



ESRI DEVELOPER SUMMIT 2023

Deployment

Two Patterns

- ArcGIS Enterprise
- Developer edition > host on a web server

Deployment: ArcGIS Enterprise

- Deploy custom widgets to Experience Builder within ArcGIS Enterprise
- Users within ArcGIS Enterprise can build Experiences with those custom widgets
- ArcGIS Enterprise 11.0 or higher

Detailed instructions: esriurl.com/exb-widget-enterprise

```

    let w = new StreamReader(
        Console.OpenText("input.txt"),
        Encoding.UTF8);

    while (true)
    {
        string line = w.ReadLine();
        if (line == null)
            break;
        Console.WriteLine(line);
    }
}

```

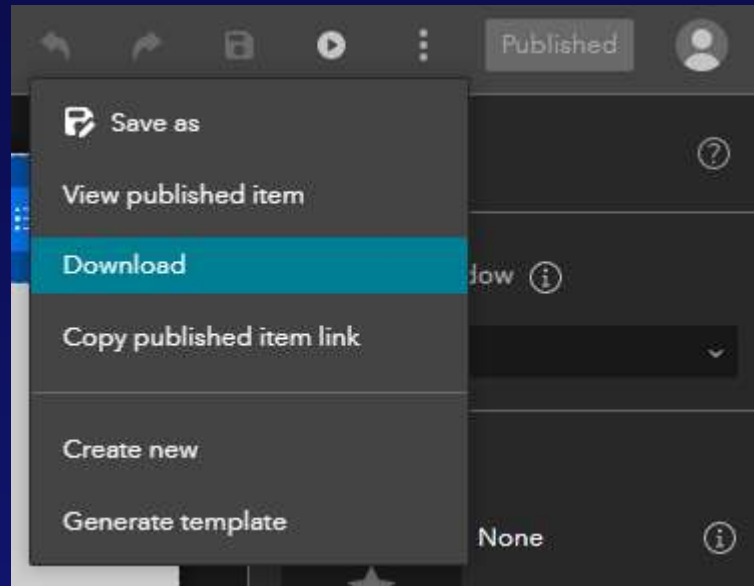
```
console.log(layerView.getLayer(index));
view.on('layer', function(layerView) {
    console.log(layerView)
});
// If you interact with the layerview, you'll get an error here
return;
```

Demo

ArcGIS Enterprise Deployment

Deployment: Developer Edition

1. Build the Experience with your custom widgets
2. Download as ZIP



3. Unzip files
4. Add `clientId` to `cdn/1/config.json`
5. Host the files on a web server


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1111 public void write() {
1112     StreamWriter sw = new StreamWriter("MyLog.txt",
1113     true);
1114     sw.WriteLine("1111");
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```



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Demo

Developer Edition Deployment

```
console.log(layerView.getLayer(index));
view.on('layer', function(layer) {
    console.log(layerView)
    // If you interact with the layerview, you'll get an error here
    console.log(layerView);
});
```

Automated Deployment

CI/CD

```
current_layer = view.current_layer()
view.remove_layer(current_layer)
# Don't forget to call view.refresh()
# if there were problems with
# the current layer.
```

```
current_layer = view.current_layer()
current_layer.remove_layer()
# Don't forget to call view.refresh()
# if there were problems with
# the current layer.
```

Why automation?

- Faster builds
- Consistent builds
- Easier for testers
- The "reference" application

How to automate

- Store the reference version of each app
- Auto-build using your CI/CD env of choice:
 - Azure DevOps
 - GitHub Actions*
 - GitLab Actions
 - Jenkins
 - Etc.

Folder structure

- manifest.json
- apps/
 - 0/
 - 1/
 - 2/
 - ...
- widgets/
 - custom-widget-1/
 - custom-widget-2/
 - ...

Automatic build

- Create file:
`github/workflows/build-app.yml`
- Demo repo:
github.com/gavinr/experience-builder-devops-example

```
let view = new ScrollView({
  container: "viewport",
  map: map,
  style: {
    width: 100,
    height: 100,
    border: 1px solid black
  }
});
```

[@ {

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Automatic Build

Demo

```
const map = new Map({
  layers: [
    {
      name: "Map",
      type: "Image",
      url: "map.png",
      width: 100,
      height: 100,
      border: 1px solid black
    }
  ]
});

const view = new ScrollView({
  container: "viewport",
  map: map,
  style: {
    width: 100,
    height: 100,
    border: 1px solid black
  }
});

// If you try to use the layerView, you'll get an error here
```

Automatic build outcomes

- Consistent outputs
- Easier version management (via Git branching)
- Quicker bug investigations (is it happening on the reference app?)
- More organized management of app config versions

Activity

30 Minutes

- Deploy your app to Surge.sh (or similar accessible hosting platform)
- If you have access to ArcGIS Enterprise, deploy a custom widget there.
- Set up an automated build with GitHub Actions (or similar)
- Documentation:
 - developers.arcgis.com/experience-builder/guide/deployment-topics/
 - esriurl.com/exb-widget-enterprise
 - github.com/gavinr/experience-builder-devops-example



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