



Versioning Variations: An In-depth Look at Using ArcGIS Pro SDK with Geodatabase Versioning

Aashis Lamsal

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DEVELOPER SUMMIT

Agenda

- Creating versions
- Changing versions
- Posting and Reconciling versions
- Partial posting workflow (available with ArcGIS Enterprise 10.9)
- Deleting versions

Demo Pane

Versioning Variations Demo 2021

Enter the version name:

Create

List available version(s) ...

DemoVersion1	Select	Delete
DemoVersion2	Selected	Delete
DemoVersion3	Select	Delete

Select feature(s) for partial posting

Add Selected

Deleted features

Show

Reconcile

Post

Reset to Default Version



Creating and Changing versions

Versionmanager.Create

Active.Map.ChangeVersion

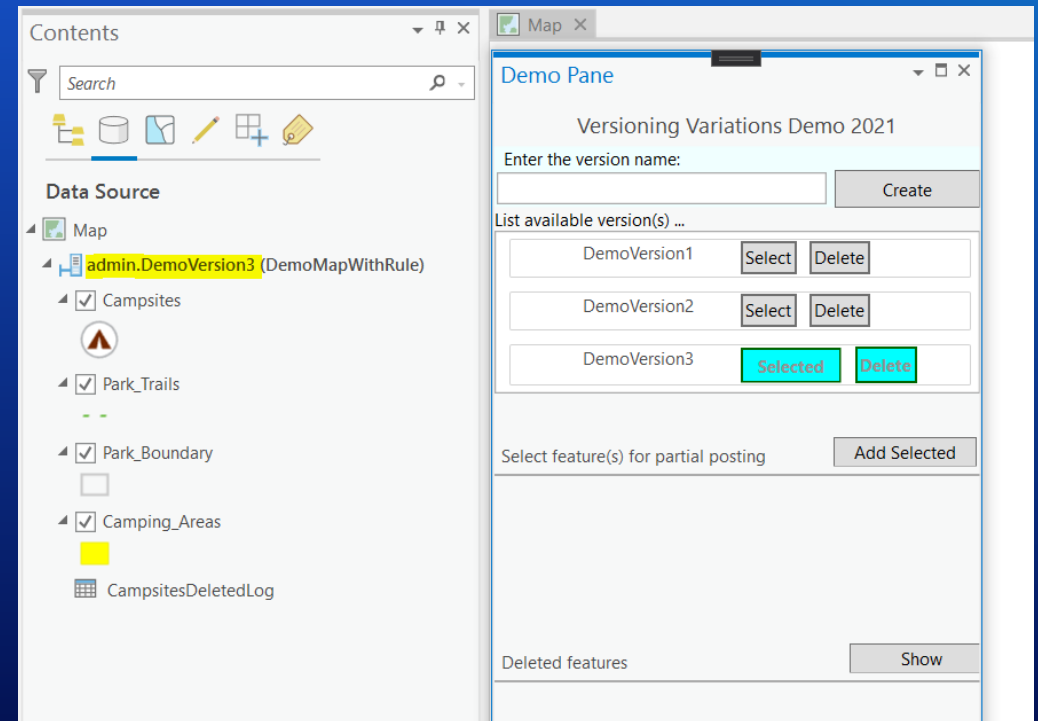
Creating versions

- Data preparation for versioning
- Creating a version

```
VersionDescription newVersionDescription = new VersionDescription(versionName,  
                                                                    description: $"{versionName} description",  
                                                                    VersionAccessType.Public);  
  
using (Version newVersion = versionManager.CreateVersion(newVersionDescription, defaultVersion))  
{  
    newVersionName = newVersion.GetName();  
}
```

Switching between versions

```
MapView.Active.Map.ChangeVersion(fromVersion, toVersion);
```





Posting and Reconciling

Version.Reconcile

Posting and Reconciling

- Create a ReconcileDescription object for reconcile and post

```
// Create a Post ReconcileDescription
ReconcileDescription reconcileDescription = new ReconcileDescription(parentVersion)
{
    ConflictResolutionMethod = ConflictResolutionMethod.Continue, // continue if conflicts are found
    ConflictDetectionType = ConflictDetectionType.ByRow,
    ConflictResolutionType = ConflictResolutionType.FavorEditVersion,
    WithPost = true
};
```

- Create a ReconcileDescription object for reconcile

```
//ReconcileDescription and without post
ReconcileDescription reconcileDescription = new ReconcileDescription(parentVersion)
{
    ConflictResolutionMethod = ConflictResolutionMethod.Continue, // continue if conflicts are found
    WithPost = false
};
```

Partial Posting

- Advanced workflow of Posting
- Features selection
- ArcGIS Enterprise 10.9
- Not Supported
 - Utility Networks
 - Parcel Fabrics
 - Topology

```
return {  
  "result": 1,  
  "edit": [  
    {  
      "className": "UCDemo2021WithAttributeRule.SDE.CampsitesDeletedLog",  
      "adds": [{"attributes": {"DeletedCampsiteObjectId": $feature.objectid} }]}  
  ]  
}
```

```
// Create a Post ReconcileDescription  
ReconcileDescription reconcileDescription = new ReconcileDescription(parentVersion)  
{  
  ConflictResolutionMethod = ConflictResolutionMethod.Continue, // continue if conflicts are found  
  ConflictDetectionType = ConflictDetectionType.ByRow,  
  ConflictResolutionType = ConflictResolutionType.FavorEditVersion,  
  WithPost = true  
};
```

```
reconcileDescription.PartialPostSelections = selectionsForPartialPosting;
```


An abstract graphic on the left side of the slide, featuring a dark blue background with vibrant, flowing lines in red, yellow, and light blue. There are also some hexagonal patterns and a small, stylized figure that looks like a person with a backpack. The overall style is modern and artistic.

Deleting versions

Version.Delete

Deleting versions

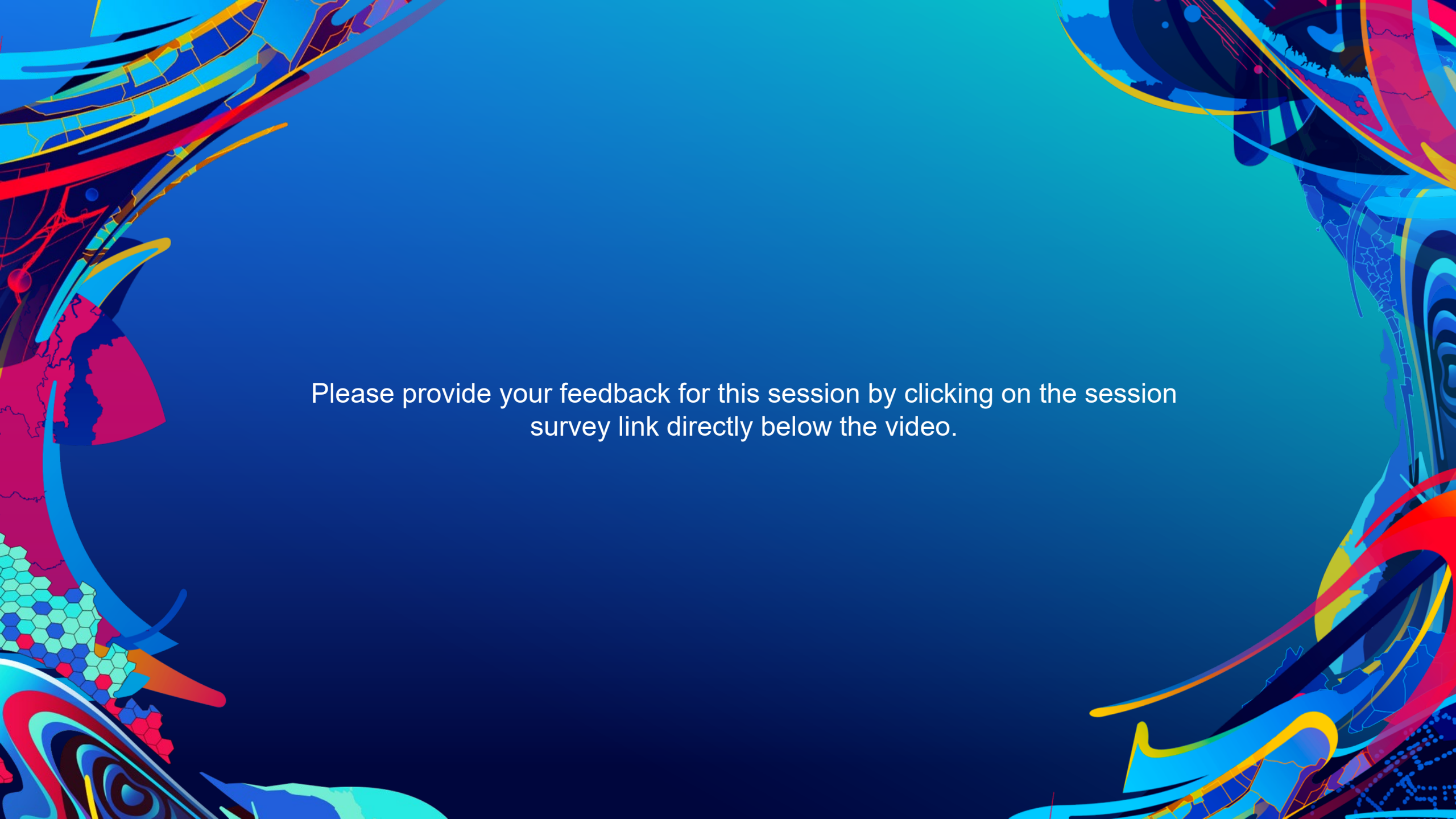
- Cannot delete the default version
- Cannot delete a version that is currently in use

```
using (Version toDeleteVersion = versionManager?.GetVersions().FirstOrDefault(predicate: version => version.GetName())
{
    if (currentVersion != toDeleteVersion)
    {
        toDeleteVersion?.Delete();
        deleteStatus = true;
    }
}
```



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