

## SEP Data Agreements

Regularly, SEP enters into contractual agreements with various organizations to license data (most commonly acquired in the field, but sometime generated on a computer); access to these datasets is essential to achieve SEP's research goals. These agreements are legally binding on SEP and Stanford University; therefore, the terms of the agreements must be adhered to carefully and thoroughly. It is essential that all SEP personnel be aware of the following policies and of the attached School of Earth Sciences policy.

### Data Provided to SEP

Companies often provide SEP with seismic or other data for testing of methods developed in our research. The availability of these data is ALWAYS attached to agreements that are negotiated and signed by the SEP Director and Stanford's attorneys. We MUST adhere to all of the requirements of those agreements. It is the responsibility of all SEP personnel using those data to be aware of the specific requirements attached to it.

Examples of such requirements are (1) that we cannot (or alternatively, must) mention the name of the company that provided the data, (2) that we must not give any information that reveals the location at which the data were obtained, (3) that we cannot send copies of the data to people outside SEP without the expressed written permission from the company that provided the data, and (4) that we must give that company an opportunity to review a draft paper about the results of research that uses the data prior to submitting the paper for publication or making it available to other companies.

Before starting to work on a data set, make sure to read carefully the associated License Agreement. This can be often found online together with the data set. If it is not online, ask for a hard copy to either the SEP Director or the SEP Administrator.

Sometimes students have opportunities, through their own contacts with people in industry, to obtain data from some company. When ANY SEP individual receives such data, it is important to realize that SEP is the actual recipient of the data; therefore, SEP is bound by any and all agreements related to the data. Therefore, whenever any personnel have the opportunity to receive such data, it is essential that the SEP Director be informed about it and that the SEP Director sign all agreements related to the data. Likewise, no SEP personnel should receive data from elsewhere without a written agreement that governs requirements related to the receipt of the data. If you have an opportunity to obtain data from an outside organization (including software from other universities), you should bring this opportunity to the attention of the SEP Director.

If you have any questions about the above information, please get in touch with the SEP Director. Otherwise, please sign below indicating that you have read, understand, and agree to honor the above policies.

SEP member: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## **Stanford School of Earth Sciences**

### **Security Policy for Confidential Data Acquired from a Third Party for Research Purposes**

The purpose of this policy is to insure security of research data acquired from a third party with the understanding that the data themselves will be kept confidential. This is particularly critical if the data were acquired through a non-disclosure agreement, signed either by a faculty member or by the Industrial Contracts Office on behalf of the University. The faculty member(s) that is (are) responsible for the research group accepting the data is (are) also responsible for policy implementation.

This policy is intended to provide guidelines and to be in compliance with University requirements for data classification, access, transmittal, and storage of "confidential data", as described at:  
[http://www.stanford.edu/group/security/securecomputing/dataclass\\_chart.html](http://www.stanford.edu/group/security/securecomputing/dataclass_chart.html) . Individual non-disclosure agreements may modify terms of these policies in a manner that is acceptable to both the data owner and Stanford.

This policy applies to all confidential research data that are stored electronically, whether it be in numeric, text, graphical, or other formats. This policy also applies to all derivatives, transformations, and analyses of the original data that may reveal the confidential information contained in the data. Derivative products such as presentations, figures, and papers that do not reveal the confidential information are not covered by this policy, but their distribution may be subject to restrictions or approval requirements in the non-disclosure agreement. Once a publication or presentation based on confidential data has been approved for distribution by the data owner, it is no longer subject to this policy.

Access to the data and their derivatives will be limited to specific SUNet IDs of the individuals authorized by the Principal Investigator or his/her designee. Working electronic copies of data may only be stored on an approved server that is physically secured, professionally managed, and includes access controls to limit access rights by SUNet ID. Data analysis is to be performed by accessing the data directly from the server as well as storing all intermediate and derivative products in the restricted area on the server. Temporary copies may be made on local disks of compute cluster nodes provided deletion is automatic upon completion of the analysis run. Backups must also be stored securely; any "cloud" (third party network) backup must be fully encrypted.

No data copies or derivatives shall be made or stored on any local computing device or local storage device, including external hard drives, flash memory drives, or optical media, unless those devices are fully encrypted or maintained in locked and secured facilities.

Only Stanford-owned and maintained computing systems that have been secured by School IT staff may be used to access and analyze the data. Workstations used for analysis may not enable public file sharing or install peer-to-peer sharing software, since common configurations may expose the confidential data accessed by the workstation to the Internet.

Three server storage options are approved by this policy, and the School's Information Technology Manager may approve others:

1. Restricted file shares created on the School of Earth Sciences file server cluster. This is an appropriate storage location for general-purpose analysis, including analysis from workstations or the CEES computers. This server has integrated secure disk and tape backup facilities.
2. Restricted directories created by the system manager on the file storage systems of the CEES computing clusters. This is an appropriate storage location for analysis of large amounts of data on the actual cluster nodes. This server has no designated long-term storage, with backup options limited to mirroring - consult the School IT Manager for further backup options.
3. Files shares provided on storage servers maintained by the campus Information Technology Services group. This is appropriate for analysis on workstations, but is not accessible to CEES. These servers have integrated basic disk backup with short retention. See: <http://itservices.stanford.edu/service/storage/chart>

Everyone with access to the data must be made aware of the "Security Policy" described in this document, and trained on how to fulfill its requirements. In particular, everyone with access to the data must be trained not to write output data files onto local media, including but not limited to local or external disk drives, CD/DVD, and flash memory storage devices, except when those devices are fully encrypted. Users should immediately report any event that could potentially lead to data loss or theft, such as suspected hacker compromise of a computer used for data analysis, to the School's Information Technology Manager or Network Administrator.

**Appendix**

Additional file servers approved for storage of confidential research data in the School of Earth Sciences:

| Server Name and Description  | Location                                    | Manager   | Access controls  | Backups  |
|--|---|---|--|--|
| Stanford Exploration Project compute cluster parallel file system. | Mitchell 467 - locked computer server room. | Bob Clapp, bob@sep.stanford.edu SEP, Geophysics Department. | File servers connected to separate internal network for access by compute nodes only. Not visible to internet. Standard Linux permissions limit access to any directory to SUNet IDs in specified group. | Copies to additional disks stored in locked computer room. |