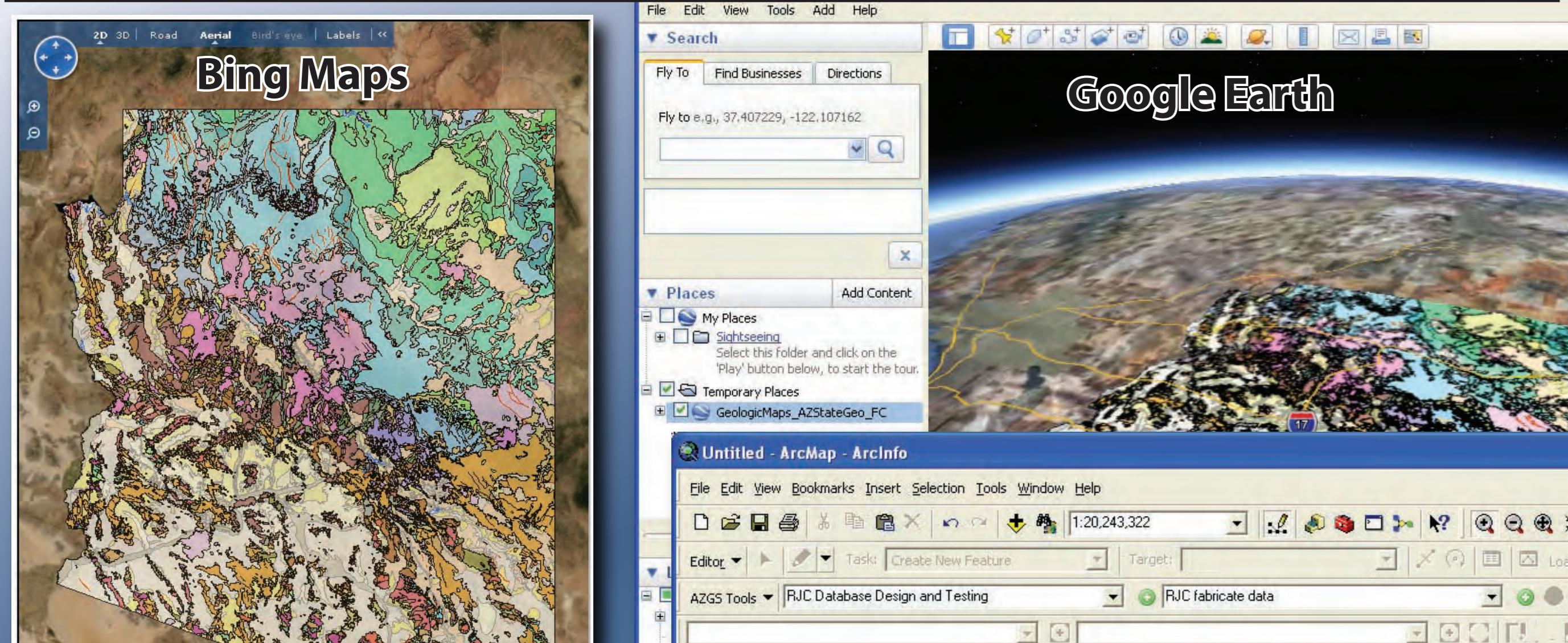


USGIN: INTEROPERABLE GEOSCIENCE DATA SERVICES ON THE WEB - HOW DO WE GET THERE?

by Stephen Richard, Lee Allison, Ryan Clark and Wolfgang Grunberg, Arizona Geological Survey

Advantages Of Online, Interoperable Data Services

Make your data available to a wide variety of applications: Make it easy for developers to create custom applications, or mash-up your data with any other data sources.



Maintain Control of your Data: Instead of distributing databases and shapefiles, you distribute URLs. Clients see the data on your server, so you retain complete control.

Simplify updates and data maintenance: Because clients are looking directly at your datasets, data can be updated and maintained in real-time. Clients no longer need to download the latest version of your data - they always get whatever you make available.

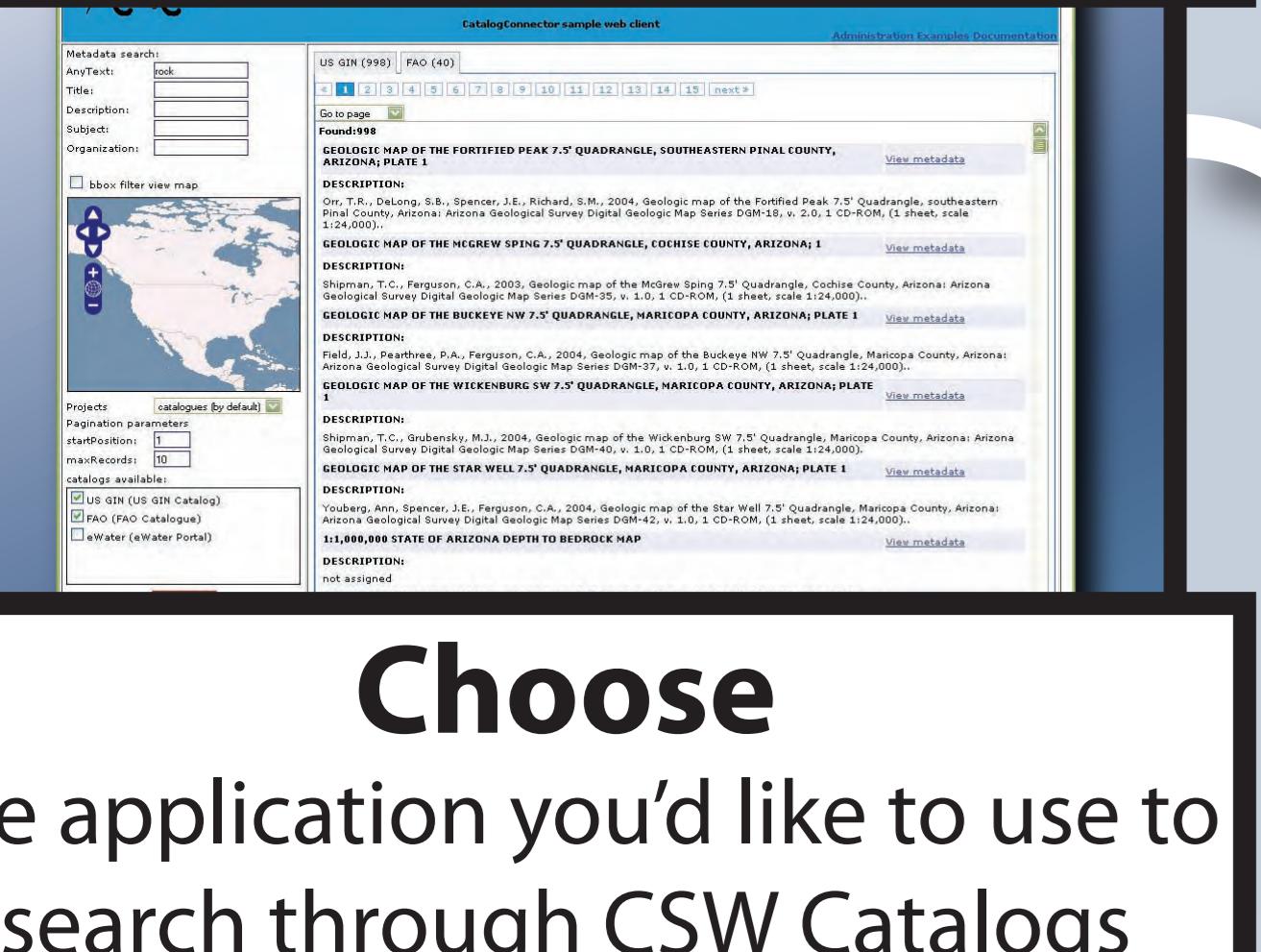
Your data is available online immediately: Your clients don't need to wait for any large files to download. They need nothing more than the URL for your WMS and an application in which to view it. You can control access through standard internet protocols.

Do Better Science: Making data more accessible allows for easier collaboration, less time spent tracking down datasets, and an easier grasp of the current state of research. This in turn allows more time to be spent doing good science.

You are already using web services: Map-based web applications you use on a daily basis such as Google Earth, MapQuest, or Bing Maps already use web services to easily and conveniently convey spatial data to a wide audience.

What Does USGIN Look Like To A Geologist?

Discover
metadata records describing available data

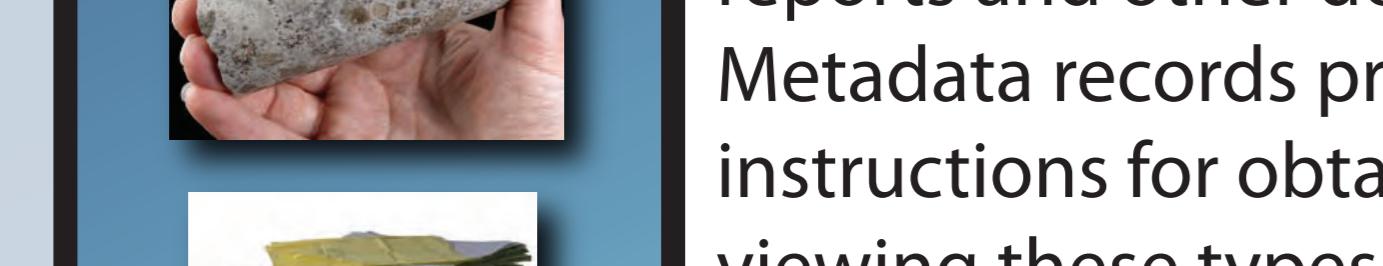
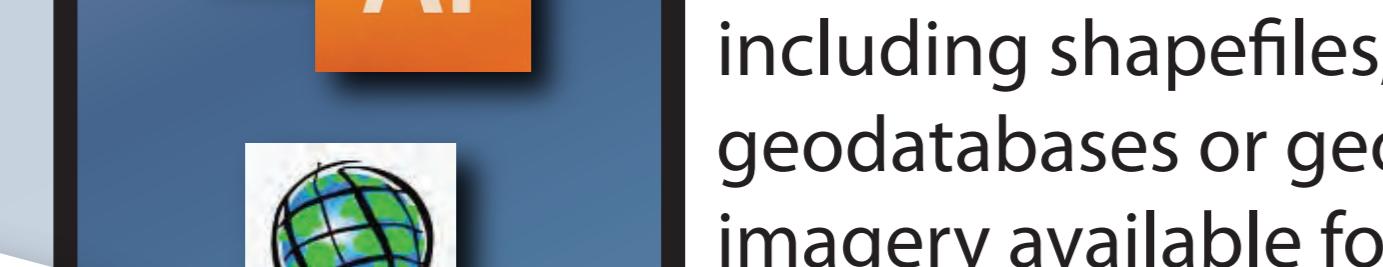
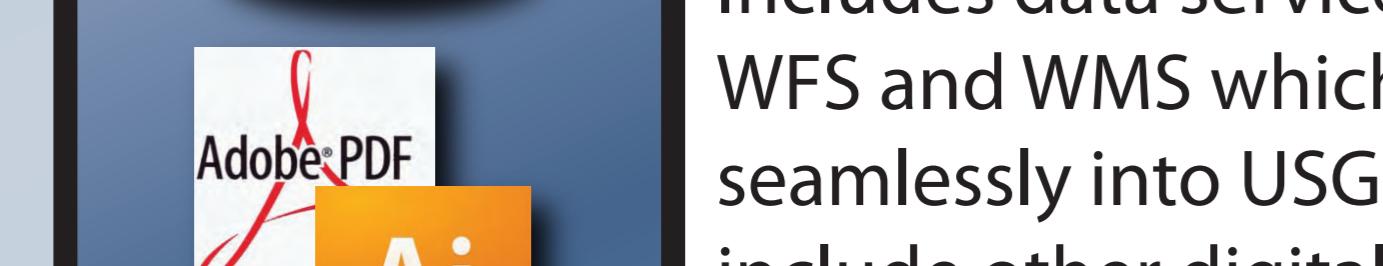


Choose
the application you'd like to use to search through CSW Catalogs

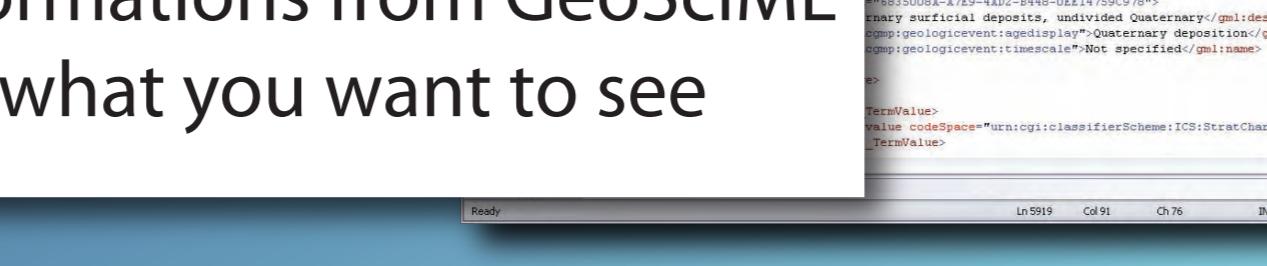
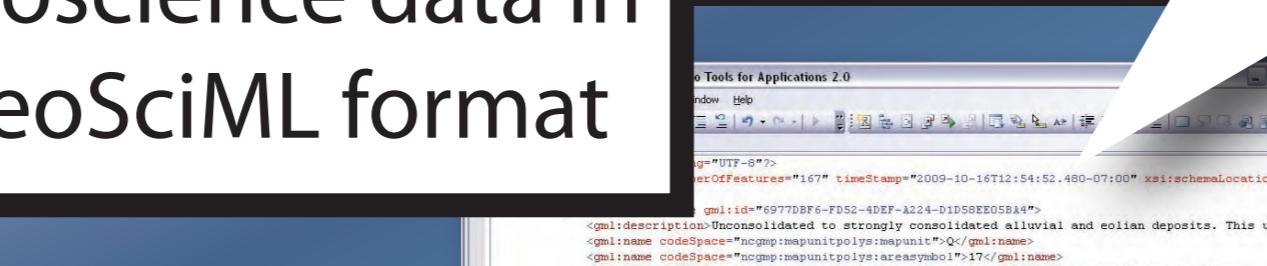
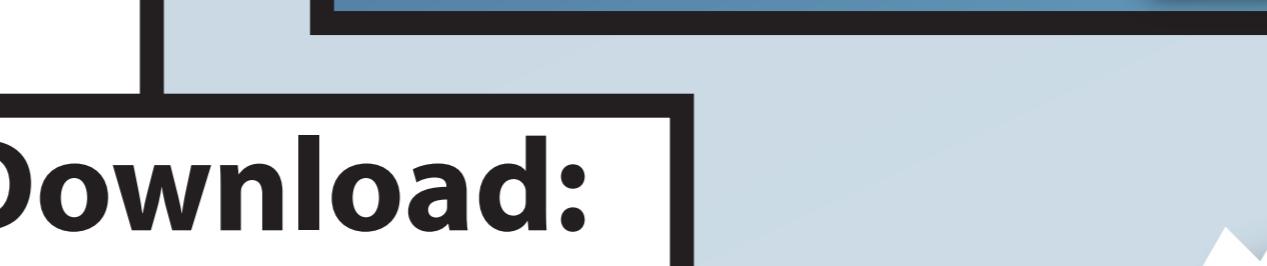
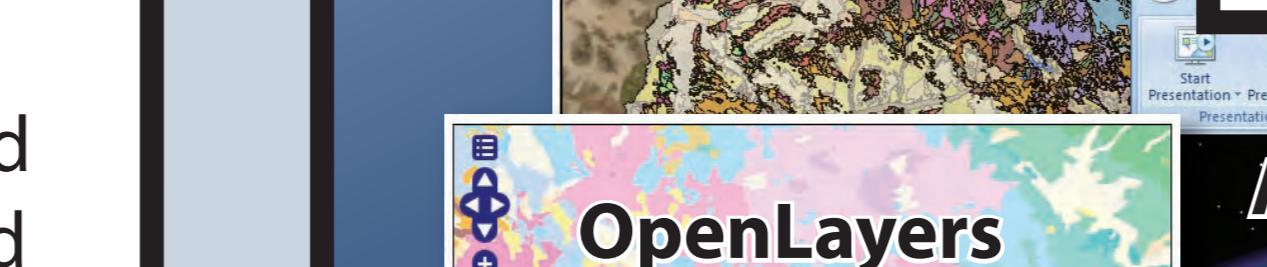


Publish:
Setup your data service, put metadata for it in a CSW catalog

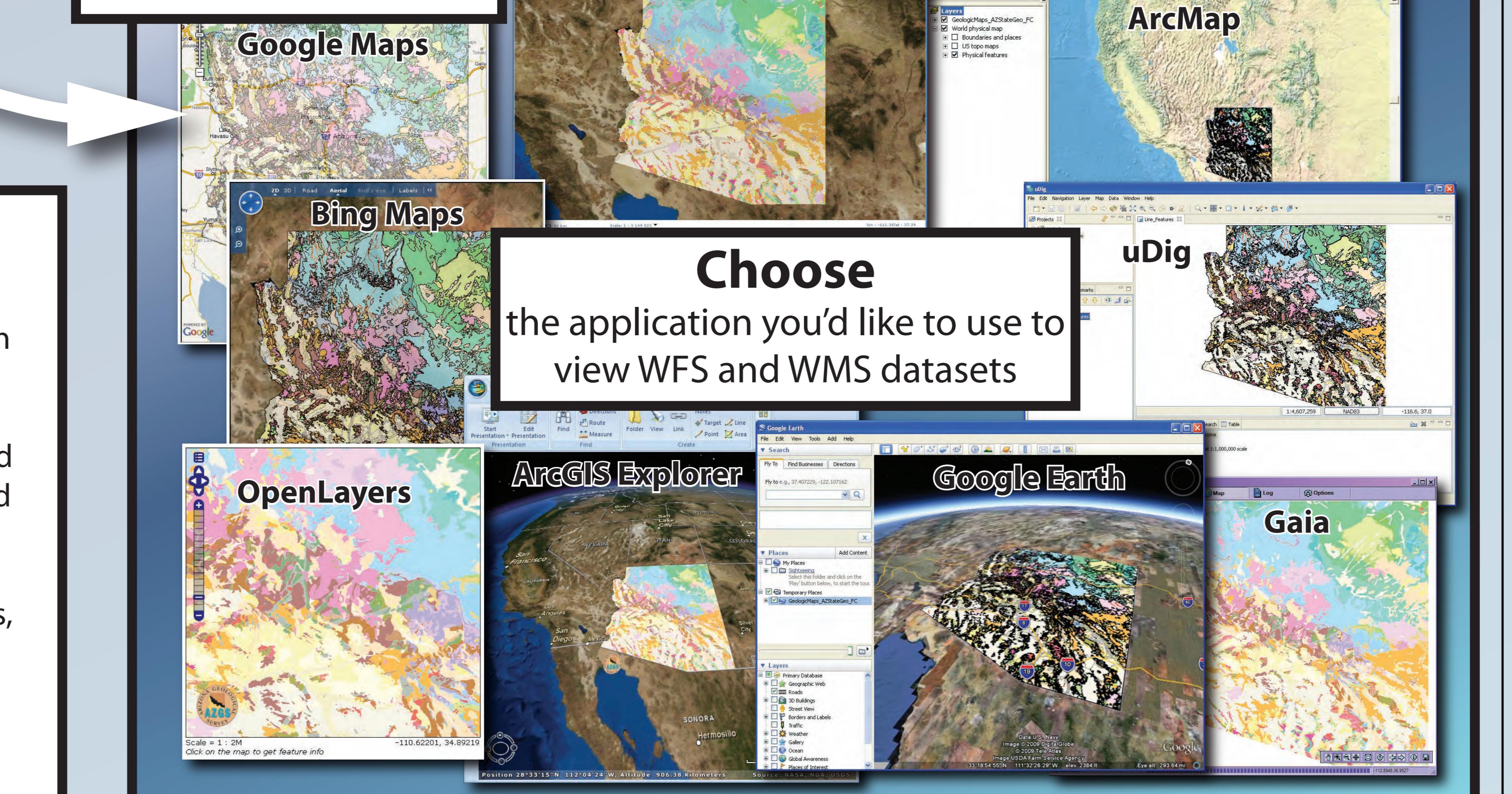
Access
digital data collections directly, instructions for physical data



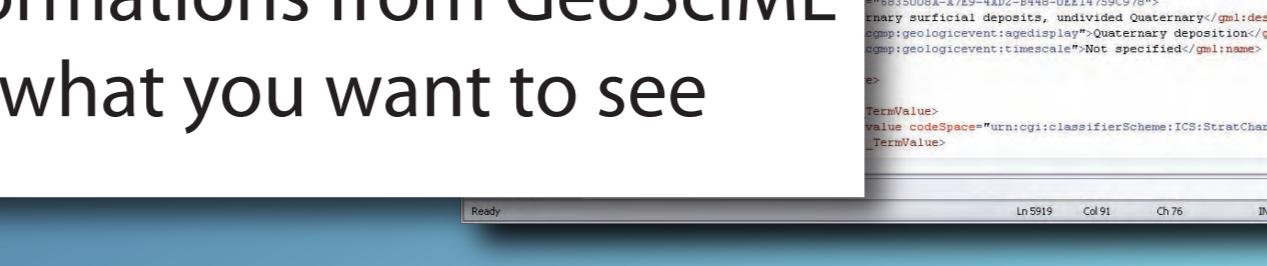
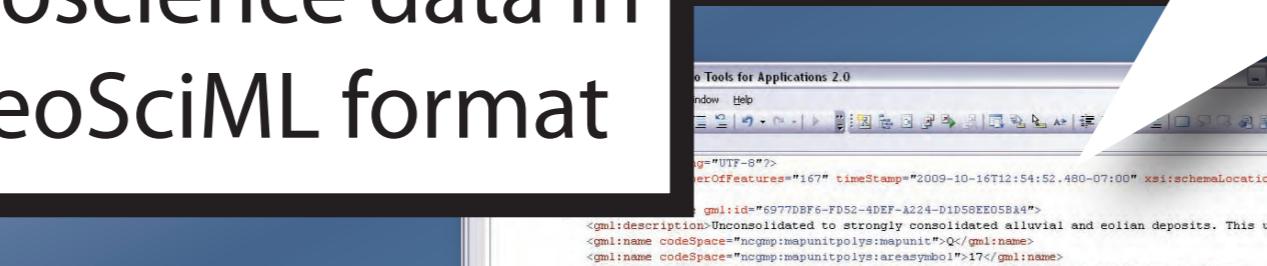
View
Spatial data as a WMS Feature Data as a WFS



Choose
the application you'd like to use to view WFS and WMS datasets



Choose
the application you'd like to use to view WFS and WMS datasets



Download:
Geoscience data in GeoSciML format

Transform:
Let your application handle transformations from GeoSciML to what you want to see

