



IRWIN Data Services Guide

Prepared By:	IRWIN Implementation Team
Last Modification Date	2/1/2024
Document Version	1
IRWIN Version	8.0

Table of Contents

IRWIN ArcGIS Online GeoPlatform Services	3
Accessing the GeoPlatform “IRWIN Data” Service	3
Creating a Login.gov Account	3
Requesting Membership in ArcGIS Online Group(s).....	5
Understanding the “IRWIN Data” Group.....	11
Accessing the IRWIN Data Service items in ArcMap.....	14
Adding the IRWIN Data Service items to a web map	15
Accessing the Service Endpoint from a custom application	15
Filtering of the Incidents Data	16
Data Element Definitions	16
Contacts	31

IRWIN ArcGIS Online GeoPlatform Services

The Integrated Reporting of Wildland-Fire Information (IRWIN) Production data is replicated every 60 seconds to the ArcGIS Online GeoPlatform organization so that read-only views can be provided for consumers. This replicated view is called the hosted datastore. The “IRWIN Data” group is a set of Feature Layer views based on the replicated IRWIN layers. These feature layers provide a near real-time feed of all valid IRWIN data. All incidents that have been shared through the integration service since May 20, 2014 are available through this service.

The incident data provides the location of existing fires, size, conditions, and several other attributes that help classify fires. The IRWIN Data service allows users to create a web map, share it with their organization, or pull it into ArcMap or ArcGIS Pro for more in-depth analysis.

Accessing the GeoPlatform “IRWIN Data” Service

Below are the steps to access the layer:

You must complete these steps to access the IRWIN Observer application:

- [Create a Login.gov account](#) (*one time only*)
- Request membership in ArcGIS Online group(s) (*one time only*)


Creating a Login.gov Account


NOTE: This is a one-time task. If you already have a Login.gov account, you can skip ahead to the next section.

Login.gov is a secure sign in service used by the public to sign in to participating government agencies, including GeoPlatform ArcGIS Online. You can use the same username and password to access any agency that partners with Login.gov. This streamlines your process and eliminates the need to remember multiple usernames and passwords.

Navigate to <https://login.gov/> and click the “Create an account” link:

An official website of the United States government [Here's how you know](#) ▾

Language ▾ Sign in with  LOGIN.GOV


 **LOGIN.GOV**

[What is Login.gov?](#) [Who uses Login.gov?](#) [Create an account](#) [Help center](#)

[Search](#)

The public's one account for government.

Use one account and password for secure, private access to participating government agencies.



Login.gov is for you

Individuals

Use one account for secure, private access to participating government agencies.

[Learn about Login.gov](#) >

Agency partners

Protect your users' information with the highest standards of digital security and user experience. Login.gov handles software development, security operations, and customer support so you don't have to.

[Become a partner](#) >

Agency developers

Developer resources, real-time support and modern tools to help you implement and deploy your application with Login.gov

[See developer guide](#) >

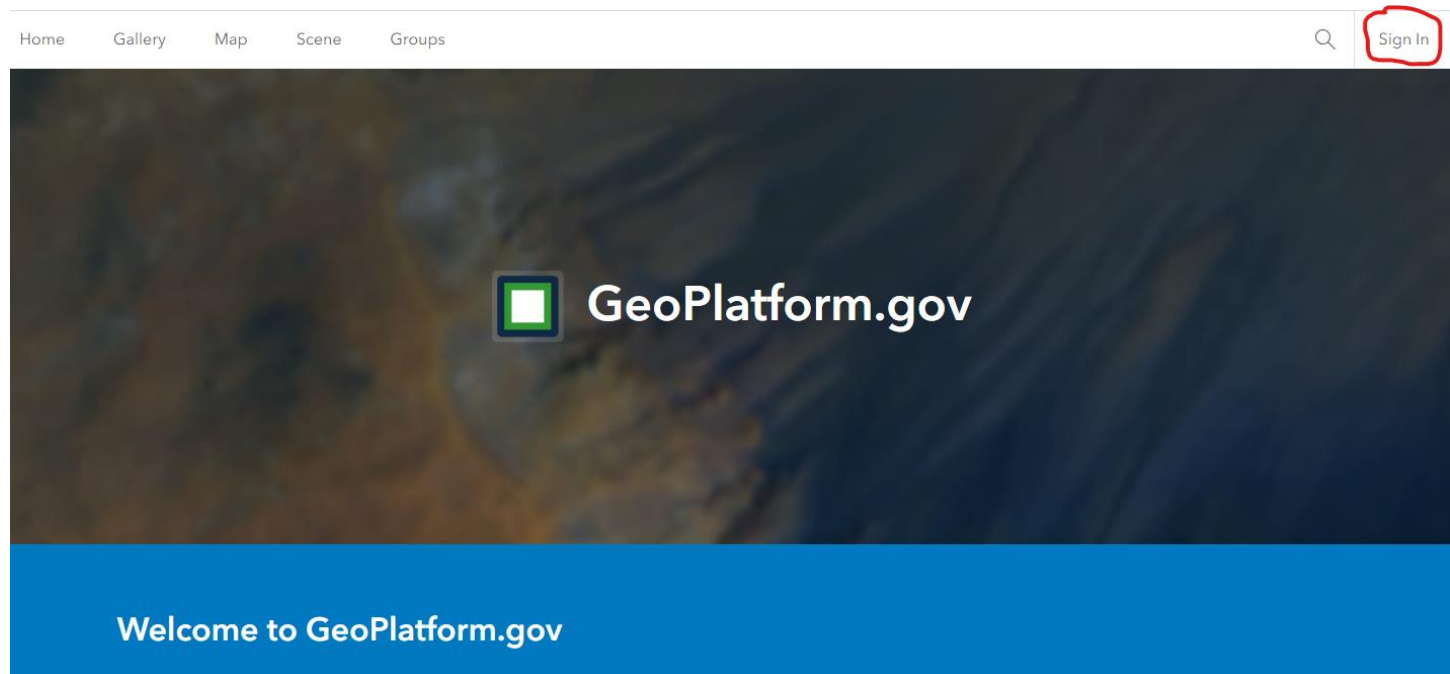
Follow the instructions to create your Login.gov account.

Requesting Membership in ArcGIS Online Group(s)

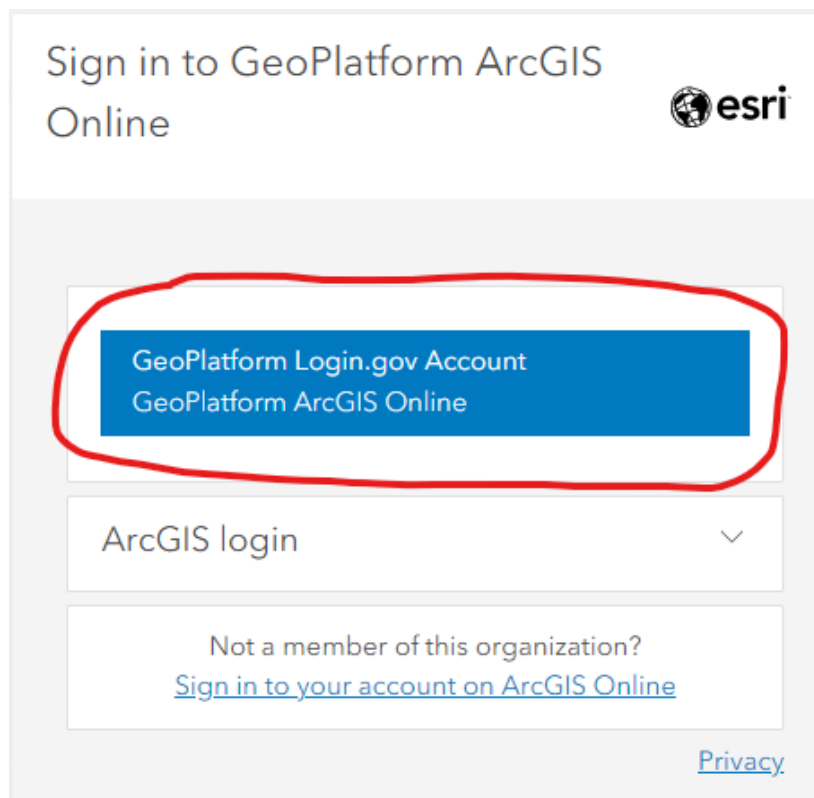
NOTE: This is a one-time task. If you already have the required group membership(s), you can skip ahead to the next section.

In order to access the IRWIN Data Service, you must first be a member of an ArcGIS Online Group.


Navigate to <https://geoplatform.maps.arcgis.com/> and click the “Sign In” button:




Select the option to log in using your Login.gov account:



Sign in to GeoPlatform ArcGIS Online



GeoPlatform Login.gov Account
GeoPlatform ArcGIS Online

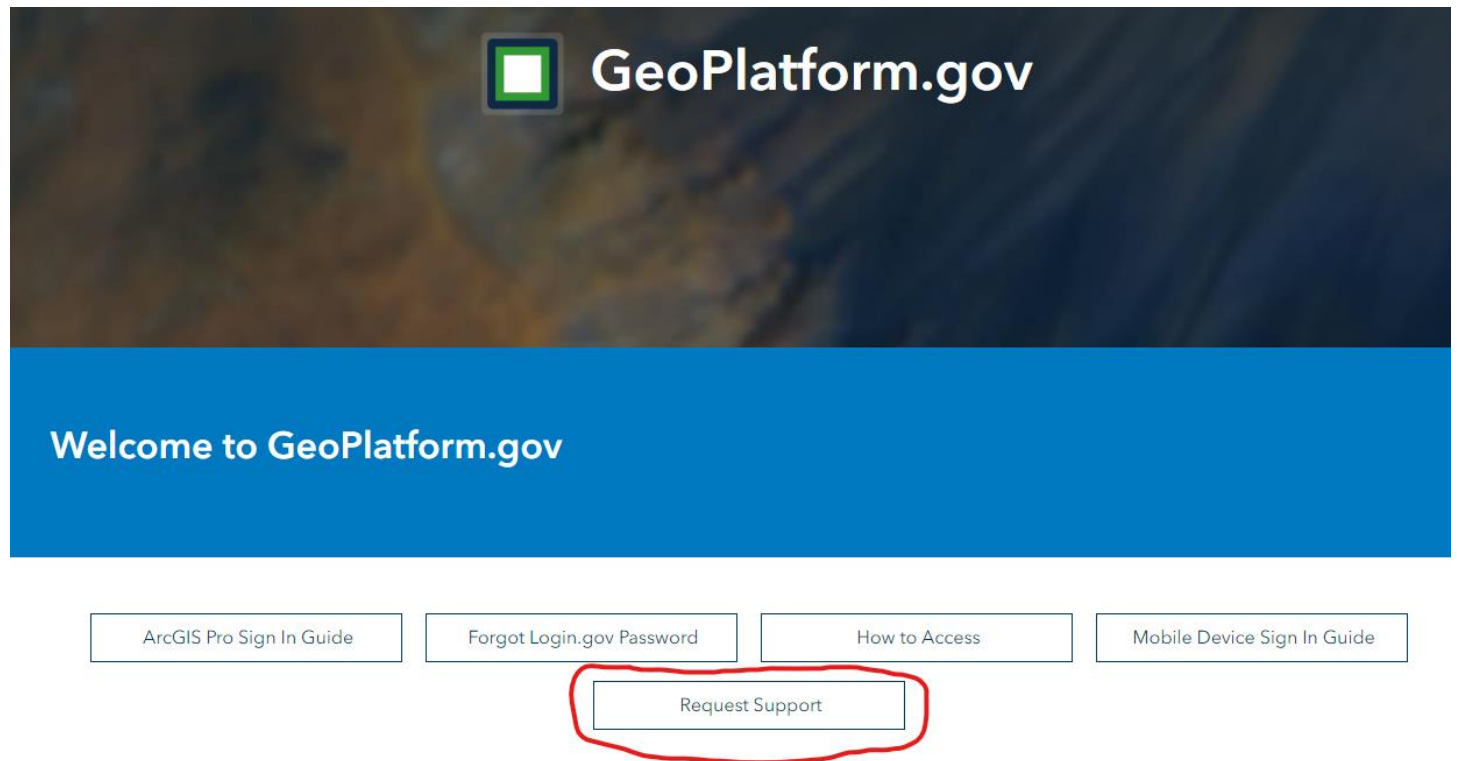
ArcGIS login 

Not a member of this organization?
[Sign in to your account on ArcGIS Online](#)

[Privacy](#)

Provide your username, password, and multi-factor authentication to enter the GeoPlatform site.

Once you have returned to the GeoPlatform site, click the “Request Support” button:



Select the “GeoPlatform Account Permissions and Group Changes” option:

[GeoPlatform Service Desk](#) / [GeoPlatform Service Desk](#)

GeoPlatform Service Desk

Contact us about

General Requests

How GeoPlatform Data/Services are used, General Request, GeoPlatform Feedback, Search Results Feedback



GeoPlatform Community Sites - ArcGIS Hub

New Community Site, GeoPlatform Community Hub Editor Access Request



GeoPlatform Metadata

Metadata Cache Request, Metadata/Data Harvest Issue, GeoPlatform Data Hosting Service Instance Request, New SFTP User Account, Search Results Feedback



GeoPlatform Account Permissions and Group Changes

Publicly Share GeoPlatform ArcGIS Online Object Request, ArcGIS Online Group/Permission Change, GeoPlatform Community Hub Editor Access Request, HIFLD Open Admin



All

New SFTP User Account, Publicly Share GeoPlatform ArcGIS Online Object Request, General Request, Metadata/Data Harvest Issue, GeoPlatform Community Hub Editor Access Request, ArcGIS Online Group/Permission Change, GeoPlatform Data Hosting Service Instance Request, HIFLD Open Admin, GeoPlatform Feedback, Search Results Feedback



Select the “ArcGIS Online Group/Permission Change” option:

[GeoPlatform Service Desk](#) / [GeoPlatform Service Desk](#)

GeoPlatform Service Desk

Contact us about

GeoPlatform Account Permissions and Group Changes

What can we help you with?



[Publicly Share GeoPlatform ArcGIS Online Object Request](#)

Make a request to have an AGOL object shared publicly



[ArcGIS Online Group/Permission Change](#)

Request a group or permission change in GeoPlatform's ArcGIS Online organization. ie: IRWIN Observer, IRWIN RollCall, Federal etc.



[GeoPlatform Community Hub Editor Access Request](#)

Request a change in your account permissions on a GeoPlatform ArcGIS Hub community site.



[HIFLD Open Admin](#)

Complete the form. In the “Username” field, enter your Login.gov username. In the “Group(s)/Permission(s) Requested” field enter “IRWIN Data”.

[GeoPlatform Service Desk](#) / [GeoPlatform Service Desk](#)

GeoPlatform Service Desk

Contact us about

GeoPlatform Account Permissions and Group Changes

What can we help you with?



[ArcGIS Online Group/Permission Change](#)

Request a group or permission change in GeoPlatform's ArcGIS Online...

Email confirmation to *

Username *

As seen in the GeoPlatform ArcGIS Online Organization

Group(s)/Permission(s) Requested *

The name of the group or permission level you would like to be added into in GeoPlatform's ArcGIS Online organization.

Additional Details

(Optional) Provide more information on what and why you would like these changes done to your account.

Send

Cancel

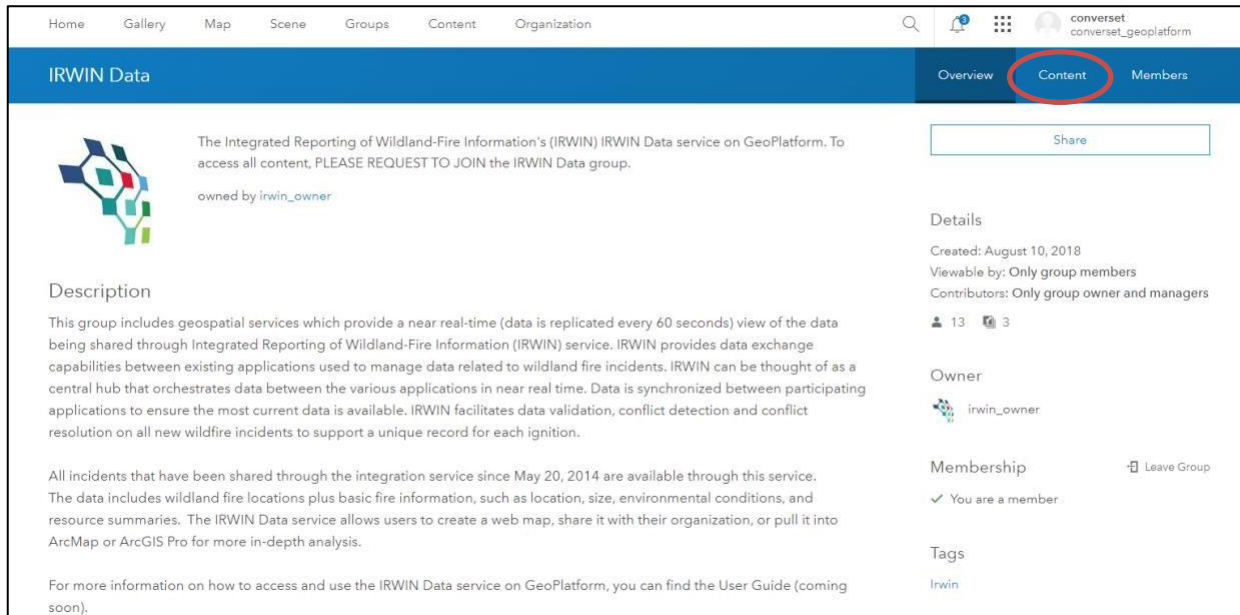
Click the “Send” button.

Your request will be processed, and you will receive a confirmation email at the email address you provided in the previous step. The time it takes to process your request may vary.

Please do not proceed to the next section until you have received confirmation of your group membership(s).

Understanding the “IRWIN Data” Group

The screen below shows the **Overview** tab for the IRWIN Data group page. This tab provides general information about the items contained in this group. At the bottom of this screen, or by clicking on the **Content** tab, you will see the items in this group.



The screenshot displays the IRWIN Data group page in GeoPlatform. The top navigation bar includes links for Home, Gallery, Map, Scene, Groups, Content, and Organization. The 'Content' tab is highlighted with a red circle. The page features a blue header with the group name 'IRWIN Data' and tabs for Overview, Content, and Members. The main content area includes a description of the IRWIN Data service, its owner (irwin_owner), and membership details. The 'Details' section shows the group was created on August 10, 2018, and is viewable by group members. The 'Membership' section shows that the user is a member of the group.

Home Gallery Map Scene Groups Content Organization

converset converset_geoplatform

IRWIN Data Overview Content Members

The Integrated Reporting of Wildland-Fire Information's (IRWIN) IRWIN Data service on GeoPlatform. To access all content, PLEASE REQUEST TO JOIN the IRWIN Data group.

owned by irwin_owner

Share

Description

This group includes geospatial services which provide a near real-time (data is replicated every 60 seconds) view of the data being shared through Integrated Reporting of Wildland-Fire Information (IRWIN) service. IRWIN provides data exchange capabilities between existing applications used to manage data related to wildland fire incidents. IRWIN can be thought of as a central hub that orchestrates data between the various applications in near real time. Data is synchronized between participating applications to ensure the most current data is available. IRWIN facilitates data validation, conflict detection and conflict resolution on all new wildfire incidents to support a unique record for each ignition.

All incidents that have been shared through the integration service since May 20, 2014 are available through this service. The data includes wildland fire locations plus basic fire information, such as location, size, environmental conditions, and resource summaries. The IRWIN Data service allows users to create a web map, share it with their organization, or pull it into ArcMap or ArcGIS Pro for more in-depth analysis.

For more information on how to access and use the IRWIN Data service on GeoPlatform, you can find the User Guide (coming soon).

Details

Created: August 10, 2018

Viewable by: Only group members

Contributors: Only group owner and managers

13 3

Owner

irwin_owner

Membership

✓ You are a member

Leave Group

Tags

Irwin

There are 2 incident-related items in the group:

1. **IRWIN Incident Data:** This service includes all data elements in the IRWIN Incidents feature layer and all records that are valid (See the “Filtering of the Incidents Data” section for more information). The definition of valid elements can be found at the end of this document in the “Data Elements Definitions” table. The incidents layer includes 2 related tables – Incident_Relationships and Incident_Resource_Summary.
2. **IRWIN Incident Transactions:** This service provides all the transactions (adds and updates) that have been made on each IRWIN Incident through the Incident History Layer. All data elements are available for reading.

https://geoplatform.maps.arcgis.com/home/group.html?id=d9d2d5f9060041228c6965ea0bb5d6a2&view=list&start=1#content

ks New Tab Imported Settings GOES 16 Google Earth


Home Gallery Map Scene Groups Content Organization

IRWIN Data Overview Content Members


Search group content: List Title Filter

Filters 1 - 3 of 3

- Item Type
 - Maps
 - Layers
 - Scenes
 - Apps
 - Tools
 - Files
- Date Modified
- Tags
- Shared



IRWIN Incident Data
 Feature Layer by irwin_owner
 Read-only feature layer of all valid IRWIN Incidents replicated every 60 seconds.
 Created: Oct 30, 2018 Updated: Dec 7, 2018 View Count: 154




IRWIN Incident Transactions
 Feature Layer by irwin_owner
 Read-only IRWIN Incident Transaction Log
 Created: Oct 30, 2018 Updated: Nov 29, 2018 View Count: 39

Click on the title of the item to go to the item's page. Key items on this page include:


- On the bottom, under "Layers," there is a link that will allow you to access the ArcGIS Server REST endpoint. Please note, you will not be able to navigate around the ArcGIS Server Rest endpoint, only view the individual page to which you've been given access.
- On the bottom, under "Tables" there is a link that will allow you to access the 2 tables that are related to incidents, the Relationships and Resource Summary.

IRWIN Incident Data


OverviewDataVisualization



Read-only feature layer of all valid IRWIN Incidents replicated every 60 seconds.

 Feature Layer by [irwin_owner](#)

Created: Oct 30, 2018 Updated: Dec 7, 2018 View Count: 168




 Remove from Favorites

Description

This layer includes all non-sensitive data elements in the IRWIN Incidents feature layer and all records that are valid. Reference the User Guide (coming soon) for a full explanation of each data element included in the layers and tables. The incidents layer includes 2 related tables – Incident_Relationships and Incident_Resource_Summary.




Layers

Incident

 Open In
  Export To
  Service URL

Tables

Incident_Relationship

 Open In
  Export To
  Service URL

Open in Map Viewer

Open in Scene Viewer

Open in ArcGIS Desktop

Export Data

Share

Details


Source: [Feature Service](#)

Data Last Updated: Dec 12, 2018, 2:38:41 PM

Size: 0 KB

★★★★★

Owner

 [irwin_owner](#)

Tags

Irwin

Credits (Attribution)

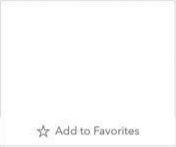
For more help on working with the items in a group, go to: <http://doc.arcgis.com/en/arcgis-online/share-maps/itemdetails.htm>

Downloading IRWIN Data


From the Overview tab of the IRWIN Incident Data item, click on the “Export Data” button on the right side of the page.

IRWIN Incident Data


OverviewDataVisualization



Read-only feature layer of all valid IRWIN Incidents replicated every 60 seconds.

 Feature Layer by [irwin_owner](#)

Created: Oct 30, 2018 Updated: Dec 10, 2019 View Count: 1,422




 Add to Favorites

Description

This layer includes all non-sensitive data elements in the IRWIN Incidents feature layer and all records that are valid. Reference the User Guide (coming soon) for a full explanation of each data element included in the layers and tables. The incidents layer includes 2 related tables – Incident_Relationships and Incident_Resource_Summary.

Layers

Incident

 Open In
  Export To
  Service URL

Open in Map Viewer

Open in Scene Viewer

Export Data

Share

Details

Source: [Feature Service](#)


Created from: [PROD] Incidents, Feature Layer

Data Last Updated: Dec 12, 2019, 10:41:36 AM

Size: 0 KB

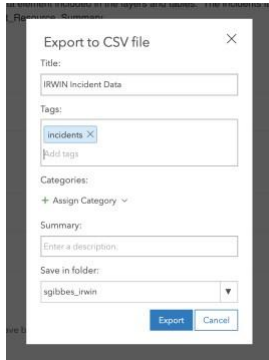
★★★★★

Owner

 [irwin_owner](#)

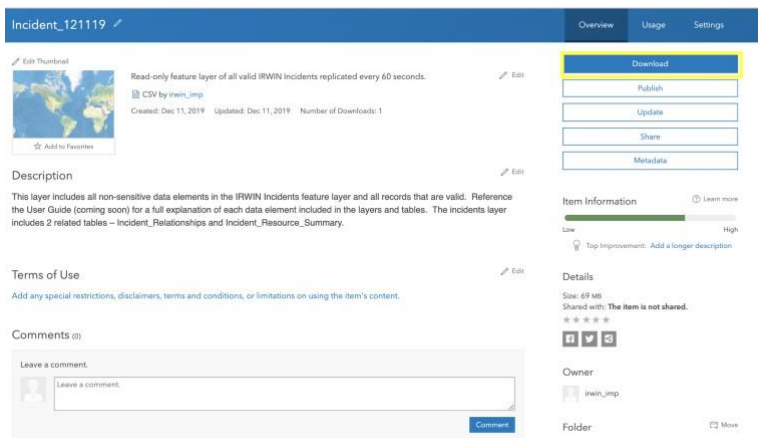
You can choose to export the table in one of many formats: Shapefile, CSV, KML, Excel, FGDB, GeoJSON or Feature Collection. Note that large tables may not open in Excel; a CSV format is a better option in that case.

When prompted, add a title, tag and specify a folder. The file will download to the folder specified (in your AGOL account).



Depending on the size of the file, this could take several minutes. When complete, the export will open in your browser. If it doesn't or you close the screen, you can find the export under Content > My Content.

From the item's Overview page, you can download the file to your computer. Click "Download"



Accessing the IRWIN Data Service items in ArcMap

To add the IRWIN data service to ArcMap, reference the following online documentation:

<http://desktop.arcgis.com/en/arcmap/latest/map/working-with-arcmap/adding-data-from-arcgis-online.htm>

- After opening ArcMap navigate to File > Sign in
- Below the Username and Password option, select **Enterprise**

- Enter “geoplatform” into the open box
- Log-in with your ArcGIS Online GeoPlatform username and password
- Navigate to File > ArcGIS Online
- From this dialog box, navigate to My Groups > IRWIN Data > IRWIN Incident Data

Adding the IRWIN Data Service items to a web map

To create a web map with the IRWIN Data services within the GeoPlatform Organization, reference the following online documentation: <http://doc.arcgis.com/en/arcgis-online/create-maps/add-layers.htm>

- Navigate to the Overview tab of the IRWIN Incident Data service page.
- Click “Open in Map Viewer” in the top-right corner.

Accessing the Service Endpoint from a custom application

Application developers can use the REST endpoint to query the service as needed to return JSON data. To query the service, a token is required that is generated from ArcGIS.com using an ArcGIS account and the user’s own login credentials. A token is returned in JSON format that can then be supplied to the REST endpoint methods to perform the query.

For example, a token can be generated by calling the ArcGIS.com token generator endpoint with your ArcGIS account credentials:

<https://www.arcgis.com/sharing/generatetoken?expiration=120&referer=localhost&f=json&username=<YOURUSERNA ME>&password=<YOURPASSWORD>>

The returned token can then be appended to subsequent requests to the IRWIN Incidents Data REST endpoint’s ‘query’ method along with the desired Where Clause and other parameters to return JSON data matching the query.

For example, a query to retrieve all IRWIN Incidents with Point of Origin State as ‘California’ and returning all available attributes fields in JSON format is:

https://services1.arcgis.com/Hp6G80Pky0om7QvQ/arcgis/rest/services/IRWIN_Incidents/FeatureServer/0/query?where=POOState='US-CA'&outFields=*&f=json&token=<YOURTOKEN>

Note that these samples are using a simple GET HTTP method with all parameters in a single URL for illustration purposes. In practice, developers should use a POST method and other encryption methods to avoid sending credentials visibly across the network.

It is important to note that the Irwin ID is in a slightly different format than what is in the Production Data endpoint:

GUIDs in the IRWIN API (ArcGIS Server):

- Capitalized
- Wrapped in curly braces

GUIDs in the IRWIN Data services (ArcGIS Online):

- Lowercase
- No curly braces

For more information and examples, you can also reference <https://developers.arcgis.com/rest/services-reference/getstarted-with-the-services-directory.htm> for assistance in working with the ArcGIS REST Services.

Additional guidance on leveraging ArcGIS REST Services for custom developed applications can be found at the following links:

Generating Tokens <https://developers.arcgis.com/rest/users-groups-and-items/generate-token.htm>

Querying layers <https://developers.arcgis.com/rest/services-reference/query-feature-service-layer.htm>

Filtering of the Incidents Data

The IRWIN Incident Data service is identical to the IRWIN Production as of April 21, 2020. Prior to this date, the service returned only the valid incidents that have been exchanged through the IRWIN integration. Behind the scenes, the following query was used to extract the incidents from the IRWIN Production API.

```
IsValid = 'true'
```

Data Element Definitions

When using the service, it is important to understand the definitions of the data that are being populated by the external systems contributing to the incident records. The table below shows each the name and a short description for data element available in the service.

IRWIN Feature Service Layer	IRWIN Data Element	API Data Type	Format/ Example Value	Short Description
Incident	FireDiscoveryDateTime	Numeric(13,0)	1483228800000	The date and time a fire was reported as discovered or confirmed to exist.

				May also be the start date for reporting purposes.
Incident	IncidentName	String(50)	Red Hill Fire	The name assigned to an incident.
Incident	IncidentTypeCategory	String(2)	If Kind = FI then Cat = WF, ST, VF, etc...	The Event Category is a sub-group of the Event Kind code and description. The Event Category further breaks down the Event Kind into more specific event categories.
Incident	IncidentTypeKind	String(2)	FI	A general, high-level code and description of the types of incidents and planned events to which the interagency wildland fire community responds.

IRWIN Feature Service Layer	IRWIN Data Element	API Data Type	Format/ Example Value	Short Description
Incident	isFirecodeRequested	smallint	0, 1 (0 is false, 1 is true)	When a source application sends the SubmitIncident or Update Incident request to IRWIN, FirecodeRequested is a Boolean value indicating whether a Fire Code needs to be generated from Fire Code for the incident. The combination of FirecodeRequested and the value in the FireCode column determines the validity of the current FireCode in the IRWIN incidents table - valid or pending (waiting for firecode)
Incident	LocalIncidentIdentifier	String(6)	000087, 00DK1E	A number or code that uniquely identifies an incident for a particular local fire management organization within a particular calendar year.
Incident	POOProtectingUnit	String(6)	SSUUUU, IDBOF	NWCG Unit responsible for providing direct incident management and services to an incident pursuant to its jurisdictional responsibility or as specified by law, contract or agreement. Definition Extension: <ul style="list-style-type: none"> - Protection can be re-assigned by agreement. - The nature and extent of the incident determines protection (for example Wildfire vs. All Hazard.)

Incident	Shape	Shape		Geographic representation of POO in NAD83 datum. The latitude location is the point of origin specified in decimal degrees. Point of origin is the location where a competent ignition source came into contact with the material first ignited and sustained combustion occurred. The longitude location is the point of origin specified in decimal degrees. Point of origin is the location where a competent ignition source came into contact with the material first ignited and sustained combustion occurred.
Incident	FireCause	String(15)	Natural, Human, Unknown	Broad classification of the reason the fire occurred identified as human, natural or unknown.
Incident	InitialLatitude	Numeric (38,8)	DD.DDDDD	The latitude location of the initial reported point of origin specified in decimal degrees.

IRWIN Feature Service Layer	IRWIN Data Element	API Data Type	Format/ Example Value	Short Description
Incident	InitialLongitude	Numeric (38,8)	-DDD.DDDDD	The longitude location of the initial reported point of origin specified in decimal degrees.
Incident	DiscoveryAcres	Numeric (38,8)	9(9).9	An estimate of acres burning upon the discovery of the fire. More specifically when the fire is first reported by the first person that calls in the fire. The estimate should include number of acres within the current perimeter of a specific, individual incident, including unburned and unburnable islands.
Incident	DispatchCenterID	String(6)	SSUUUU, IDBDC	A unique identifier for a dispatch center responsible for supporting the incident.
Incident	ABCDMisc	String(4)		A FireCode used by USDA FS to track and compile cost information for emergency initial attack fire suppression expenditures for A, B, C & D size class fires on FS lands.
Incident	AdditionalFuelModel	String(30)	Timber (Grass and Understory)	The fuel model which best represents an additional carrier of the fire.

Incident	ADSPermissionState	String(100)	DEFAULT, ICS209, CERTIFIED	Indicates the permission hierarchy that is currently being applied when a system utilizes the UpdateIncident operation.
Incident	CalculatedAcres	numeric(38,8)	9(9).9	A measure of acres calculated (i.e., infrared) from a geospatial perimeter of a fire. More specifically, the number of acres within the current perimeter of a specific, individual incident, including unburned and unburnable islands. The minimum size must be 0.1.
Incident	ConflictParentIrwinID	GUID		The IrwinID of an IRWIN record that conflicted with this record based on the conflict detection algorithm and set by the CAD. The ConflictParentIrwinID is the authoritative record of this incident.
Incident	ContainmentDateTime	Numeric(13,0)	1483228800000	The date and time a wildfire was declared contained.
Incident	ControlDateTime	Numeric(13,0)	1483228800000	The date and time a wildfire was declared under control.
Incident	CreatedBySystem	String(255)	wildcad	ArcGIS Server Username of system that created the IRWIN Incident record.
Incident	CreatedOnDateTime	Numeric(13,0)	1483228800000	Date/time that the IRWIN Incident record was created.

IRWIN Feature Service Layer	IRWIN Data Element	API Data Type	Format/ Example Value	Short Description
Incident	CriticalResourceNeeds	String(255)	This is free-form text	Text field that describes the current resource needs as assessed by the management team. The comments in this field can be changing rapidly and are not always accurate. This data should not be used for public reporting of resource needs.
Incident	DailyAcres	numeric(38,8)	9(9).9	A measure of acres reported for a fire. More specifically, the number of acres within the current perimeter of a specific, individual incident, including unburned and unburnable islands. The minimum size must be 0.1.
Incident	EstimatedContainment Date	Numeric(13,0)	1483228800000	The estimated date a wildfire will be contained.

Incident	EstimatedCostToDate	numeric(38,8)		Estimated total incident costs to date for the entire incident based on currently available information. Costs include estimates for all costs for the response including management and support activities.
Incident	Fatalities	integer		The total number of deaths of personnel assigned to an incident.
Incident	FinalAcres	numeric(38,8)	9(9).9	The measure of acres within the final perimeter of a fire. More specifically, the number of acres within the final fire perimeter of a specific, individual incident, including unburned and unburnable islands.
Incident	FinalFireReportApprovedBy	String(100)	John D. Supervisor	The name of the person that approved the final fire report for the incident.
Incident	FinalFireReportApprovedByTitle	String(100)	Fire Management Officer	The title of the person that approved the final fire report for the incident.
Incident	FinalFireReportApprovedByUnit	String(6)	SSUUUU, IDBOF	NWCG Unit ID associated with the individual who approved the final report for the incident.
Incident	FinalFireReportApprovedDate	Numeric(13,0)	1483228800000	The date that the final fire report was approved for the incident.
Incident	FinalFireReportNarrative	String(3999)		A summary of the comments in narrative form as entered on the final fire report to describe important aspects of the incident.
Incident	FinalStrategyAttainedDate	Numeric(13,0)	1483228800000	The date/time the final fire strategy was accomplished on the incident.
Incident	FireBehaviorDescription	String(3999)		A description of the observed fire behavior for the current ICS-209 reporting period.

IRWIN Feature Service Layer	IRWIN Data Element	API Data Type	Format/ Example Value	Short Description
Incident	FireBehaviorGeneral	String(20)	Extreme	A general category describing the manner in which the fire is currently reacting to the influences of fuel, weather, and topography.
Incident	FireBehaviorGeneral1	String(50)	Crowning	A more specific category further describing the general fire behavior (manner in which the fire is currently reacting to the influences of fuel, weather, and topography).

Incident	FireBehaviorGeneral2	String(50)	Running	A more specific category further describing the general fire behavior (manner in which the fire is currently reacting to the influences of fuel, weather, and topography).
Incident	FireBehaviorGeneral3	String(50)	Long-range Spotting	A more specific category further describing the general fire behavior (manner in which the fire is currently reacting to the influences of fuel, weather, and topography).
Incident	FireCauseGeneral	String(100)	Camping	Agency or circumstance which started a fire or set the stage for its occurrence; source of a fire's ignition. For statistical purposes, fire causes are further broken into specific causes.
Incident	FireCauseSpecific	String(200)	Cooking	A further categorization of each General Fire Cause to indicate more specifically the agency or circumstance which started a fire or set the stage for its occurrence; source of a fire's ignition.
Incident	FireCode	String(4)	K14B	A code used within the interagency wildland fire community to track and compile cost information for emergency fire suppression expenditures for the incident.
Incident	FireDepartmentID	String(5)	WC701	The U.S. Fire Administration (USFA) has created a national database of Fire Departments. Most Fire Departments do not have an NWCG Unit ID and so it is the intent of the IRWIN team to create a new field that includes this data element to assist the National Association of State Foresters (NASF) with data collection.
Incident	FireGrowthCessationDateTime	Numeric(13,0)	1483228800000	The date/time that the fire perimeter stopped growing in size.

IRWIN Feature Service Layer	IRWIN Data Element	API Data Type	Format/ Example Value	Short Description
Incident	FireIgnitionDateTime	Numeric(13,0)	1483228800000	The actual date/time that the fire began ignition. This date may be different from the fire discovery date.

Incident	FireMgmtComplexity	string(25)	Type 1 Incident, Type 2 Incident, Type 3 Incident, Type 4, etc...	The highest management level utilized to manage a wildland fire event.
Incident	FireOutDateTime	Numeric(13,0)	1483228800000	The date and time when a fire is declared out.
Incident	FireStrategyConfinePercent	integer	25	Indicates the percentage of the incident area where the fire suppression strategy of "Confine" is being implemented.
Incident	FireStrategyFullSuppPercent	integer	25	Indicates the percentage of the incident area where the fire suppression strategy of "Full Suppression" is being implemented.
Incident	FireStrategyMonitorPercent	integer	25	Indicates the percentage of the incident area where the fire suppression strategy of "Monitor" is being implemented.
Incident	FireStrategyPointZonePercent	integer	25	Indicates the percentage of the incident area where the fire suppression strategy of "Point Zone Protection" is being implemented.
Incident	FiscallyResponsibleUnit	String(6)	SSUUUU, IDBOF	NWCG Unit who has fiscal responsibility for the incident.
Incident	FSJobCode	String(2)		A code use to indicate the Forest Service job accounting code for the incident. This is specific to the Forest Service. Usually displayed as 2 char prefix on FireCode.
Incident	FSOverrideCode	String(4)	1502	A code used to indicate the Forest Service override code for the incident. This is specific to the Forest Service. Usually displayed as a 4 char suffix on FireCode. For example, if the FS is assisting DOI, an override of 1502 will be used.
Incident	GACC	String(50)	NRCC	A code that identifies one of the wildland fire geographic area coordination centers. A geographic area coordination center is a facility that is used for the coordination of agency or jurisdictional resources in support of one or more incidents within a geographic coordination area.

IRWIN Feature Service Layer	IRWIN Data Element	API Data Type	Format/ Example Value	Short Description
Incident	HasFatalities	smallint	0, 1 (0 is false, 1 is true)	Indicates whether there were fatalities related to the incident.
Incident	HasInjuries	integer	0, 1 (0 is false, 1 is true)	Indicates whether there were injuries related to the incident.
Incident	ICS209Remarks	String(3999)		Additional information pertinent to the incident management.
Incident	ICS209ReportDateTime	Numeric(13,0)	1483228800000	The date and time of the latest approved ICS-209 report.
Incident	ICS209ReportForTimePeriodFrom	DATE/TIME		The date and time of the beginning of the time period for the current ICS-209 submission.
Incident	ICS209ReportForTimePeriodTo	DATE/TIME		The date and time of the end of the time period for the current ICS-209 submission.
Incident	ICS209ReportStatus	string(1)	I (Initial), U (Update), F(Final)	The version of the ICS-209 report (initial, update, or final). There should never be more than one initial report, but there can be numerous updates, and even multiple finals (as determined by business rules).
Incident	IncidentCommanderName	string(255)	John Doe	The first (optional) and last name of the incident commander currently assigned to the incident.
Incident	IncidentManagementOrganization	string(255)	Type 1 Team, Type 2 Team, Type 3 IC, Area Command, NIMO, etc...	The incident management organization for the incident, which may be a Type 1, 2, or 3 Incident Management Team (IMT), a Unified Command, a Unified Command with an IMT, National Incident Management Organization (NIMO), etc. This field is null if no team is assigned.
Incident	IncidentShortDescription	String(80)		General descriptive location of the incident such as the number of miles from an identifiable town.
Incident	InFuelTreatment	smallint	0, 1 (0 is false, 1 is true)	Indicates whether the incident's point of origin lat/long intersects with an existing fuel treatment area. PLANNED TREATMENTS
Incident	InitialFireStrategy	String(50)	Full Suppression, Point Zone Protection, Confine, Monitor	The fire strategy initially used on a wildland fire; the general plan or direction utilized until it succeeds or changes.

IRWIN Feature Service Layer	IRWIN Data Element	API Data Type	Format/ Example Value	Short Description
Incident	InitialResponseAcres	Numeric (38,8)	9(9).9	An estimate of acres burning at the time of initial response. More specifically when the IC arrives and performs initial size up. The minimum size must be 0.1. The estimate should include number of acres within the current perimeter of a specific, individual incident, including unburned and unburnable islands.
Incident	InitialResponseDateTim e	Numeric(13,0)	1483228800000	The date/time of the initial response to the incident. More specifically when the IC arrives and performs initial size up.
Incident	Injuries	integer		The total number of reportable occupational injuries and illnesses that occurred in conjunction with an incident.
Incident	InNFPORS	integer	0, 1 (0 is false, 1 is true)	Indicates whether the incidents point of origin lat/long intersects with a COMPLETED fuels treatment.
Incident	IrwinID	GUID	{3A74AD5CE18C-4B239DA0-B5EEFF6CDACF}	Unique identifier assigned to each incident record in IRWIN.
Incident	IsFireCauseInvestigated	smallint	0, 1 (0 is false, 1 is true)	Indicates if an investigation is underway or was completed to determine the cause of a fire.
Incident	IsFSAssisted	smallint	0, 1 (0 is false, 1 is true)	Indicates if the Forest Service provided assistance on an incident outside their jurisdiction.
Incident	IsInitialFireStrategyMet	integer	0, 1 (0 is false, 1 is true)	Indicates if the initial fire strategy for the incident was successful.
Incident	IsMultiJurisdictional	integer	0, 1 (0 is false, 1 is true)	Indicates if the incident covers multiple jurisdictions.
Incident	IsQuarantined	smallint	0, 1 (0 is false, 1 is true)	Indicates whether an incident of type WF is potentially conflicting with another incident of type WF.
Incident	IsReimbursable	smallint	0, 1 (0 is false, 1 is true)	Indicates the cost of an incident may be another agency's responsibility.
Incident	IsTrespass	smallint	0, 1 (0 is false, 1 is true)	Indicates if the incident is a trespass claim or if a bill will be pursued.

IRWIN Feature Service Layer	IRWIN Data Element	API Data Type	Format/ Example Value	Short Description
Incident	IsUnifiedCommand	smallint	0, 1 (0 is false, 1 is true)	Indicates whether the incident is being managed under Unified Command. Unified Command is an application of the Incident Command System used when there is more than one agency with incident jurisdiction or when incidents cross political jurisdictions. Under Unified Command, agencies work together through their designated Incident Commanders at a single incident command post to establish common objectives and issue a single Incident Action Plan.
Incident	IsValid	smallint	0, 1 (0 is false, 1 is true)	Indicates whether the incident is valid within IRWIN. Valid incidents are Wildfire Incident records from the Dispatch Center having primary responsibility for that fire. Invalid incidents are a result of duplicates or invalid entries.
Incident	ModifiedBySystem	String(255)		ArcGIS Server username of system that last modified the IRWIN Incident record.
Incident	ModifiedOnDateTime	Numeric(13,0)	1483228800000	Date/time that the IRWIN Incident record was last modified.
Incident	ModifiedOn	DATETIME		The date and time (DATETIME format) that the IRWIN Incident record was last modified. This format is provided as a helper to support querying and filtering.
Incident	OtherStructuresDestroyed	Long integer (999,999)		The total number of structures, other than residences, destroyed as a result of a fire.
Incident	OtherStructuresThreatened	Long integer (999,999)		The total number of structures, other than residences, threatened by a fire.
Incident	PercentContained	Integer		Indicates the percent of incident area that is no longer active. <i>Reference definition in fire line handbook when developing standard.</i>

Incident	PercentPerimeterToBe Contained	Integer		Indicates the percent of perimeter left to be completed. This entry is appropriate for full suppression, point/zone protection, and confine fires, or any combination of these strategies. This entry is not used for wildfires managed entirely under a monitor strategy. (Note: Value is not currently being passed by ICS-209)
----------	--------------------------------	---------	--	---

IRWIN Feature Service Layer	IRWIN Data Element	API Data Type	Format/ Example Value	Short Description
Incident	PlannedActions	String(3999)		Short summary of the actions planned for the next operational period. (Note: Value is not currently being passed by ICS-209)
Incident	POOCity	String(50)		The closest city to the incident point of origin.
Incident	POOCounty	String(100)	Ada County	The County Name identifying the county or equivalent entity at point of origin designated at the time of collection.
Incident	POODispatchCenterID	String(6)	SSUUUU, IDBDC	A unique identifier for the dispatch center that intersects with the incident point of origin.
Incident	POOFips	String(5)	ID001	The code which uniquely identifies counties and county equivalents. The first two digits are the FIPS State code and the last three are the county code within the state.
Incident	POOJurisdictionalAgency	String(50)	BLM, USFS, BIA	The agency having land and resource management responsibility for an incident as provided by federal, state or local law.
Incident	POOJurisdictionalUnit	String(6)	SSUUUU	NWCG Unit Identifier to identify the unit with jurisdiction for the land where the point of origin of a fire falls.
Incident	POOJurisdictionalUnitParentUnit	String(6)	SSUUUU, IDBOF	The unit ID for the parent entity, such as a BLM State Office or USFS Regional Office, that resides over the Jurisdictional Unit.

Incident	POOLandownerCategory	String(7)	If Kind = Federal, Cat = BIA, BLM, BOR, etc...	More specific classification of land ownership within land owner kinds identifying the owner at the point of origin at the time of the incident. Owner in the context of this data element refers to the agency or entity having the land management responsibility at the point of origin.
Incident	POOLandownerKind	String(7)	Federal, Other, Private	Broad classification of land ownership at the point of origin.
Incident	POOLegalDescPrincipal Meridian	String(30)		The principal meridian of the legal description (section, township, range) of the incident at point of origin.
Incident	POOLegalDescQtr	String(2)		The quarter section of the legal description (section, township, range) of the incident at point of origin.
Incident	POOLegalDescQtrQtr	String(2)		The quarter/quarter section of the legal description (section, township,

IRWIN Feature Service Layer	IRWIN Data Element	API Data Type	Format/ Example Value	Short Description
				range) of the incident at point of origin.
Incident	POOLegalDescRange	String(5)		The range of the legal description (section, township, range) of the incident at point of origin.
Incident	POOLegalDescSection	Integer		The section of the legal description (section, township, range) of the incident at point of origin.
Incident	POOLegalDescTownship	String(5)		The township of the legal description (section, township, range) of the incident at point of origin.
Incident	POOPredictiveServiceAreaID	String(6)	NR01 - Northern Idaho Panhandle	The predictive service area ID where the incidents point of origin is location. Predictive Service Areas (PSAs) are geographic areas of similar climate based on statistical correlation of Remote Automated Weather Stations (RAWS) data.
Incident	POOProtectingAgency	String(50)	BLM, NPS, BIIA	Indicates the agency that has protection responsibility at the point of origin.

Incident	POOState	String(6)	ID	The State alpha code identifying the state or equivalent entity at point of origin.
Incident	PredominantFuelGroup	String(100)	GR	The fuel majority fuel model type that best represents fire behavior in the incident area, grouped into one of seven categories.
Incident	PredominantFuelModel	String(100)	Grass	Describes the type of fuels found within the majority of the incident area.
Incident	PrimaryFuelModel	String(30)	Timber (Grass and Understory)	The fuel model which best represents the primary carrier of the fire for the reporting period.
Incident	ProjectedIncidentActivity12	String(3999)		An estimate of the direction in which the incident is expected to spread, migrate or expand in the next 12 hours.
Incident	ProjectedIncidentActivity24	String(3999)		An estimate of the direction in which the incident is expected to spread, migrate or expand in the next 24 hours.
Incident	ProjectedIncidentActivity48	String(3999)		An estimate of the direction in which the incident is expected to spread, migrate or expand in the next 48 hours.

IRWIN Feature Service Layer	IRWIN Data Element	API Data Type	Format/ Example Value	Short Description
Incident	ProjectedIncidentActivity72	String(3999)		An estimate of the direction in which the incident is expected to spread, migrate or expand in the next 72 hours.
Incident	ProjectedIncidentActivity72Plus	String(3999)		An estimate of the direction in which the incident is expected to spread, migrate or expand in beyond the next 72 hours.
Incident	ResidencesDestroyed	Long integer (999,999)		The total number of residences destroyed, or damaged to an extent requiring rebuilding, as a result of a fire.
Incident	ResidencesThreatened	Long integer (999,999)		The total number of residences threatened by the fire.
Incident	SecondaryFuelModel	String(30)	Timber (Grass and Understory)	The fuel model which best represents the secondary carrier of the fire for the reporting period.

Incident	SignificantEvents	String(3999)		Observed fire behavior or significant incident events for the current reporting period.
Incident	SummaryFuelModel	String(3999)	canyons with Spruce and Fir stringers; open meadows with grass 2-4'	A brief summary of the type of terrain or any significant fuel considerations for the reporting period.
Incident	TotalIncidentPersonnel	Integer		The total number of personnel assigned. Includes overhead, crewmembers, helicopter crewmember, engine crewmembers, camp crew people, etc.
Incident	UniqueFireIdentifier	String(22)	yyyy-SSUUUUxxxxxx, 2007IDBOF-000025	Unique identifier assigned to each wildland fire. yyyy = calendar year, SSUUUU = POO protecting unit identifier (5 or 6 characters), xxxxxx = local incident identifier (6 to 10 characters)
Incident	WeatherConcerns	String(3999)		A brief summary of how the current weather is affecting the incident and how the anticipated weather will affect the incident.
Incident	WFDSSDecisionStatus	String(20)	Pending Decision	Indicates the state of the WFDSS decision and/or if a WFDSS decision has been approved for the incident. This information is helpful in resolving conflicts between incident records.
Incident	INFORMUsername	String(50)	stevensj	Temporary meta data field to capture inform user information. Will be deprecated for V6.

IRWIN Feature Service Layer	IRWIN Data Element	API Data Type	Format/ Example Value	Short Description
Incident_Relationship	ChildIrwinID	GUID	{3A74AD5CE18C-4B239DA0-B5EEFF6CDACF}	The IRWINID of the child incident of the relationship formed between 2 incidents.
Incident_Relationship	CreatedBySystem	String(255)	wildcad	Auto calculated by IRWIN upon SubmitRelationship. ArcGIS Server Username of system that created the IRWIN Incident relationship.
Incident_Relationship	CreatedOnDateTime	Numeric(13,0)	1511907191	Auto calculated by IRWIN upon add The UTC time when the Relationship was created in IRWIN.

Incident	CreatedOn	DATETIME		The date and time (DATETIME format) that the IRWIN Incident record was created. This format is provided as a helper to support querying and filtering.
Incident_Relationship	IrwinIRID	GUID	{3A74AD5CE18C-4B239DA0-B5EEFF6CDACF}	The IRWINID of the relationship formed between 2 incidents.
Incident_Relationship	IsActive	integer	0, 1 (0 is false, 1 is true)	Represents if the relationship is active (true) or expired (false).
Incident_Relationship	ModifiedBySystem	String(255)	wildcad	Auto calculated by IRWIN upon update. ArcGIS Server username of system that updated the IRWIN Incident relationship.
Incident_Relationship	ModifiedOnDateTime	Numeric(13,0)	1483228800000	Auto calculated by IRWIN upon update. The UTC time when the relationship was modified in IRWIN.
Incident_Relationship	ParentIrwinID	GUID	{3A74AD5CE18C-4B239DA0-B5EEFF6CDACF}	The IrwinID of the parent incident of the relationship formed between 2 incidents.
Incident_Relationship	RelationshipType	String((10)	Complex	Indicates the type of relationship being submitted to IRWIN that defines how two incidents are related to each other.
Incident_Relationship	ReportedCreatedOnDateTime	Numeric(13,0)	1483228800000	The UTC time when the relationship was created in IRWIN.
Incident_Relationship	ReportedExpiredOnDateTime	Numeric(13,0)	1483228800000	The UTC time when the relationship was expired in IRWIN.
Incident_Resource_Summary	CreatedBySystem	String(255)		ArcGIS Server username of system that created the IRWIN Resource record.
IRWIN Feature Service Layer	IRWIN Data Element	API Data Type	Format/ Example Value	Short Description
Incident_Resource_Summary	CreatedOnDateTime	Numeric(13,0)	1483228800000	Date/time that the IRWIN Resource record was created.
Incident_Resource_Summary	IrwinID	GUID	{3A74AD5CE18C-4B239DA0-B5EEFF6CDACF}	IrwinID of the Incident to which the resource summary record is linked.
Incident_Resource_Summary	ResourceAgency	String(7)	BLM, USFS, BIA	A general classification of the agency providing fire resources to an incident - top level hierarchy of resources.

Incident_Resource_Summary	ResourceCategory	String(25)	Kind = Aircraft, Cat = Airtanker, Fixed Wing, etc...	An intermediate classification of operational resources available to respond to a fire - a further breakdown of kind.
Incident_Resource_Summary	ResourceKind	String(10)	Aircraft, Crews, Equipment, Overhead	A general classification of operational resources available to respond to a fire.
Incident_Resource_Summary	ResourcePersonnelQuantity (ResourceStatus = "Daily")	Integer		The total number of personnel assigned to the fire resource being reported (by agency, provider, kind, category, and type).
Incident_Resource_Summary	ResourceProvider	String(6)	SSUUUU	The NWCG Unit Identifier data standard to identify the agency that is providing the resource.
Incident_Resource_Summary	ResourceQuantity (ResourceStatus = "Daily")	Integer		The total number of fire resources (by agency, provider, kind, category, and type) currently being utilized by the incident.
Incident_Resource_Summary	ResourceQuantity (ResourceStatus = "Initial Response")	Integer		The total number of fire resources (by agency, provider, kind, category, and type) used during initial response.
Incident_Resource_Summary	ResourceQuantityCurrentAsOf	Numeric(13,0)	1483228800000	The date and time that reflects the period for which the resource counts are current.
Incident_Resource_Summary	ResourceStatus	String(16)		Indicates if the resource record being submitted or updated is an initial response resource or daily resource record.
Incident_Resource_Summary	ResourceType	String(60)	Kind = Aircraft, Cat = Airtanker, Type = Heavy (Type 1), etc...	The most specific classification of operational resources available to respond to a fire.

Contacts

Eric Neyman

IRWIN Implementation Lead

Email: eric.r.neyman@saic.com

Stephen Bankston

IRWIN Implementation Lead Developer

Email: stephen.bankston@saic.com