIV) or manually enter your eAuthentication User ID and Password.



eAuth credentials expire every 60 days. IDC will not notify you of expiration. It will simply not allow you to log into the application.

IPHIS does not allow the use of the + character as part of the eAuthentication password.

To update eAuthentication username or password, choose the Manage Account tab here: [eAuthentication Account Registration](#)

6. First time access requires filling out a “New User Role Request” form. (Figure 4)
Fill in all required fields, as indicated by the *symbol,
Then click “Request New Role.”

Figure 4. IPHIS New User Role Request form



Contact [IPHIS Technical Support](#) if your office is not listed in the Office drop-down list.

7. You'll receive e-mail notification once the Security Officer (See [Appendix B: IPHIS User Roles](#)) approves.
8. Confirm your access was granted.

To request an additional user role:

- [Access IPHIS](#) and sign in using eAuthentication
- Select your name along the top right ribbon: “Logged in as: <your name>” to open your profile information. (Figure 5)

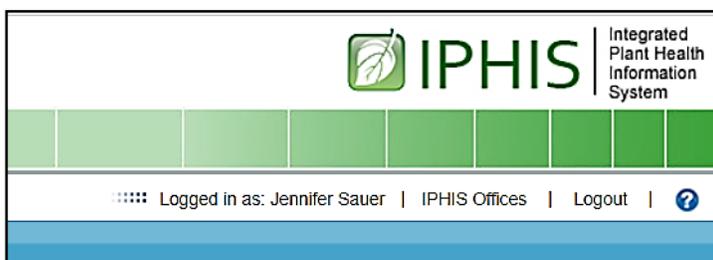


Figure 5. IPHIS landing page top right ribbon options

- Select “Request a New Role”. (Figure 6)

Figure 6. Request a New Role button

- Select the desired Office and User Role choices from the drop-down lists and click on the Submit button. (Figure 7)

Figure 7. Choose Office and Role. Submit.

IPHIS Training

The IDC application requires minimal to no use of IPHIS Desktop since supervisors oversee mobile data collection from the desktop for field data collectors. However, it could be very helpful for IDC users to complete basic [IPHIS Desktop Training](#).

All training support, including manuals, job aids, and videos, are housed on the [Mobile Data Collection Tools](#) webpage.

Install (if needed)

iOS only



Be Prepared

You will need to confirm the following in place:

- A phone or tablet that runs iOS (Apple)
- A reliable Wi-Fi connection
- eAuthentication username & password (Level 1)
- IPHIS user role

If you already have the IDC application, skip to [Sign In](#)

App Store

IPHIS Data Collector (IDC) is available through the App Store for iOS devices for free. Search by name and select “Install” or “Get”.

Apps@Work

APHIS PPQ devices have automatic installation of the IDC application. If not installed, the app can be found within the Apps@Work application.

Open the “Apps@Work” application on your main screen. **(Figure 8)**

Locate “IPHIS Data Collector” using the search box or from the list of “Featured Apps” or “Uncategorized” folder.

Select by tapping IPHIS Data Collector from the list and select “Install” to install.

If you still need help with the device configuration, open a ticket with CEC IT. (CECHelpDesk@usda.gov or 877-873-0783)

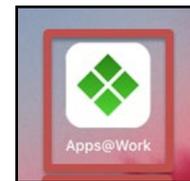


Figure 8. Apps@Work icon

Location Services

Once the IDC application is installed, location services must be enabled both for the device and for the application itself. The Location Services setting allows the device to “locate” you using the internal GPS receiver.

Enable for Device:

Tap the Settings application. (Figure 9)



Figure 9. Settings application

Scroll down and tap Privacy. (Figure 10)

Tap Location Services and tap to toggle to “On”. (Figure 11)

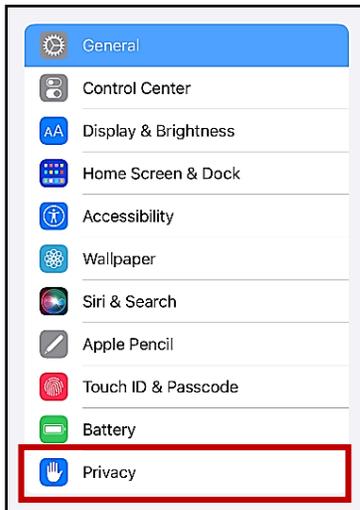


Figure 10. Settings application menu

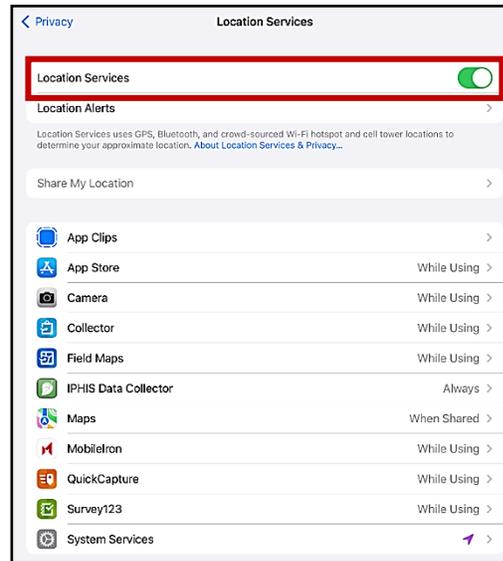


Figure 11. Location Services menu

Enable for IDC Application:

While still in the Location Services menu, scroll down and tap the IPHIS Data Collector app icon.

Under Allow Location Access select *Always* and toggle Precise Location to “On”. (Figure 12)

New users may be prompted within the IDC application itself to enable Location Services. If so, tap “Yes”.

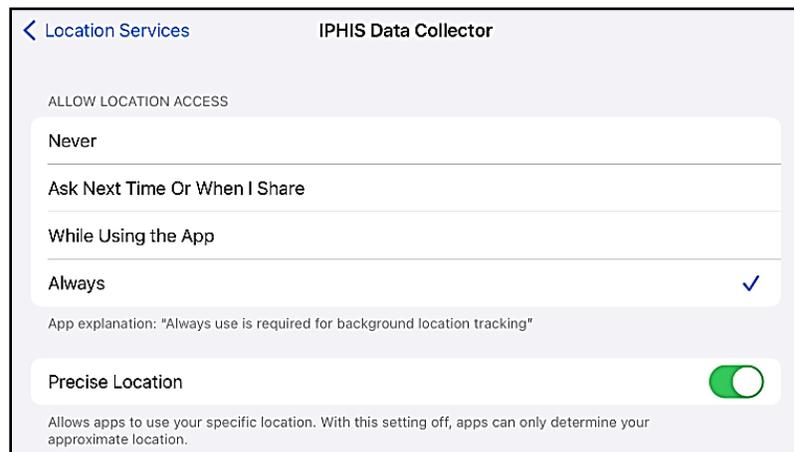


Figure 12. Location Services; IPHIS Data Collector settings

Sign In



From your iOS mobile device, tap the IDC icon.



Enter your eAuthentication Username and Password. Tap Login. **(Figure 13)**

Remember: IPHIS does not allow the use of the + character as part of the eAuthentication password.

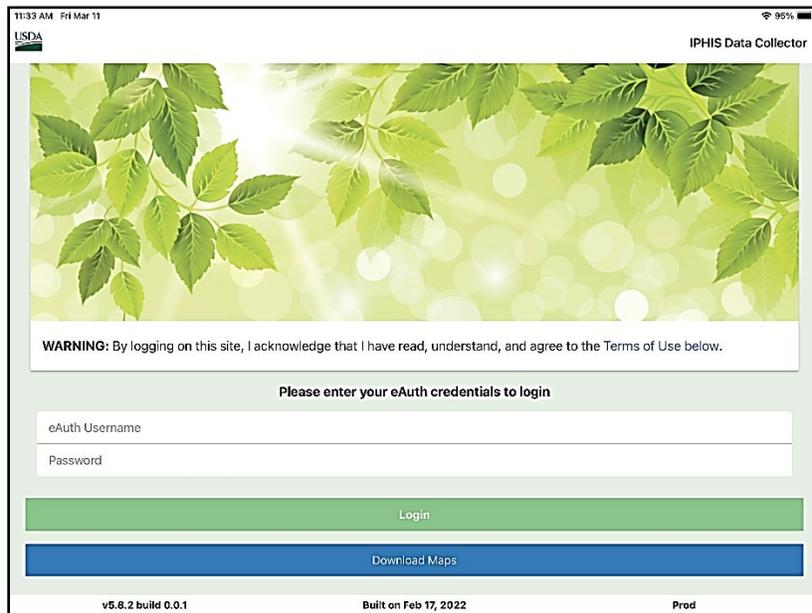


Figure 13. IDC login screen

Download Maps (Optional)



*******WARNING: Potential location and site movement.*******

Location and site symbols on a downloaded map can be moved using a finger to tap and slide. This has caused major data errors by an unintended screen touch. Be VERY CAREFUL using this feature.

Downloading a map is not required to enter survey data in the IDC application.

The Download Maps option creates an offline map for an area of interest to use in data collection for that area.

Prior to signing in, click the “Download Maps” button. **(Figure 13)**

If you are already signed in, tap the menu button  in the upper left. Then tap “Maps”.

Clear Offline Maps

Prior to downloading a map, tap the “Clear Offline Maps” button.

You may have to tap and scroll to locate the button at the bottom of the page. (Figure 14)

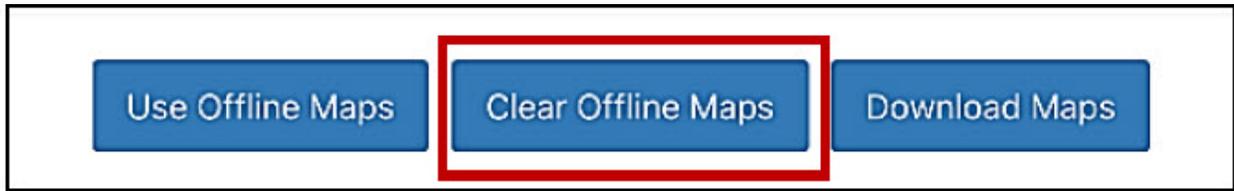


Figure 14. Offline Maps options

A message indicating success or stating that there were no downloaded maps to delete will appear. Click “Ok”.

Proceed to download a map

By default, the map centers on your location (indicated by a yellow triangle on the map). Use your fingers to tap to move and zoom to the area of interest desired or search for a specific location using the search bar.



The map area shown on the device screen is the area that will be downloaded onto the application.

You can choose to download a map with a Street, Satellite, or Topographic basemap by tapping the corresponding option on the upper left ribbon. (Figures 15-17)

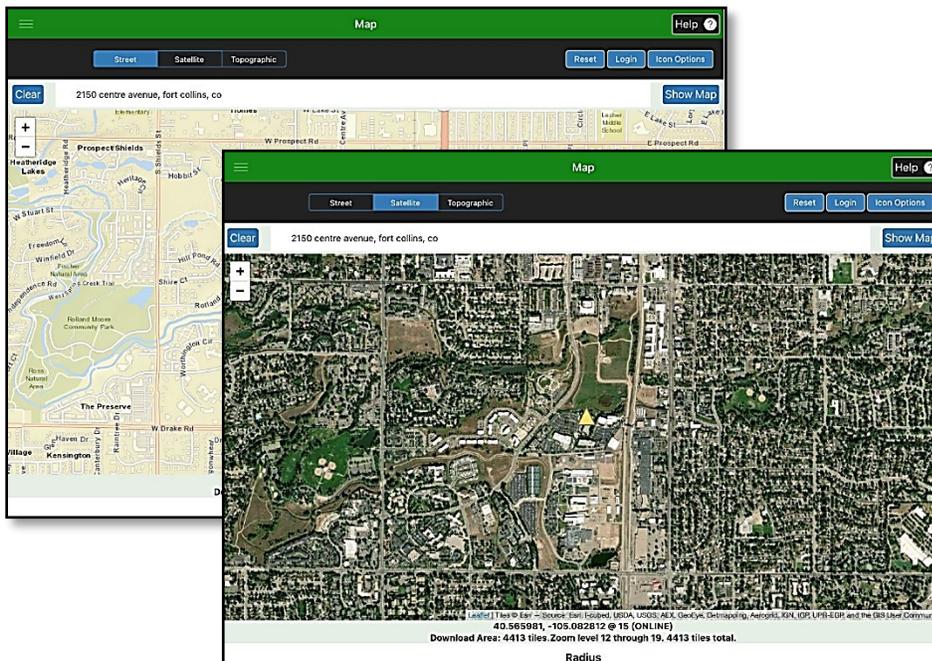
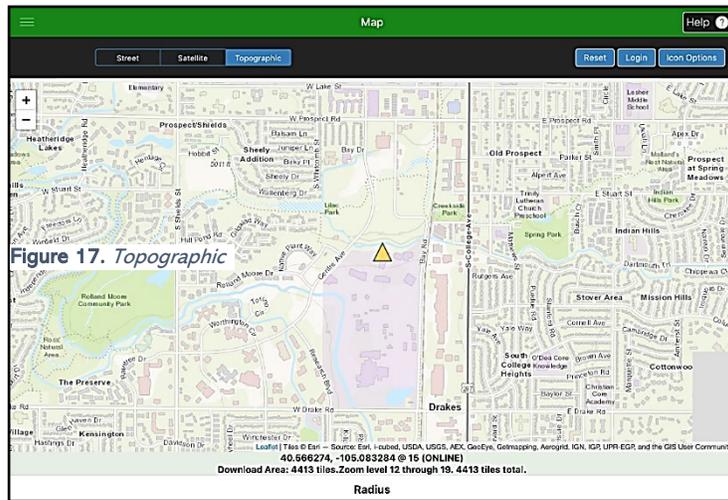


Figure 16. Satellite

Figure 15. Street

The number of tiles in the “Download Area” will increase as you increase the “Radius” and “Zoom.” The download time will increase as the number of tiles increase in the “Download Area.”



If possible, keep the “Download Area” below 1500 tiles (or lower depending on your internet connection). Keep “Radius” under 5 miles and “Zoom” between 14-16.

Once the map area on screen is correct, tap the Download Maps button on the bottom right. The download progress will be displayed until it is complete. (Figure 18)



Figure 18. Map download progress messaging



If the download is progressing excessively slowly, check your Wi-Fi connection or the size (number of tiles) of your map. Tap “Cancel” and try again.

Once the map is downloaded, click the “Login” button in the upper right (unless you were already signed in). (Figure 19)

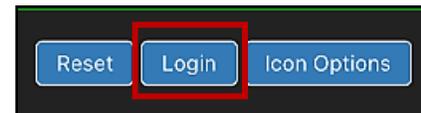


Figure 19. Login button

To begin using the downloaded map, tap the menu button  in the upper left.

Tap Maps from the menu options. (Figure 20)

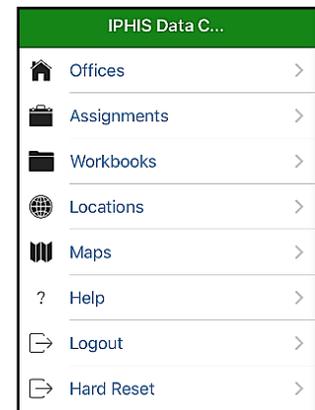


Figure 20. IDC Menu

It may take a few minutes to locate you and open the downloaded map.

Choose “Use Offline Maps” at the bottom of the page. (Figure 21)



Figure 21. Offline Maps options



Downloaded maps are only viewable for the same basemap type that is currently selected. For example, if you download a map with a “Satellite” basemap, you will not be able to view this map while the “Satellite” or “Topographic” basemap option are selected.

Locate: Office, Assignment, & Workbook



See [Appendix A: IPHIS Application Structure](#) for a visual understanding of the IPHIS database.

Office > Assignment > Workbook > Location > Site > Activity > Sample

Once signed in, there are a few more steps before heading to the field.

Office Selection



If you are not sure which office to choose, you should contact your supervisor.

Select the appropriate office.

Scroll through the list presented or use the search bar to locate the appropriate office.

Tap to select the correct office.

Assignment Selection

1. If not presented with Assignments, tap the menu icon.



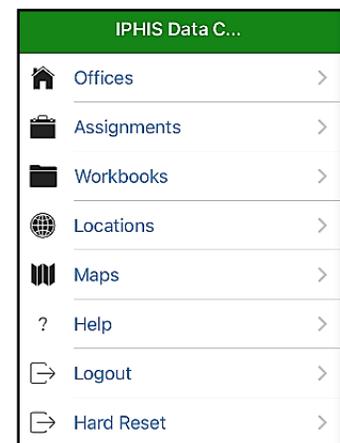
Tap “Assignments” to connect to the IPHIS database and refresh the assignments list. (Figure 22)



Always refresh your assignments just prior to leaving for the field to ensure you have the most up-to-date list.

Assignments are created and assigned by supervisors and contain workbooks, which have associated locations.

2. Locate the Assignment that corresponds to your field survey.
 - a. **Refresh:** Tap and slide the assignment left. Tap the refresh icon that is revealed on the right. (Figure 23)



- b. **Download:** Tap anywhere on the title line for the assignment
Yes to confirm “Are you sure you want to download...?”
24)

Figure 22. IDC Menu and tap (Figure 24)

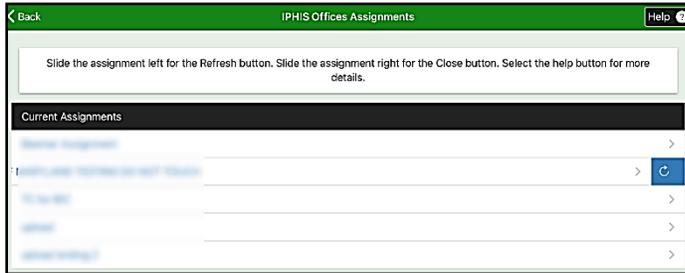


Figure 23. Assignment example refresh icon

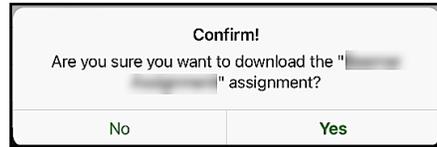


Figure 24. Confirm Assignment download messaging

Workbook

After downloading the Assignment, you will be taken to the “Workbook” page. (Figure 25)

Locate and tap the appropriate “Workbook” for the survey.

The field data you collect will be stored under the “Office,” “Assignment,” and “Workbook” you chose in the first menus.

For field data entry details see the next section on [Field Data Entry](#).

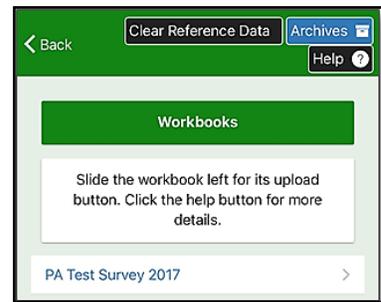


Figure 25. Sample Workbooks list

Field Data Entry: Location, Site, Activity, Samples



Wi-Fi connection not required.

Sign In

After traveling to the field, sign into the IDC app following the steps in the [Sign In](#) section. If you are automatically signed in, log out and sign in again.

Select:

- Office
- Assignment - previously refreshed and downloaded
- Workbook

Location(s)

An IPHIS location is defined as a contiguous piece of land and recorded as a single point (usually at the driveway or access point to the area). See [Appendix D: Glossary \(IPHIS Lexicon of Words\)](#).

For details specific to your program, refer to your supervisor.

Details on revisits to an existing location are found in the [Revisiting Location\(s\)/Site\(s\)](#) section.

Detailed information on editing a previous activity can be found in the [Edit Data](#) section.



No more than 200-250 locations are recommended per workbook. Increasing locations assigned to a workbook will decrease the speed of the IDC application in the field.

To create a **new** “Location”, tap the “New +” button in the upper right corner. (Red box in **Figure 26**)

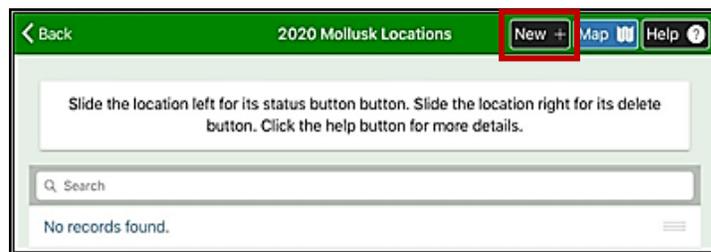


Figure 26. Sample workbook with no locations listed

1. Complete the data form with the location’s information.
2. Verify all data entries and tap “Save” at the bottom right.



You will not be able to save the location data until you have completed the fields indicated as required by a red asterisk *.

The back button  will take you back to the previous screen, but data entered must be saved or it will be lost.

Special Considerations for Location Data

Template

Make sure the “template” or data form matches the type of survey you are performing. Different templates will generate different required fields.

GPS Coordinates

The GPS latitude and longitude coordinates will automatically fill in based on your current location, as long as the location services are turned on for the IDC application.

To enter a location in a different area, you can type in the GPS coordinates manually instead. Refer to your supervisor for the proper understanding of how to acquire GPS coordinates properly.

Geo Method

For the “Geo Method” field, always select “Recreational Grade –Field Collection.” If you are not sure what to enter in any field, reach out to your supervisor.

Site(s)

Every location should have at least one site. See [Appendix D: Glossary \(IPHIS Lexicon of Words\)](#).

For details specific to your program, refer to your supervisor.

Details on revisits to an existing location are found in the [Revisiting Location\(s\)/Site\(s\)](#) section.

Detailed information on editing a previous site can be found in the [Edit Data](#) section.

To create a new “Site”, tap the “Sites” button at the bottom right corner of the location page. Then tap the “New +” button in the upper right corner. (Red box in **Figure 27**)

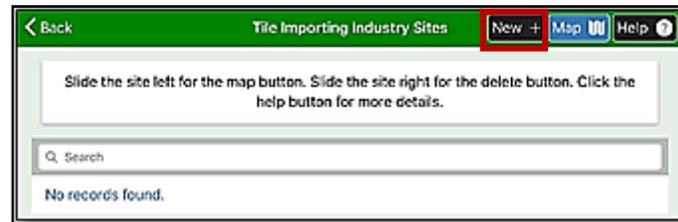


Figure 27. Sample location with no sites listed

1. Complete the data form with the site's information.
2. Verify all data entries and tap “Save” at the bottom right.



You will not be able to save the site data until you have completed the fields indicated as required by a red asterisk *.

The back button  will take you back to the previous screen, but data entered must be saved or it will be lost.

Special Considerations for Site Data

Template

Make sure the “template” matches the type of survey you are performing.

Targeted

A survey is considered “targeted” if you are trapping with a lure or performing visual inspections for specific species.

GPS Coordinates

The GPS latitude and longitude coordinates will automatically fill in based on your current location, as long as the location services are turned on for the IDC application (GPS Instructions).

To enter a location in a different area, you can type in the GPS coordinates manually instead.

Geo Method

For the “Geo Method” field, always select “Recreational Grade –Field Collection.” If you are not sure what to enter in any field, reach out to your supervisor.

Activities

“Activities” are the survey actions you perform when visiting a site and are time stamped when the data is entered. You should have at least one activity listed for each site. If you revisit a site throughout the season, you will have multiple activities listed for that one site. Otherwise, if you only perform a single survey at a site, you will only enter one activity. See [Appendix D: Glossary \(IPHS Lexicon of Words\)](#).

For details specific to your program, refer to your supervisor.

Detailed information on editing a previous activity can be found in the [Edit Data](#) section.

To enter an activity, click the “Activities” button at the bottom right corner of the site page.



You will not be able to click the “Activities” button until after you have clicked “save” on the site page.

Tap “New +” at the top right of the Activities page to add a new activity to a site. (Red box in **Figure 28**)



Figure 28. Sample site with no activities listed

1. Complete the data form with the activity’s information.
2. Verify all data entries and tap “Save” at the bottom right.



You will not be able to save the activity data until you have completed the fields indicated as required by a red asterisk *.

The back button  will take you back to the previous screen, but data entered must be saved or it will be lost.

Special Considerations for Activities Data

Template and Program

Make sure the “template” and “Program” match the type of survey you are performing.

Target Pest

Select the species for which the data is being surveyed.

Date

The date may automatically fill in as the current day. If the date does not auto-populate, you will need to tap on the field to select the correct day.

Comments

Type in any relevant information pertaining to the activity. If you are not sure what to put for a field, reach out to your supervisor.

Samples

If you find specimens of the target pest species while surveying, you will need to enter “sample” information under the survey activity. Not every activity will have a sample and multiple samples can be recorded on a single Activity data entry.

To enter a sample, tap the “Samples” button at the bottom right corner of the activities page. Then tap the “New +” at the top right. (Red box in **Figure 29**)

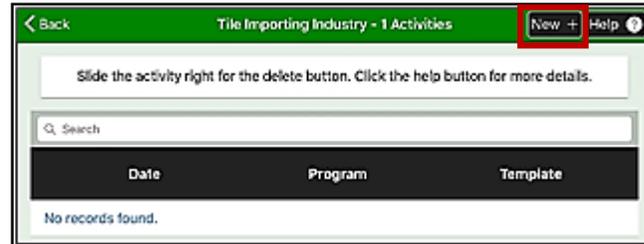


Figure 29. Sample activity with no samples recorded

1. Complete the data form with the sample information.
2. Verify all data entries and tap “Save” at the bottom right.



You will not be able to save the sample data until you have completed the fields indicated as required by a red asterisk *.

The back button  will take you back to the previous screen, but data entered must be saved or it will be lost.

Special Considerations for Sample Data



Tapping on “Field ID” and “Chain of Custody” opens more fields. Refer to survey protocol and your supervisor regarding data entry on these fields.

Field ID

You will select “Field ID” if you have tentatively identified the pest sample in the field. Click “Field ID” to open more fields.

Chain of Custody (rarely used)

You will select “Chain of Custody” if you are sending the sample to a diagnostic lab for identification. Click “Chain of Custody” to open more fields.

Date

The date may automatically fill in as the current day. If the date does not auto-populate, you will need to click on it to select the correct day.

Remarks

Type in any relevant information pertaining to the sample here.

Revisiting Location(s) / Site(s)

If you are returning to the same location to survey throughout the season, you will need to select an existing location to enter new sites and activities. (See [Appendix D: Glossary \(IPHIS Lexicon of Words\)](#)) Activities need to be entered every time a site is visited to keep track of what action was performed and when it was done.

Prepare for Field Data Entry



Confirm Data Submission

Existing locations or sites will not be visible within the IDC application until they have been submitted to the IPHIS database and the [assignment is refreshed](#) in the application. Before heading to the field, confirm that the workbook data you uploaded to IPHIS has been submitted successfully by either you or your supervisor. You can view the status of your uploads on the Spreadsheet Upload Status Page in IPHIS (see [QA/QC Checks](#) section).

If you are still logged into the IDC app, logout and close the app. Next, re-open the IDC app and sign back in while connected to Wi-Fi.

Locate: Office, Assignment, & Workbook

Follow the steps outlined in the [Locate: Office, Assignment, & Workbook](#) section.

Field Data Entry

IDC Sign In

After traveling to the field, sign into the IDC app following the steps in the [sign in](#) section.



If automatically signed in, log out and sign in again. This can be done without Wi-Fi connection.

Select the appropriate office, previously downloaded assignment, and workbook for the field survey.

Locations

From the locations page, select the location you are revisiting. If you have many existing locations, you can find the location by typing the location's address into the "Search" bar. You can also click the "Map" button to view the location point on the map. The map will center on your current GPS location, but you move around the map to find the correct location.



If you do not see a [previously entered location listed](#), [do not create a new location!](#)

If a location you previously entered in the IDC app and uploaded to IPHIS is not listed on the locations page, view possible reasons why in the [Troubleshooting](#) section. Uploading duplicate locations to IPHIS flag the data as an error in the Spreadsheet Upload Status Page (viewed by the Data Manager or Data Supervisor (Data Validator) from the IPHIS Desktop application) and make it challenging to manage IPHIS data.

After selecting an existing location, tap the "Sites" button in the bottom right.

Sites

You will have two options for sites when re-visiting a location:

1. Enter a New Site

If you are surveying in a new area of the location, you will need to create a new site. Tap the “New+” button and see the [Field Data Entry – Sites](#) section for further instructions.

2. Select an Existing Site

If you are revisiting the same site, click on the existing site on the sites page. If you have many sites, you can type the site name in the “Search” bar or click the “Map” button in the upper right to locate it on the map.



If you do not see a previously entered site listed, do not create a new site!

If a site you previously entered in the IDC app and submitted to the IPHIS database is not listed on the sites page, view possible reasons why in the [Troubleshooting](#) section. Uploading duplicate sites to IPHIS will flag the data as an error in the Spreadsheet Upload Status Page and make it challenging to manage IPHIS data.

After creating/selecting a site, click the “Activities” button in the bottom right.

Activities

A new activity is recorded, and time stamped, every time you visit/revisit a site, both for visual and trapping surveys, even if the site is inaccessible. Activities allow you to keep track of when a site was surveyed and what action was performed.

Tap the “New+” button and see the [Field Data Entry – Activities](#) section for further instructions.

Samples

If you find specimens of the target pest species while revisiting a location or site, you will need to enter “sample” information under the survey activity. Not every activity will have a sample.

To enter a sample, tap the “Samples” button at the bottom right corner of the activities page. Tap the “New+” button and see the [Field Data Entry – Samples](#) section for further instructions.

Upload

Follow the instructions in the [Upload Workbook](#) section to upload the IDC data from the workbook to the IPHIS database.

Map View (Optional)

The currently selected workbook and assignment data can be viewed on a map, but data cannot be edited in the map view.

Navigate to the locations or sites page and then tap the map icon in the upper right. (Red box in Figure 30)



Figure 30. Map button to view sites on a map

Map Layout & Options

The map will open to your current GPS location, indicated by a yellow triangle symbol. Location and site data points will also be present on the map, indicated by the green circle and orange diamond. (Figure 31)

You can move around the map by tapping and dragging your finger across the map view.

Be VERY CAREFUL with unintended screen touch. Location and site symbols can be moved using a finger to tap and slide.

Zoom-In / Zoom-Out

Zoom by tapping the “+” or “-” in the upper left corner of the map or pinching/spreading the map view with two fingers.

Basemap Options

The map layer defaults to “Satellite” view but can be changed to “Street” or “Topographic”, if you prefer.

Icon Options

The icon size or opacity can be altered by tapping the “Icon Options” button in the top right.

Locations / Sites Search

To view a specific point on the map, click the “Locations” or “Sites” button in the top right and select the data of interest (Red box in Figure 32). The map will zoom-in on the selected location/site.

You can also search for a specific site/location by typing its address or name into the “Search” bar. (Figure 32)

GPS Details

Tap the symbol on the map to reveal the latitude, longitude, and associated data for it.



Figure 31. Sample map view

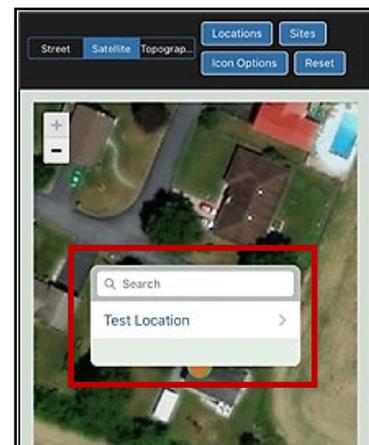


Figure 32. Map Locations/Sites Search

Edit data

Edits: IPHIS Data Collector (Mobile)



IDC data cannot be edited if it has already been uploaded and committed to IPHIS!

Location, site, activity, and sample data can be edited within the IDC app before you upload the workbook to IPHIS if it has not previously been committed by a supervisor.

1. Locate the data requiring edits (Office, Assignment, Workbook: Location, Site, or Sample)
2. Make changes to any of the data listed for location, or select the location's sites, activities, or samples needed.
3. Make sure to tap "save" after editing any data.

Deleting Data



Best practice: Do not delete any data. Instead write a comment indicating that the data should be removed. Communicate with your supervisor to delete data in IPHIS.

Do not delete IDC data if it has already been uploaded to IPHIS!

Data should only be deleted if determined as absolutely necessary. You can delete a location, site, activity, or sample in the IDC app before you upload the workbook to IPHIS.



Follow the "*last in first out idea*". Deleting a location will not delete the location's sites, activities, or samples. You will need to click on every site, activity, and sample associated with that location first. Then delete the location.

1. Locate the data requiring deletion (Office, Assignment, Workbook: Location, Site, or Sample).
2. Tap the red delete button in the bottom left of the screen.

QA/QC Checks



Check all data entries before uploading the workbook. Once data is approved by the Data Manager or Data Supervisor (Data Validator) then a Location and Site cannot be modified in IDC. Only the Site status can be modified.

Navigate to Locations and Sites visited and review the data entries performed with care.

New Locations or modified Locations are highlighted in yellow. (Figure 33)

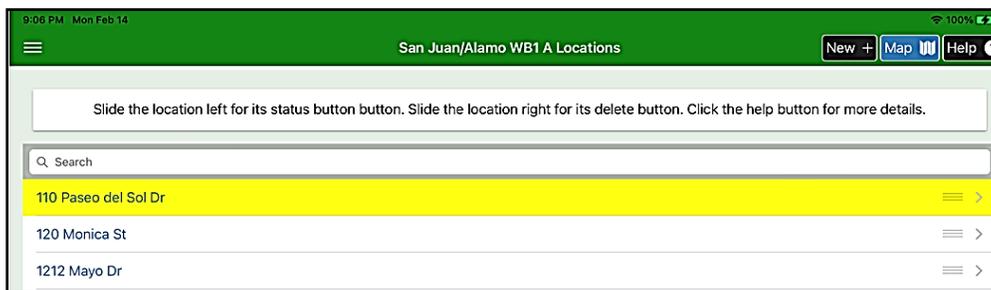


Figure 33. Sample list of Locations with yellow highlight

New Sites or modified Sites are highlighted in green. (Figure 34)

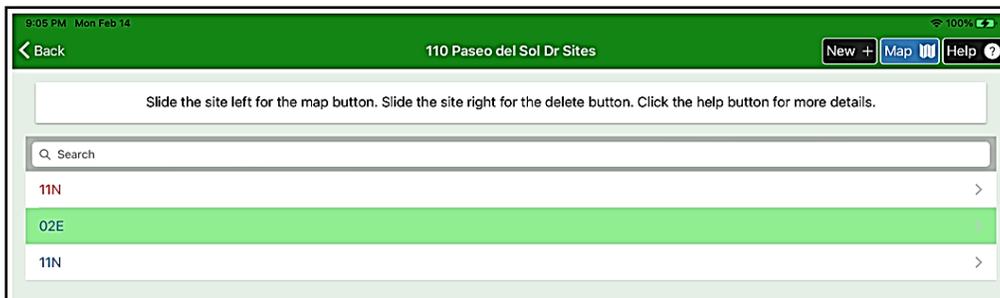


Figure 34. Sample list of Sites with green highlight

Selecting Retired or Inactive in the Site status field (Figure 35) will cause the lettering of the site ID to turn red. (See example Figure 34 Site ID: 11N)

This will notify your Data Manager or Data Supervisor (Data Validator) of a potential removal or inactive site.

See the [Edit Data](#) section for details on making changes to data entered in IDC.

Once data is confirmed, proceed to the [Upload Workbook\(s\)](#) section.

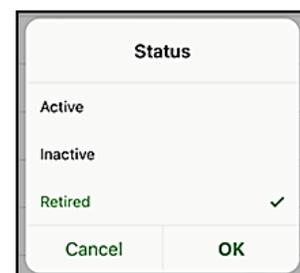


Figure 35. Status option menu

Upload Workbook(s)



After data collection is complete for the day, all data is stored on the device and must be uploaded to update the IPHIS database online. **This is a critical process. Without this successful upload, the data is not visible to anyone but yourself!**

Follow the steps below to submit data collected:

1. Tap the Menu icon. 
2. Tap Workbooks (IDC will display the list of workbooks assigned to your office)
3. Slide your workbook to the left and select the upload icon.
4. IDC displays a confirmation message:



5. You will need to refresh your assignment or sign out of the IDC application and log back in.

After uploading has been confirmed, your data will no longer be available in the IDC application.



Data can still be edited using the Archive function IF the uploaded data has not been committed.

Data will be made available after it has been reviewed, modified, and committed on the Spreadsheet Upload Status Page in IPHIS.

Edits: IPHIS Desktop (PC)

(after [Upload Workbook](#) is complete)

Each assigned Data Manager or Data Supervisor (Data Validator) will review, modify (if needed) and commit all data in your uploads within IPHIS web.

This is not a function within IDC. Detailed training on these processes within the IPHIS Desktop application are in progress. Check for additional training support on the [Mobile Data Collection Tools](#) webpage.

Hard Reset (Optional)



Refer to your supervisor for guidance on using this feature.

IDC holds onto data (occupying RAM), even after an assignment is completed and deleted from view. The Hard Reset function removes any cache being held by the application and is most commonly used as a troubleshooting tool when the application begins to slow or shutdown unexpectedly.

To complete a Hard Reset:

1. Select the Menu icon on IDC. **(Figure 36)**
2. Select Hard Reset
3. Confirm by tapping “Yes”. **(Figure 37)**
4. The Hard Reset will close the IDC application. Reopen the IDC application and log back in.

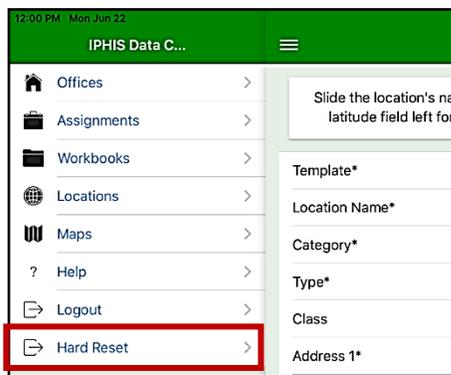


Figure 36. IDC Menu

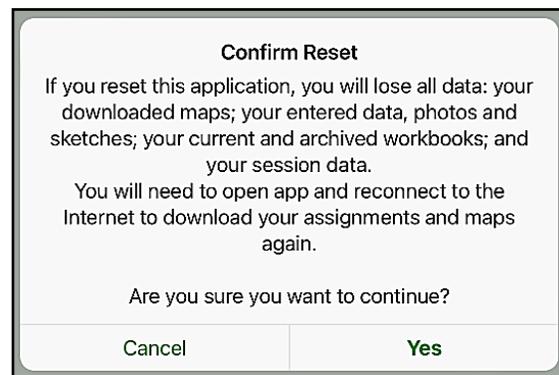


Figure 37. Confirm Reset warning message

Getting Help

Contact hierarchy

1. Direct Supervisor
2. IPHIS Security Officer
3. MRP-IT Technical Assistance Center (MTAC)

NOTE: There is no longer a need to contact the Client Experience Center (CEC) Help Desk. This means that federal and state cooperators can go directly to MTAC as the first stop with IPHIS technical issues. This is where an intake ticket will be generated and submitted to the internal IPHIS Help Desk or other appropriate staff, depending on the issue.

All IPHIS-related issues should be reported to MTAC by calling 1-877-944-8457, or by sending email to help@usda.gov.

Online Support

[USDA, Animal and Plant Health Inspection Service's \(APHIS\) Integrated Plant Health Information Access IPHIS](#) (Requires eAuthentication Sign In)
[IPHIS Support](#)
[IPHIS Resources](#)

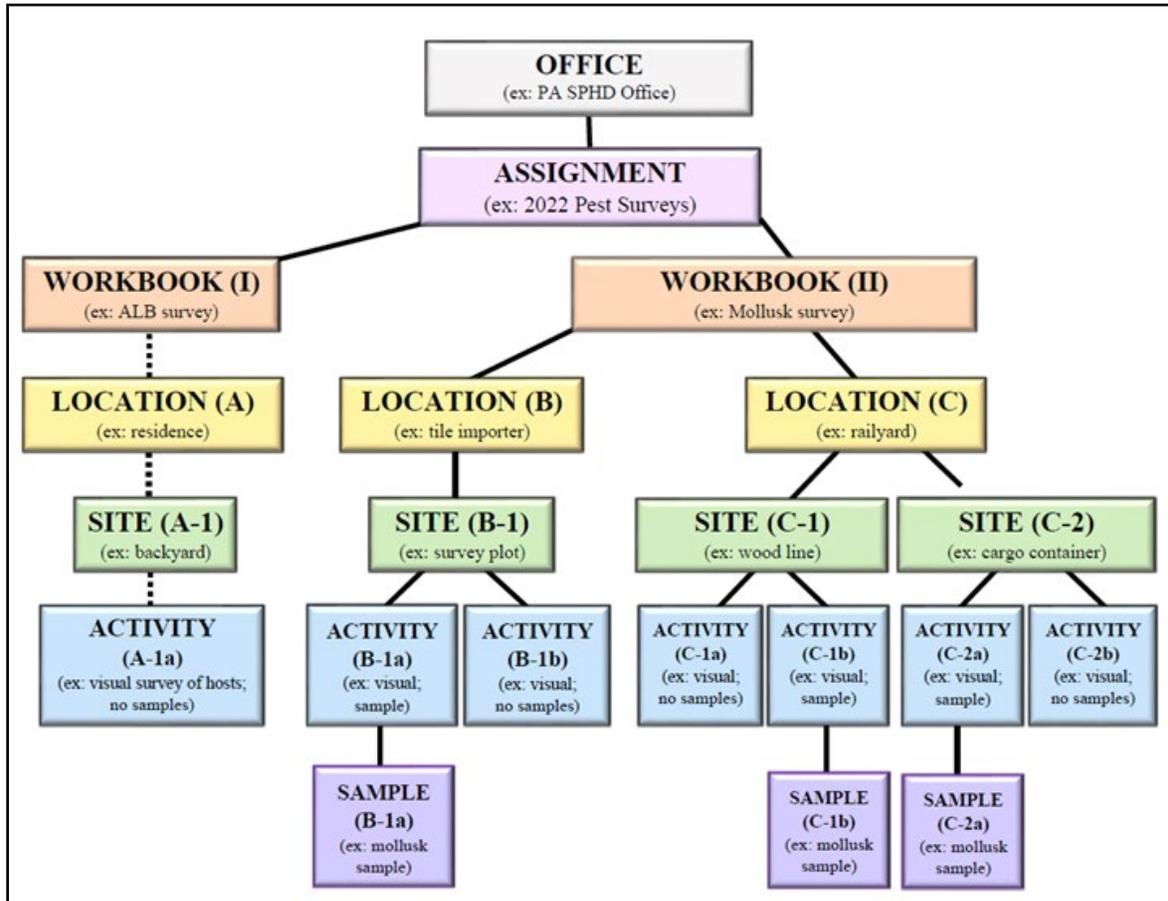
[Mobile Data Collection Tools](#)

IPHIS User Guides, Jobs Aids, Videos, Training Calendar, and more.

Appendices

Appendix A: IPHIS Application Structure

The flow chart below depicts how the IPHIS application interface is organized for user data entry with examples listed in parentheses.



Appendix B: IPHIS User Roles

Once you receive e-mail that your role has been approved, log in to IPHIS and review your account. If this is an additional role request, you may need to log out and return to apply the role change.

****Users should consult survey protocol and management direction for proper user role assignment.**

IPHIS User Role	Description
Data Collector	Allows the user to collect and enter data for surveys and compliance agreements/inspections. This user can only access screens that are related to data entry, such as the Location, Activity, and Compliance Agreement Inspection pages. This role cannot access anything related to management of the system.
Data Manager	Has access to management components of the system as well as the same access as a Data Collector (i.e. Survey Template, Compliance Templates, etc.).
Data Supervisor (Data Validator)	This is the only role that can validate data (i.e. New Locations, Activity data, etc.).
HQ Approver	This is only role that can review and approve or deny <i>survey supply orders</i> at the headquarters level. It is also one of two roles that can access the Orders tab .
Quality Assurance	This role is assigned to those who will identify and address data quality.
Read Only	Every IPHIS user should have this role. This role can generally view all data within the system but cannot change any data.
Regional Approver	This is the only role that can review and approve or deny <i>survey supply orders</i> at the regional level.
Security Officer	Approves role changes (one per designated group). This is the only role that can manage user access .
SPHD (State) Approver	The only role that can review and approve or deny <i>survey supply orders</i> at the state level.
Warehouse User	This role can only access Home, Survey Supplies, Orders, and Reporting tabs. Users with this role will <i>primarily</i> interact with the system through the Orders tab (manage shipments, orders, and inventory).

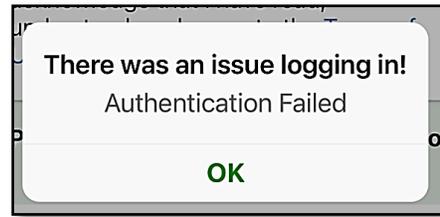
Appendix C: Troubleshooting Tips

Login Error

eAuthentication login error messages. (Figure AppxC-1)

Possible causes/solutions:

- Lack of or poor internet connection:
Check to make sure you have an internet connection.
Check that your device is not in airplane mode
Review this explainer video for tips on [iPad Wi-Fi connections](#).
- User ID, password, or both were entered incorrectly
- Expired eAuthentication password



AppxC-1: Authentication Failed



After a certain number of unsuccessful attempts, eAuthentication will require that you reset your password.

IPHIS does not allow the use of the + character as part of the eAuthentication password.

Navigate to:

[eAuthentication Account Registration](#)

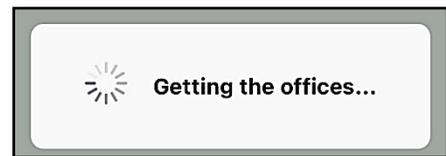


AppxC-2: eAuthentication - Manage Account

Click the Manage Account tab and the appropriate option in the dropdown menu. (Figure AppxC-2)

Getting the Offices (hanging message)

This messaging hangs up or fails to progress to the office selected. (Figure AppxC-3) Consider this an error if the message does not go away after two minutes.



AppxC-3: Getting the offices...

Possible causes/solutions:

If you are experiencing a "Getting the offices" progress message that seems to hang on too long, make sure your role has been added by the IPHIS security officer with the authority to grant you access to that IPHIS office.

Each state can have multiple IPHIS offices, and access is limited to certain users.

Appendix C: Troubleshooting Tips (continued...)

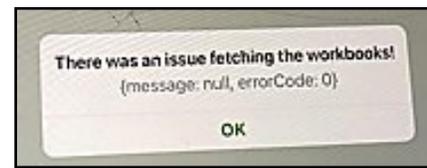
Downloading the Assignment

Fetching workbook error

When downloading an Assignment, this message is displayed. (Figure AppxC-4)

Possible causes/solutions:

- An error with one of the location data fields
- An image attachment
Sketches and images that are attached to the location cannot be downloaded to IDC must be removed using the IPHIS desktop application.



AppxC-4: Issue fetching the workbooks!

Uploading the Workbook

Hanging message

This messaging hangs up or fails to progress to upload the workbook selected. (Figure AppxC-5) Consider this an error if the message does not go away after two minutes.



AppxC-5: Uploading the workbook...

Once you have collected data using the app, you will need to upload that information through the "Workbooks" screen.

Possible causes/solutions:

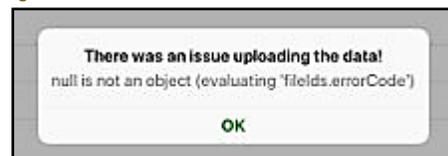
- Lack of or poor internet connection
- Check that you have an internet connection enabled
- Consider trying the workbook upload when a reliable Wi-Fi connection is possible.
- Review this explainer video for tips on [iPad Wi-Fi connections](#).

Issue uploading the data error message: "null is not an object"

A workbook upload fails to complete, and this error message is displayed. (Figure AppxC-6)

Possible causes/solutions:

- Check for and correct an error in one of the location data fields
- A data field is missing or was entered incorrectly
For example: A letter in the Lat/Long or exceeding character limits in a field



AppxC-6: Issue uploading the data!

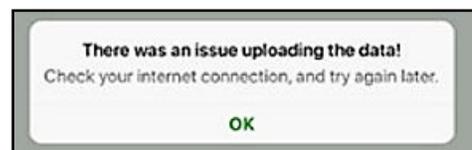
Location and sites downloaded to the iPad after approval in IPHIS cannot be modified. Incorrect data entry on site, activity, and sample data can corrupt an entire workbook causing this error.

Issue uploading the data error message: "Check your internet connection..."

A workbook upload fails to complete, and this error message is displayed. (Figure AppxC-7)

Possible causes/solutions:

- Internet connection was lost (unstable)
Sign out of IDC and reestablish your internet connection.
Open Safari and navigate to www.speedtest.net to confirm the network connection.
- eAuthentication time out due to inactivity uploading or downloading.



AppxC-7: Issue uploading the data!

Appendix C: Troubleshooting Tips (continued...)

Location previously entered in the IDC app and uploaded to IPHIS is not listed on the locations page

This occurs when the Location was not marked “Approved” by the Data Manager or Data Supervisor (Data Validator). Until the Location is marked “Approved” and assigned to a Workbook under an Assignment, the location will not be visible for download within the IDC application.

Previously entered data may be stored as archived data in the IDC app. To see archived data, select your office, assignment, and workbook. On the workbook page, click the blue “Archives” button in the upper right corner of the screen. If records appear here, you can click “Restore Archived Data” to add the data back to the workbook.

Application is very slow or frozen

The application may begin to slow in processes that should not take long. An example may be moving between screens or saving data entries. In more extreme cases, the application may freeze on a screen with no error displayed. In these situations, you will need to close the IDC app.

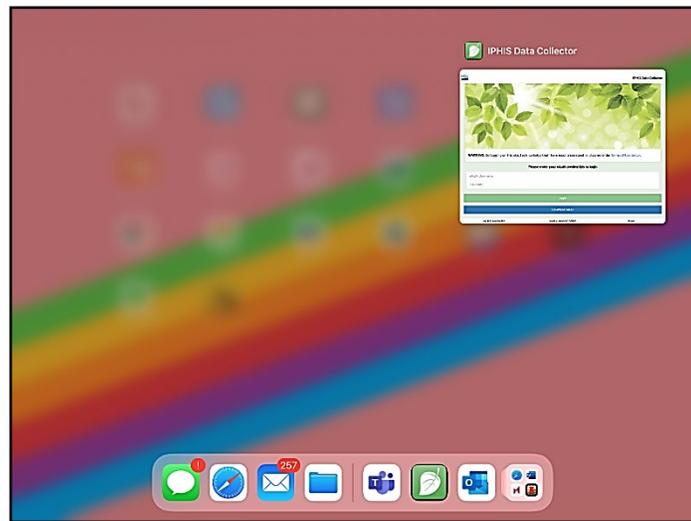
The IDC app will continue to run in the background of your device if you press the “Home” button or open a new application. You can fully close the app following the directions below.

As a first step, sign out, if possible, and close the application (including background processes). To close the application:

1. On an iPad, double tap the home button.
All applications open and running in the background are shown in miniature view. (**Figure AppxC-8 & 9**)



AppxC-8. Mobile Device - Home button



AppxC-9. iPad view after tapping the Home button twice

2. Tap and slide the miniature application view up and away.

If using an iPhone without a home button, slowly swipe up from the bottom of your screen to see the miniature application view, then proceed to Step 2.

For many, IDC begins to slow when memory cache builds up. Some perform a [Hard Reset](#) to remove all data and restart the application.

Appendix D: Glossary (IPHis Lexicon of Words)

Term	Definition
Activity	The task performed on a particular site during a visit on a specific day. Activities performed in IPHis are: <i>Surveys, Compliance Agreement, Compliance Agreement Inspection, EAN (Emergency Action Notice), Call Log, and Treatment & Control.</i>
Area	Open Entry Alpha Numeric Field. Offices determine what data is entered in the field.
Cellular Data	Cellular data involves a monthly cost and a specific plan with possible limits. These plans are not typical of PPQ iPads but common for federally issued iPhones. A cellular data plan uses network cell towers to connect computers and other mobile devices to the internet. See “Wi-Fi”.
Compliance Agreement	A formal arrangement between a regulatory entity and an establishment to adhere to a specific set of regulations.
Compliance Inspection	A review, conducted by a regulatory entity, of an establishment’s practices ensuring adherence to a specified set of regulations.
DOP	The dilution of precision (DOP) is used for measuring the UNI-GR1’s position precision. DOP values describe the current strength of the satellite configuration (geometry), and the uncertainty of the data that the UNI-GR1 can collect at that moment.
EAN	Emergency Action Notice (EAN) records the finding of an undeclared regulatory article. (i.e.) plant, seed, soil, animal violating regulations
Existing Location or Site	A location or site that was previously entered into the IDC application and successfully uploaded and submitted to the IPHis Database.
Filter	The reduction of a grouping of information using key words, portion of key words, and/or calculations.
Folder	A grouping of Workbooks. Workbooks can be assigned to only one folder. See “Workbooks”. Example: “Inspector #1 Folder” is associated with Route 1, Route 3, Route 15, and Solano County Groves.
Geo Accuracy Level	Geocoding is the process by which the street address is converted into geographic coordinates (latitude and longitude). Most entries will be <i>User Entered Location.</i> Examples: <i>US Street Address</i> - Uploaded locations with addresses with no latitude / longitude or zip code to determine latitude or longitude. <i>US Zip Code</i> - Uploaded locations with addresses and zip code with no latitude / longitude or zip code.
Geo Method	The method used to capture geographic coordinates (latitude and longitude). Examples: <i>Digitized / Manual Entry</i> - Obtained from the internet or other sources. <i>Mapping Grade</i> – Obtained using a high-end professional device. <i>Recreational Grade</i> – Obtained using a lower end GPS device (purchased from a recreational store).

Term	Definition
	<i>Web Service</i> – The user enters location addressing into a web-based system to obtain GPS coordinates.
GPS	Global Positioning System. An accurate worldwide navigational and surveying facility based on the reception of signals from an array of orbiting satellites. In short, the GPS tells you where you are on Earth.
Grid	A network of lines crossing each other forming a series of squares or rectangles overlaid on a map. Each square or rectangle is identified with a unique identifier. The area identified by the squares or rectangle may be measured in square miles or square meters
HDOP	The effect of the DOP on the horizontal position value. The higher the number of visible satellites low in the sky, the better the HDOP and the horizontal position (Latitude and Longitude) are. See “DOP”.
IPHis	IPHis (Integrated Plant Health Information System) is a web-based application accessible from the desktop or mobile device that provides a single, standardized, and comprehensive data management system capable of supporting activities associated with domestic or emergency pest programs.
Latitude	The angular distance of a place north or south of the earth's equator usually expressed in degrees, minutes, and seconds or decimal degrees.
Location	A contiguous piece of land; (i.e.) a land parcel. Locations should not be moved as they are associated with a GPS grid coordinate. Locations should not be confused with a Trap Identifier Number. Trap Identifier Number is stored in the Tool ID field in Surveys. The location point is generally the GPS point of entry into the property.
Location Category	Is the labeling of a location determining the type of location: Commercial, Governmental, Industrial, Other, Private, Residential or Tribal Land
Location Class	The labeling of a location determining its chain classification. This data is entered as the business name followed by the location class. Examples: <i>Home Depot, Lowes – Large Chain, Mary's Vineyard #1 – Small Chain with 10 local locations</i>
Location Name	An alpha-numeric field used to record the name of a location. The best practice is to use some type of descriptor of the property. Location Name is searchable throughout the IPHis application Examples: Commercial - Home Depot #1234, Lowes #1234, Joe's Vineyard, Curtis Orchard, Excel Grove - Johnsonville Residential – 123 Main Street, this is a repeat of the address field. Remember the Location Name field is searchable throughout the application. Remote – Junction of State Route 34 and Road 51 – SR34 & RD 51 Remote – State Route 34 Mile Marker 51 – SR34 MM 51 Remote – Mary Vineyard Leased in Fairfield Parcel numbers can be used as well or any other coding method
Location Type	The labeling of a location to classify further. Examples: <i>Camp Ground, Cut Flower Producer, Farmer's Market, Field, Golf Course, Orchard, Range Land, Vineyard</i>

Term	Definition
Longitude	The angular distance of a place east or west of the meridian at Greenwich, England, or west of the standard meridian of a celestial object, usually expressed in degrees, minutes, and seconds or decimal degrees.
Office	<p>IPHIS uses a branching hierarchy to define relationships between organizations and offices, which in turn define security rights and the visibility of data.</p> <p>Offices under one hierarchy cannot edit or view data within an office under a different hierarchy unless permitted by contract or granted by the office.</p> <p>USDA/APHIS/PPQ offices fall under one hierarchy and state and local cooperators under a separate hierarchy.</p>
PDOP	This value describes how many satellites are spread evenly throughout the sky. The more the satellites directly above you and the less on the horizon, the lower the PDOP value is. See “DOP”.
Range	Assigned to a township by measuring east or west of a Principal Meridian. See “PLSS”.
PLSS	The United States Public Land Survey System (PLSS). The PLSS is the surveying method developed and used in the United States to plat, or divide, real property for sale and settling. See “Range”, “Section”, “Township”.
Section	The basic unit of the Public Land Survey System (PLSS),, a square piece of land one mile by one mile containing 640 acres. See “PLSS”.
Site	<p>A place within the “Location” where the survey activity takes place. Locations can have many Sites. All sites have a GPS coordinate. Sites should not be moved. Sites may have a radius, determined by the office, rather than a pinpoint place on the ground. For example, a host such as a citrus tree may have a diameter of 20 feet. It is not necessary to create a secondary site on a tree because the trap placement moves on the host or multiple traps are placed on the host.</p> <p>Sites do not disappear because the host is removed.</p>
Site Name	<p>An alpha-numeric field to record the name of a site. Site name may be a sequential number or a place descriptor by the establishment.</p> <p>Examples: <i>Site 1, Site 2,</i> <i>Row 1 Post 4</i></p> <p>Establishments may use their own mapping system: <i>Woodward Grove Row A Post 5</i> <i>Elle’s Vineyard Fairfield Row AB Stake 6</i></p>
Site Number	<p>A 50-character alpha numeric field. Any type of words or character combinations can be used.</p> <p>It is recommended to use some type of descriptor for the Site Name.</p> <p>Examples: <i>Below Fire Extinguisher Column 45</i> <i>Tree East of Telephone Pole #30</i> <i>First Tree on First Row Right of Gate</i></p>
Survey	Field data collection method.

Term	Definition
Targeted	<p>Always select NO.</p> <p>Originally used to target a site for a specific program. When the site is used in many programs and it is targeted for one program then it is targeted for all programs.</p>
Township	<p>Within the PLSS, 36 sections are arranged in a 6 by 6 square, measuring 6 miles by 6 miles. Sections are numbered beginning with the northeast-most section (#1), proceeding west to 6, then south along the west edge of the township and to the east (#36 is in the SE corner). See "PLSS".</p>
Template	<p>A preset format for an entry form in a pest management program. Templates contain the required formatted fields, so program managers or users do not need to recreate the form each time it is used. After the required fields are filled templates can be further customized by adding custom data entry fields to meet accept data for National, State, or County programs.</p>
Tool Identifier	<p>Tool Identifier (ID) is the trap being tracked. Tool ID is not to be confused with the unique trap number bar coded on the trap.</p> <p>Example: Tool Identifier (ID) GH245 – N – ACP1 is the trap being tracked. The unique bar code number 1234567890-987654321 on the "Yellow Sticky Panel" trap is the unique number scanned in for tracking at the laboratory. Meanwhile, a new "Yellow Sticky Panel" trap replaces the previous trap.</p>
Trap Number	<p>Unique Identification number labeled on the trap itself; typically, a barcode.</p>
VDOP	<p>The effect of the DOP on the vertical position value. The higher the number of visible satellites low in the sky, the better the VDOP and the vertical position (Altitude) are. Also see DOP.</p>
Wi-Fi	<p>An abbreviation for wireless fidelity. Wi-Fi uses a wireless router to connect computers and other mobile devices to the internet. You need to be to be in the range of a router and connect to the network in order to access the Internet. See "Cellular Data".</p>
Workbook	<p>A filtered list used to organize / group Locations. Workbooks are not physical workbooks they are more like sticky labels placed on piece of paper so you can identify the paper in a particular manner. Workbooks can be grouped together into folders Workbooks can be assigned to only one folder. Locations can be in multiple Workbooks.</p> <p>Examples: Workbook – Route 1 – contains all the locations used on a specific route Workbook – Orchards north of Smithville – contains all the Orchards north of Smithville. Some of the orchard locations could also be on Route 1. Workbook – Greenhouses Cook County Workbook – Greenhouses Lake County</p>