

The background of the slide is a light blue map of the United States, showing state boundaries and major cities. Overlaid on the map is a grid of white lines, with a denser grid of curved lines in the bottom-left corner, suggesting a geographic coordinate system or a specific map projection. The text "ArcGIS Desktop 10.1" is centered in a bold, purple font.

# ArcGIS Desktop 10.1

# ArcGIS Centro de Recursos

◆ [resources.arcgis.com](http://resources.arcgis.com)

◆ Portal de Actualidad:

◆ Soporte

◆ Comunidad de Usuarios - blogs

◆ Ayuda Web y tutoriales

◆ Plantillas , ejemplos y datos

◆ Galeria de Códigos

◆ Actualizado regularmente con nuevos Contenidos

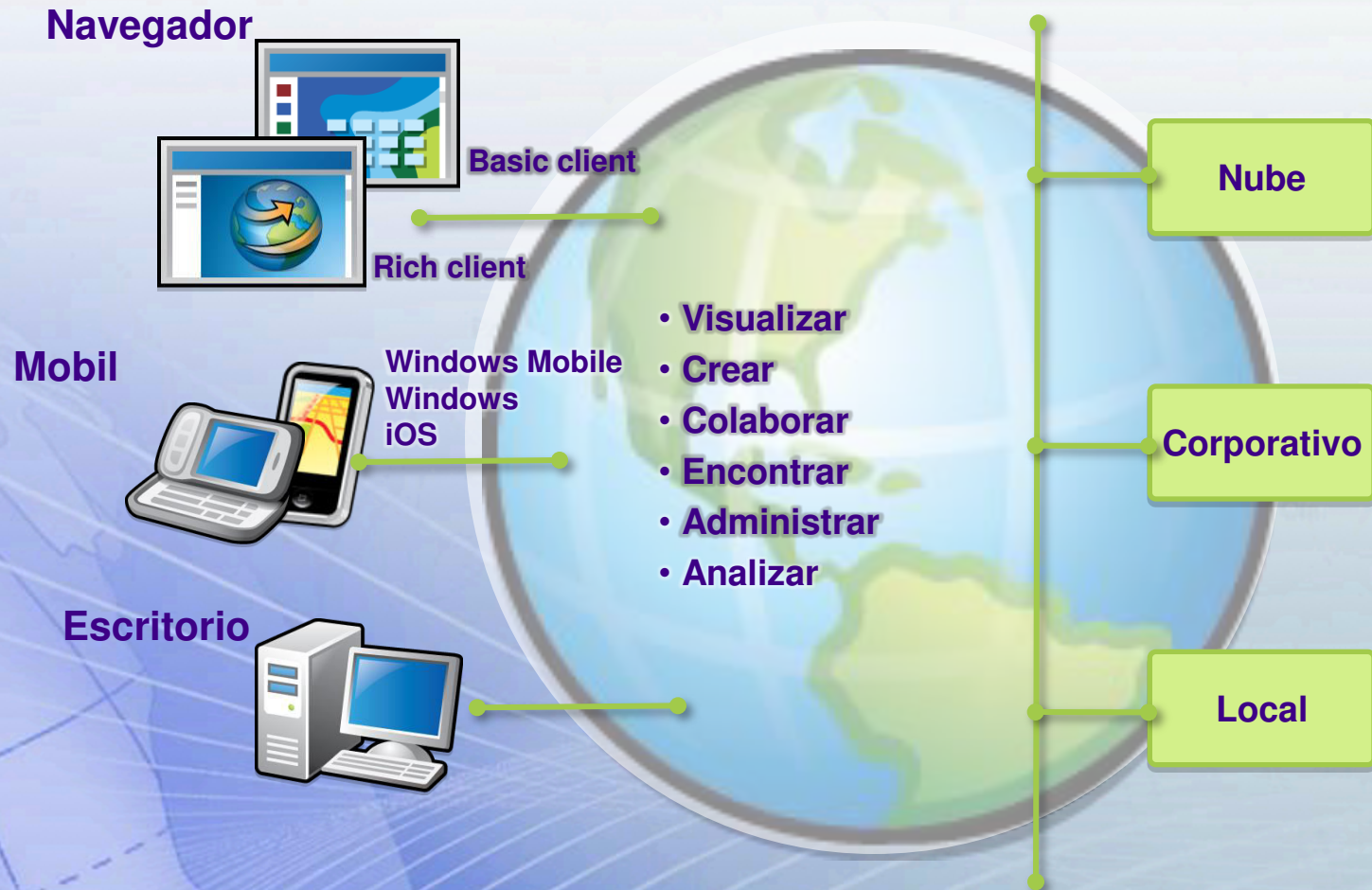
◆ [ideas.arcgis.com](http://ideas.arcgis.com)

◆ [wiki.gis.com](http://wiki.gis.com)

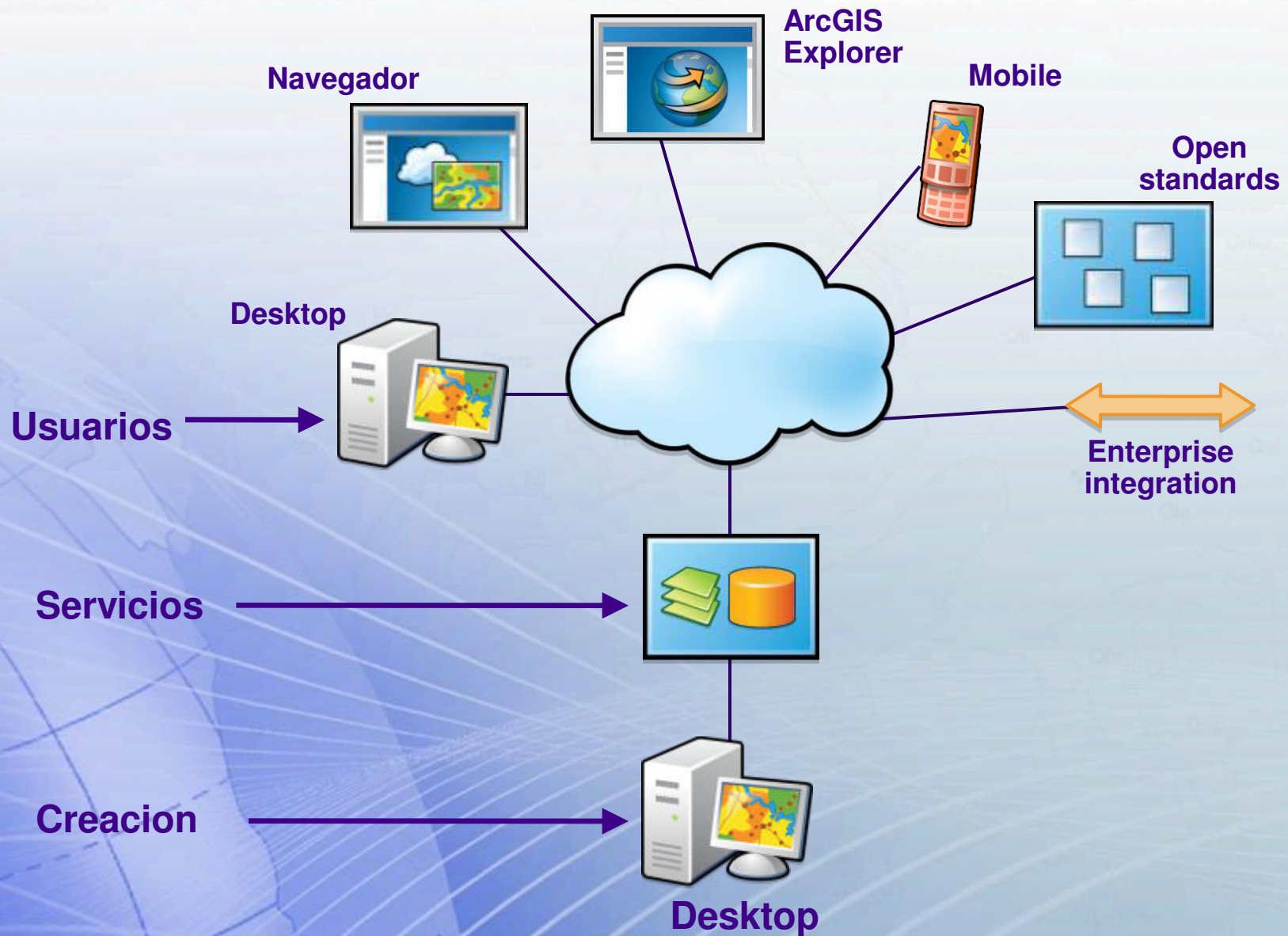


# El Sistema ArcGIS

Un sistema completo para la información geográfica



# ArcGIS





# ArcGIS Online



- ◆ Mapas en Linea y apps
- ◆ Búsqueda y Compartir con otros usuarios
- ◆ Enlace a ArcGIS.com

- ◆ Contenido De Esri
  - ◆ Dirigido a la comunidad de Usuarios
  - ◆ Datos y mapas Propios
- ◆ Web APIs libres y recursos

# Objetivos del Induccion

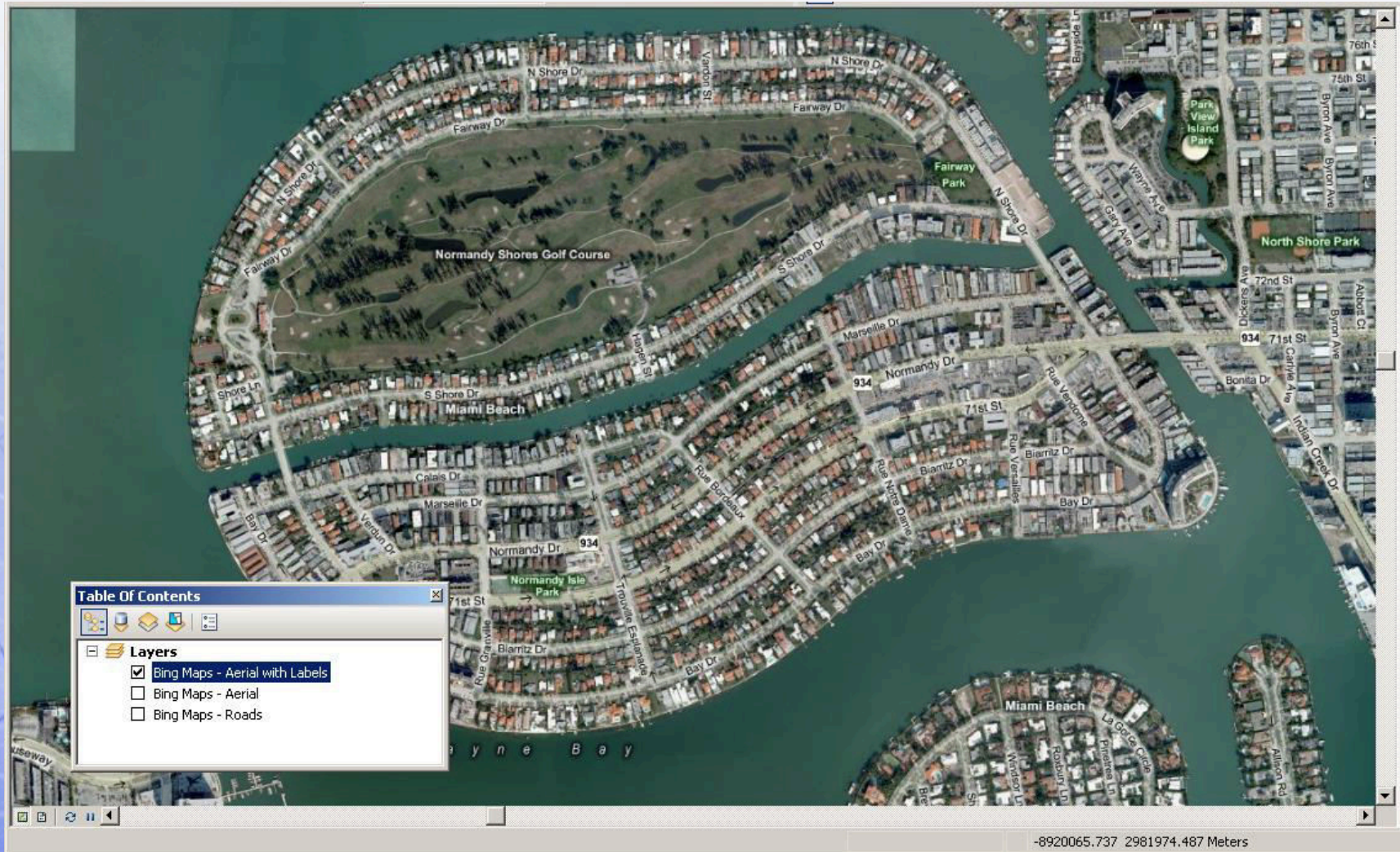
- ◆ **Al finalizar este documento daremos un vistazo a :**
  - ◆ **Conocer los cambios mas representativos en ArcGIS 10**
  - ◆ **Acceso rápido a datos, mapas, y herramientas de geoprocenos en ArcMap usando las ventanas del Catalogo y Búsqueda.**
  - ◆ **Aplicación de nuevas tecnicas de Edición mediante flujo de trabajo para crear y editar elementos geométricos y sus atributos correspondientes.**
  - ◆ **Creación de mapas de calidad profesional usando basemaps, capas y nuevos estilos y símbolos.**
  - ◆ **Producción de mapas en serie a traves de data-driven pages**
  - ◆ **Trabajar con datos temporales sobre un mapa**
  - ◆ **Usar Model builder en ArcMap para procesos de automatización y tareas de geoprocensamiento**

The background of the slide is a light blue map of Europe. Overlaid on the map is a grid of thin, curved white lines that follow the contours of the landmasses, giving it a technical or cartographic appearance. The text is centered in the middle of the slide.

# **La Interface de ArcGIS Desktop 10.1**

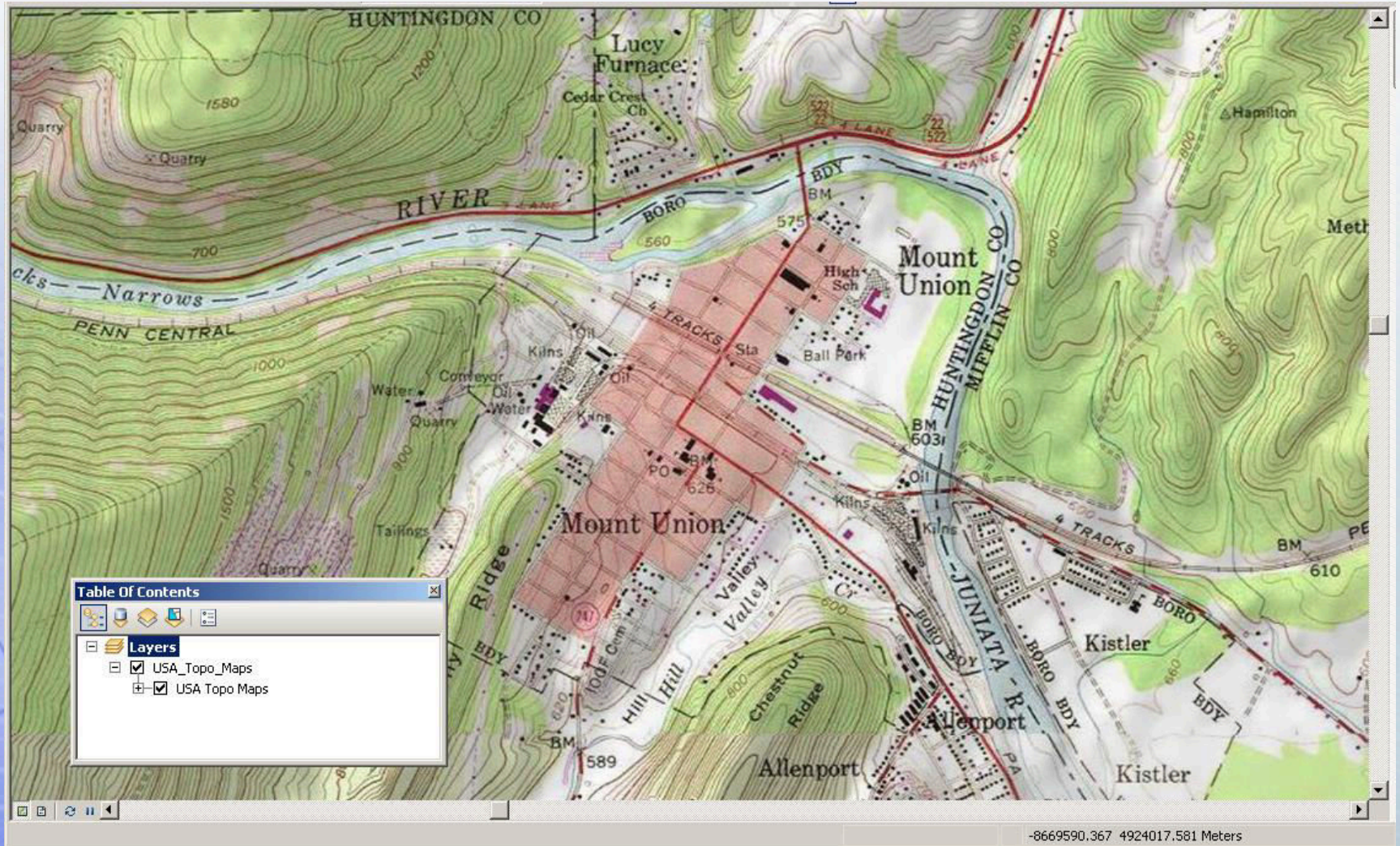


# Enfoque en el Mapa



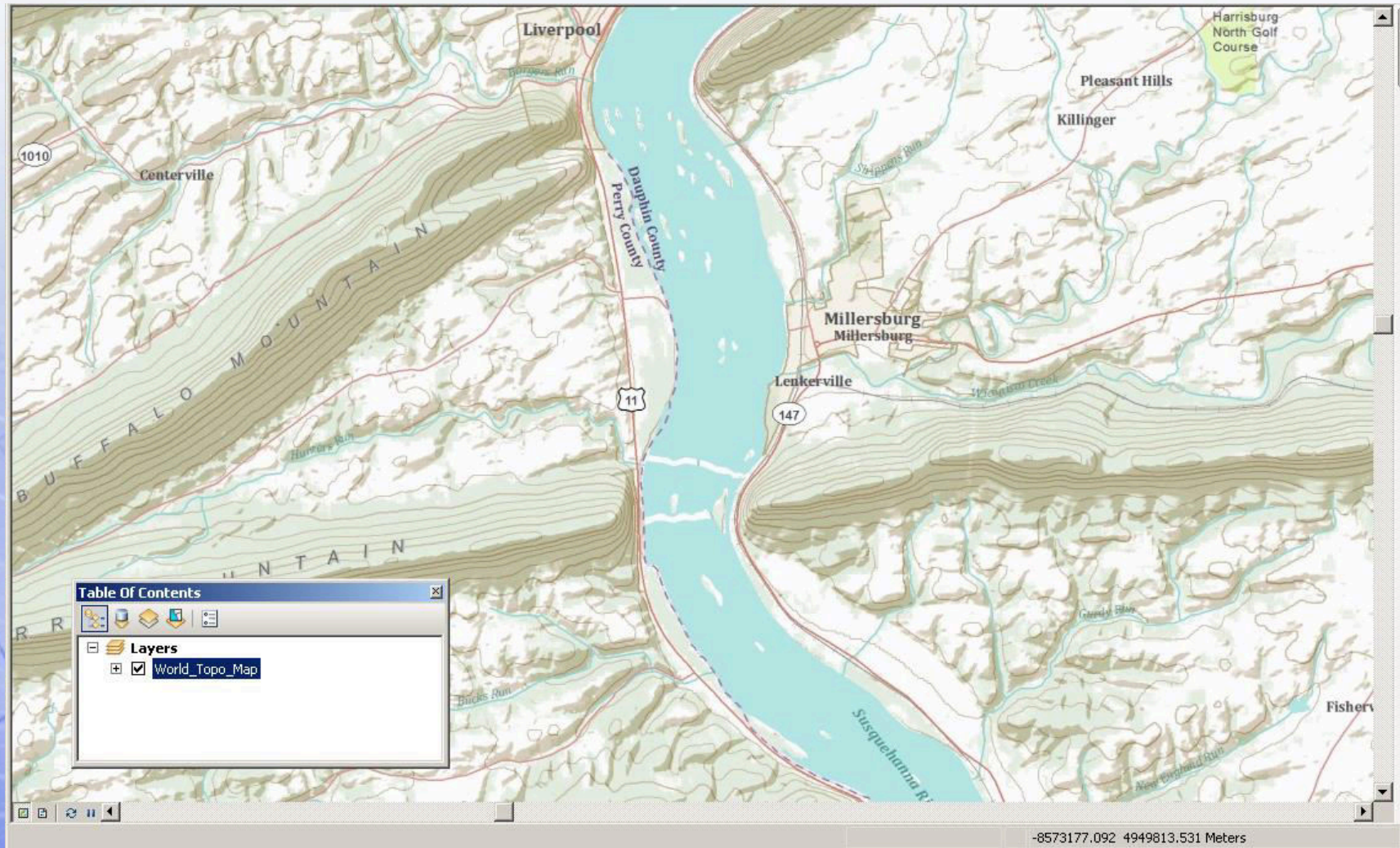


# Enfoque en el Mapa

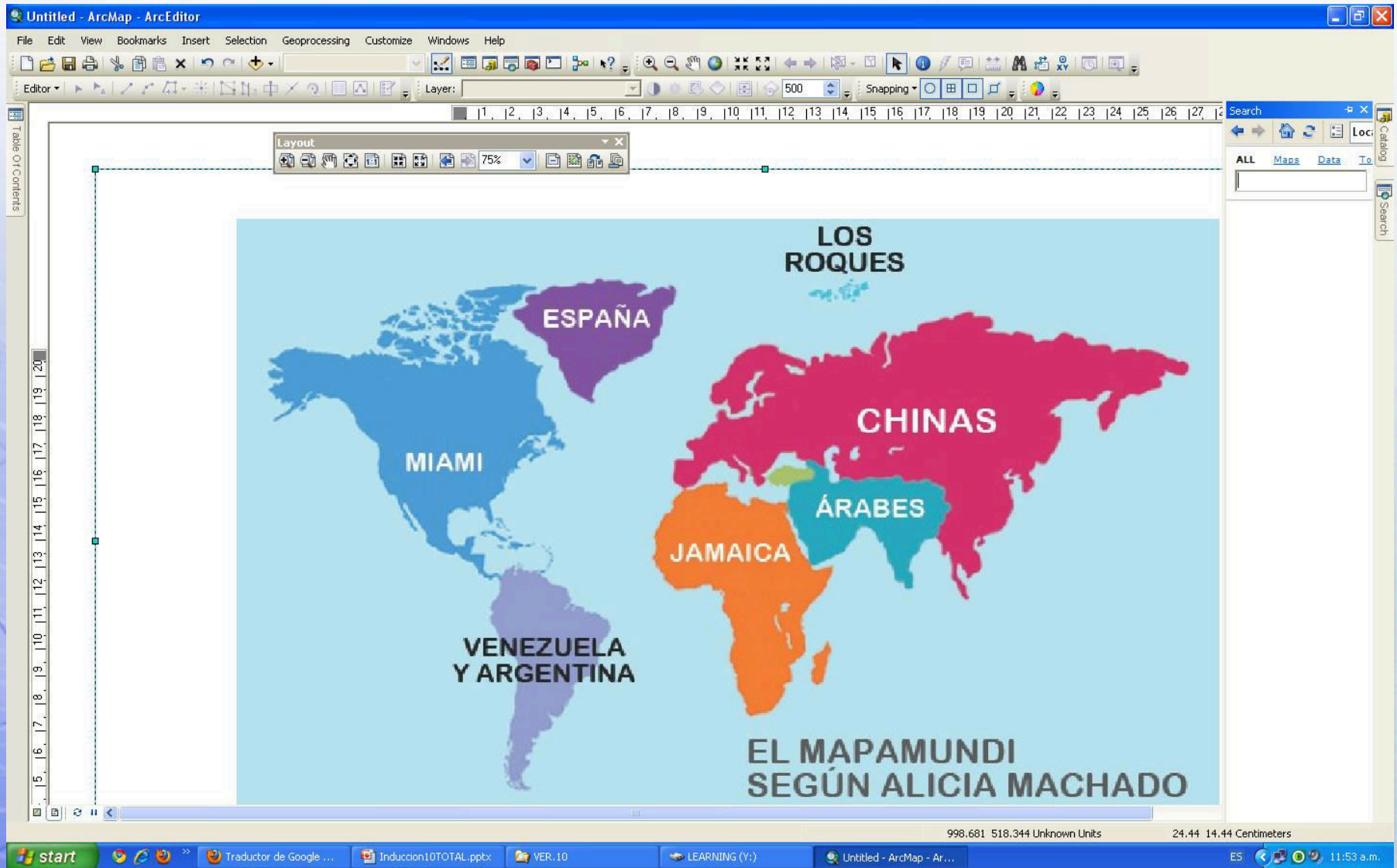




# Enfoque en el Mapa



# Enfoque en el Mapa





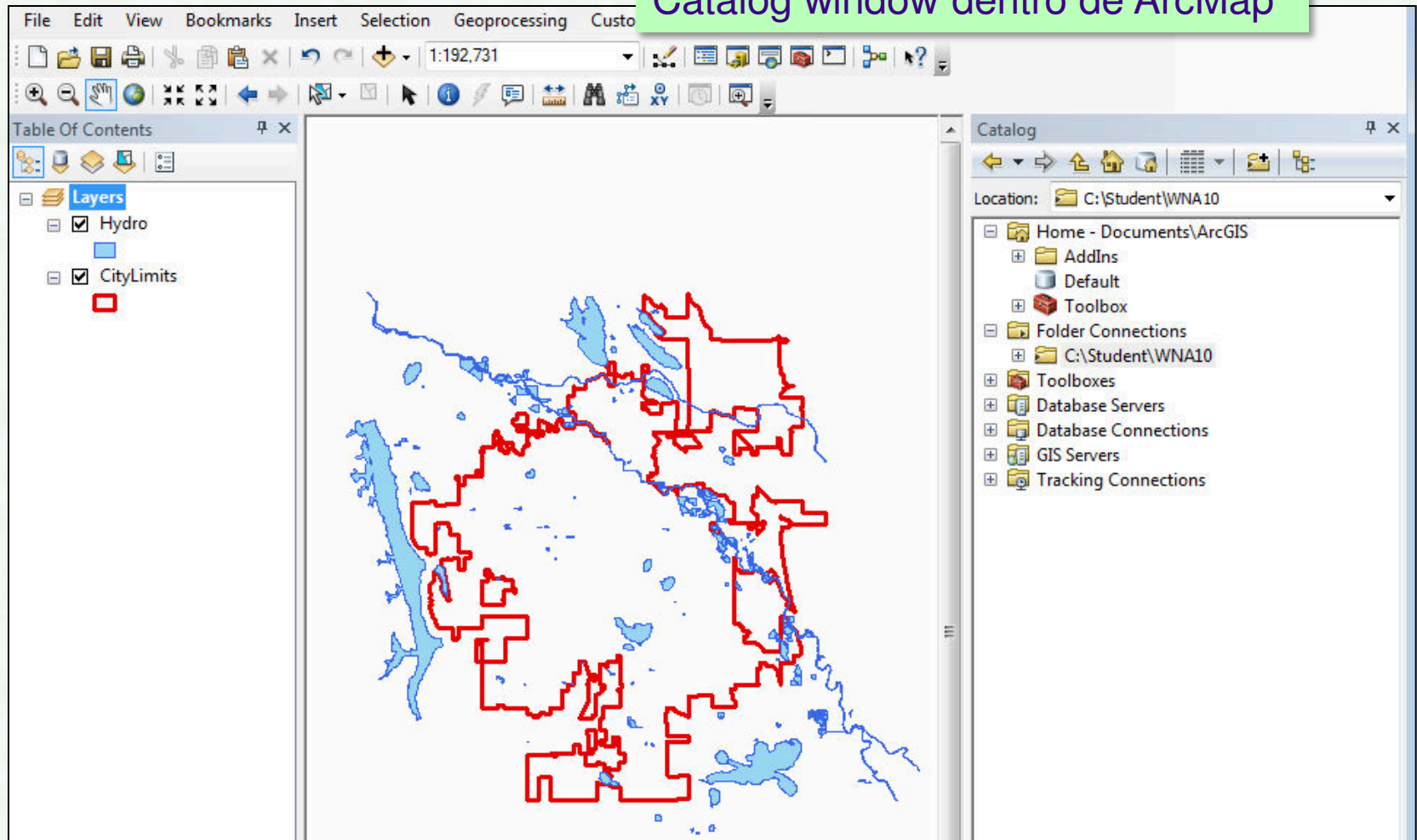
# Piense en esto ...

**¿ Hay circunstancias en las que trabajar con dos aplicaciones por separado podría ser problemático...?**



# La Ventana de Catalogo

Catalog window dentro de ArcMap



# Consideraciones...

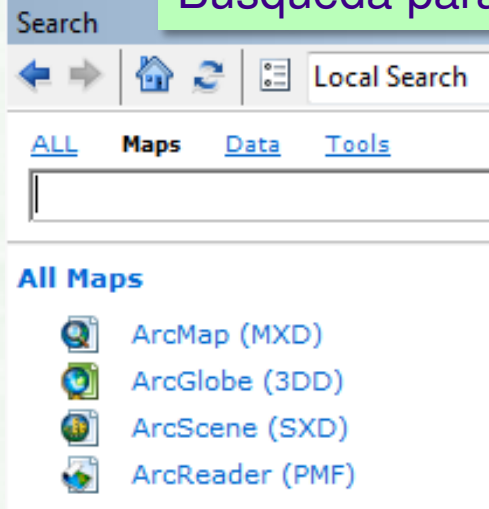
**La Importancia de la navegación necesario para localizar herramientas de geoprocésamiento en ArcToolbox o los datos y mapas en el disco.**



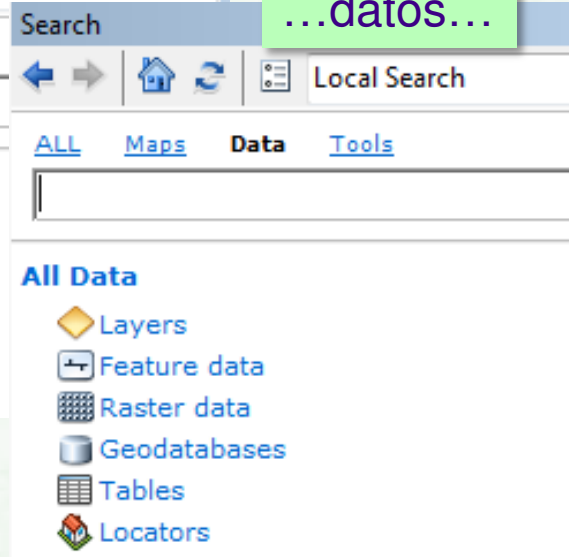


# Ventana de Búsqueda

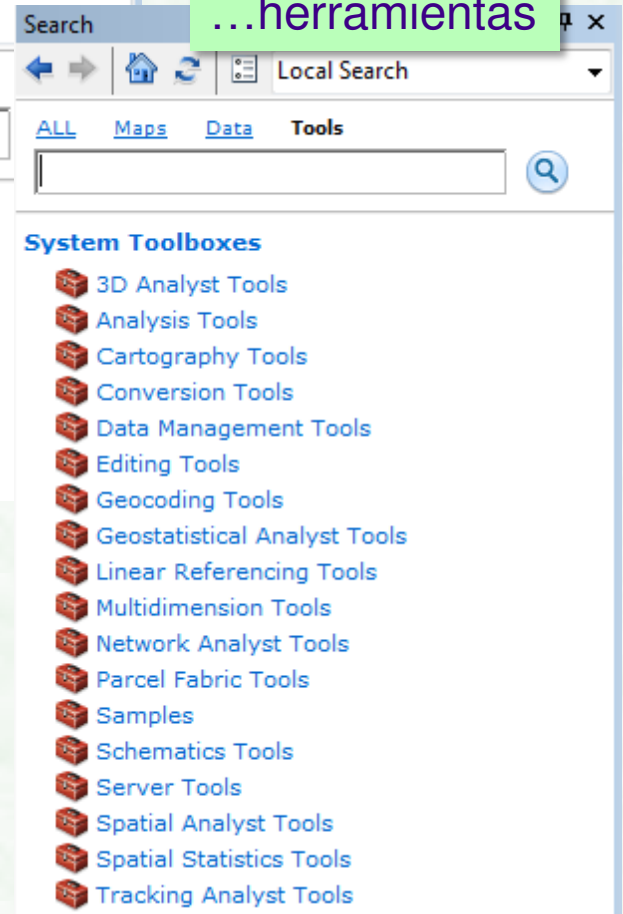
Búsqueda para mapas...



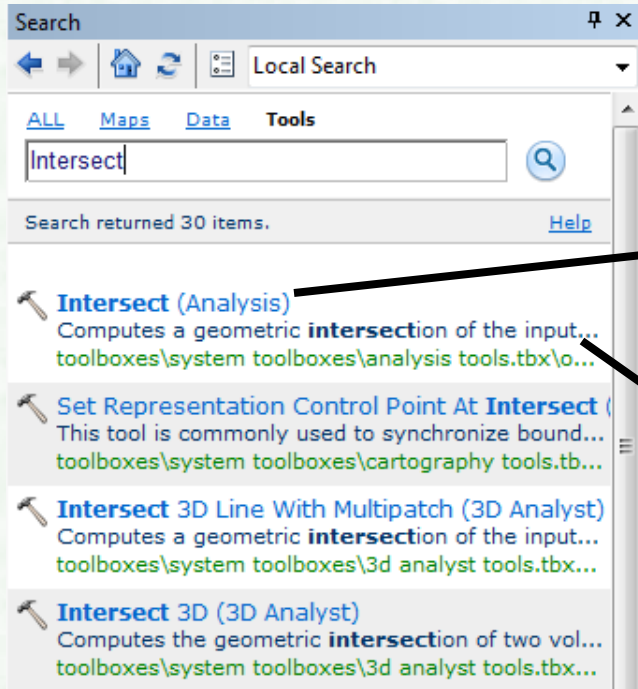
...datos...



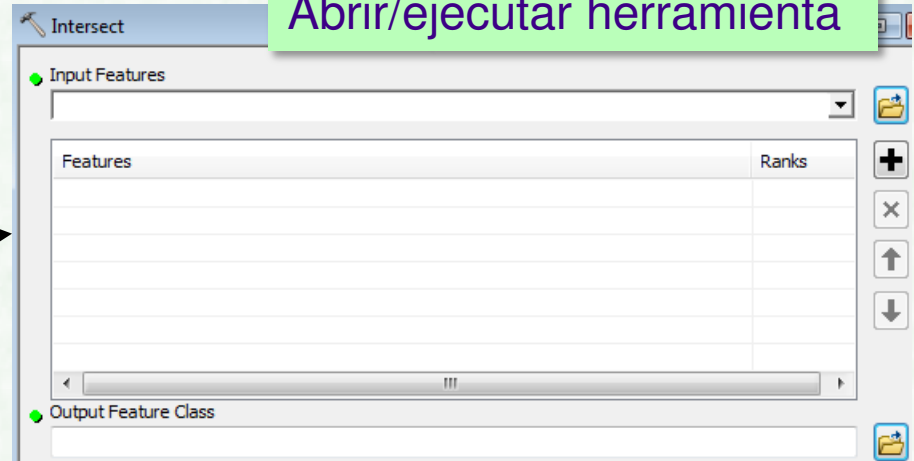
...herramientas



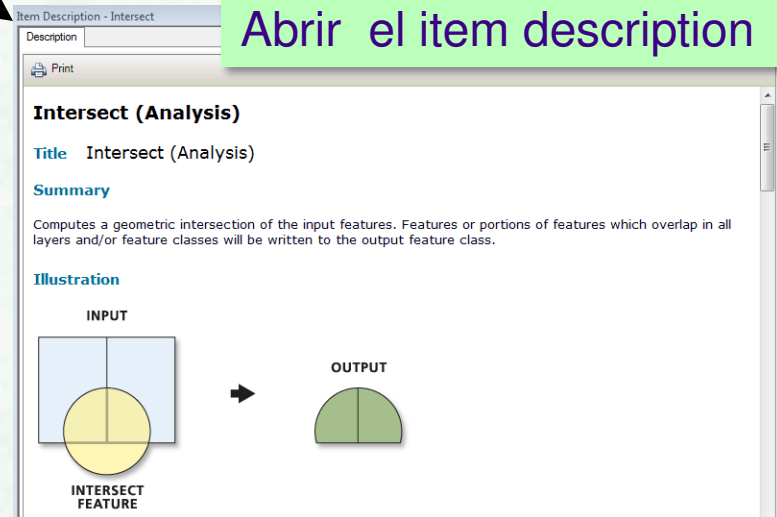
# Búsqueda de Resultados



Abrir/ejecutar herramienta



Abrir el item description





# Busqueda y ModelBuilder

Arrastra herramientas desde Ventana de Búsqueda dentro del modelo

The screenshot displays the ArcGIS ModelBuilder interface. On the left, the 'Model' window shows a workflow with an 'Intersect' tool (represented by a hammer icon) connected to an 'Output Feature Class' output. On the right, the 'Search' window is open, showing a list of tools found for the keyword 'Intersect'. A black arrow points from the 'Intersect (Analysis)' tool in the search results to the 'Intersect' tool in the model workflow, illustrating the process of dragging a tool from the search window into the model.

**Search Window Results:**

- Intersect (Analysis)**  
Computes a geometric **intersection** of the input...  
toolboxes\system toolboxes\analysis tools.tbx\o...
- Set Representation Control Point At Intersect**  
This tool is commonly used to synchronize bound...  
toolboxes\system toolboxes\cartography tools.tb...
- Intersect 3D Line With Multipatch (3D Analyst)**  
Computes a geometric **intersection** of the input...  
toolboxes\system toolboxes\3d analyst tools.tbx...
- Intersect 3D (3D Analyst)**  
Computes the geometric **intersection** of two vol...  
toolboxes\system toolboxes\3d analyst tools.tbx...
- Intersecting Layers Masks (Cartography)**  
Creates masking polygons at a specified shape a...  
toolboxes\system toolboxes\cartography tools.tb...
- Extend Line (Editing)**  
This tool extends line segments to the first **inter**...  
toolboxes\system toolboxes\editing tools.tbx\ext...
- Identity (Analysis)**  
Computes a geometric **intersection** of the input...



# Default geodatabase

The screenshot displays the ArcMap 'Open existing map or make new map using a template' dialog box. On the left, there are tabs for 'Existing Maps' and 'New Maps'. The 'New Maps' tab is active, showing a 'Blank Map' template. Below the templates, the 'Architectural Page Sizes' section shows two options: 'ARCH A Landscape' and 'ARCH A Portrait'. At the bottom of the dialog, the text 'Default geodatabase for this map:' is followed by the path 'C:\Student\WNA10\Database\FtCollins.gdb'. An arrow points from a green text box below to this path.

Open existing map or make new map using a template

Existing Maps  
New Maps

My Templates

Blank Map

Architectural Page Sizes

9 in. x 12 in.  
ARCH A Landscape

9 in. x 12 in.  
ARCH A Portrait

C:\Users\student\AppData\Roaming\ESRI\Desktop10.0\ArcMap\Templates\Normal.mxt

Default geodatabase for this map:  
C:\Student\WNA10\Database\FtCollins.gdb

Catalog

Location: FtCollins.gdb

- Home - Documents\ArcGIS
  - AddIns
  - Default
  - Toolbox
- Folder Connections
  - C:\Student\WNA10
    - Database
      - Alaska
      - FtCollins
    - Results
- Tracking Co
- Toolboxes
- Database Se
- Database C
- GIS Servers

Copy  
Paste  
Delete  
Rename  
Refresh  
Make Default Geodatabase  
New

Configurado en el inicio del programa



# DEMO

- ◆ Acceso a Catalogo desde ArcMap
- ◆ Modificación y creación del esquema de una geodatabase en la ventana de Catalogo
- ◆ Uso de ventana de Búsqueda para localizar una herramienta



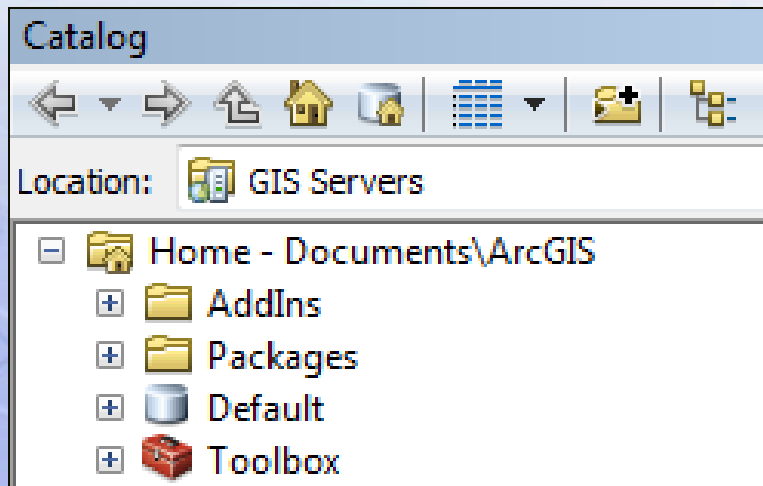
# **Accediendo a los Datos**



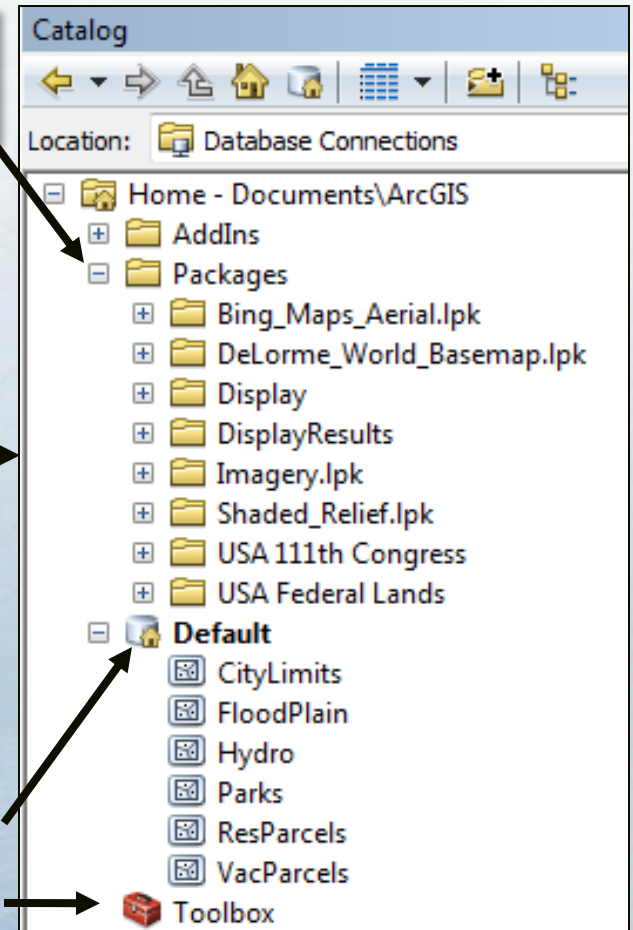


# Trabajando con la carpeta Home

Basemaps  
y servicios añadidos



Geodatabase y  
toolbox





# Busqueda de Datos

Busqueda en ArcGIS 10.1 esta basada en la indexacion

The screenshot displays the ArcGIS 10.1 Search interface. On the left, the 'Index' tab is active, showing a list of registered folders and server connections: 'C:\Users\student\Documents\ArcGIS' and 'C:\Student\WNA10'. The 'Search' panel is open, showing the 'Local Search' tab. The search bar contains the text 'typekeywords:"Vector"'. Below the search bar, it indicates 'Search returned 11 items.' and a 'Help' link. The search results are listed below, showing various data types and their locations:

- Default**  
Summary: not available.  
c:\users\student\documents\arcgis\default...
- CityLimits**  
The data and related materials are made ...  
c:\users\student\documents\arcgis\default...
- FloodPlain**  
The data and related materials are made ...  
c:\users\student\documents\arcgis\default...
- Hydro**  
The data and related materials are made ...  
c:\users\student\documents\arcgis\default...
- Parks**  
The data and related materials are made ...  
c:\users\student\documents\arcgis\default...
- ResParcels**  
The data and related materials are made ...  
c:\users\student\documents\arcgis\default...
- VacParcels**  
The data and related materials are made ...  
c:\users\student\documents\arcgis\default...

Below the search results, the 'All Data' section is visible, listing various data types: Layers, Feature data, Raster data, Geodatabases, Tables, and Locators.

Busqueda de Datos opciones y resultados





# Agregando MapasBase

## Basemap en ArcMap



Bing Maps Aerial



Bing Maps Hybrid



Bing Maps Road



DeLorme



Imagery



OpenStreetMap



Physical



Streets

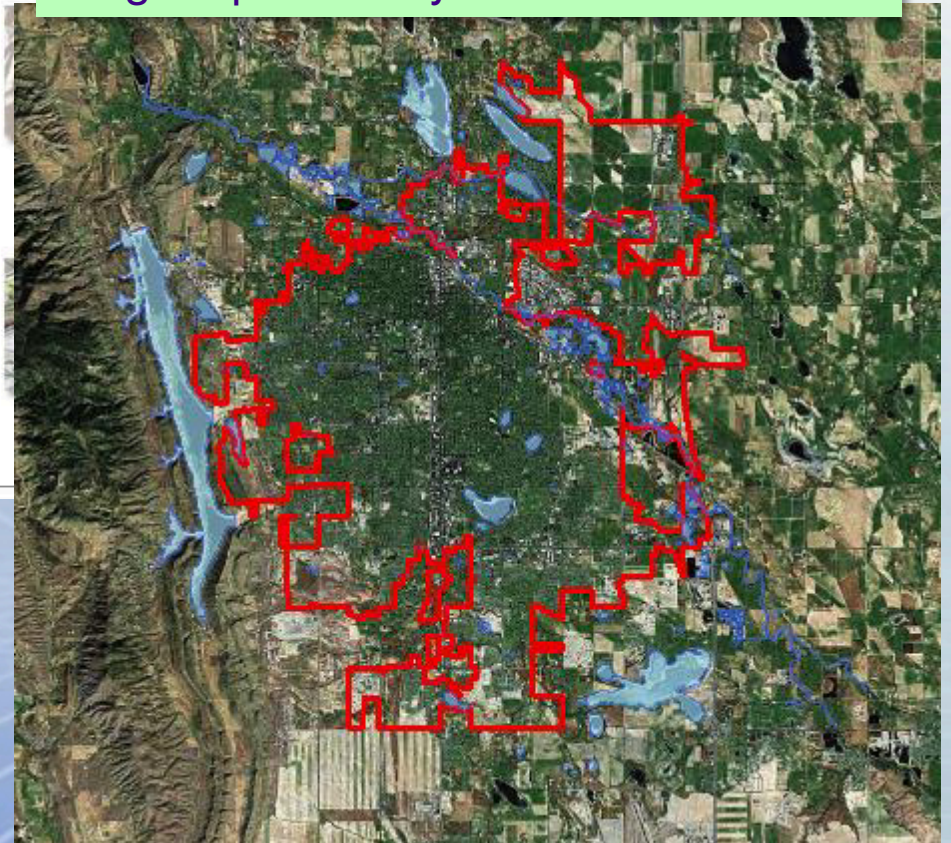


Terrain



Topographic

## Bing Maps Aerial y otros datos vector





# Usando datos desde ArcGIS Online

 Search ArcGIS Online...   Data  Groups Sign in

Featured

Featured 9 Results

**ASTER 30m Elevation Data for Haiti**



This layer presents a hillshade based on NASA ASTER 30m elevation data for Haiti.

Layer Package by [esri\\_event](#) 1/22/2010 [Details](#) [Add](#)

**USA Congressional Districts** 



This layer presents congressional districts for the 111th United States Congress, symbolized by political party of the district's representative.

Layer Package by [esri](#) 8/5/2010 [Details](#) [Add](#)

**USA Federal Lands** 



This layer presents the federal and American Indian-owned land areas of the United States

Layer Package by [esri](#) 6/10/2010 [Details](#) [Add](#)

**USA Population by Zip Code** 



This layer presents the 2010 estimated population of the USA ZIP Code areas used by the U.S. Postal Service.

Layer Package by [esri](#) 6/11/2010 [Details](#) [Add](#)

**USA Protected Areas**



The USA Protected Areas is a digital map of steward boundaries that combines attributes of ownership, management, and a measure of intent to manage for biodiversity.

Map Service by [Federal\\_User\\_Community](#) 6/4/2010 [Details](#) [Add](#)

**USA Public Land Survey System (PLSS)** 



This layer presents the public land surveys of the United States.


Layer Package by [esri](#) 6/10/2010 [Details](#) [Add](#)





# DEMO

- ◆ Explorar plantillas ArcMap
- ◆ Usar la carpeta Home y default geodatabase
- ◆ Agregando un mapa base
- ◆ Agregando capas desde ArcGIS Online
- ◆ Agregando Mapas Base
- ◆ Time Slider



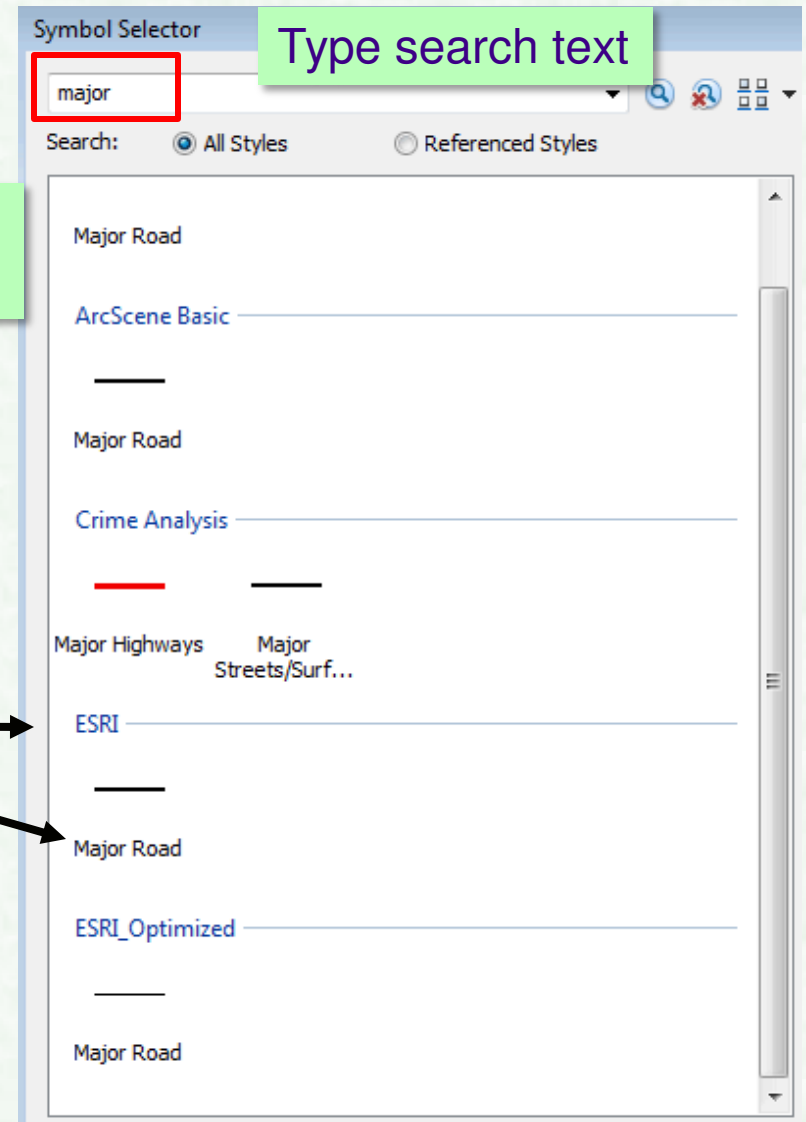
# Trabajando con Mapas y Simbología Aplicada



# Buscando Simbolos

Necesito simbolizar una carretera ?  
Busqueda de simbolos que contengan "major"

Nombre del Stylesheet  
Nombre del Symbol





# Considere ...

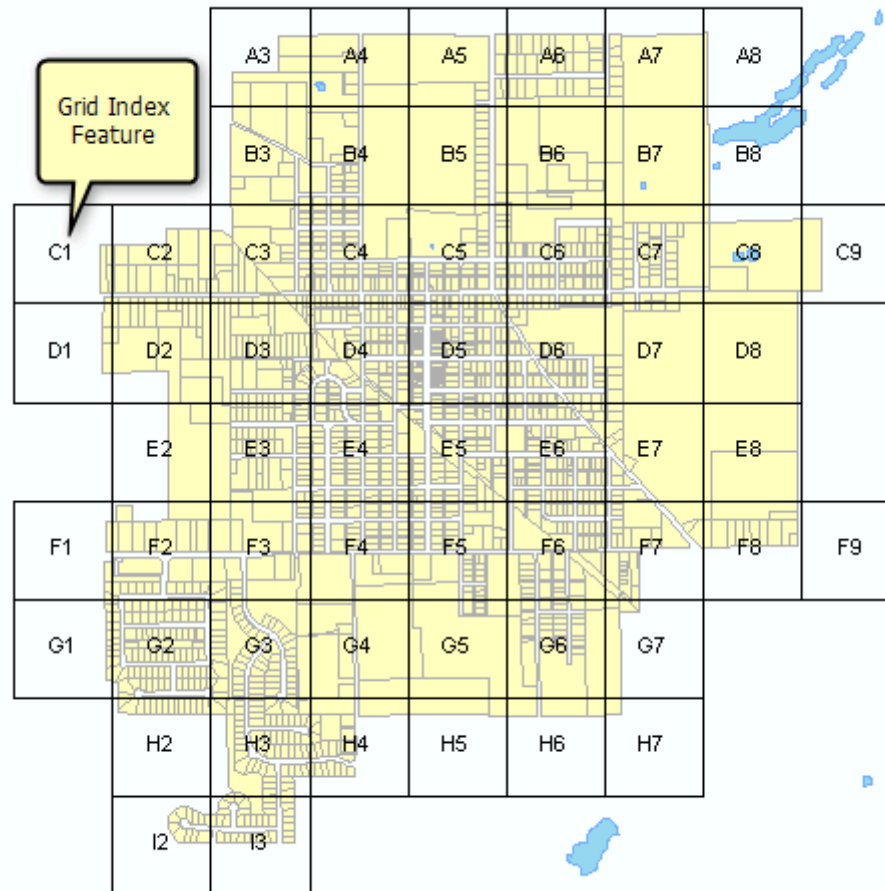
**En su experiencia, ¿ Cual ha sido el mayor problema compartir capas de Información sobre mapas en ArcGIS ?**





# Data-driven pages

Diferentes mapas creados para cada Indice





# Texto Dinámico en la Impresión

What if you want text on your map layout to change, such as the date, time, map page number?

Current Date

Current Time

User Name

Author

Date Saved

Document Name

Document Path

Coordinate System

Data Frame Name

Reference Scale

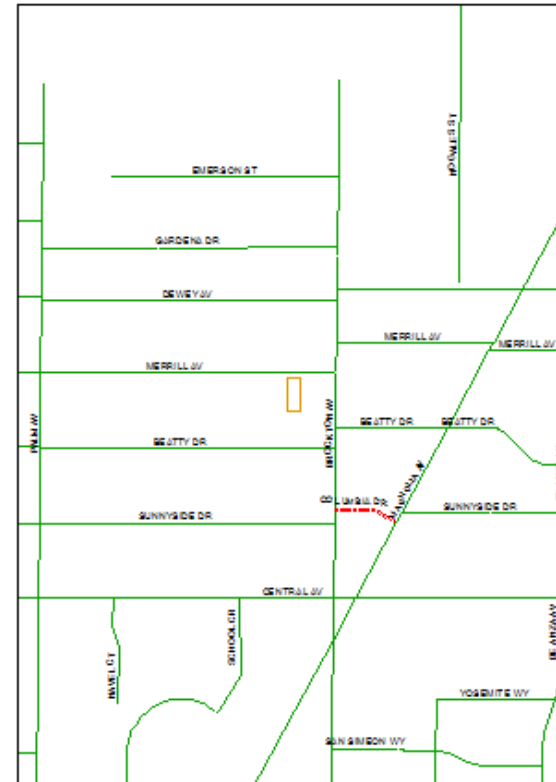
Data Frame Time

Data Driven Page Name

Data Driven Page Number

Data Driven Page with Count

Columbia Drive Construction Area  
Parcel APN: 225102019



Date: 8/20/2010

The background of the slide is a light blue map of Mexico. Overlaid on the map is a grid of thin, curved blue lines that sweep across the frame from the bottom left towards the top right. The text 'Experiencia de Edición' is centered in a bold, purple font.

# Experiencia de Edición





# Mejoras en la Edición

---

## ¿ Qué es lo nuevo en la Edición en ArcGIS 10?

Nueva Herramienta Start Editing

Plantilla de Elementos

Ventana de Creacion de Elementos y Atributos

Nuevo entorno de Snapping

Nueva mini toolbars que contiene atajos de comandos

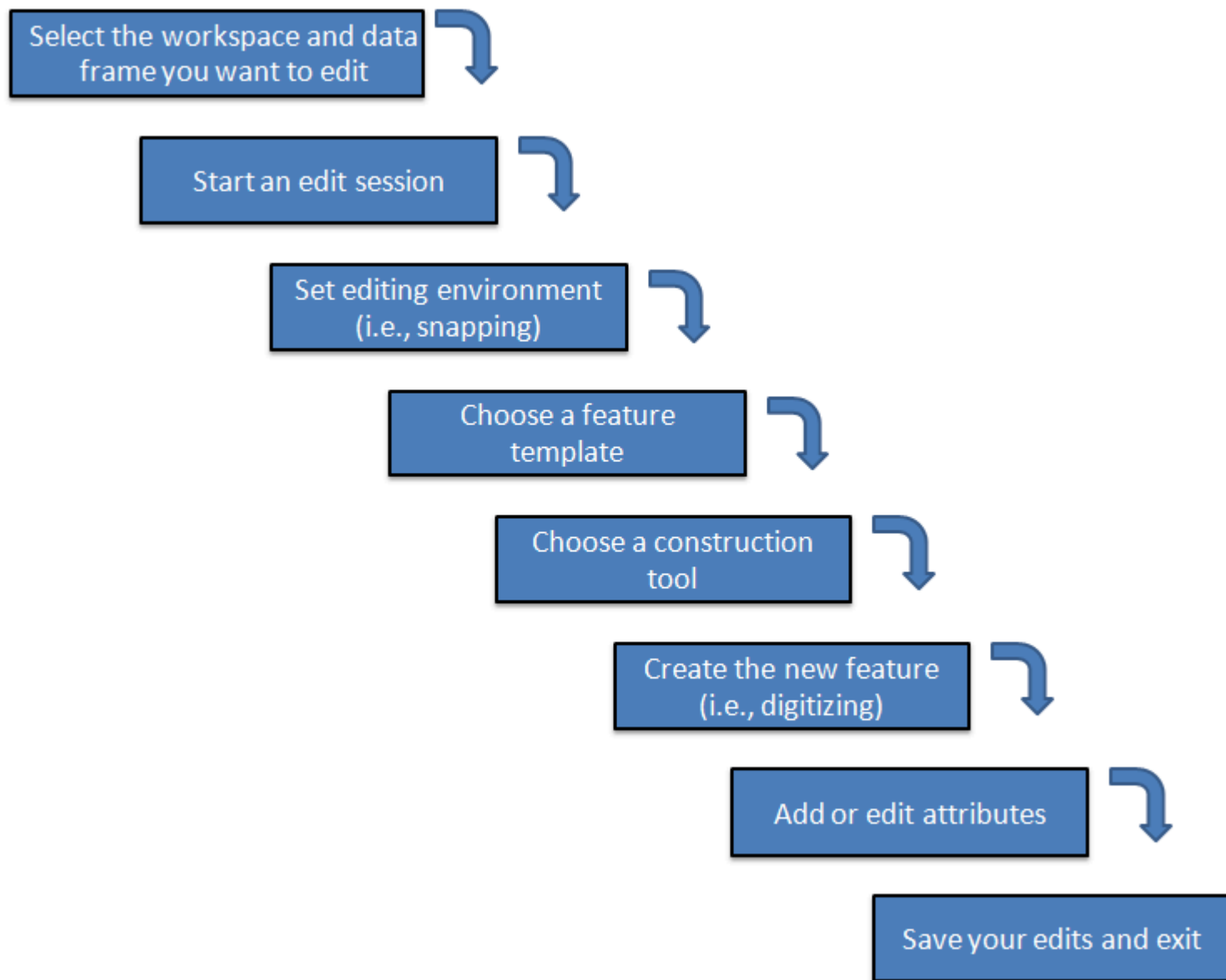
Nueva herramienta Parcel Editor

Nuevas Reglas Topológicas

Mejora en la Edicion de Descripciones



# Flujo de trabajo para la Edición



The background of the slide is a faded, light blue map. It features a grid of contour lines, some straight and some curved, suggesting a topographic or geological representation. There are also some faint, darker blue lines and shapes that might represent rivers, coastlines, or specific geological formations. The overall tone is light and technical.

# Geoprocesamiento





# Mejoras en el Geoprocesamiento

**¿ Que es lo nuevo en Geoprocessing en ArcGIS 10.1?**

Geoprocessing en segundo plano

Busqueda , Catalogo, Ventana de Resultados

Menu Geoprocessing

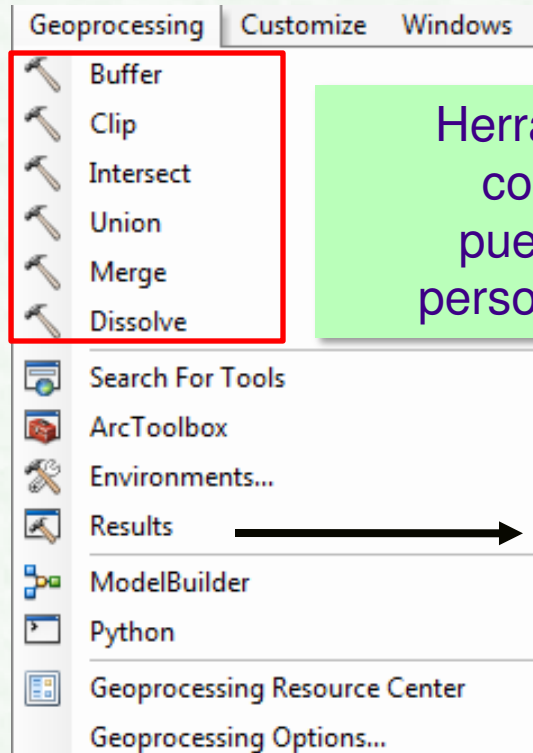
Herramientas pueden agregarse al Menu

Python esta disponible en ArcMap

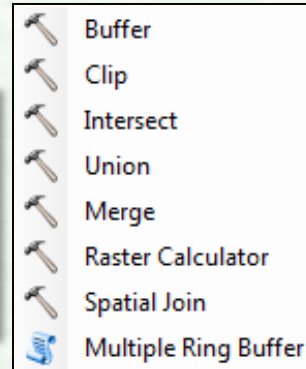
Instrumentos Nuevos y mejorados



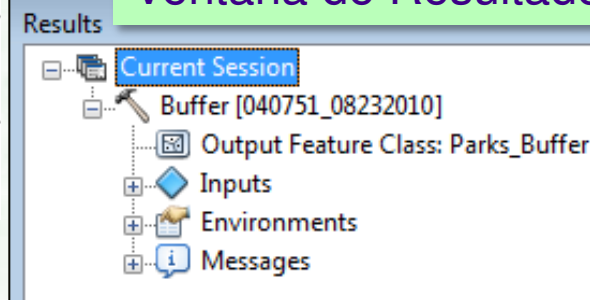
# Acceso a Herramientas



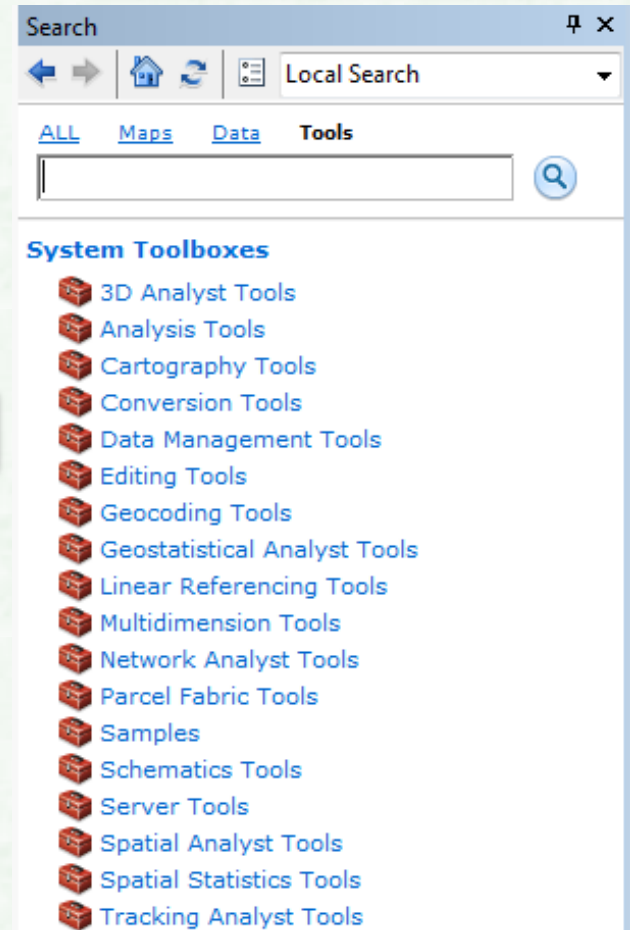
Herramientas  
comunes  
pueden ser  
personalizadas



## Ventana de Resultados



## Ventana de Búsqueda





# Usando Python en ArcMap

Reemplazo a la ventana de comandos

Python

```
>>> import arcpy
>>> from arcpy import env
>>> env.workspace = "c:/student/wna10/database/ftcollins.gdb"
>>> arcpy.Erase_analysis ("ResParcels","FloodPlain", "OutOfFlood")|
```

## Beneficios de la ventana Python

Misma sintaxis de PythonWin

Ejecucion de cualquier  
Geoproceso

Descripcion de la Herramientas  
previo a la ejecucion.





# Modelos Iterativos

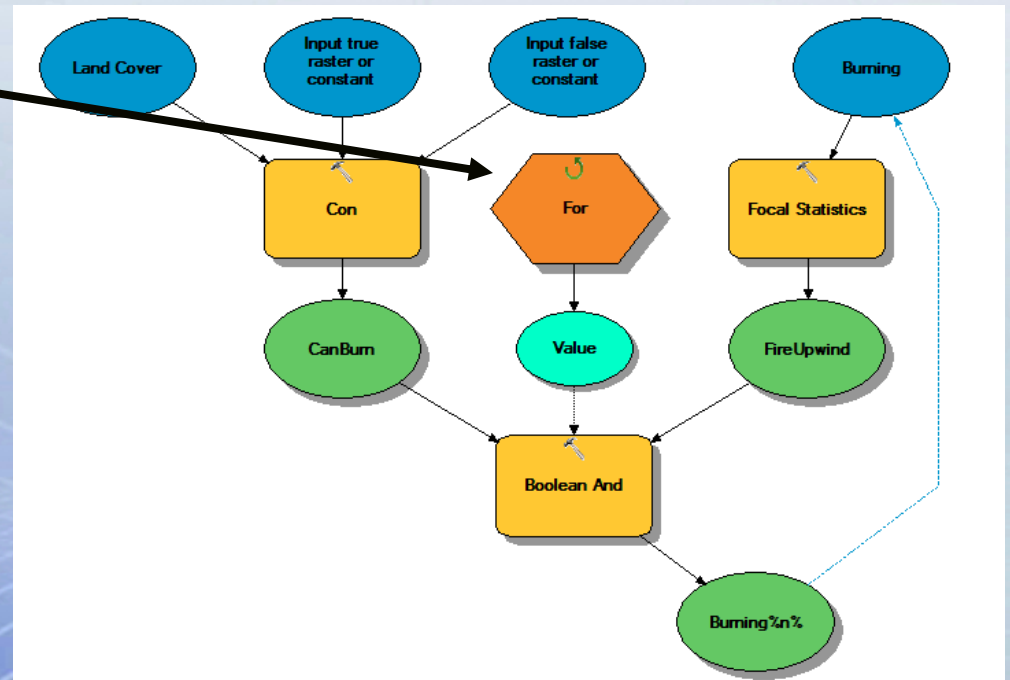
## Iteradores en ArcGIS 10.1

12 nuevos iteradores agregados

Reemplazo a las opciones de Series

Realizacion de tareas repetitivas

	For
	While
	Feature Selection
	Row Selection
	Field Value
	Multivalue
	Datasets
	Feature Classes
	Files
	Rasters
	Tables
	Workspaces





# Trabajo con Imágenes



# Mejoras Raster en ArcGIS 10.1

## ¿ Qué es lo nuevo en ArcGIS 10.1?

Nuevo modelo mosaic dataset

Ventana de Analisis de Imagen

Correccion de color para mosaicos datasets

Herramienta de Mosaicos dataset

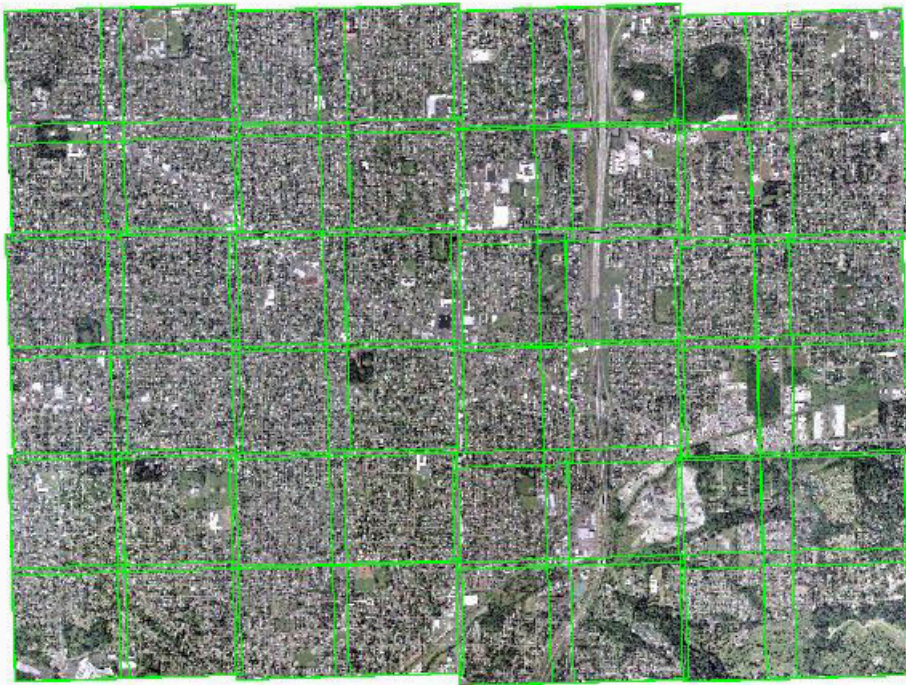
Creacion de archivos CLR





# Mosaicos datasets

Mosaic dataset con footprints



Mosaic dataset sin footprints

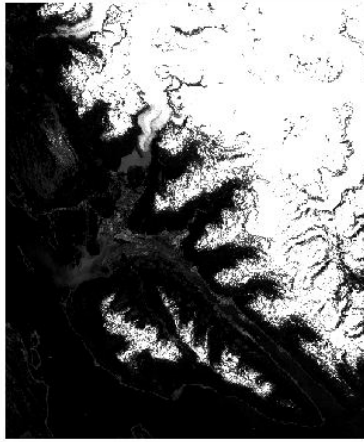




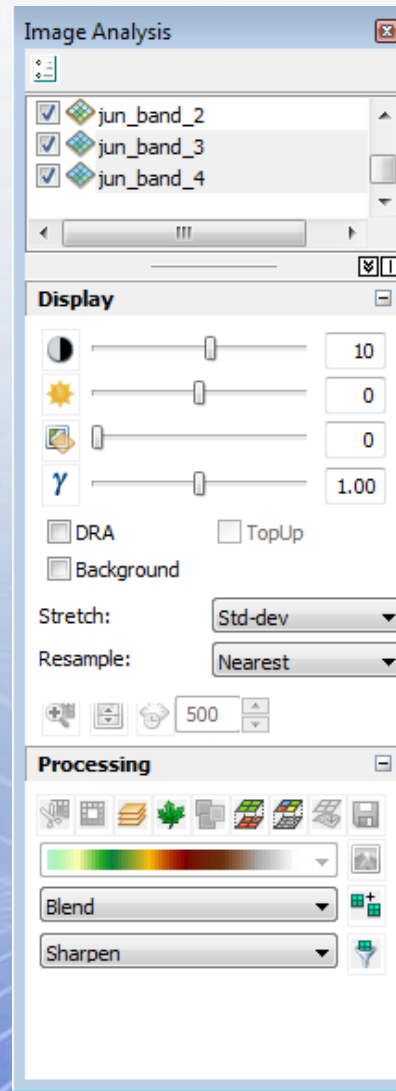
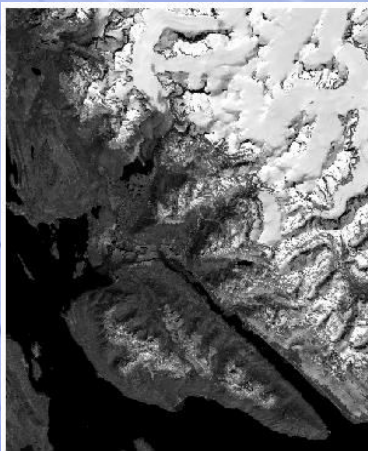


# Ventana de Análisis de Imagen

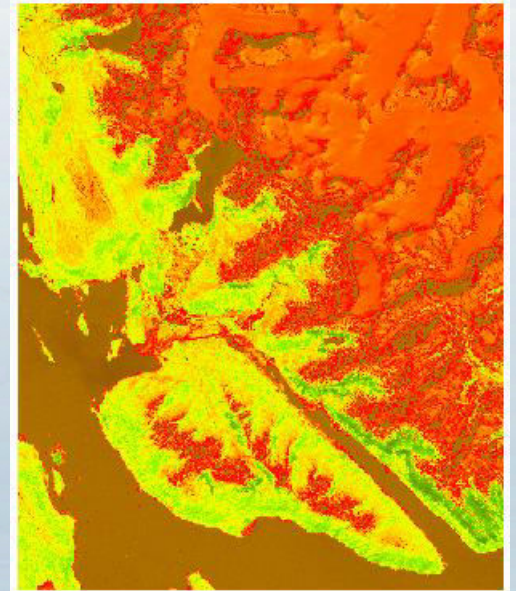
Band 3



Band 4



Temporary NDVI raster





# Trabajo con Datos 3D



# Considere ...

¿ Ha tenido alguna vez la necesidad de Analizar su información en 3D ?





# Mejoras 3D en ArcGIS 10.1

## ¿ Qué es lo nuevo en ArcGIS 10.1?

Nuevas herramienta de geoprocesamiento

Ventana de Analisis de Imagen

Comandos de Analisis 3D ahora en Herramientas

Edicion de datos 3D en ArcScene y ArcGlobe

Texturado 3D de Edificios en Virtual City





# Ejemplo de Análisis 3D

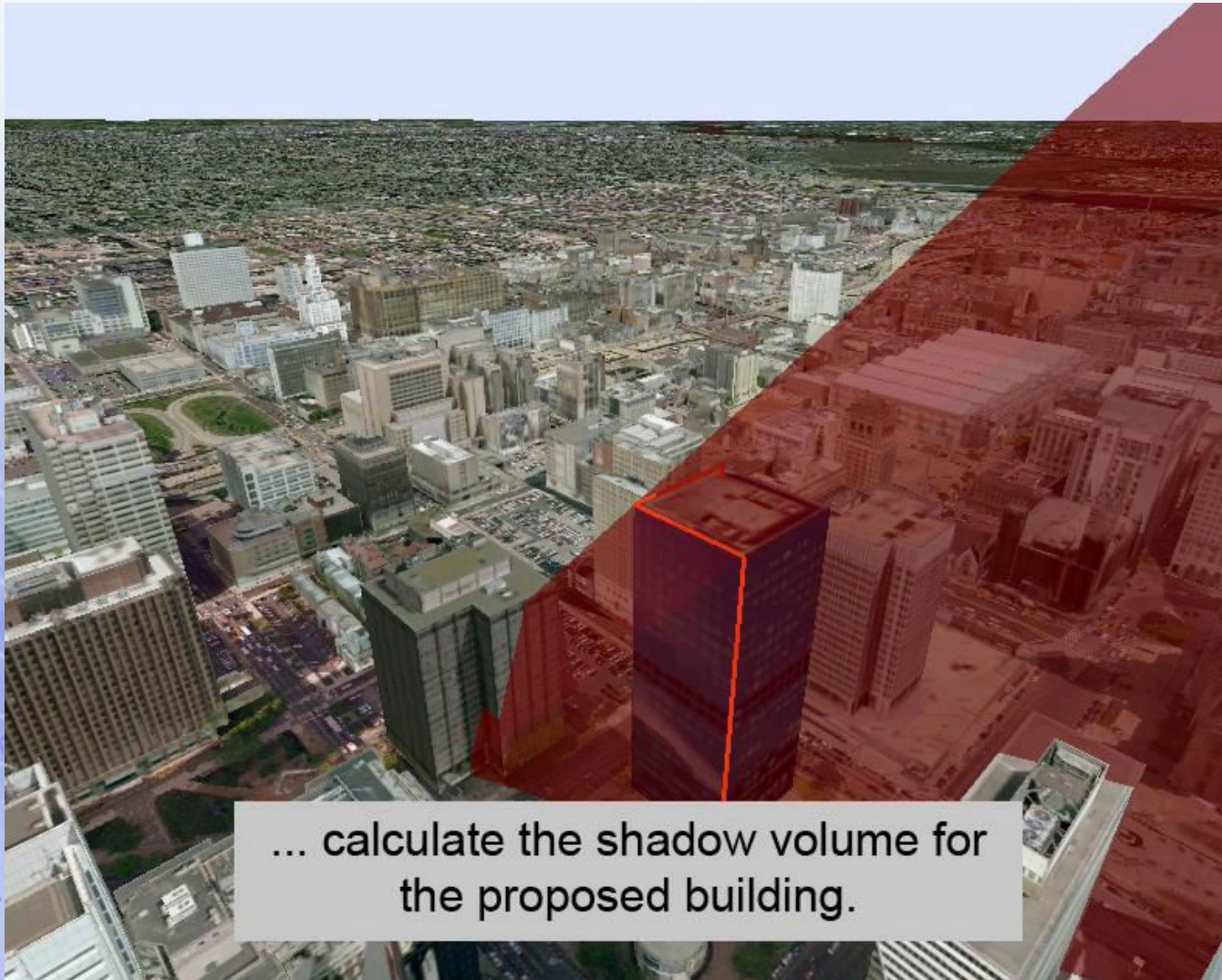
Analyze flight paths to determine airspace violations







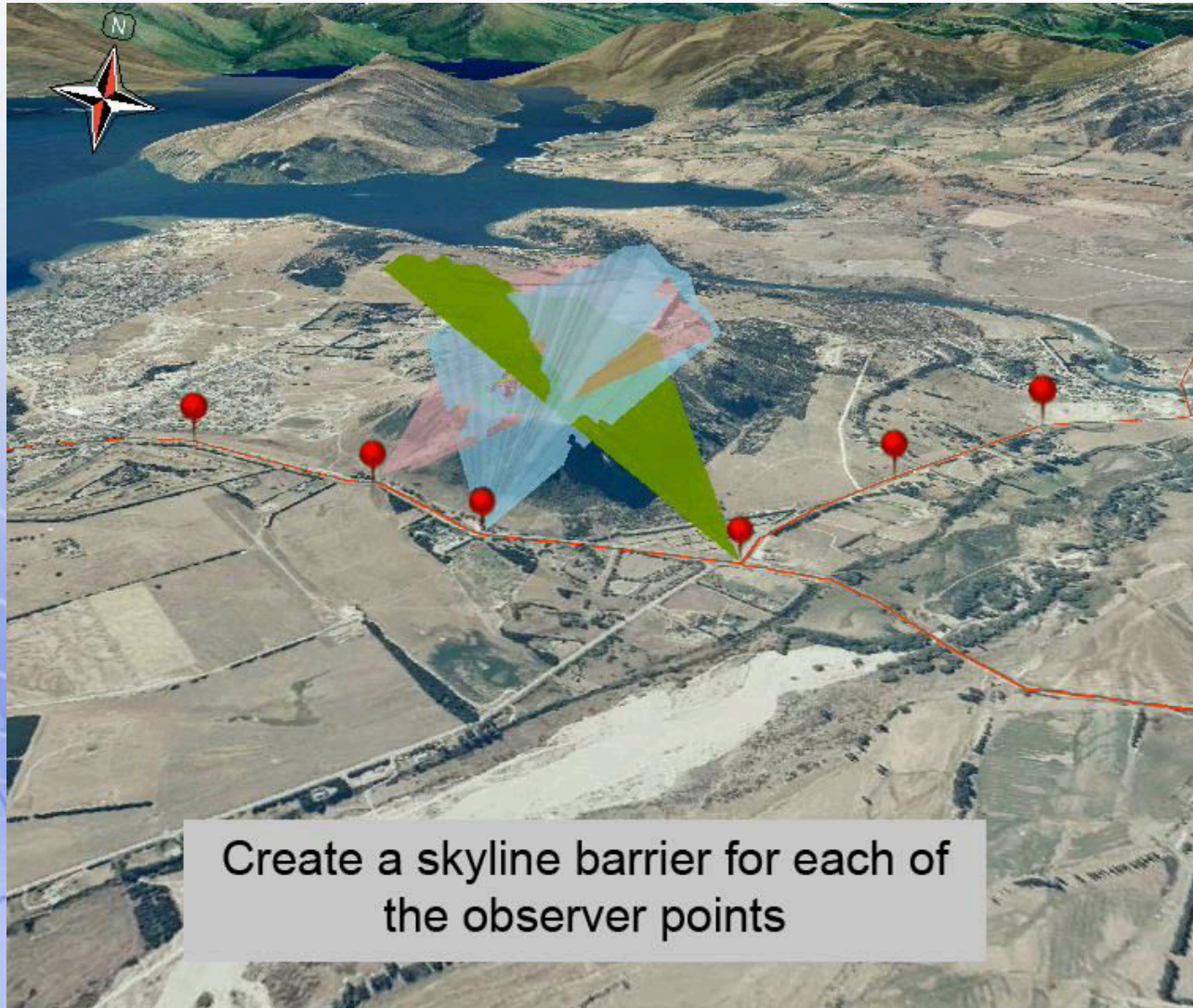
# Ejemplo de Analisis 3D








# Ejemplo de Análisis 3D





# **Trabajando con Datos Temporales**



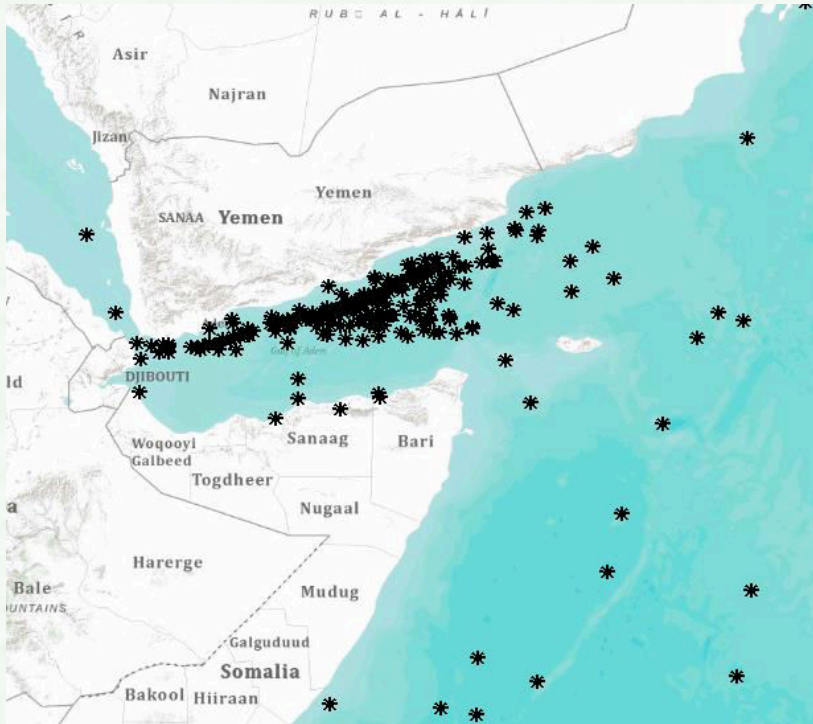
# Algunas Consideraciones ...

**¿ Alguna vez ha utilizado el factor tiempo en sus análisis ?**

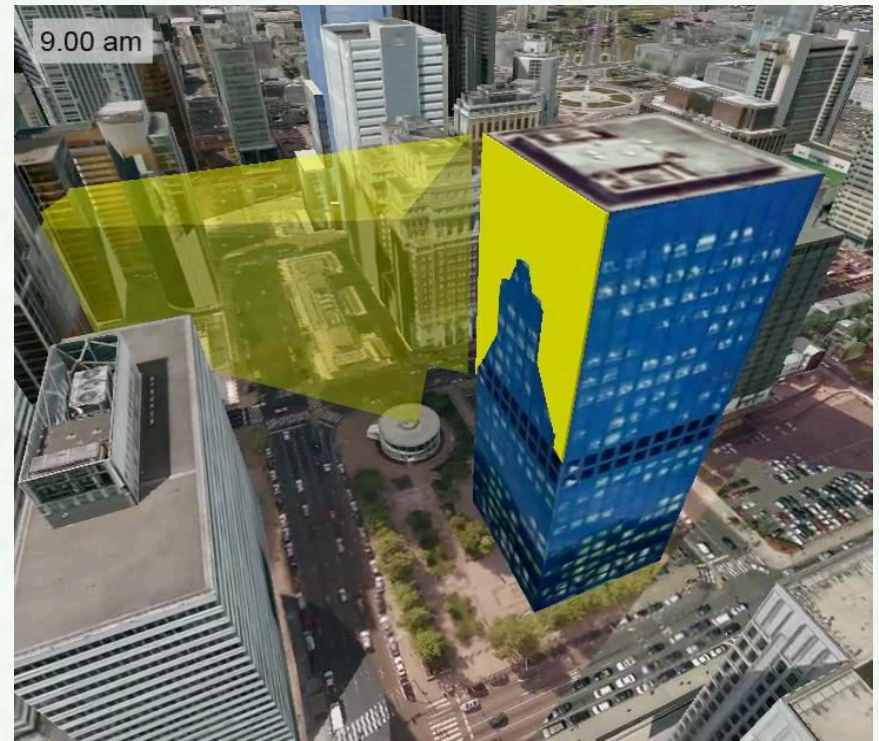


# Ejemplo de Analisis Temporal

Pirate attacks over two year time period



Glare volume at different times of day



# Servicio de Entrenamiento Esri

- ◆ <http://www.esri.com/training>
- ◆ Opciones de Aprendizaje
  - ◆ Instructor-led training (classroom and virtual)
  - ◆ Web courses
  - ◆ Training seminars
  - ◆ Podcasts



The screenshot shows the Esri Training website interface. At the top, there is a banner with a globe and the word "Training" in large white letters. Below the banner, the page is divided into several sections. On the left, there is a "Search Training Catalog" section with a search bar and a "Search" button. Below the search bar, there are links for "Search by" including "Software", "Class Schedule", and "Course Recommendations". Further down, there is a "Learn about" section with links for "Types of Training", "Training Locations", and "Authorized Training Program". In the center, there is a section titled "Free Live Training Seminars" with the text "Next seminar: Coming soon" and "Can't Travel?". Below this, there is a sub-section titled "Esri Offers Training Options for Limited Travel Budgets" with an image of two people working on a computer. On the right, there is a "My Training" section with links for "Start or continue your courses" and "View your training history". Below that, there is a "Resources" section with links for "First Time Visitors" and "Annual User Licenses". At the bottom right, there are links for "Login" and "Learn More".

**Training**

[Help](#) | [Login](#)

**Search Training Catalog**

Type a subject, topic, or title

**Search by**

[Software](#) | [Class Schedule](#)  
[Course Recommendations](#)

**Learn about**

[Types of Training](#) | [Training Locations](#)  
[Authorized Training Program](#)

**Free Live Training Seminars**

Next seminar: Coming soon

**Can't Travel?**

Esri Offers Training Options for Limited Travel Budgets

**My Training**

[Start or continue your courses](#)  
[View your training history](#)

**Resources**

**First Time Visitors**

[Learn about what we offer and how to get started](#)

**Annual User Licenses**

[Login](#) | [Learn More](#)

# ¿ Donde ir ahora ?

## ◆ Instructor-led training

- ◆ Edición en ArcGIS Desktop 10.1

## ◆ Web courses

- ◆ Usando ArcMap en ArcGIS Desktop 10.1

## ◆ Training seminars

- ◆ Personalizar ArcGIS Desktop 10.1
- ◆ Observar toda la gran bibliografia y mucho más en la página de Recursos ESRI

**Gracias ....**

**[facosta@telematica.com.pe](mailto:facosta@telematica.com.pe)**