



# InSTALL InVEST

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# InVEST Installation process

- InVEST: The Application
- Get InVEST
- Install the core InVEST application
  - InVEST statistics while that runs
- Check installation
- InVEST Marine Extensions

# InVEST: The Application

- InVEST is a framework for evaluating Environmental Service tradeoffs between a variety of scenarios.
- InVEST *The Software* consists of
  - A set of Python scripts dependent on ArcGIS
    - generally one per model biophysical and valuation module
  - Base datasets
    - Some required, some optional
  - Documentation

# Where to get InVEST

- InVEST is released as a Windows installer downloadable from our website
  - <http://www.naturalcapitalproject.org/>

The screenshot shows the website interface with a navigation menu (ABOUT, NEWS, TOOLBOX, WHERE WE WORK, PEOPLE, PUBLICATIONS, EVENTS) and a main content area. A red box highlights the 'Download InVEST!' button in the top right, and another red box highlights the 'Download InVEST' button with a download icon in the main content area. A red arrow points from the top button to the main button. The main content area also features a 'New Book!' section and a section titled 'InVEST Integrated Valuation of Environmental Services and Tradeoffs' with descriptive text and logos for Woods Institute for the Environment, WWF, The Nature Conservancy, and the University of Minnesota Institute on the Environment.

# Alternative Download Options

- We offer alternative downloads for InVEST users with slow Internet connections:
  - Full (296 MB)
  - Models Only (56.7 MB)
  - Individual datasets (variable sizes)

# Install InVEST

1. Copy `InVEST_2.2.1_Full_Setup.exe` to your desktop
2. Double click the icon to start the installation process
3. By default the InVEST toolset will copy itself to `C:\InVEST_2_2_1` and take 1.9 GB of disk space.
4. This is will take a few minutes.

# While we wait...

- InVEST Versioning Scheme
- Release Schedule
- Who downloads InVEST

# InVEST Versioning Scheme

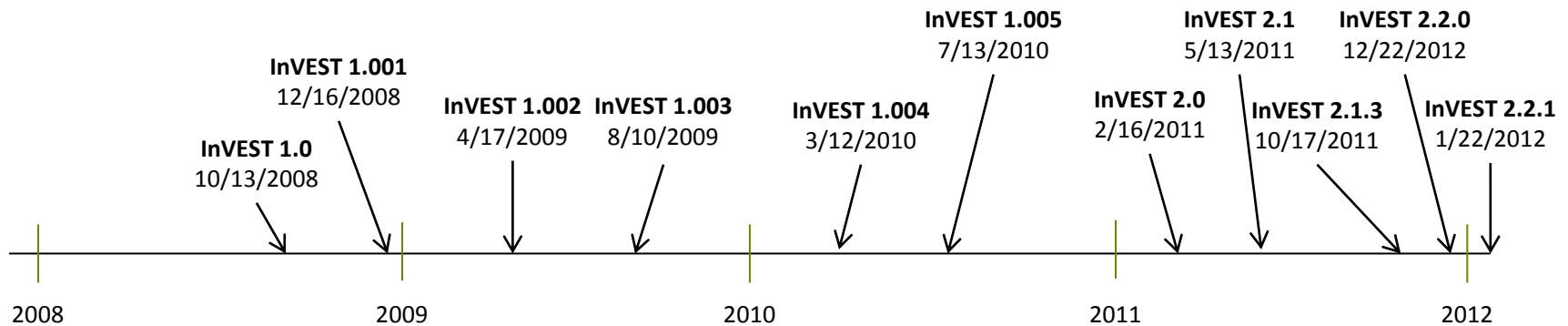


- 2.2.1 is the major version number
  - A increment means change of platform or architecture
- 2.2.1 is the minor version number
  - This increments as new models are added to the suite
- 2.2.1 is the release number
  - This increments when bugs are fixed and released with no new functionality



# Release “Schedule”

- Generally we release a new InVEST version every 3-5 months:



- **InVEST 3.0** will be the big one in late 2012

# Who Downloads InVEST?

- We started tracking user analytics on October 23, 2011. Prior to that we had “about 2000” downloads.
- **InVEST 2.1.3** (*released 10/17/2011*)
  - 164 downloads
- **InVEST 2.2.0** (*released 12/22/2011*)
  - 889 downloads
- **InVEST 2.2.1** (*released 1/22/2012*)
  - 55 downloads

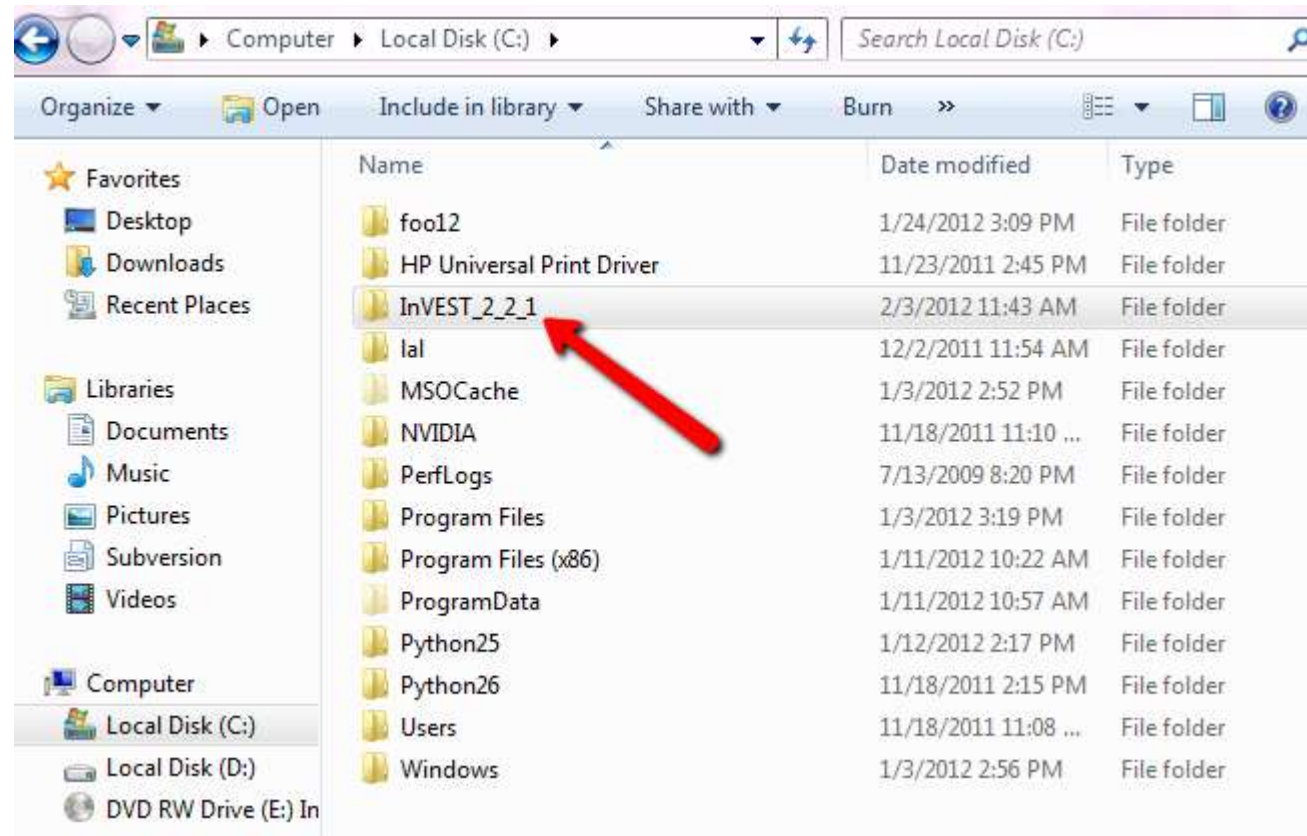
# Who Downloads InVEST?

- Breaking down **InVEST 2.2.0** downloads per country for those > 3%

Country	Percent of InVEST 2.2.0 Downloads
United States	23.99%
China	22.61%
Brazil	4.27%
South Korea	4.04%
Mexico	3.69%
South Africa	3.34%

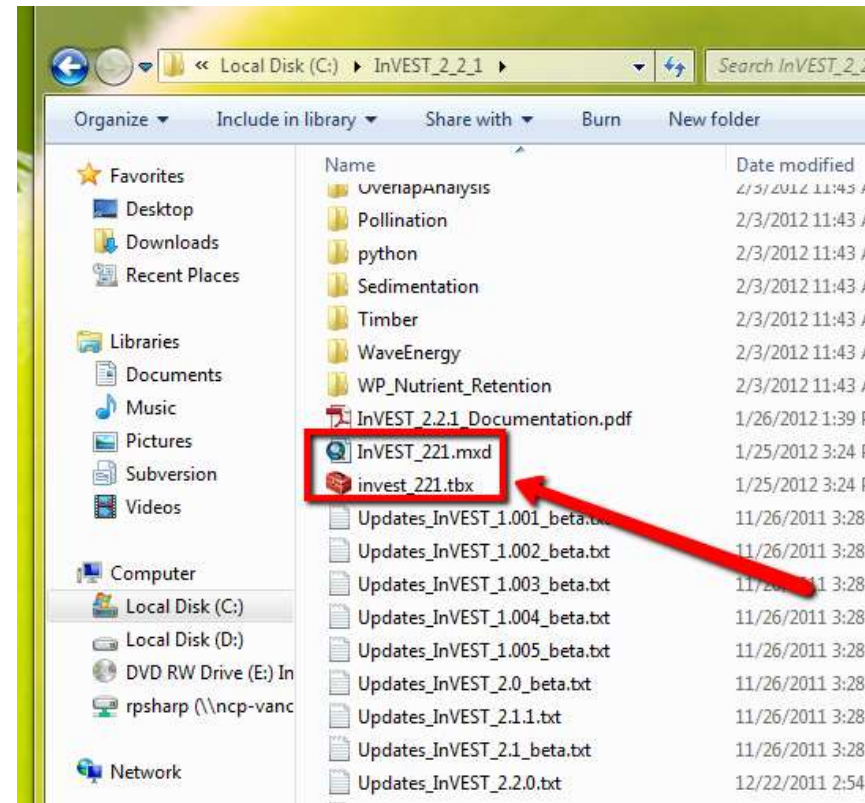
# Checking Your Installation

- Open your file explorer and check for a directory in `C:\InVEST_2_2_1`

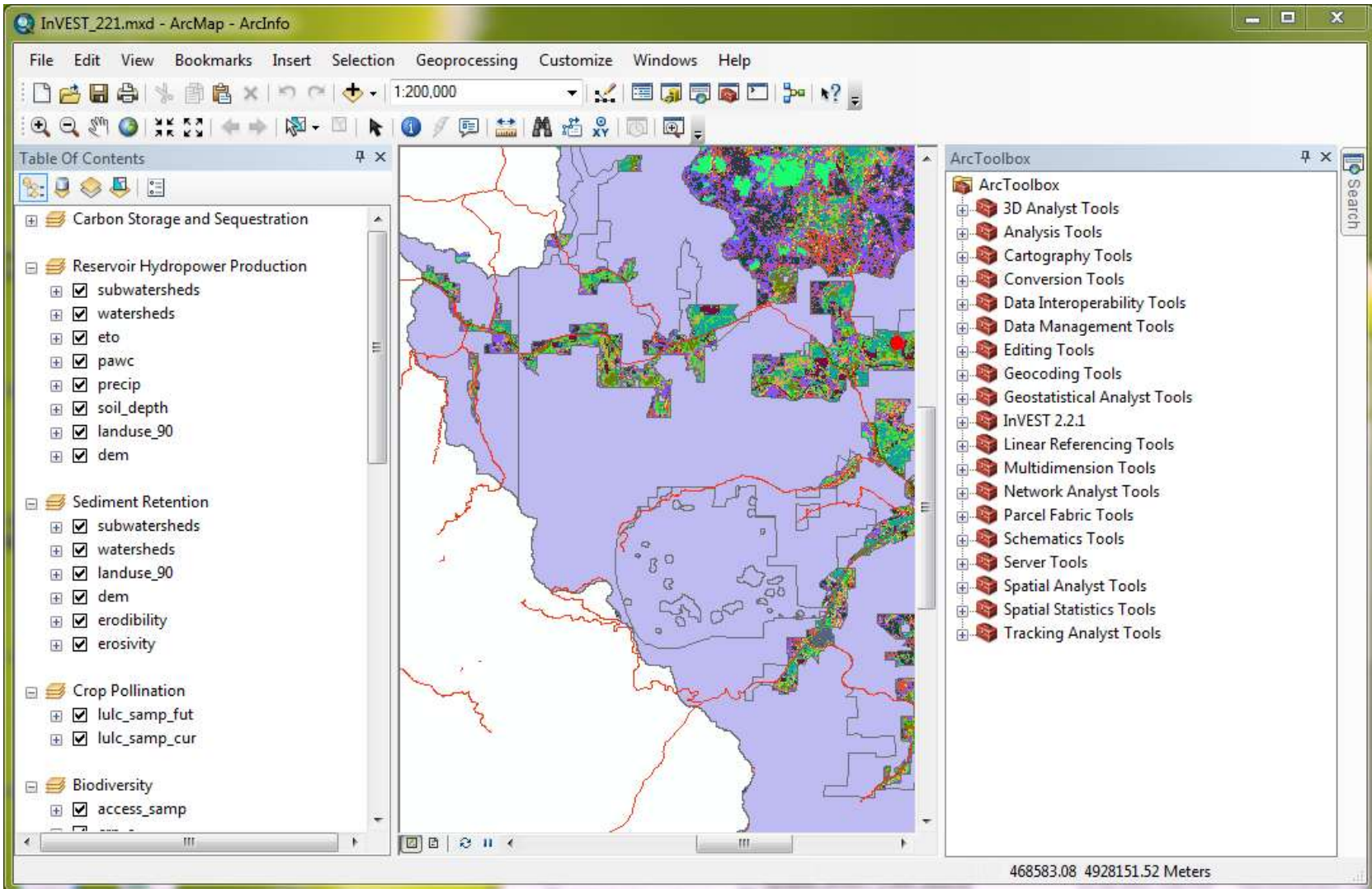


# Checking Your Installation

- In `C:\InVEST_2_2_1` you'll find an ArcMap document and an ArcToolbox
- Open the ArcMap document and add the toolbox if necessary



# You'll End up With this

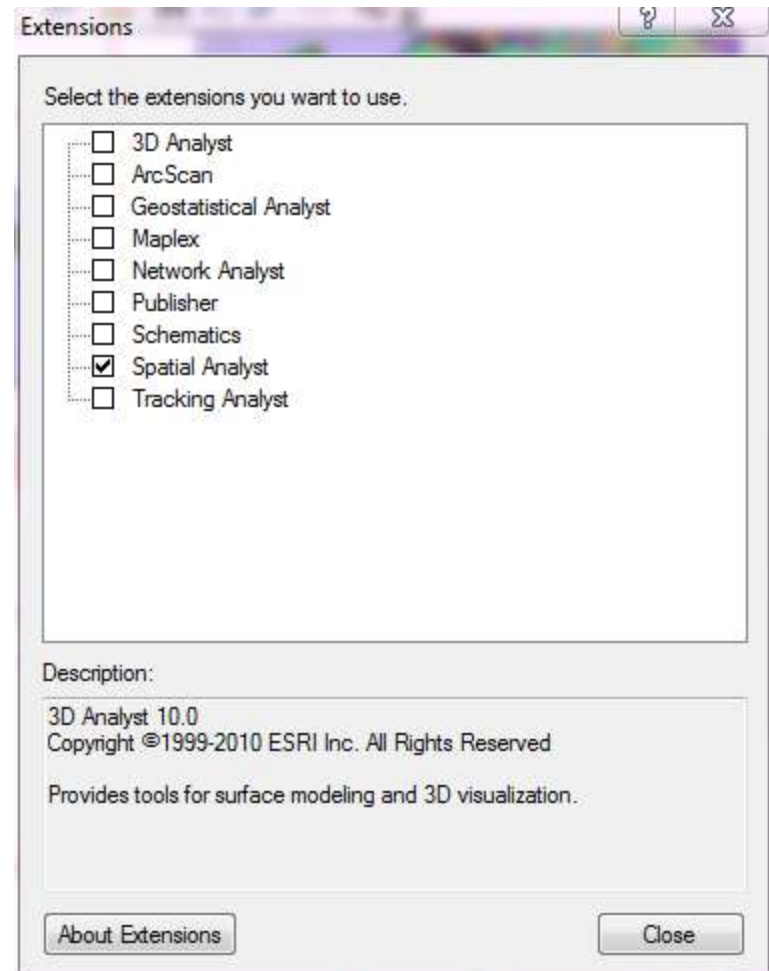


# Not Done Yet...

- Enable Spatial Analyst Extension
- Install Marine Python Extensions
- Non-English Language in Windows?
  - We might need to change the decimal symbol and digit grouping symbol.

# Enable Spatial Analyst Extension

- Most InVEST models require the Spatial Analyst Extension
- Customize -> Extensions -> Spatial Analyst





# InVEST Marine Extensions

- Visit [www.naturalcapitalproject.org](http://www.naturalcapitalproject.org)
- Navigate to the download page
- Download the “Marine Python Extensions” for your version of Arc (9.3 or 10).
  - Install each of the installers:
    - matplotlib
    - numpy
    - pywin32
    - Scipy

# Check Marine Extensions

- Run the “Marine Python Extension Check”

# Windows Language Settings

- Some InVEST models require that floating point values are separated by decimals.
  - A problem in some non-English languages
- **Windows 7 Users:**
  - Go to Control Panel -> Clock, Language and Region
  - Under Region and Language choose "Change the date, time or number format"
  - Easiest thing to do: Set Format to English (United States)
  - OR: To just do commas and periods, click "Additional settings..." then change values in "Decimal symbol" to "." and "Digit grouping symbol" to ","
- **Windows XP Users:**
  - Control Panel -> Regional and Language Options
  - Easiest thing to do: Under the Regional Options tab, pick English (United States) from the drop-down
  - OR: To just do commas and periods, click "Customize..." then change values in "Decimal symbol" to "." and "Digit grouping symbol" to ","

# InVEST is Installed!

- Unless... you're attending the Pollination session and you have Arc 9.3
  - We'll help you install GDAL in that session.

# User Support for InVEST

- Online user's guide, also included with the InVEST install.
- Need additional support or file a bug report?  
Email me:
  - `richsharp@stanford.edu`
- InVEST user listserv coming soon!