

# 2013 Esri Europe, Middle East, and Africa User Conference

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## ArcObjects Migration 10.2

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# Visual Studio

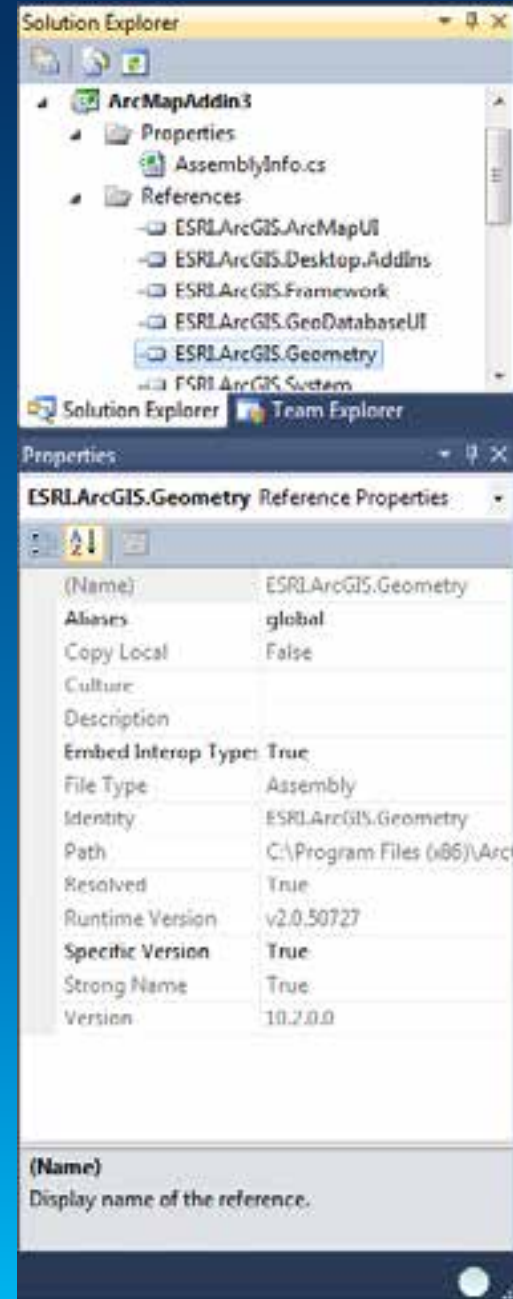
- Alle Versionen von Visual Studio 2010 und 2012 werden unterstützt.
  - Projekte älterer Visual Studio Versionen müssen migriert werden

# .NET 4.0 und 4.5

- 10.2 unterstützt .NET 4.0 und 4.5, aber...
  - Deployment (besonders bei Add-Ins)
  - Debugging (...exe.config)
- Wenn möglich, .NET 3.5 SP1 verwenden
- Side-by-Side Verwendung von 3.5 und 4.x Assemblies innerhalb eines Prozesses ist unterstützt.

# PIA Referenzen bei .NET 4

- Neue Methode: Embed Interop Types
  - Standardmäßig „True“
  - Verwende „Add ArcGIS Reference....“



# Geänderte Signaturen

- *OnContextMenu* an .NET 4 Anforderungen angepaßt:
  - *IDocumentEvents*
  - *IGxDocumentEvents*
  - *IGMxDocumentEvents*
  - *ISxDocumentEvents*

# Migration

- To ensure that existing extensions run optimally with newer versions of ArcGIS, Esri recommends that you rebuild existing projects using the ArcObjects SDK associated with the version of ArcGIS you are targeting.

# Add-Ins Versioning Polyci

- ArcGIS 10.2 can consume 10.1 and 10.0 Add-Ins
- ArcGIS 10.1 can consume 10.0 Add-Ins
- ArcGIS 10.0 can only consume 10.0 Add-Ins

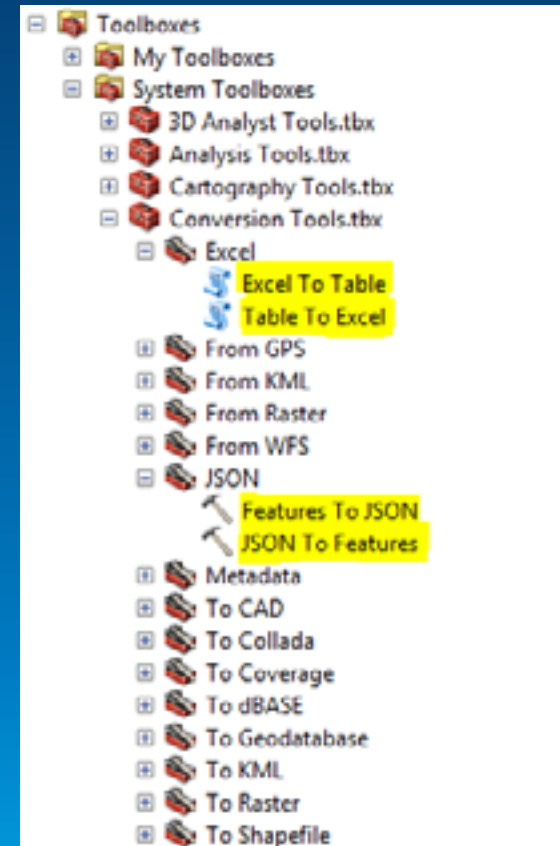
# Geoprocessing

Migration 10.2



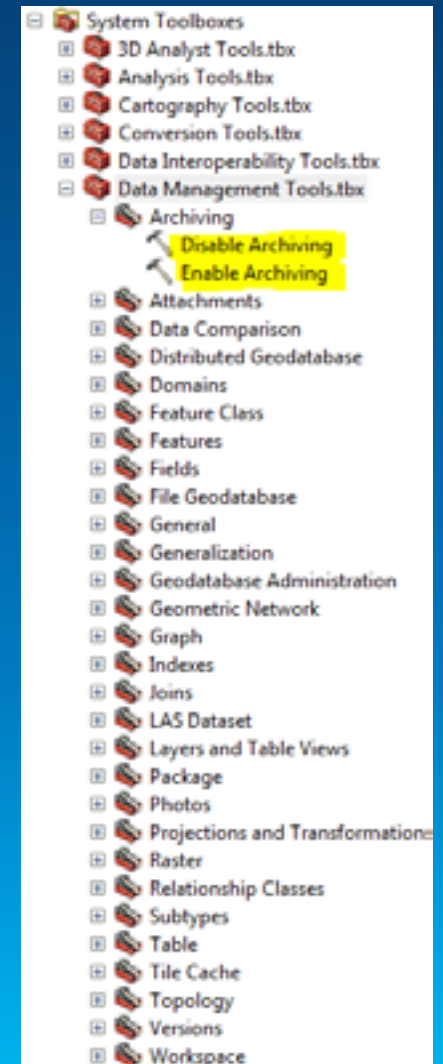
# Conversion Tools

- Von und nach Excel (Tabelle)
- Von und nach JSON (Featureclass)



# Archivierung

- Versionierte und nicht versionierte Tabellen



# Python/ArcPy

## Migration 10.2

# Neue Funktionen

- CreateGeocodeSDDraft
- CreateSQLiteDatabase

# Services und ihre GIS-Ressourcen

Service-Typ	Erforderliche GIS-Ressource
Karten-Service	Kartendokumentdatei (.mxd)
Geokodierungs-Service	Adressen-Locator (.loc, .mxs, SDE-Batch-Locator)
Geodaten-Service	Datenbankverbindungsdatei (.SDE) oder Geodatabase-Datei
Geoverarbeitungs-Service	Geoverarbeitungsergebnis aus dem Fenster <i>Ergebnisse</i> in ArcGIS for Desktop
Globe-Service	Globe-Dokument (.3dd)
Image-Service	Raster-Dataset oder Mosaik-Dataset oder Layer-Datei, die auf ein Raster-Dataset oder Mosaik-Dataset verweist
Such-Service	Ordner und Geodatabases mit dem GIS-Inhalt, den Sie durchsuchen möchten
Workflow Manager-Service	ArcGIS Workflow Manager-Repository

# Skript - Beispiel

```
test.py - C:\data\jm\test.py
File Edit Format Run Options Windows Help

# -*- coding: cp1252 -*-
import arcpy
import pprint

#Overwrite any existing outputs
arcpy.env.overwriteOutput = True

locator_path = "C:\\data\\jm\\Test.gdb\\testbayernloc"
sddraft_file = "C:\\data\\jm\\testbayernloc.sddraft"
sd_file = "C:\\data\\jm\\testbayernloc.sd"
service_name = "testbayernloc"
summary = "testbayernloc locator für Adressen in Moosach"
tags = "address, locator, geocode"
gis_server_connection_file = "GIS Servers\\localhost_6080_for_publisher"

#Create the sd draft file
print "create service draft..."
analyze_messages = arcpy.CreateGeocodeSDDraft(locator_path, sddraft_file, service_name,
                                               connection_file_path=gis_server_connection_file,
                                               summary=summary, tags=tags, max_result_size=20,
                                               max_batch_size=500, suggested_batch_size=150)

#stage and upload the service if the sddraft analysis did not contain errors
if analyze_messages['errors'] == {}:
    try:
        # Execute StageService to convert sddraft file to a service definition (sd) file
        print "create service definition..."
        arcpy.server.StageService(sddraft_file, sd_file)
        # Execute UploadServiceDefinition to publish the service definition file as a service
        print "create service..."
        arcpy.server.UploadServiceDefinition(sd_file, gis_server_connection_file)
        print "The geocode service was successfully published"
    except arcpy.ExecuteError as ex:
        print "An error occurred"
        print arcpy.GetMessages(2)
else:
    # if the sddraft analysis contained errors, display them
    print "Error were returned when creating service definition draft"
    pprint.pprint(analyze_messages['errors'], indent=2)
```

# SQLite

- Embedded SQL-Database (in-process library in C)
  - Self Contained
    - minimal support from external libraries or from the operating system
  - Serverless
    - With SQLite, the process that wants to access the database reads and writes directly from the database files on disk. There is no intermediary server process.
  - Zero-Configuration
    - There is no server process that needs to be started, stopped, or configured. SQLite uses no configuration files.
  - Transactional
    - All changes within a single transaction in SQLite either occur completely or not at all

# SQLite

- Is free or use for any purpose, commercial or private
- The database file format is cross-platform
- SQLite is a compact library (< 350 KiB)
  
- You control access to an SQLite database by controlling permissions on the folder where the SQLite database is stored
- SQLite can be read by multiple users, but you should not make any updates to the database while another user is making updates



# SQLite und Python

- Python Modul sqlite3

```
(bottom)
1 import sqlite3
2 import sys
3
4 def CreateOrConnect(path):
5     try:
6         connection = sqlite3.connect(path)
7         return connection
8     except:
9         print "ERROR: you do not have the rights to create or read this database"
10        return None
11
12 if __name__ == '__main__':
13     print ("Python Version {}".format(sys.version))
14     database = r"C:\data\projects\PRJ_Product_Management\ArcGIS Desktop\SQLite\firma.db"
15     print "connect to database..."
16     connection = CreateOrConnect(database)
17     if (connection == None):
18         print "exit with error"
19         sys.exit()
20
```

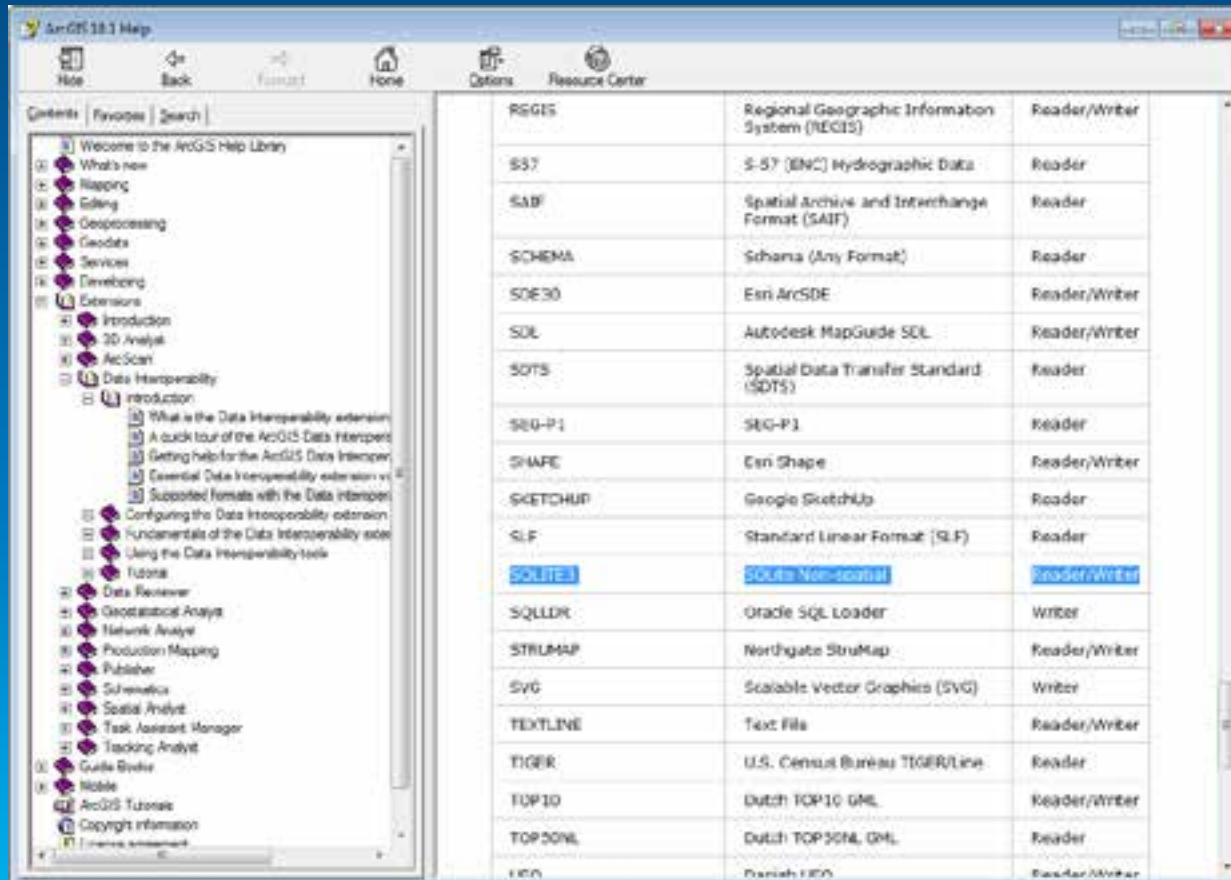
# SQLite und .NET

- C# - Wrapper „ System.Data.SQLite“



# SQLite und ArcGIS

- Data Interoperability Extension



# SQLite und ArcGIS 10.2

- Datenbankverbindung zu SQLite

