



# ARCGIS EXPERIENCE BUILDER FOR DEVELOPERS: WIDGETS, DEV, DEPLOYMENT, AND AUTOMATION

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Slides: [presentation slides](#)

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CONFERENCE 2025

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# AGENDA

- Intro to Experience Builder
- Custom widget development
- Custom theme development
- Code collaboration
- Deployment
- Deployment automation (DevOps)

# INTRO TO EXPERIENCE BUILDER



# WHAT IS ARCGIS EXPERIENCE BUILDER

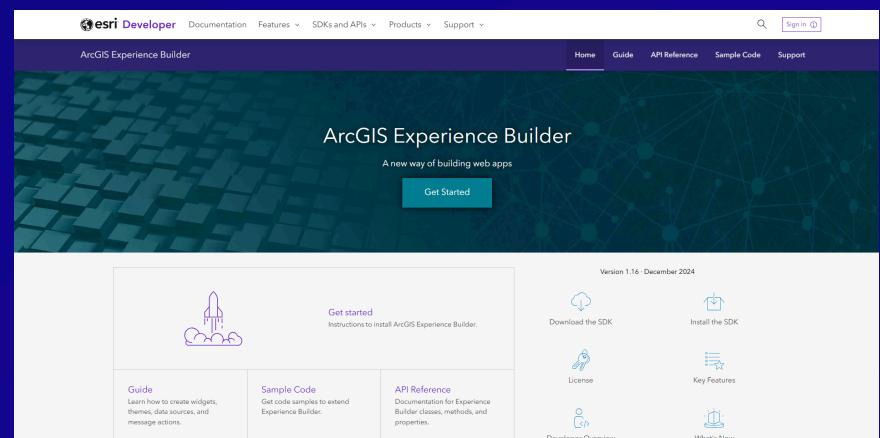
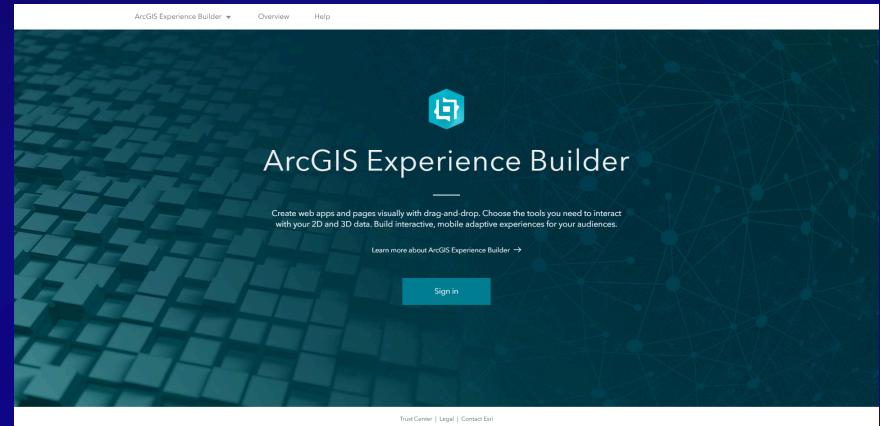
Quickly transform your data into compelling single or multi-page web apps

- Foundation: COTS templates and widgets
- Extensibility: custom themes and widgets



# ARCGIS EXPERIENCE BUILDER EDITIONS

- ArcGIS Online and ArcGIS Enterprise
  - URL: [experience.arcgis.com](https://experience.arcgis.com)
  - ArcGIS Enterprise 10.8.1+
- Developer Edition
  - Download from the [Downloads page](#) and install locally
  - Use your ArcGIS Online/Enterprise organization



# CUSTOM WIDGET DEVELOPMENT



# TECHNOLOGIES

- React
- TypeScript
- Jimu (Experience Builder JS library)

# CUSTOM WIDGET DEMO

# CUSTOM THEME DEVELOPMENT



# CUSTOM THEME DEMO

# CODE COLLABORATION

Working with your development team



# WEB EXTENSION REPO

- Folder
- Within the `client/` folder
- Contains a `manifest.json/` file with the contents:

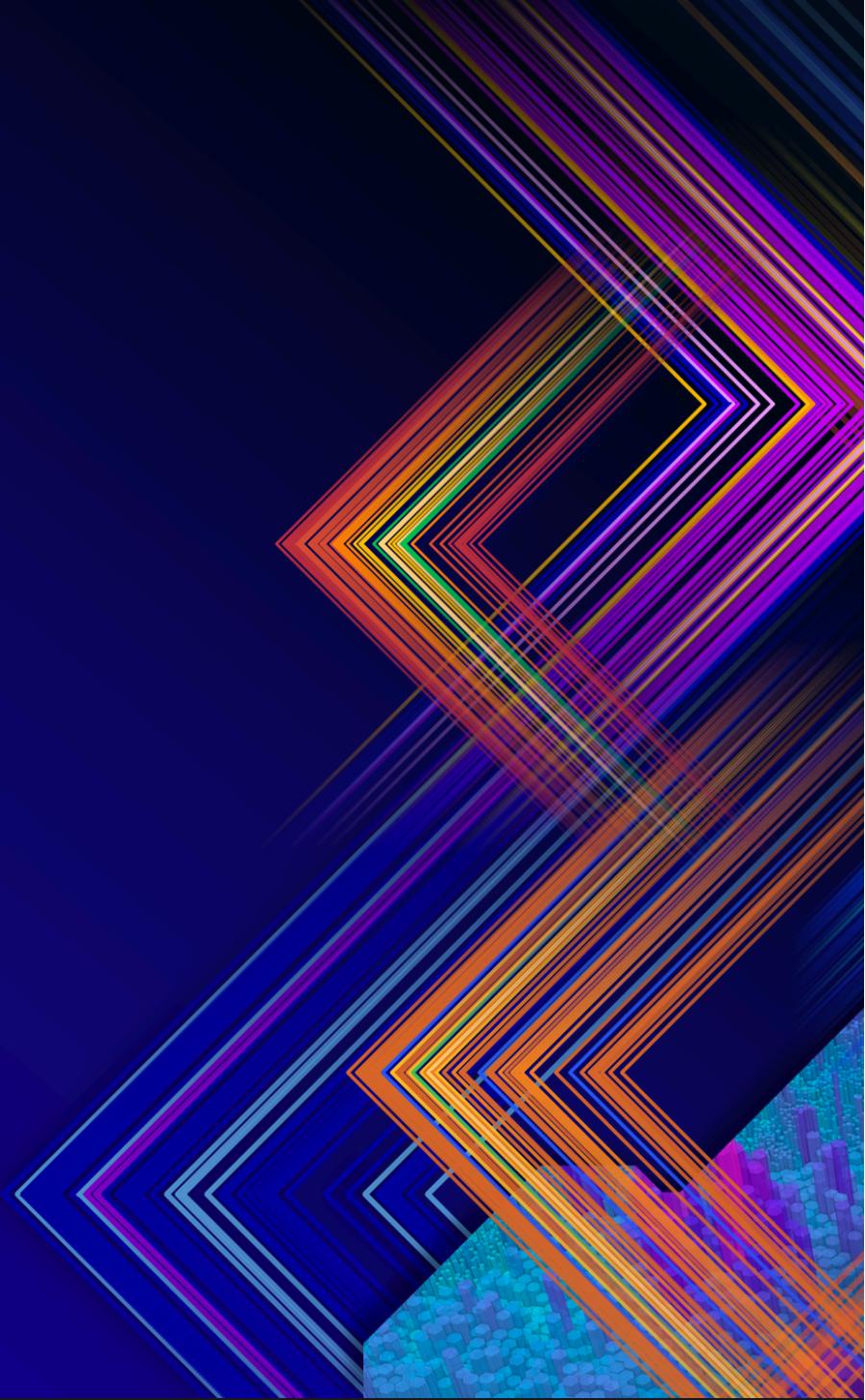
```
{  
  "name": "my-web-extension-repo",  
  "type": "exb-web-extension-repo",  
  "description": "This is a sample extension repository.",  
  "copyright": "",  
  "license": ""  
}
```

# WEB EXTENSION REPO

- my-web-extension-repo/
  - manifest.json
  - themes/
  - widgets/
    - my-custom-widget-1/
    - my-custom-widget-2/

More info about developing as a team:  
[developers.arcgis.com/experience-builder/guide/frequently-asked-questions](https://developers.arcgis.com/experience-builder/guide/frequently-asked-questions)

# DEPLOYMENT



# TWO PATTERNS

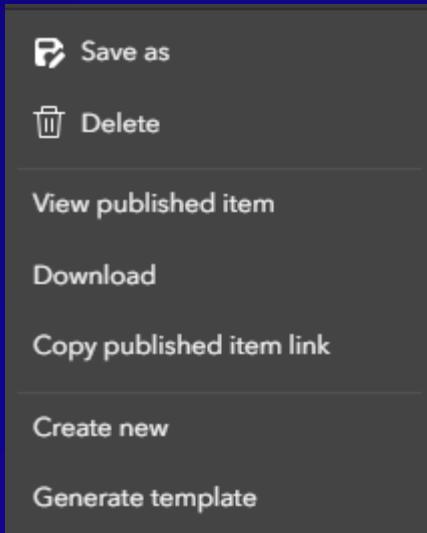
1. ArcGIS Enterprise
2. Developer Edition > host on a web server

# ARCGIS ENTERPRISE

1. Deploy custom widgets to Experience Builder within ArcGIS Enterprise
2. Users within ArcGIS Enterprise can build Experiences with those custom widgets
3. Requires ArcGIS Enterprise 11.0+
  - Documentation: [Add custom widgets](#)
  - Detailed instructions (blog post): [Add Experience Builder Custom Widgets In ArcGIS Enterprise](#)

# DEVELOPER EDITION

1. Build the Experience with your custom widgets
2. Download as ZIP (image below) and unzip files
3. If there is any private content, add clientId/ to  
cdn/\*\* app-string \*\*/config.json/
4. Host the files on a web server



# DEPLOYMENT AUTOMATION

DevOps

# WHY AUTOMATION?

- Faster builds
- Consistent builds
- Test integration
- Branch deployments

# HOW TO AUTOMATE

- Store the reference version of each app
- Auto-build using your CI/CD env of choice (examples below):
  - GitHub Actions\*
  - Azure DevOps
  - AWS CodePipeline
  - GitLab Actions
  - Jenkins

# AUTO-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
- Quickly/easily share app both within & outside of team/organization

# FOLDER STRUCTURE

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

# AUTO-BUILD (GITHUB ACTIONS)

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

# SESSION RESOURCES

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Code

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[Code from this session](#)

Documentation

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[ArcGIS Experience Builder documentation](#)

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Esri  
Community

[ArcGIS Experience Builder questions](#)

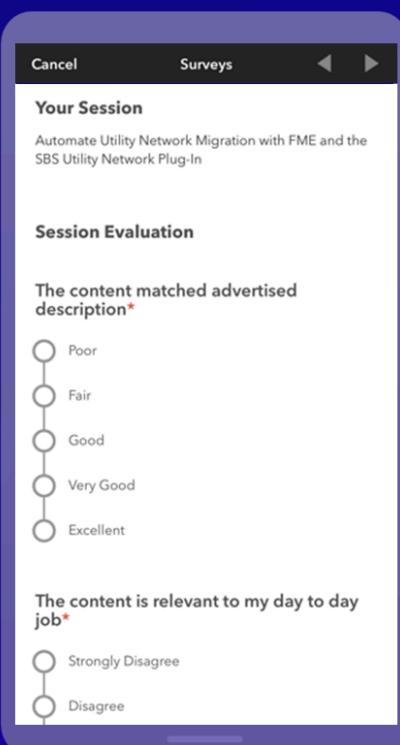
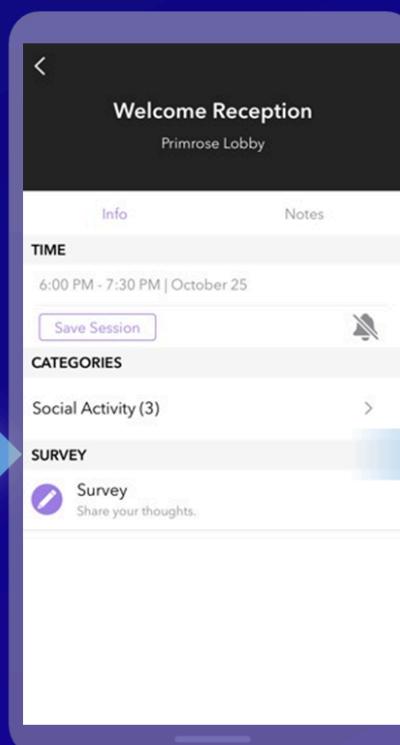
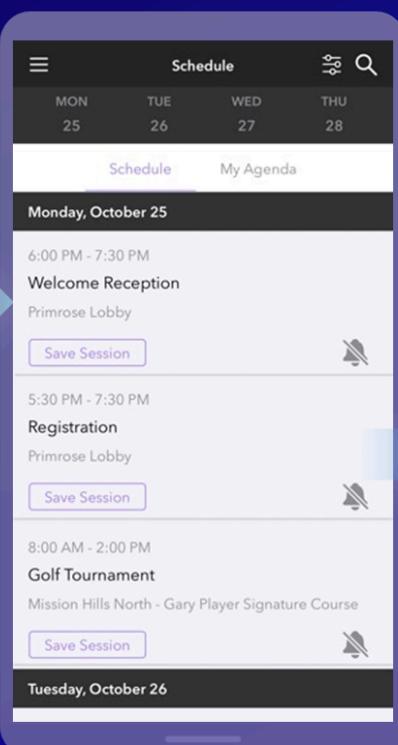
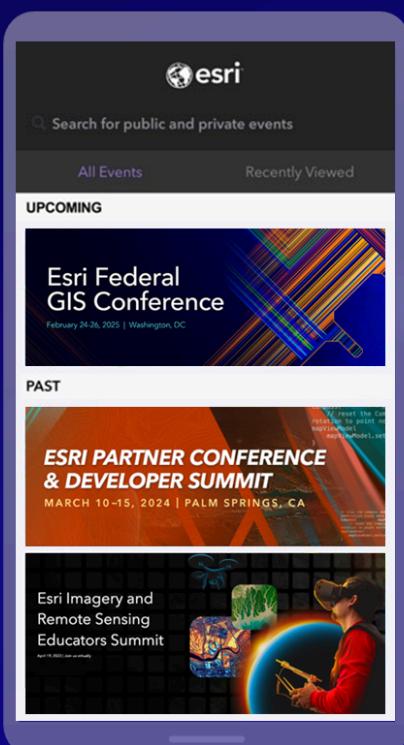
# Please share your feedback in the app

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Select the session you attended

Scroll down to "Survey"

Log in to access the survey





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