




# Troubleshooting ArcGIS API for JavaScript Tasks

TJ Simons

2021 ESRI  
DEVELOPER SUMMIT

# Overview

- **What are tasks?**
  - **Common Issues**
  - **Additional Resources**
- 

# What are tasks?

```
require(["esri/tasks/Task"], function(Task) { /* code goes here */ });
```

- **Classes to interact with operations of ArcGIS Services**
- **Asynchronous**
- **URL property to a service**
  
- **Types of Services**
  - **Geoprocessing services (PrintTask, Geoprocessor, GeometryService)**
  - **Geocoding services (Locator)**
  - **Routing services (RouteTask , ServiceAreaTask, ClosestFacilityTask )**
  - **Map and Feature services (IdentifyTask, QueryTask, FindTask)**
  - **Image services (ImageIdentifyTask)**

# Tasks Support Classes

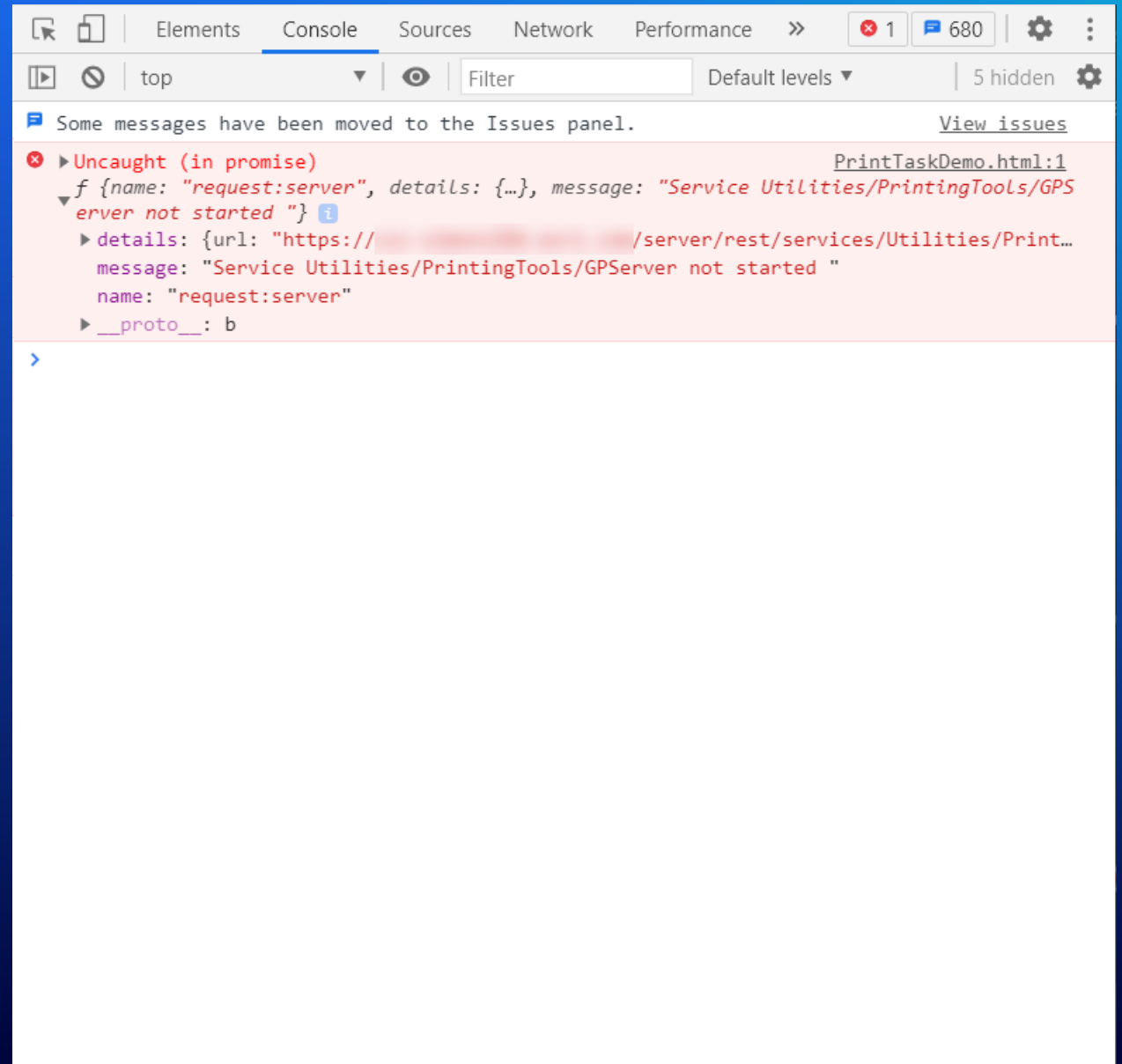
- **Parameters**
- **Results**
  
- **Pattern for task**
  - **Create the task**
  - **Specify the parameters**
  - **Use the result**

# Common Issues

- **Issues with the service**
- **Problems with parameters**
- **Working with results**

# Issues with the Service

- Service Not Found
- Unauthorized or token required
- CORS
- Not Started
- Timeout



The screenshot shows a browser's developer console with the 'Console' tab selected. At the top, there is a notification: 'Some messages have been moved to the Issues panel.' with a link to 'View issues'. Below this, a red error message is displayed: 'Uncaught (in promise)'. The error details are as follows:

```
PrintTaskDemo.html:1
f {name: "request:server", details: {...}, message: "Service Utilities/PrintingTools/GPS
erver not started "}
  details: {url: "https://.../server/rest/services/Utilities/Print...
            message: "Service Utilities/PrintingTools/GPServer not started "
            name: "request:server"
            __proto__: b
```

```
63     var printUrl = "https://utility.arcgisonline.com
64     /arcgis/rest/services/Utilities/CustomPrintingTools/GPServer
65     /Export%20Web%20Map%20Task"
66
67     var printTask = new PrintTask({
68       url: printUrl
69     });
70
71     var template = new PrintTemplate({
72       format: format.value,
73       exportOptions: {
74         width: 1100,
75         height: 800,
76         dpi: 96
77       },
78       layout: layout.value,
79       layoutOptions: {
80         titleText: "Sample Print Task",
81         authorText: "TJ"
82       }
83     });
```

The right pane displays a world map with numerous blue circular markers of varying sizes. A 'Print Task' dialog box is overlaid on the map, featuring two dropdown menus: 'Map Only' and 'PDF', and an 'Execute Print' button. The map is powered by Esri, HERE, FAO, and NOAA.

# PrintTask Demo

# Problems with Parameters

- Error: “Unable to complete operation”
- Errors that return an unexpected result.
- Troubleshooting Techniques
  - Test from rest endpoint of the service
  - Reduce the number of parameters



ServiceAreaTask

https://codepen.io/tj-esri/pen/JOVqRaa?editors=1000

ServiceAreaTask

HTML

```
40 var serviceAreaTask = new ServiceAreaTask({
41   url: "https://sampleserver6.arcgisonline.com
   /arcgis/rest/services/NetworkAnalysis/SanDiego/NAServer
   /ServiceArea"
42 });
43
44 view.on("click", function(event){
45   var locationGraphic =
   createGraphic(event.mapPoint);
46   var featureSet = new FeatureSet({
47     features: [locationGraphic]
48   });
49   var serviceAreaParams = new
   ServiceAreaParameters({
50     facility: featureSet,
51     defaultBreaks: "1,3,5",
52     outSpatialReference: view.spatialReference
53   });
54   serviceAreaTask.solve(serviceAreaParams)
55 }
```

CSS

JS

SanGIS, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA

Powered by Esri

Last saved 3 MINUTES AGO

Delete Add to Collection Fork Embed Export Share

# ServiceAreaTask Demo

# Troubleshooting Results

- **Type errors**
- **Reference errors**
- **Console log the results**

QueryTask

https://codepen.io/tj-esri/pen/rNWLdqm?editors=1000

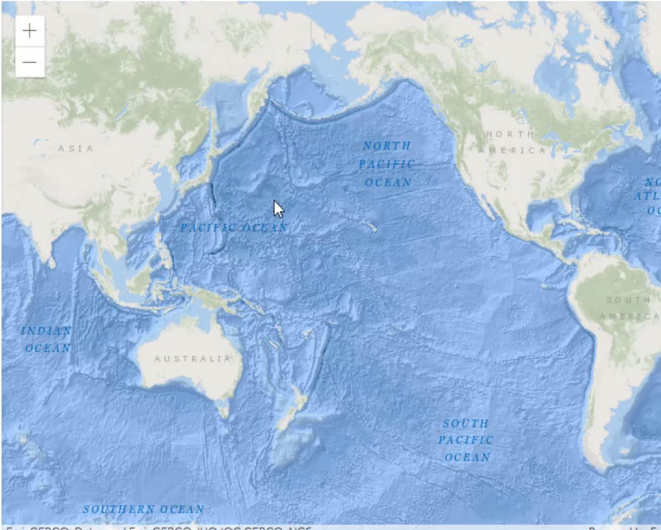
QueryTask

HTML

```
61 var queryTask = new QueryTask({
62   url: "https://sampleserver6.arcgisonline.com/arcgis
/rest/services/Earthquakes_Since1970/FeatureServer/0"
63 });
64
65 var query = new Query();
66 query.returnGeometry = true;
67 query.outFields = ["*"];
68 query.where = "Magnitude > 8";
69
70 queryTask.execute(query).then(function(results) {
71   var queryResults = results.features.map(function
(feature) {
72     feature.symbol=symbol
73     console.log(feature.toJSON())
74     return feature
75   })
76 });
77 graphicsLayer.addMany(queryResults);
```

CSS

JS



Powered by Esri  
Esri, GEBCO, DeLorme | Esri, GEBCO, IHO-IOC GEBCO, NGIS

Last saved 2 DAYS AGO | Delete | Add to Collection | Fork | Embed | Export | Share

# QueryTask Demo

## Additional Resources

ArcGIS API for JavaScript API Reference

- <https://developers.arcgis.com/javascript/latest/api-reference/>
- <https://developers.arcgis.com/javascript/latest/api-reference/esri-tasks-Task.html>
- <https://developers.arcgis.com/javascript/latest/programming-patterns/#promises>

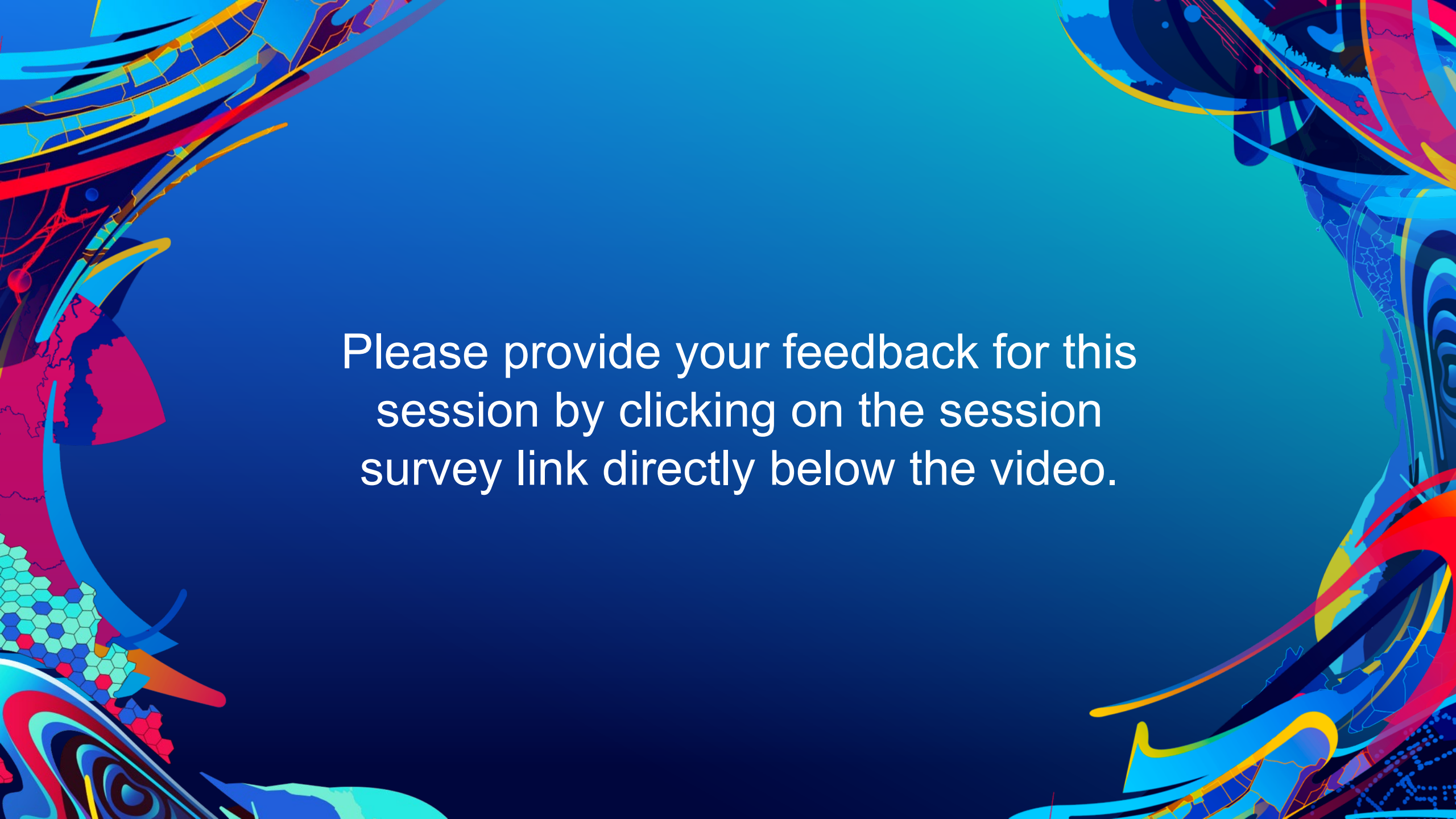
ArcGIS REST API Documentation

- <https://developers.arcgis.com/rest/>
- <https://developers.arcgis.com/rest/services-reference/resources-and-operations.htm>



esri®

THE  
SCIENCE  
OF  
WHERE®



Please provide your feedback for this session by clicking on the session survey link directly below the video.