

Webinar
ArcGIS API for Python



Herzlich Willkommen!



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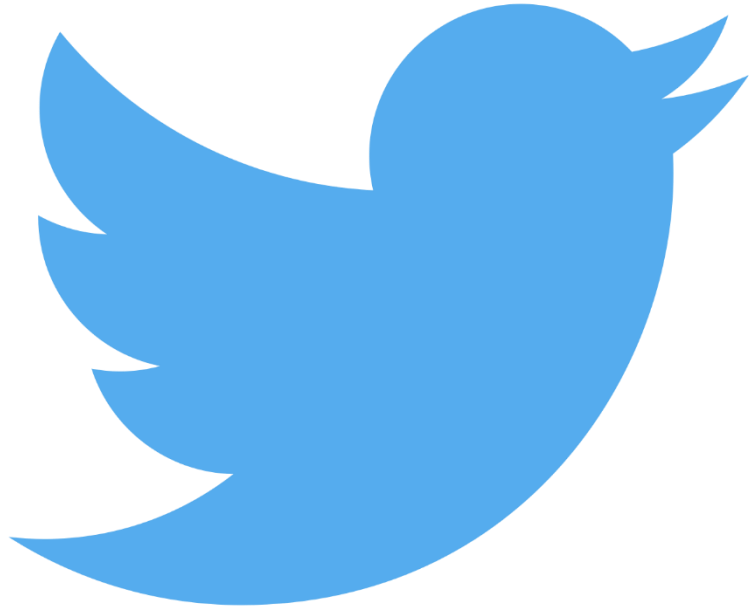


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@GeoDevGermany
#geodev

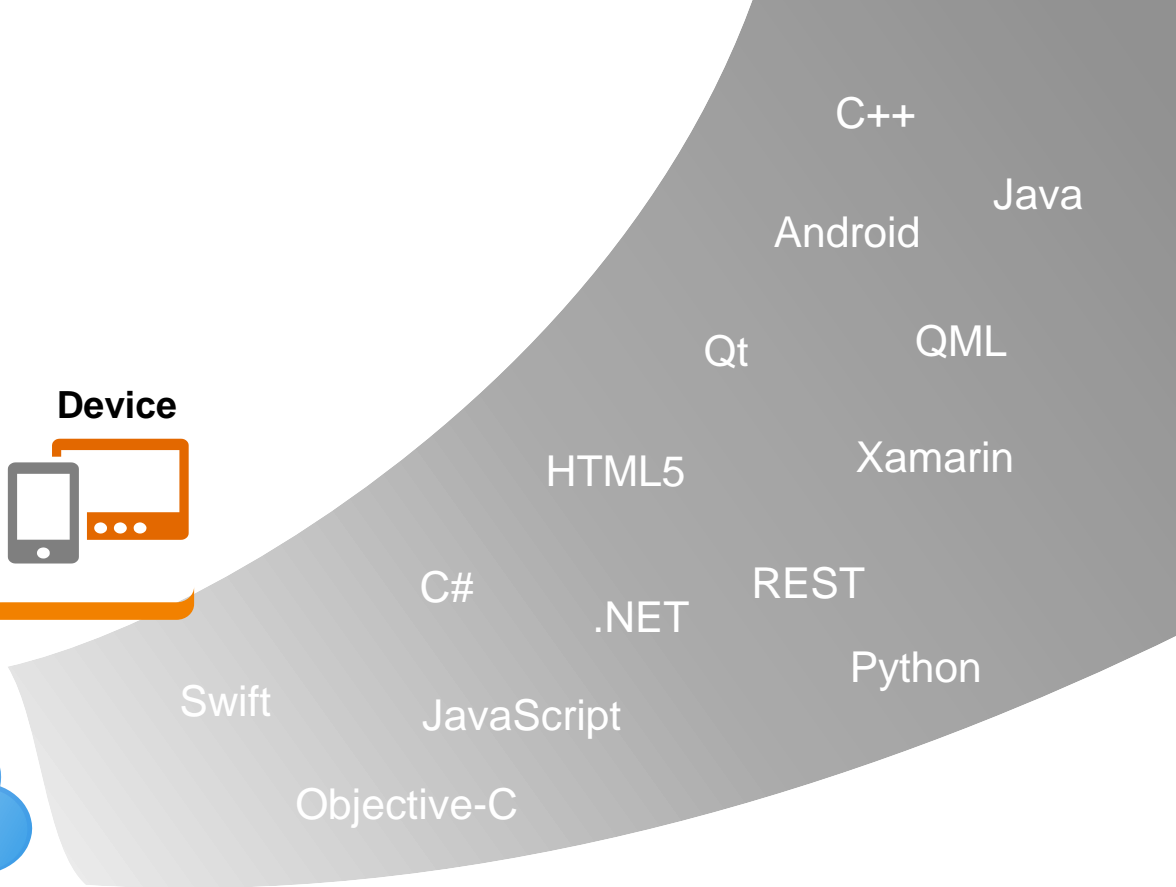
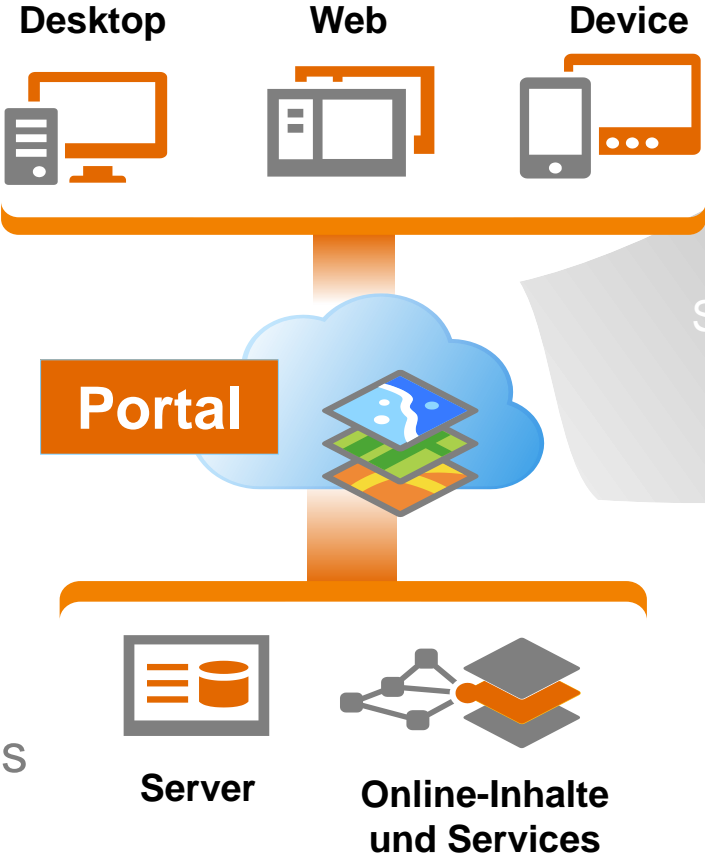


ArcGIS für Entwickler

ArcGIS für Entwickler

Building Apps
Client APIs

Extending ArcGIS
Server and Desktop APIs



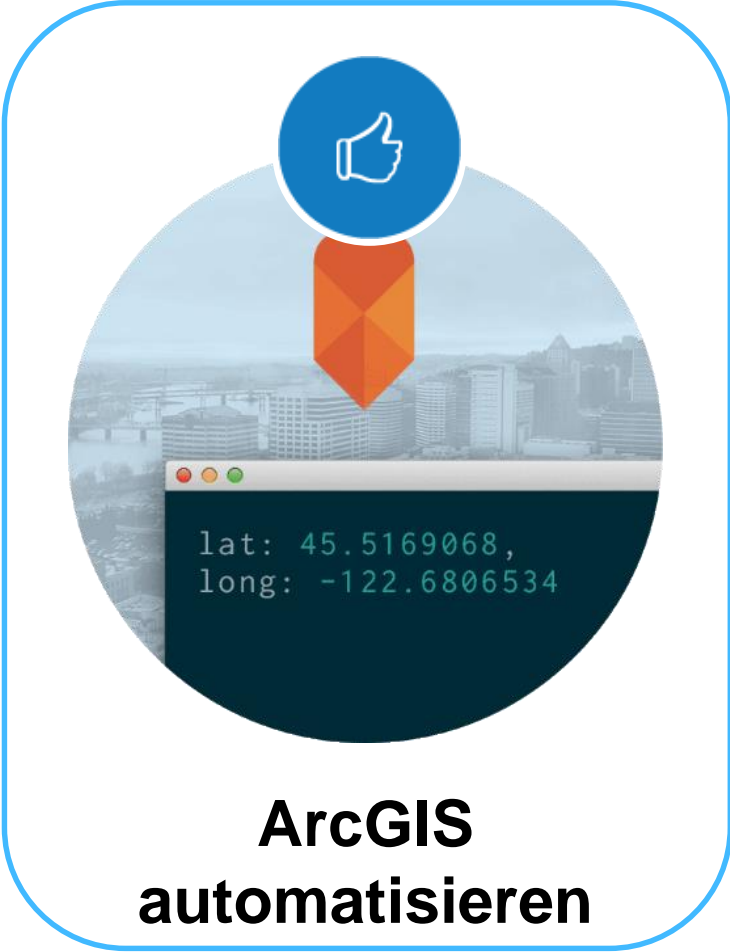
Entwickler können ...



Apps erstellen



ArcGIS erweitern



ArcGIS automatisieren

The background features a dark gray field with a network of thin, light gray lines. Scattered throughout are several hexagonal shapes, some outlined in blue and others in green. Small dots in blue and green are also placed at various points along the lines and near the hexagons, creating a complex, interconnected geometric pattern.

ArcGIS API for Python

Warum noch eine API?

- + Python ist *die* Standard-Skriptsprache für ArcGIS, aber:



- + Es fehlte bisher eine einfache Möglichkeit, über Skripte mit ArcGIS Online oder ArcGIS Enterprise interaktiv und kollaborativ zu arbeiten

Warum noch eine API?

+ Die ArcGIS API for Python

- > Nutzt die vorhandenen Möglichkeiten von PortalPy*
- > Macht daraus ein eigenes Produkt
- > Ergänzt Features zum Teilen und Zusammenarbeiten

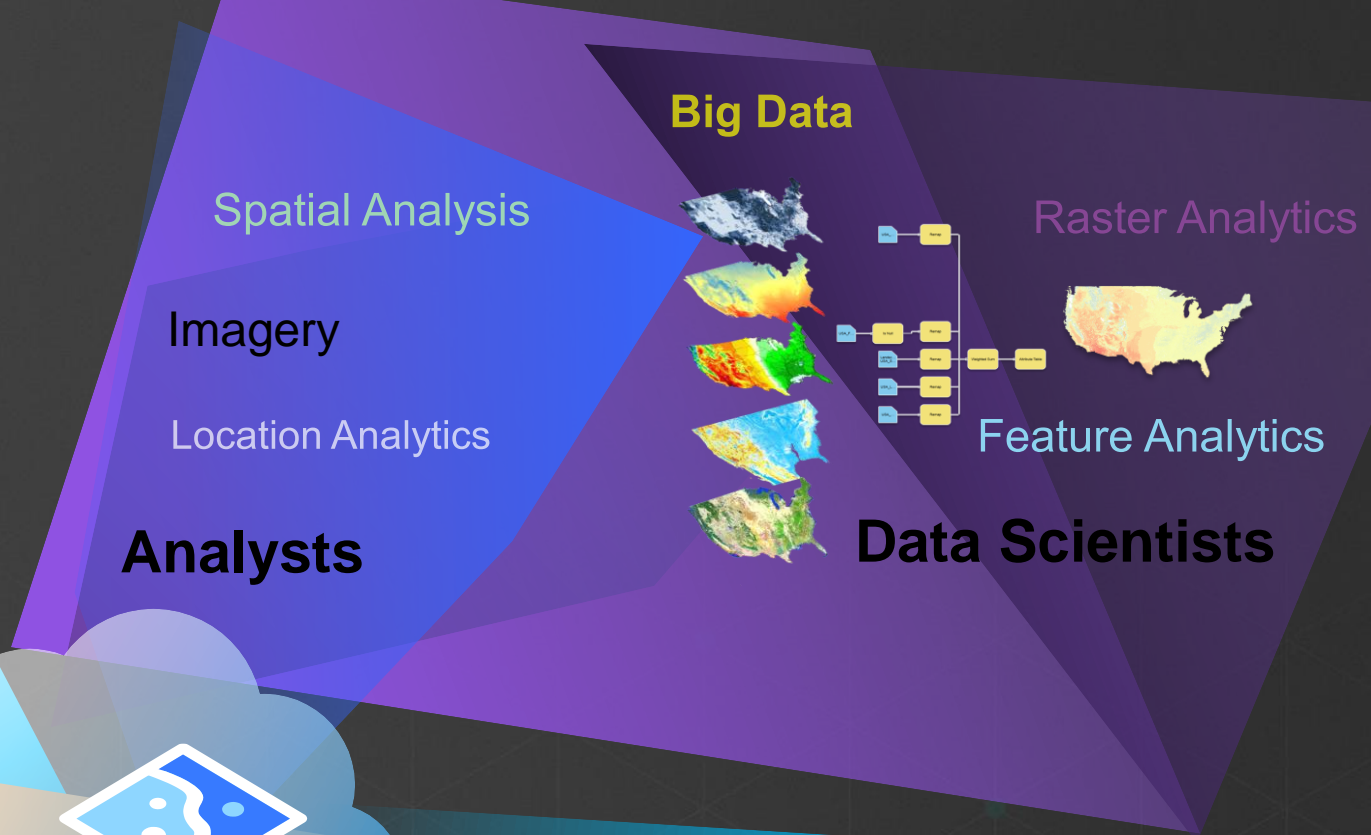
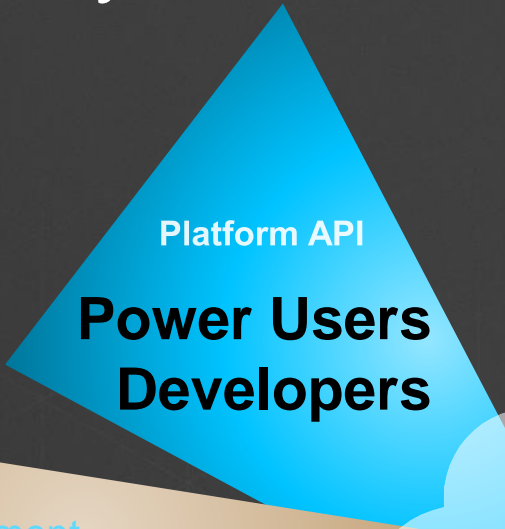
Und wird damit zu einem mächtigen Tool für die einfache, interaktive und kollaborative Arbeit mit ArcGIS Online oder ArcGIS Enterprise!

*PortalPy entfällt bzw. ist durch die Python API obsolet geworden



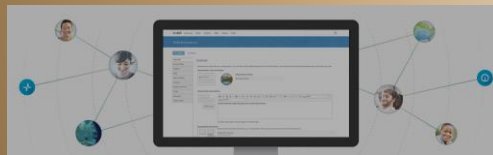
ArcGIS API for Python

What can it do for you?



Enterprise Integration

Users, Roles & Group management

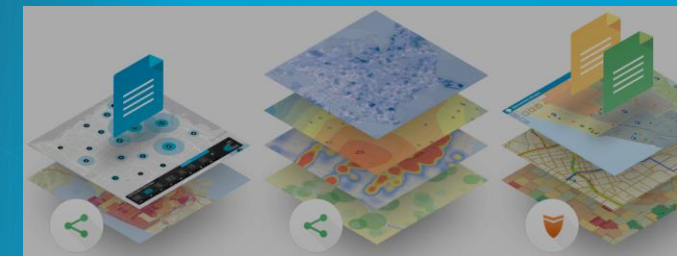


Administrators
DevOps



Your Web GIS

Content Publishers



Data Management

Script and automate your Web GIS



Live Demo

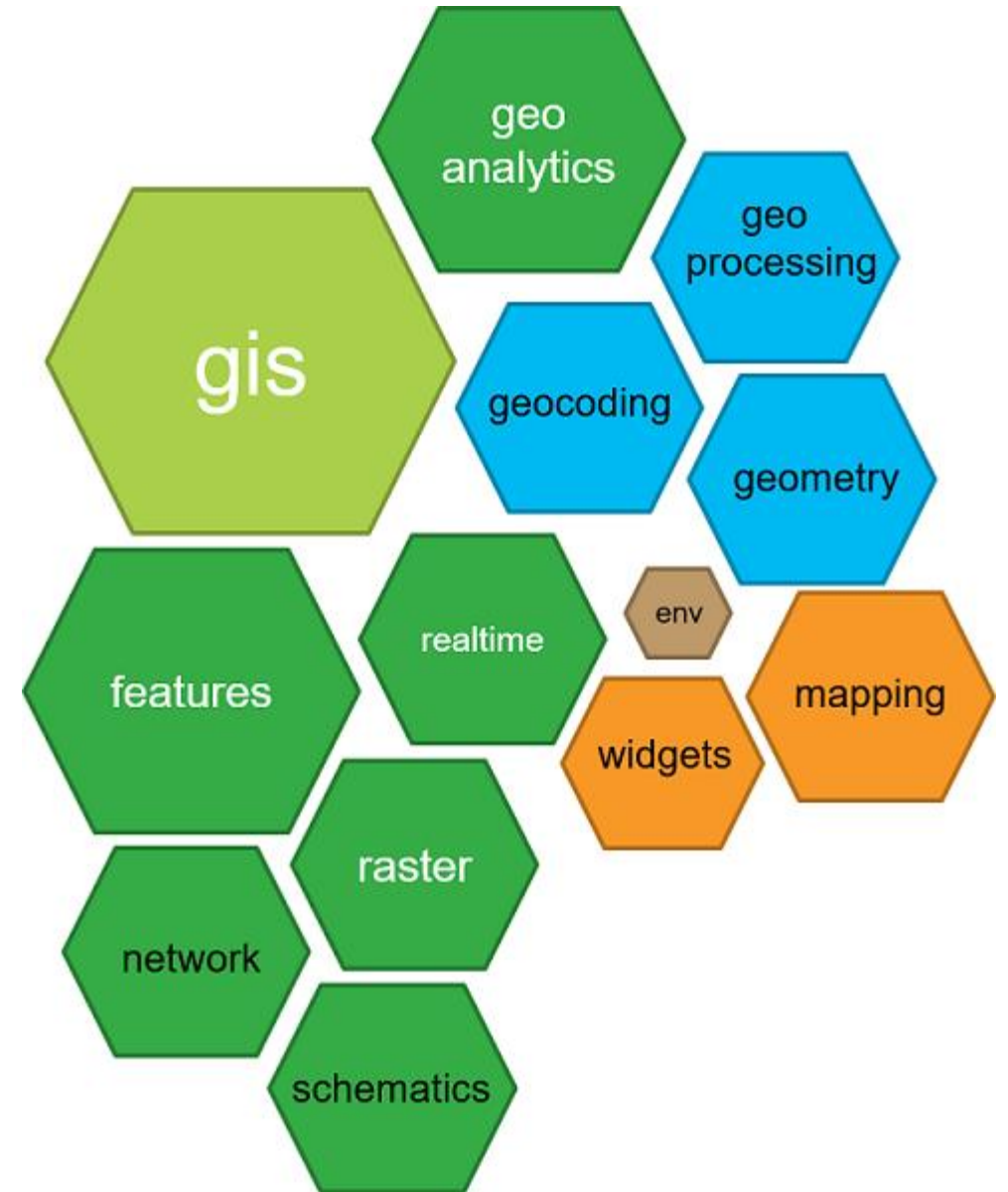
Jupyter Notebook

Technologie

- + Python 3.5 oder neuer
 - > (Ana)Conda – Umgebung
- + Jupyter Notebook
 - > Interaktive, grafische Shell
- + ArcGIS API for JavaScript
 - > Anzeige von „Rich-Content“
- + Unabhängig von ArcPy / ArcObjects

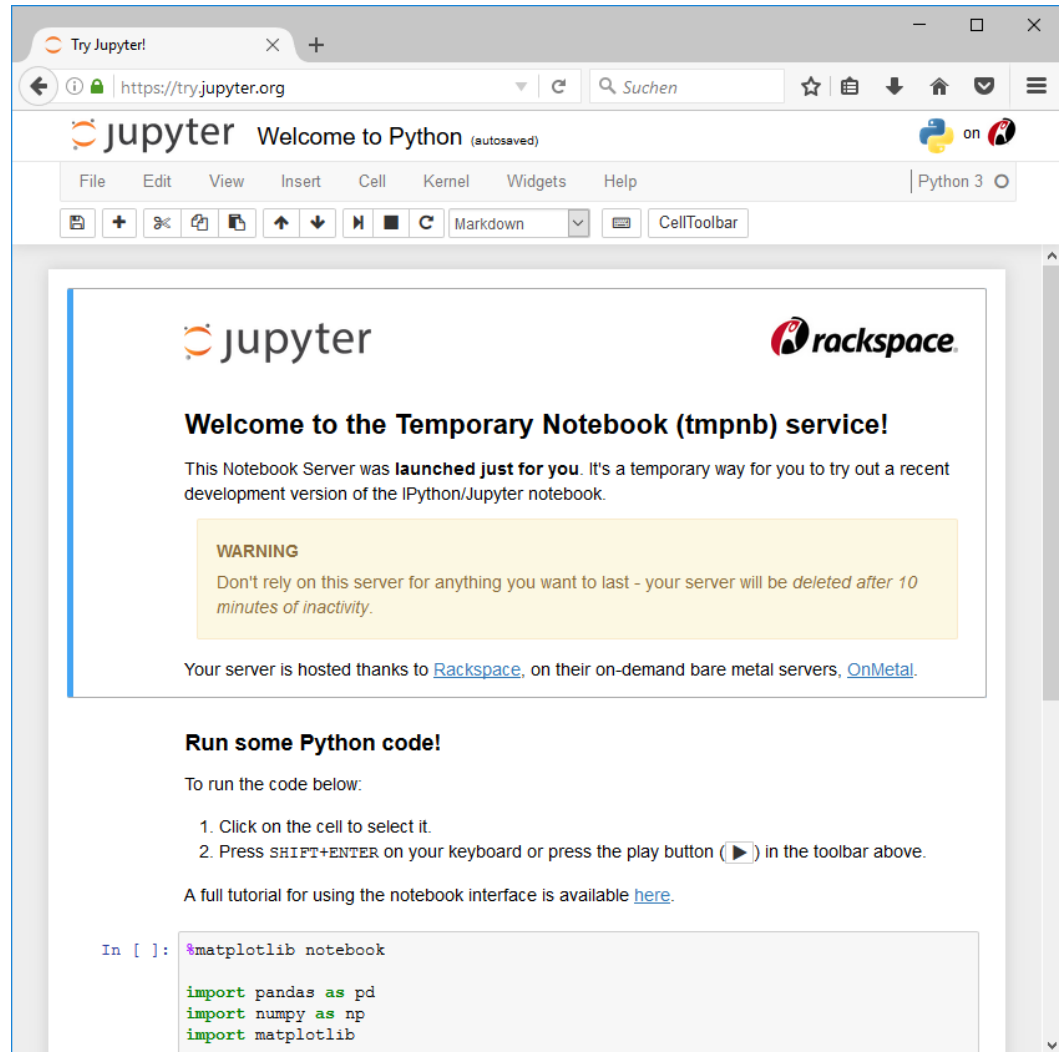
Architektur

- + gis
 - > Zentrales Modul
 - > Verbindung zum Portal
- + Pythonic-API
 - > Modulares Einbinden weiterer Funktion



Jupyter

- + Interaktive, grafische Shell
 - > Texteingabe
 - > Grafische Ausgabe
- + Unabhängig von Skriptsprache
- + Online-Demo



Python / Pythonpakete

+ Was ist Python?

1. Skriptsprache
2. Interpreter (Ausführungsumgebung)

+ Pakete

- > Zusätzliche Funktionalität in Python einbinden
- > Beispiel: NumPy, Pandas, SciPy, PyPdf, Matplotlib, uvm...

+ Pakete können selbst wieder abhängig von anderen Paketen sein

- > Beispiel : Matplotlib benötigt NumPy zur Ausführung

Conda - Paketmanager

- + Conda ist ein Paketmanager
 - > Bereitstellung von Paketen **und deren Abhängigkeiten**
 - > Einfache Installation: Angabe des gewünschten Pakets, Abhängigkeiten werden automatisch aufgelöst
- + Conda selbst ist in Python entwickelt

Abgrenzung arcpy

ArcGIS API for Python und ArcPy sind voneinander unabhängige Technologien

+ ArcPy

- > Automatisierung von Desktop-GIS
- > Basiert auf ArcObjects

+ ArcGIS API for Python

- > Automatisierung eines Web-GIS
- > Basiert auf REST-API des Web-GIS
- > Zugang zur Funktionalität des Web-GIS über Skriptsprache



Demos

Demos

- + Power Users / Developers
 - > Using Geoprocessing tools
- + Org Administrators
 - > Batch creation of Groups
- + GIS Analysts and Data Scientists
 - > Analyze New York City taxi data
- + Content Publishers
 - > Publishing SDs, Shapefiles and CSVs

Weiterführende Anwendungsszenarien

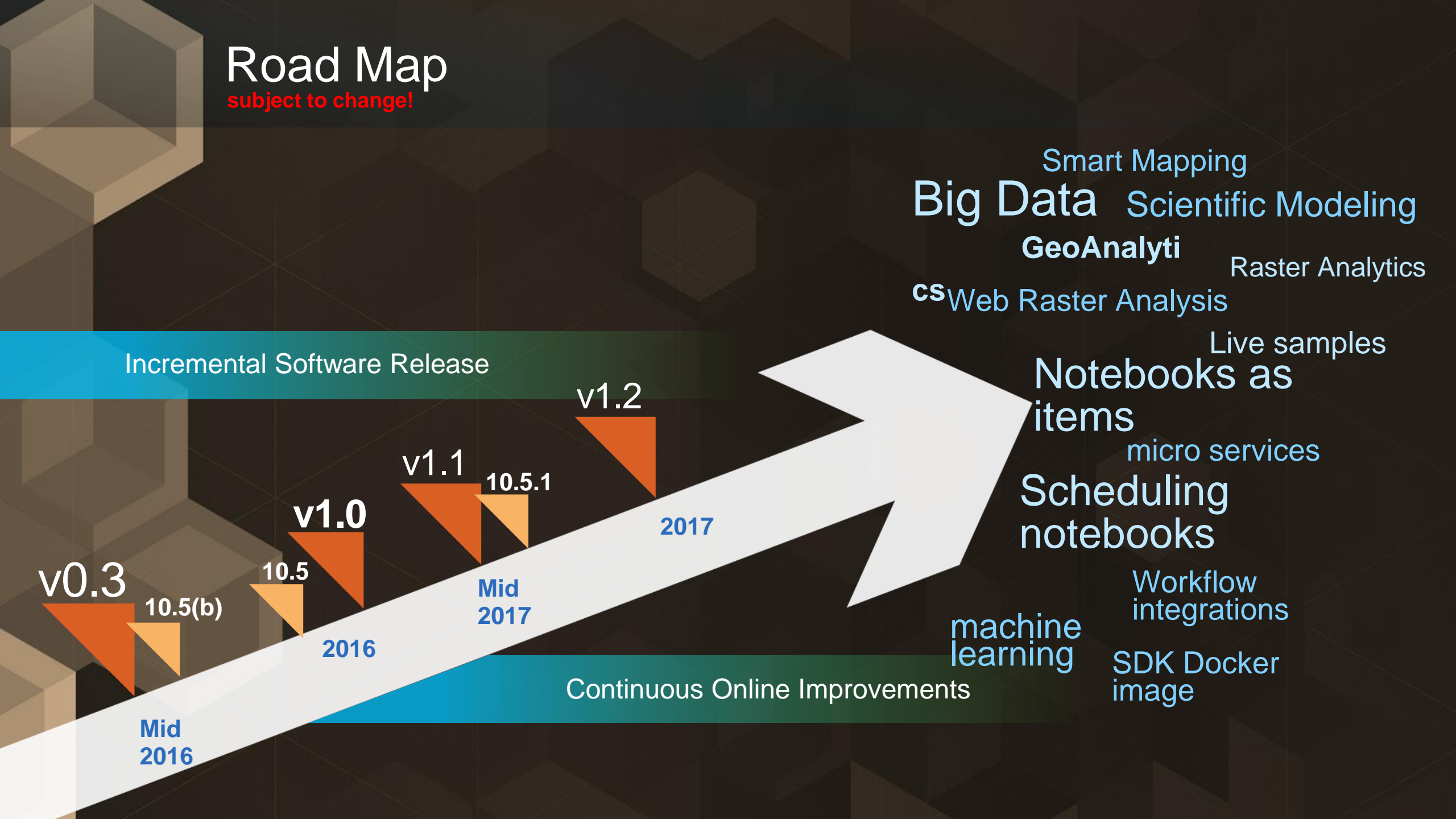
- + zentrale Bereitstellung der Python-Dienste
 - > JupyterHub
- + wiederholte, automatisierte Ausführung von Skripten
 - > Z.B. Einbindung in Windows-Taskmanager
 - > Leichtgewichtige Installation über Anaconda
 - > Offline-Installation möglich

The background features a dark gray field with a network of thin, light gray lines. Scattered throughout are several hexagonal shapes and small dots. Some hexagons are outlined in blue, while others are in light green. The dots are also colored in blue and light green, appearing to be connected by the network lines. The overall aesthetic is clean, modern, and technical.

Ausblick

Road Map

subject to change!



Incremental Software Release

Continuous Online Improvements

v0.3

10.5(b)

10.5

v1.0

2016

v1.1

Mid
2017

10.5.1

v1.2

2017

Mid
2016

Smart Mapping
Big Data Scientific Modeling
GeoAnalyti
Raster Analytics
CS Web Raster Analysis

Live samples
Notebooks as
items

micro services
Scheduling
notebooks

Workflow
integrations
machine
learning
SDK Docker
image



Ressourcen für Entwickler

ArcGIS for Developers

developers.arcgis.com

ArcGIS for Developers | [Get Started](#) | [Documentation](#) | [Features](#) | [Pricing](#) | [Support](#)

ArcGIS for Developers

Bring the power of location to your apps with ArcGIS – a complete geospatial platform for developers. Regardless of your developer experience, you can create and manage apps that include mapping, visualization, analysis, and more. Build web, mobile, and desktop apps for any industry and any device.

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[Get Started in 15 minutes](#)

[APIs & SDKs](#) ▾

[ArcGIS DevLabs](#)

[Documentation](#)

Developer Labs

developers.arcgis.com/labs



Learn how to build an app in 15 minutes.

ArcGIS DevLabs guide you through the three phases of building geospatial apps:
Data, Design, Develop

Introduction Data Design Develop

Data

- ▶ Explore ArcGIS Open Data
- ▶ Create or import new datasets
- ▶ Share content or keep it private
- ▶ Prep data for offline use

[View All 5 Data DevLabs](#)



Import data

Load your data into the cloud (xls, gpx, GeoJSON, shapefiles).

[Start Lab \(10 minutes\)](#)



Create a new dataset

Define and populate datasets in the cloud for your apps.

[Start Lab \(10 minutes\)](#)

Online Sign-up

developers.arcgis.com/sign-up

Sign up for the ArcGIS Developer Program

First name

Last name

Email

[Send Confirmation Email](#)

Already have an ArcGIS Online account or are a member of the ArcGIS Developer Program? [Sign in](#) to access developer tools and downloads.

Membership in the ArcGIS Developer Program gives you access to:



Basic online app builders



Web and native client SDKs



Credits for developing and testing your apps



A large developer community to communicate and collaborate



Documentation including a vast library of developer samples




Beta software and the Esri Early Adopter Community (EAC)

Developer Dashboard

developers.arcgis.com/dashboard

ArcGIS for Developers [Dashboard](#) + [Get Started](#) [Documentation](#) [Pricing](#) [Support](#) 🔍 Lars Isc4devprog



Lars Schmitz
Lars Isc4devprog
GeoDev Germany, Admin
ArcGIS Organization Account
2452.3184 credits available


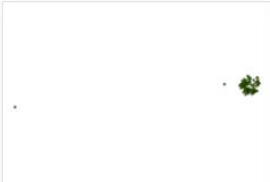
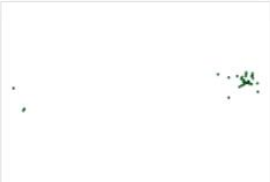

Applications

[View all 12 Applications](#)

- Netze BW
🕒 February 13, 2017
- Startups 2016
🕒 January 23, 2017
- StartupPortfolio2016-Setup-x64.exe.zip (1.0.5)
🕒 October 26, 2016

Layers

[View all 9 Layers](#) [Create New Layer](#)

- 
Startups_2016
🕒 October 25, 2016
- 
Developer Community 2016
🕒 April 25, 2016
Community
- 
Events 2014
🕒 April 25, 2016
Conferences
- 
Startups 2014
🕒 April 25, 2016
Startups

APIs & SDKs

Download APIs and SDKs, such as the ArcGIS API for JavaScript or ArcGIS Runtime SDKs.

[Download APIs and SDKs](#)

Professional GIS Software

Download and license GIS software such as ArcGIS Pro and ArcGIS Enterprise.

[Download On My Esri](#)

ArcGIS Online Organization

- Password and Profile
- Redeem Voucher
- Support
- Feedback
- Switch Accounts
- Sign Out

GeoDev Germany auf GeoNet

geonet.esri.com/groups/geodev-germany

GeoDev Germany Following Actions ⓘ ⚙

Overview Activity Content People Reports Calendar

ANNOUNCEMENT: Webinar: Das neue ArcGIS Runtime (German) Show Details

Welcome!

Welcome to the German geodev community! Follow us for all things geo development and startups. You can leave your comments and questions, too.

HELPFUL LINKS

- GeoDev Germany on Twitter
- GeoDev Germany on Meetup
- Esri Startup Program
- Esri on GitHub
- GIS IQ Blog (D)
- ArcGIS Produkt Blog (D)

GROUP ADMINS

- Alexander Erbe
- Lars Schmitz

FEATURED CONTENT

- Entwickler Webinare (German) - Lars Schmitz 4 days ago
- Meetup 1.2017 - GeoIntelligence - Lars Schmitz 4 days ago
- Webinar ArcGIS Developer Program (Deutsch) - Lars Schmitz 1 day ago
- European Geo Business Seminar - Lars Schmitz 1 day ago

All Content in GeoDev Germany

ARCGIS DEVELOPER EXPERIENCE

ArcGIS Developer Experience

UPCOMING EVENTS

- MAR 28 Webinar: Das neue ArcGIS Runtime (German) Online
- MAR 29 1st BMVI Startup-Pitch Bundesministerium für Verkehr und digitale Infrastruktur
- APR 4 Webinar: Die neue ArcGIS API for JavaScript (Deutsch) Online Webinar
- APR 7 Startup Camp Humboldt Universität zur Berlin
- APR 11 Webinar: ArcGIS API for Python (Deutsch) Online Webinar


#geodev Tweets

#GeoDev


theatre sessions, did you? More to come soon! #DevSummit #geodev arc.is/2nb95GC

GeoDev Meetups

meetup.com/GeoDev-Germany



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Change photo

München, Germany
Founded Feb 13, 2014

Mapping, Location und GIS - von Entwicklern für Entwickler

+ Schedule a new Meetup

Upcoming (2) Past Calendar

Webinar: Das neue ArcGIS Developer Program



ONLINE
ONLINE, München (map) Tue Mar 21
4:00 PM

I'm going

5 days left

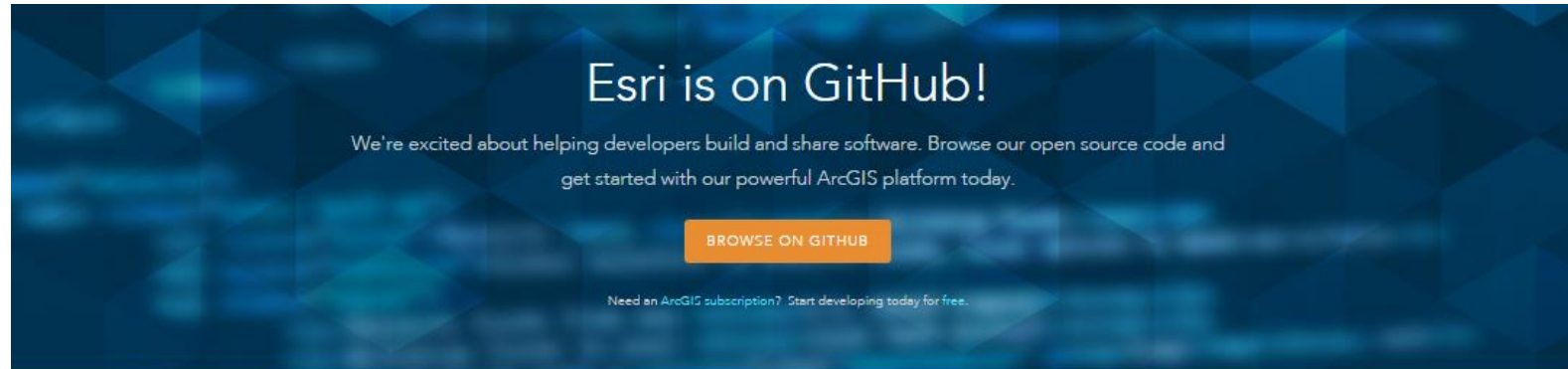
Das neue ArcGIS Developer Program Für

What's new



Esri @ GitHub

esri.github.io



Filter by language or keyword:

Search/Select

esri-leaflet
JavaScript

A lightweight set of tools for working with ArcGIS services with Leaflet.

🔼 274 ★ 339

terraformer
JavaScript

A geometric toolkit for dealing with geometry, geography, formats, and building geo databases

🔼 61 ★ 227

koop
JavaScript

Expose GeoJSON services as Feature Services

🔼 48 ★ 155

gis-tools-for-hadoop
Python

arcgis-viewer-flex
ActionScript

bootstrap-map-js
JavaScript

A light-weight JS/CSS extension for building

Key Take-Aways

- + Viele neue Möglichkeiten, mit ArcGIS Online oder ArcGIS Enterprise zu interagieren
- + Einfache Automatisierung der Administration
- + Pythonic API

- + ArcGIS API for Python ist unabhängig von ArcPy!

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Eure Fragen

Die Unternehmen der Esri Deutschland Group GmbH



Esri Deutschland Group GmbH Kranzberg

Esri Deutschland GmbH Kranzberg

Niederlassung Berlin

Niederlassung Bonn

Niederlassung Hannover

Niederlassung Köln

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Niederlassung Münster



Esri Rwanda Ltd. Kigali



Esri Rwanda Ltd. Kigali



Geocom Informatik AG Burgdorf

Standort Nyon

Standort Zürich

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Standort Berlin

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Esri Schweiz AG Zürich

Niederlassung Nyon



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