

## ArcGIS Installation Instructions

The ISAT-Geography Program at James Madison University owns a full site license for ESRI's ArcGIS Desktop suit of software. This site license allows any JMU Faculty, staff or student to legally install ArcGIS on their office, lab or personal computer. Information on licensing may be found at:

[http://www.esri.com/industries/university/academic\\_programs/sitelic.html](http://www.esri.com/industries/university/academic_programs/sitelic.html).

If you are interested in using ArcGIS Desktop and have Microsoft Windows 2000 or higher, please follow the instructions in this document. The following sections are provided:

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No support for software installation or usage can be provided at this time. Furthermore, JMU cannot be held responsible for the malfunction or misuse of this software resulting in the loss of time or data. If you need further assistance, please refer to ESRI's online Knowledge Base at <http://support.esri.com/en>.

If you are interested in learning more about GIS, please feel free to contact any of the Geography faculty (<http://www.gs.jmu.edu/directory.html>). For questions or concerns regarding this document, or if you have any tips or hints that may help others, feel free to contact me.

*Thank you,*

*Chrissy Willow Rothgeb*

James Madison University  
CISAT LabOps, MSC 4106  
800 South Main Street  
Harrisonburg, VA 22807  
office: ISAT/CS 260  
work: +1.540.568.2629  
fax: +1.540.568.8892  
[rothgecw@jmu.edu](mailto:rothgecw@jmu.edu)

## ***Connecting to the License Manager***

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To stay within JMU's contract with ESRI, all ArcGIS software must be licensed through a network-based license manager. As long as you are connected to the JMU network, you will be able to use the software. The JMU network currently extends to all JMU facilities including the on-campus dorms and some off-campus housing. If you are not already on the JMU network, you'll need to use the JMU Remote VPN client.

- If you connect using the “**JMU Official Wireless**” or “**JMU VPN Wireless**”, you are connected to the JMU network.
- Please be aware that some off-campus housing uses Shentel Internet. If this applies to you, you will need to install the JMU Remote VPN client.
- Please be aware that campus housing is blocked from using Windows file sharing on the network. Please use the web option to download the software and data.
- For information and download instructions on the Remote VPN client, go to <http://www.jmu.edu/computing/desktop/remotearchive/>. You can contact the JMU Help Desk at 568-3555 if you need further assistance.

## ***Configuring ArcGIS to use the License Manager***

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If you installed ArcGIS previously, if you installed from the CD/DVD, or if you are having trouble using ArcGIS with the license manager, you will need to configure ArcGIS manually.

1. On the **Start Menu**, go to **Programs**, then to **ArcGIS** and click on the **Desktop Administrator** utility.
2. In the Desktop Administrator, on the left side of the window you should see a computer with the label “ArcGIS Desktop (Computer Name)” with three folders under it.
3. Click the folder labeled “**License Manager**”. Verify the license manager is listed as “**esrilm.cisat.jmu.edu;hops.cisat.jmu.edu**” on the right side of the window. If it is not, click the “**Change**” button to change the current license manager.
4. Click the folder labeled “**Availability**”. On the right side of the window should be listed a number of features, their expiration date, and the number of licenses available. **If the expiration date is past or there are no more licenses available, please contact Chris Rothgeb at [rothgecw@jmu.edu](mailto:rothgecw@jmu.edu).**

## ***Troubleshooting Connections to the License Manager***

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If you are connected to the JMU network, either directly from campus, over the JMU wireless, or remotely through the VPN client and are still unable to connect to the license manager, here are several steps to try. If you are unsure if you are connected to the JMU network, please refer to the “**Connecting to the License Manager**” section above.

1. From the **Start Menu**, click "**Run**", type "**cmd**", and click "**OK**". At the prompt, type "**ping esrilm.cisat.jmu.edu**" and press enter. Ping will attempt to see if basic routing and communication is available from your computer to the license manager.
2. If ping states that: "**Ping request could not find host esrilm.cisat.jmu.edu**" try typing "**ping 134.126.88.93**" and press enter. If this is successful there is a DNS resolution error on your end. You should **contact the Help Desk** at 568-3555 to get help configuring DNS preferred servers on your computer.
3. If ping states that: "**Request timed out**", regardless whether you used the name or number, then there is some networking problem between the server and your computer, or a firewall is blocking your request. Please **contact the JMU Help Desk** at 568-3555 and let them know that you are unable to ping esrilm.cisat.jmu.edu.
4. If ping was successful and you are still unable to connect to the license manager, please check to see that the **Microsoft Client** is installed. From the "**Control Panel**", open the "**Network Connections**" folder. **Right-click** on the network connection you use and select "**Properties**" from the pop-up menu. Make sure "**Client for Microsoft Networks**" is listed in the lower area of the window and that it has a check mark beside it. If it is not listed, click the "**Install...**" button, select "**Client**" and click "**Add...**" and then select "**Client for Microsoft Networks**" and click "**OK**". You may need to **reboot** your computer.
5. If the Microsoft Client was already installed or still doesn't work after rebooting, please **contact the Help Desk** at 568-3555 and see if they have any further suggestions.

## ***Installing a Stand Alone License Manager***

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**This section pertains to stand-alone installations of ArcGIS operating from a dongle only.** If you plan to use a dongle to operate separately from the JMU network, your license file will expire annually on July 30. This file can usually be updated a month in advance to its expiration.

If you need a license file, please provide the following information to Chris Rothgeb at [rothgecw@jmu.edu](mailto:rothgecw@jmu.edu):

- **Your dongle number.** This is an eight digit number printed on the dongle.
- **Your computer name.** From the **Start Menu** click “Run”. Type “**sysdm.cpl**” and click “**OK**”. Click the “**Computer Name**” tab. Copy the information listed as “**Full computer name**”.
- **The version of ArcGIS.** Please specify either ArcGIS 8.x or 9.x. The particular release of version 8 or 9 is unimportant.

After submitting this information you should receive a license file from ESRI and a confirmation email.

1. Save the license file you received from ESRI to “**C:\Program Files\ESRI\License\**”. You will need this **before** installing the license manager software will install.
2. Connect your dongle to the computer. If it is a USB dongle, plug it into any available port. If it is a parallel dongle, plug it directly into the parallel port and before any other device (such as a printer); you may gently tighten the screws so it does not fall off. If you are prompted for drivers, please cancel; drivers will automatically be installed from the software.
3. Browse to the ESRI Software Share and double click the shortcut labeled “ArcGIS 9.x License Manager”. Please refer to the “**Connecting to the ESRI Software Share**” section below for more information.
4. Before the license manager software will install, it needs your license file. Browse to the file at “**C:\Program Files\ESRI\License\**” when prompted. Use the defaults and complete the installation. After installing, you will need to restart your system.
5. ArcGIS will need to be configured to use the local computer as the license server. Follow the steps listed in the section “**Configuring ArcGIS to use the License Manager**”, but specify your computer’s name instead.

## ***Updating a Stand-Alone License Manager***

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**This section pertains to stand-alone installations of ArcGIS operating from a dongle only.** If you are using a dongle to operate separately from the JMU network, your license file will expire annually on July 30. This file can usually be updated a month in advance to its expiration.

If you need your license file updated, please provide the following information to Chris Rothgeb at [rothgecw@jmu.edu](mailto:rothgecw@jmu.edu):

- **Your dongle number.** This is an eight digit number printed on the dongle.
- **Your computer name.** From the **Start Menu** click “Run”. Type “**sysdm.cpl**” and click “**OK**”. Click the “**Computer Name**” tab. Copy the information listed as “**Full computer name**”.
- **The version of ArcGIS.** Please specify either ArcGIS 8.x or 9.x. The particular release of version 8 or 9 is unimportant.

After submitting this information you should receive a license file from ESRI and a confirmation email.

1. To update your license manager, save the license file you received from ESRI to “**C:\Program Files\ESRI\License\**”.
2. On the **Start Menu**, go to **Programs, ArcGIS**, then to **License Manager** and click on the **License Manager Tools** utility.
3. Under the “**Service/License File**” tab, select “**Configuration using Services**” and choose “**ESRI License Manager**” in the selection.
4. Under the “Configure Services” tab, edit the “Path to the license file” field to the saved license file. This should be “**C:\Program Files\ESRI\License\**” followed by the file name. Make sure the “**Start Services at Power Up**” and “**Use Services**” boxes are checked and click the “**Save Service**” button.
5. Under the “**Start/Stop/Reread**” tab, click “**Stop Server**”, then “**ReRead License File**”, and finally the “**Start Server**”. Ignore any “read license file failed” messages.
6. Verify the license manager is working by following the steps in the **Configuring ArcGIS to use the License Manager** section; however you will need to specify your host (computer) name and not “**esrilm.cisat.jmu.edu**”. If everything is working, close the License Manager utility, otherwise review the previous steps.

## ***Connecting to the ESRI Software Share***

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To install the ArcGIS Desktop software, you will need to connect to the installation share. This can be reached in one of three ways listed below. **If you are using any browser besides Internet Explorer, please choose the first option.**

If prompted for a username and password, type your JMU e-ID prefixed by “**jmuad**”. So if your e-ID is “madisojx”, your username would be “jmuad\madisonjx”.

- **Web:** Open a web browser and type <http://esrilm.cisat.jmu.edu/installs> into the address field and click “**Go**”. A list will open providing links to download zipped and ISO (CD Image) installations.
- **Web Folder:** Open **Internet Explorer** and type <\\esrilm.cisat.jmu.edu\Installs> into the address field and click “**Go**”. A folder window should open listing several folders and shortcuts to installs.
- **Drive:** Right-click “**My Computer**” and select “**Map Network Drive...**” from the pop-up menu. Type <\\esrilm.cisat.jmu.edu\Installs> into the folder field. Choose any drive letter you like. You may check the “**Reconnect at logon**” option if you like. Click the “**Finish**” button.

## ***Connecting to the ESRI Data Share***

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ESRI datasets are available in the same fashion as the installation share. Like the installation share, this can be reached in one of three ways. **If you are using any browser besides Internet Explorer, please choose the first option.**

If prompted for a username and password, type your JMU e-ID prefixed by “**jmuad**”. So if your e-ID is “madisonj”, your username would be “jmuad\madisonj”.

- **Web:** Open **Internet Explorer** and type <http://esrilm.cisat.jmu.edu/data> into the address field and click “**Go**”. A list will open providing links to the files.
- **Web Folder:** Open **Internet Explorer** and type <\\esrilm.cisat.jmu.edu\Data> into the address field and click “**Go**”. A folder window should open listing several folders and shortcuts to installs.
- **Drive:** Right-click “**My Computer**” and select “**Map Network Drive...**” from the pop-up menu. Type <\\esrilm.cisat.jmu.edu\Data> into the folder field. Choose any drive letter you like. You may check the “**Reconnect at logon**” option if you like. Click the “**Finish**” button.

## ***Installation Notes***

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### **System Requirements**

System requirement for ESRI software packages and operating systems may be found at <http://support.esri.com/index.cfm?fa=knowledgebase.systemRequirements.gateway>.

### **ISO CD Images**

If you downloaded an ISO file, you must first convert it into a CD. Most CD burning software will automatically attempt to burn a CD when you double click an ISO file. If this option is not available to you, a third-party freeware software package has been provided for your convenience at <http://esrilm.cisat.jmu.edu/installs/ISO%20Recorder>.

After creating a CD from an ISO, load the disk into your computer. The automated installer should open and begin installation. If prompted, please choose the option for **Individual Use**. When prompted, you will need to specify the license server as “**esrilm.cisat.jmu.edu;hops.cisat.jmu.edu**”.

### **Compatibility Issues**

#### **XP Service Pack 2**

If you are installing **ArcGIS 8.x or 9.0** on **Windows XP with Service Pack 2**, please be aware that the Data Execution Prevention security feature may interfere with these software packages. Please refer to **ESRI Knowledge Base Article 28065** at <http://support.esri.com/index.cfm?fa=knowledgebase.techArticles.articleShow&d=28065> for help in resolving this issue.

#### **Internet Explorer 7**

If you have installed Microsoft Internet Explorer 7, please be aware that early versions of ArcGIS do not support it. Please refer to **ESRI Knowledge Base Article 32008** at <http://support.esri.com/index.cfm?fa=knowledgebase.techarticles.articleShow&d=32008> for more information regarding this issue.

### **Enabling Extensions**

Extensions provide greater functionality to ArcGIS Desktop. Some more popular extensions include Network Analyst, Spatial Analyst, and 3D Analyst.

ArcGIS Extensions are disabled by default. To enable extensions, open ArcMap to a new map. On the menu bar, go to **Tools**, then **Extensions**. All available extensions will be listed; select any you want to use.

Extensions must be enabled for each ArcGIS application you want to use. This includes ArcMap, ArcCatalog and ArcGlobe.