

# Users Guide of the Solar Data Analysis System (SDAS)

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# Chapter 1

## Preface

In March 2013, the Solar Data Analysis System (SDAS) at Astronomy Data Center (ADC), NAOJ was constructed from the data archive/analysis systems of Hinode Science Center, Nobeyama Solar Radio Observatory and Solar Observatory. The SDAS is the succeeding system of the systems operated by the observatories, and is operated by ADC and the observatories. Because the data analysis systems of the observatories are fused, all solar data of NAOJ can be analyzed on this system simultaneously.

In the guide, we describe the system configuration, user account application, and the usage of the system. However, the procedures of the data analysis are not written in this document. Please read the data analysis guide of each instrument. The URLs of the analysis guides are listed up in Chapter 6.

It is first time in NAOJ that ADC and the observatories operate the solar data analysis system together. As practical use of a system has just started, there may be a lot of incomplete parts in this local manual. We are now making an effort to complete this manual. Thank you for your understanding and cooperation.

## Chapter 2

# System Configuration of the SDAS

The Solar Data Analysis System of ADC is constructed based on the Hinode data analysis system operated by Hinode Science Center. Hence, the functions of Hinode data analysis system are implemented on the SDAS. Figure 2.1 shows the configuration of the SDAS.

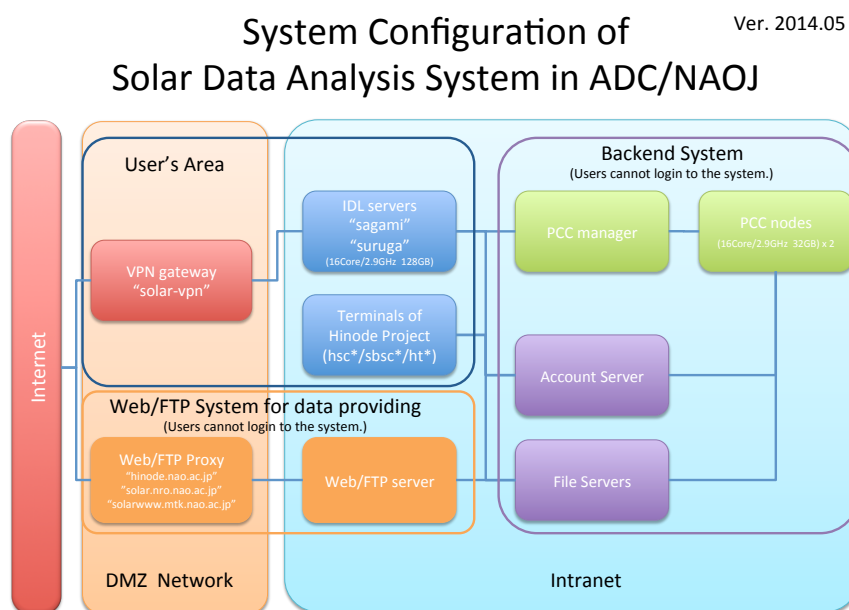


Figure 2.1: System Configuration of SDAS at ADC/NAOJ

The SDAS can be divided into three parts roughly. One is User 's Area that includes the IDL servers and the VPN gateway. The other one is the Web/FTP system that provides the Web/FTP services to the solar projects of NAOJ. Final one is the backend system that is needed to operate the two parts. The backend system is constructed from the account server, the file server and the PC cluster system. Users cannot log in the Web/FTP system and the backend system. In this guide, we describe mainly the usage of the User 's Area and the PC cluster system that is used through the IDL servers.

## Chapter 3

# User Account Application & Extension Procedure

When you use the SDAS operated by ADC, this user application is always necessary.

If you are the staff or student of a foreign institute, we request a person (introducer) who refers you to the SDAS system administrator . The introducer must be a researcher of Japanese institute. Please write the name and e-mail address of your introducer at the space of the message in the application form. We give you the login account after we confirm your identity by the introducer.

The expiration date of your account is 31 March every year. If you do not carry out the extension procedure, your account is revoked at 1 April. At this time, all files of the account are deleted automatically, and the files cannot be recovered.

When a user does not follow the center rule and use the system except for the approved purpose ([http://hinode.nao.ac.jp/SDAS/rule\\_e.shtml](http://hinode.nao.ac.jp/SDAS/rule_e.shtml)), we revoke the use qualification or suspend the use.

### 3.1 User Account Application

To apply for use of the SDAS, you will access the following URL and submit application form after entering requirements.

[http://hinode.nao.ac.jp/SDAS/apply\\_e.shtml](http://hinode.nao.ac.jp/SDAS/apply_e.shtml)

In the application form, we request to input your password for access to SDAS. Simple passwords (ex. 1234) cannot be accepted. If we find such password, we revoke your account immediately without announcement.

The SDAS user authorization will be mailed to your E-mail address after registration.

## **3.2 Extension Procedure**

The expiration date of your account is 31 March every year. We will start the extension procedure in 2 months before the expiration date. If you carry out the procedure, you can continue to use your account until 31 March of the following year.

We will inform you the expiration date of your account in 2 months before the date by E-mail. The way of the extension procedure is written in the e-mail.



# Chapter 4

## Access to the SDAS

### 4.1 Access from the outside of the NAOJ network

To access the SDAS from the Internet, you can use our VPN connection service. When you use the VPN service, you need to follow the VPN service use rule ([http://hinode.nao.ac.jp/SDAS/vpn\\_rule\\_e.shtml](http://hinode.nao.ac.jp/SDAS/vpn_rule_e.shtml)). At first, please read this document.

#### 1. Download of the VPN client

To connect the SDAS through the VPN, you need to install the VPN client software to your PC. At first, please download the VPN client from the following links.

**Microsoft Windows** [http://hinode.nao.ac.jp/SDAS/vpn\\_client/anyconnect-Windows.msi](http://hinode.nao.ac.jp/SDAS/vpn_client/anyconnect-Windows.msi)

**Apple Mac OS X** [http://hinode.nao.ac.jp/SDAS/vpn\\_client/anyconnect-macosx.dmg](http://hinode.nao.ac.jp/SDAS/vpn_client/anyconnect-macosx.dmg)

**Linux 32 bits** [http://hinode.nao.ac.jp/SDAS/vpn\\_client/anyconnect-linux32.tar.gz](http://hinode.nao.ac.jp/SDAS/vpn_client/anyconnect-linux32.tar.gz)

**Linux 64 bits** [http://hinode.nao.ac.jp/SDAS/vpn\\_client/anyconnect-linux64.tar.gz](http://hinode.nao.ac.jp/SDAS/vpn_client/anyconnect-linux64.tar.gz)

*Requirements for VPN client software "AnyConnect"*

[http://hinode.nao.ac.jp/SDAS/vpn\\_req\\_e.shtml](http://hinode.nao.ac.jp/SDAS/vpn_req_e.shtml)

#### 2. Install and Startup of the VPN client

**Note:** When you install the VPN client, you need to use the "root" account or the administrator account of your PC.

##### **Microsoft Windows**

- (a) Execute "anyconnect-Windows.msi" and setup it.

- (b) Start AnyConnect.  
EX) "Start" menu => "ALL programs" => "Cisco" => "Cisco AnyConnect Secure Mobility Client"

### Apple Mac OS X

- (a) Execute "anyconnect-macosx.dmg"
- (b) Enter VPN icon.
- (c) WebSecurity is unchecked on 'Custom Install on "Macintosh HD"' screen.
- (d) Start AnyConnect.  
EX) "Application" => "Cisco" => "Cisco AnyConnect Secure Mobility Client"

### Linux 32(64) bits

- (a) Execute "% tar xvzfanyconnect-linuxe32(64).tar.gz"
- (b) Change directory "cd /anyconnect-[version]/vpn" and run "./vpn\_install.sh"
- (c) Start AnyConnect.  
EX) % /opt/cisco/anyconnect/bin/vpnui

### 3. Connect to SDAS

- (a) Enter "solar-vpn.nao.ac.jp", and click "connection"
- (b) Enter user ID and password (\*1) on "user authentication" screen.
- (c) Open Terminal, and log in the IDL server of SDAS using the following commands.

```
ssh_␣-X_␣UserName@sagami.mtk.nao.ac.jp  
or  
ssh_␣-X_␣UserName@suruga.mtk.nao.ac.jp
```

(\*1) The ID and password is the same as you login to SDAS analysis servers.

## 4.2 Access from the network of NAOJ and the terminal at the common use room of ADC/Subaru/ALMA

When you would like to access the SDAS from the network of NAOJ, you will log in remotely from your machine inside NAOJ and the terminals at the common use room of ADC/Subaru/ALMA by using ssh.

The following is an example to access the IDL server “ sagami ” from the machine inside NAOJ (UserName is your account name of the SDAS.)

```
ssh_X_UserName@sagami.mtk.nao.ac.jp
```

When you use the terminals of the common use rooms of ADC/Subaru/ALMA, the account of the multi-wavelength data analysis system ([http://www.adc.nao.ac.jp/J/kaiseki\\_top.htm](http://www.adc.nao.ac.jp/J/kaiseki_top.htm)) is needed. The account is not the same as the account of the SDAS. Please get the account of the multi-wavelength data analysis system before using the terminal at the common use rooms of ADC/Subaru/ALMA. ADC common use room is located in 2nd floor of South Building [S2]. Subaru common use room is located in 1st floor of Subaru Building [W1]. ALMA common use room is located in 1st floor of ALMA Building [W2].

[see Campus Map <http://www.nao.ac.jp/E/file/naoj-cumpus-map-v1.2.pdf>]

### 4.3 Access from the terminals at Hinode common use room

There are 2 terminals at Hinode common use room. The terminals are the part of the SDAS. Hence, you can use the terminals using your account of the SDAS. On the terminals, you can execute the IDL and can log in remotely the IDL servers. Hinode common use room is located in Room No.323/324, 3rd floor of Main Building (North) [C2].

[see Campus Map <http://www.nao.ac.jp/E/file/naoj-cumpus-map-v1.2.pdf>]

## Chapter 5

# Solar Data Archive & User Disks Area

### 5.1 Solar Data Archive

The SDAS includes the data archives of the three solar projects of NAOJ (Hinode Science Center, Solar Observatory and Nobeyama Radio Observatory) and some other observatories. The observing data in the archive can be access from the IDL server directly. The details of the data are written in the analysis guides of the instruments (see Chapter 6).

#### 5.1.1 Hinode Science Center

- Hinode Level-0 Data (FITS files without the calibration)
  - SOT: `/isas/data/hinode_fits/sot`
  - XRT: `/isas/data/hinode_fits/xrt`
  - EIS: `/isas/data/hinode_fits/eis`
- SOT-SP Level-1 Data (Calibrated Stokes-IQUV: FITS file)
  - `/nfs/SOTSP.L1`
- SOT-SP Level-2 Data (The vector of the magnetic field: FITS file)
  - `/nfs/SOTSP.L2`

#### 5.1.2 Solar Observatory

- Norikura Solar Observatory
  - 25cm Coronagraph

- \* /nfs/mitaka\_solar1/data01/nkr25cm
- 10cm Coronagraph
  - \* /nfs/mitaka\_solar1/data01/nkr10cm
- Mitaka Campus
  - Sunspot Number
    - \* /nfs/mitaka\_solar1/data03/sunspots
  - White-Light Full Sun Image
    - \* /nfs/mitaka\_solar1/data03/wl-fulldisk
  - H $\alpha$  Full Sun Image
    - \* /nfs/mitaka\_solar1/data04/ha-fulldisk
- Solar Flare Telescope
  - Active Region H $\alpha$  Image
    - \* /nfs/mitaka\_solar2/data04/ha-mtkft3
  - Active Region Vector Magnetogram
    - \* /nfs/mitaka\_solar2/data05/mag-mtkft1
  - Infrared Stokes Polarization Full-Disk Image
    - \* /nfs/mitaka\_solar2/data06/mag-mtkft2
  - H $\alpha$  Full Sun Images
    - \* /nfs/mitaka\_solar2/data09/ha-mtkft1

### 5.1.3 Nobeyama Radio Observatory

- Nobeyama Polarimeter (NoRP)
  - raw data (Binary format)
    - \* /nfs/nobeyama\_solar/pub/norp/raw
  - XDR data (Calibrated data: XDR file)
    - \* /nfs/nobeyama\_solar/pub/norp/xdr
  - Metadata (avg, daily, etc)
    - \* /nfs/nobeyama\_solar/pub/norp/data

### 5.1.4 The other observatories & satellites

- Nobeyama Radioheliograph (NoRH)
  - raw data (Visibility data: Binary format)
    - \* `/nfs/nobeyama_solar/pub/norh/raw`
  - 10mins Full Sun Images (Image data: FITS file)
    - \* `/nfs/nobeyama_solar/pub/norh/images/10min`
  - Daily Full Sun Images (Image data:FITS file)
    - \* `/nfs/nobeyama_solar/pub/norh/images/event`
  - Metadata (info, tcx, tsx, etc)
    - \* `/nfs/nobeyama_solar/pub/norh/data`
- Reuven Ramaty High Energy Solar Spectroscopic Imager (RHESSI)
  - `/nfs/rhessi/rhess_db`
- Interface Region Imaging Spectrograph (IRIS)
  - `/nfs/iris.data`

## 5.2 User Disks Area

There are three segments of the storages for users data. We do NOT certificate your data in any sense, e.g. in case of hardware trouble, etc. Please take your back-up by yourself.

### Home Directory (`/home/UserName`)

The directory is the fundamental directory for your account. There is the limit of the volume that you can use, and the size of the limit is 60 GByte.

### Scratch Directories (`/nfs/scr01`, `/nfs/scr02`, `/nfs/scr03`)

You can use the directories as the temporary data storage, for example, to store the intermediate files of your analysis. The volume of each directory is 6 TByte. There is no limit for usage. Please use the volumes after making your directories. ALL of the files and directories in the scratch directories are deleted every 6 months. The schedule of the file deletion is as follows.

Directories	Date of deletion
/nfs/scr01	4:00JST, February 1 and August 1
/nfs/scr02	4:00JST, April 1 and October 1
/nfs/scr03	4:00JST, June 1 and December 1

**Work Directory (/nfs/work/UserName, /nfs/work02/UserName)**

The directories are provided the data storage for the staffs & students of NAOJ or the collaborators of the joint researches with the NAOJ staffs. If you are the collaborator of the joint research with the NAOJ staff and would like to use the directory, please ask your collaborator of NAOJ.

## Chapter 6

# How to use the IDL servers

Two IDL servers are opened for common use in SDAS. 30 floating licenses are installed to the system and you can use IDL on the servers and the terminals of Hinode Science Center. The spec of the IDL servers is as follows.

- IDL server1: sagami.mtk.nao.ac.jp
- IDL server2: suruga.mtk.nao.ac.jp
- Configuration of the IDL server  
(There is no difference between the servers.)
  - Model: Fujitsu Ltd. PRIMERGY RX200S7
  - OS: RedHat Enterprise Linux
  - CPU: Intel Xeon CPU E5-2690 @ 2.9GHz 8 Core x 2
  - Memory: 128GB

You can use the SSW-IDL analysis environment using the `SSWidl` command without any adding procedures because the configuration files (ex. `cshrc`) are already set in you home directory.

(Note: in the system, the system administrator supports only “ `tcsh` ” shell.)

Based on the default setting, the following packages of SSW are available.

Hinode(SOT/XRT/EIS), NoRH, NoRP, IRIS, SDO(AIA, HMI, EVE), RHESSI, TRACE, SOHO(MDI, CDS, EIT, SUMER), Yohkoh(SXT, HXT), CHIANTI, XRAY, SPEX.

On the system, the image synthesis program of the NoRH is available.

There are the analysis guides of the instruments at the following URL.



- SSW-IDL: <http://www.lmsal.com/solarsoft/>
- Hinode/SOT: [http://sot.lmsal.com/Data\\_new.html#using\\_data](http://sot.lmsal.com/Data_new.html#using_data)
- Hinode/XRT: <http://hinode.nao.ac.jp/sbsc/XAG.pdf>
- Hinode/EIS: <http://tcrb.nrl.navy.mil/~hwarren/tutorial.html>
- NoRH: <http://solar.nro.nao.ac.jp/norh/doc/manual/>
- NoRP: <http://solar.nro.nao.ac.jp/norp/doc/manual/>
- IRIS: <http://iris.lmsal.com/analysis.html>
- SDO: <http://www.lmsal.com/sdouserguide.html>
- RHESSI: <http://hesperia.gsfc.nasa.gov/rhessi2/home/software/getting-started/>
- TRACE: [http://www.mssl.ucl.ac.uk/surf/guides/tag/tag\\_top.html](http://www.mssl.ucl.ac.uk/surf/guides/tag/tag_top.html)
- Yohkoh: <http://umbra.nascom.nasa.gov/yohkoh/docs/yag/ydac-yag.html>
- CHIANTI: [http://www.chiantidatabase.org/chianti\\_user\\_guide.html](http://www.chiantidatabase.org/chianti_user_guide.html)

## Chapter 7

# Compiler and Numerical Library

Intel C/C++/Fortran Compilers (FORTRAN: ifort, C:icc, C++:icp) are available on “ sagami ” and “ suruga ”. The manual of Intel Compiler is displayed by the following command on “sagami”.

```
firefox_□/opt/intel/composerxe/Documentation/en_US/get_started_1f.htm
```

On “ sagami ”, the numerical library “ Numerical Factory ” developed by NEC is available through the Intel compilers. The manual is displayed by the following commands on “sagami”.

```
firefox_□/opt/nec/nf/R2.0.0/doc/UsersGuide/index.html
```

(The manual is written in Japanese. There is no English version) Your program that includes the library can be executed only on “ sagami ”.

## Chapter 8

# How to use the PC Cluster System

The SDAS has a PC cluster system mainly to execute the inversion program (MEKSY code, Yokoyama et al. 2011) for the SOT-SP data. If you execute the IDL program of the MEKSY package, MEKSY code is executed at the PC cluster automatically. The usage of the MEKSY package is written at the following URL.

”Manual of the MEKSY package & The description of the SOT-SP Level-2 data”

- HTML: [http://hinode.nao.ac.jp/SDAS/manual/meksy\\_Man\\_E/](http://hinode.nao.ac.jp/SDAS/manual/meksy_Man_E/)
- PDF: [http://hinode.nao.ac.jp/SDAS/manual/meksy\\_Man\\_E.pdf](http://hinode.nao.ac.jp/SDAS/manual/meksy_Man_E.pdf)

### 8.1 Summary of the SDAS PC-Cluster

- Cluster Management Software: LSF
- Compute Node: Fujitsu Ltd. PRIMERGY RX200S7 x 2
- Configuration of each Compute Node
  - OS: RedHat Enterprise Linux
  - CPU: Intel Xeon CPU E5-2690 2.9GHz 8 Core x 2
  - Memory: 32GB
  - Network for PCC: 1Gbps Ethernet

### 8.2 How to submit your jobs to the SDAS-PCC

You can execute your programs that are compiled by the compiler in the previous chapter, on the SDAS-PCC. To submit your jobs to SDAS-PCC, the following command can be used on ”sagami” and ”suruga”.

```
bsub ./a.out
```

”./a.out” is the executing binary file of your program. If you want to output the standard output and the error message, you can use the following options of the ”bsub” command.

```
bsub -o std.txt -e err.txt ./a.out
```

”std.txt” is the filename for the standard output and the ”err.txt” is the filename for the error messages. You can change the filenames.

When you check the status of your jobs, the ”bjobs” command can be used on ”sagami” and ”suruga” .

```
bjobs
JOBID  USER  STAT  QUEUE          FROM_HOST  EXEC_HOST  JOB_NAME  SUBMIT_TIME
1980   shimojo  RUN   all_japan_ sagami    solar-pc1  MEKSY_p000 Feb 14 08:54
1984   shimojo  PEND  all_japan_ sagami    solar-pc1  MEKSY_p004 Feb 14 08:54
```

When ”STAT” is ”RUN”, your jobs are executing. When ”STAT” is ”PEND”, you jobs are waiting to finish the other jobs or the submitting process. If you want to see all jobs that are submitted in the SDAS-PCC, please use the ”bjobs -a” command.

When you want to cancel your jobs, you can use the ”bkill” command on ”sagami” and ”suruga” .

```
bkill [JOBID]
```

[JOBID] is the ID of your job that is displayed at the first column when you execute the ”bjobs” command. If you want to cancel all your jobs, please use the following options.

```
bkill -u [USERNAME] 0
```

[USERNAME] is your account name.

The your jobs are executing using "all\_japan\_short" queue. The executing time (CPU using time) of "all\_japan\_short" queue is limited to 1 hour. If you want to execute longer jobs, please contact with the system administrator of SDAS (sysadm[at]hinode.nao.ac.jp).

**Caution 1** "sagami" and "suruga" are "IDL" servers. When you execute the program made by the compiler, please execute on the SDAS-PCC as much as possible.

**Caution 2** The programs that include the "Numerical Factory" library cannot be execute on "suruga" and "SDAS-PCC". The program can be execute only on "sagami".

### 8.2.1 Example of the SDAS-PCC usage 1: The image synthesise of the NoRH on the SDAS-PCC

When we synthesize the images from the NoRH raw data, the FORTRAN program is used even when we execute the "norh\_synth.pro" procedure on the IDL. Therefore, you can synthesize the NoRH image on the SDAS-PCC. The following procedure shows how to make the NoRH image with 1 second cadence from 02:50:00UT to 03:10:00UT on 13 Aug. 2013. At the following procedure, "koshix" image synthesis program is used.

1. Get the raw data for the image synthesis. (It is the same as the nominal procedure.)

```
[shimojo@suruga test ]$ SSWidl  
IDL> st = '2013-08-13 02:50:00'  
IDL> ed = '2013-08-13 03:10:00'  
IDL> int = 1  
IDL> norh_trans,st,ed,int,freq=17
```

2. Make the parameter file for the image synthesis program, on IDL.

```
IDL> norh_synth,st,ed,int,freq=17,prog='koshix',/norun
```

- When you use "hanaoka" program for 17GHz, please use prog='hanaoka'
- When you use "hanaoka" program for 34GHz, please use freq=34, prog='hanaoka'
- When you use "fujiki" program for 17GHz, please use prog='fujiki'

3. Exit the IDL, and submit the image synthesis job to the SDAS-PCC.

```
IDL>exit
[shimojo@suruga test]$ bsub norh_synth -p koshix17 norh_synth_input0
```

- When you use "hanaoka" program for 17GHz,  
bsub norh\_synth -p hanaoka17 norh\_synth\_input0
- When you use "hanaoka" program for 34GHz,  
bsub norh\_synth -p hanaoka34 norh\_synth\_input0
- When you use "fujiki" program for 17GHz,  
bsub norh\_synth -p fujiki17 norh\_synth\_input0

4. Check the status of the job using the "bjobs" command, and wait to finish the job.

```
[shimojo@suruga test]$ bjobs
JOBID  USER  STAT  QUEUE          FROM_HOST  EXEC_HOST  JOB_NAME  SUBMIT_TIME
75428  shimojo  RUN   all_japan_suruga  solar-pc2  *th_input0  Aug 15 17:22
```

## 8.2.2 Example of the SDAS-PCC usage 2:

### How to use the MPI environment on the SDAS-PCC

On the SDAS-PCC, you can use the MPI environment (MPICH ver. 2). At the section, we shows the commands for the MPI environment.

When you use "ifort", "icc", "gcc" and "gfortran" compilers, the binary files cannot be executed on the MPI environment of the SDAS-PCC. Please use the following compilers for MPI.

**FORTRAN77 for MPI :** mpif77

**FORTRAN90 for MPI :** mpif90

**C for MPI :** mpicc

## C++ for MPI: mpic++

The intel compiler (ifort and icc) are called from the MPI compilers.

To submit the MPI program, the following command is used.

```
bsub -n [NN] mpiexec [a.out]
```

[NN] is the degrees of the parallel (is the same as the number of the CPU core for the jobs). [a.out] is the filename of your program. Since the SDAS-PCC has 32 CPU cores, 32 parallel execution is maximum.

When you check the status of your MPI job using the "bjobs" command, the status of your job is displayed as follows (in the 32 parallel execution case).

```
[shimojo@suruga test]$ bjobs
JOBID  USER  STAT  QUEUE          FROM_HOST  EXEC_HOST  JOB_NAME  SUBMIT_TIME
75430  shimojo  RUN   all_japan_  suruga     16*solar-pc *c ./a.out  Aug 15 17:56
                                     16*solar-pc2
```

The option of the "bsub" command and the queue (CPU time limitation) are the same as the non-MPI jobs.

### [[Caution]]

The backbone network of the SDAS-PCC is 1Gbps Ethernet. Therefore the performance of the MPI environment of SDAS-PCC is not so high. Please use the super-computer, like the super-computer of CfCA, for your large calculation. The SDAS-PCC is useful for the observing data analysis and the test calculation of your simulation.

## 8.3 The manual of LSF

You can see the manual of LSF using the following command on "sagami".

```
firefox_/_usr/share/lsf/html/index.html
```

# Chapter 9

## LaTeX

The LaTeX environment is available on SDAS. The version and commands of the LaTeX environments are followings.

**Version:** pTeXk, Version 3.141592-p3.1.10 (euc) (Web2C 7.5.6)

**Commands of LaTeX :**

**Compiler:** platex

**DVI Viewer:** evince

**Convert from DVI to PDF:** dvipdfmx

**Convert from DVI to PS:** pdvips

**PDF Viewer:** evince

**PS Viewer:** Gus



# Chapter 10

## Printing

You can use the following printers from the IDL servers.

PrinterName	Place	Model	Max. size
sbscpr1	Hinode Common Use Room [C2]	Fuji Xerox DocuPrint C4000d	A3
clpm-a4	ADC Common Use Room [S2]	Fuji Xerox DocuPrint C3350	A4
clpm-a3	ADC Common Use Room [S2]	Fuji Xerox DocuPrint C5000	A3
clps-a4	Subaru Common Use Room [W1]	Fuji Xerox DocuPrint C3350	A4
clps-a3	Subaru Common Use Room [W1]	Fuji Xerox DocuPrint C5000	A3
clpa-a4	ALMA Common Use Room [W1]	Fuji Xerox DocuPrint C3350	A4
clpa-a3	ALMA Common Use Room [W1]	Fuji Xerox DocuPrint C5000	A3
taiyopr1	The Office of Solar Projects	Fuji Xerox DocuPrint C2426	A3
taiyopr2	The Office of Solar Projects	Fuji Xerox DocuPrint C2426	A3

[see Campus Map <http://www.nao.ac.jp/E/file/naoj-cumpus-map-v1.2.pdf>]

The command for printing is as follows.

```
lpr_PPrinterName_Filename
```

# Chapter 11

## Other Items

### 11.1 How to change your password

You can change your password of SDAS using the "modify\_userinfo" command on **sagami/suruga**.

```
modify_userinfo -p
[Please do not forget "-p" option.]
Enter existing login password: <Enter the current password>
New Password: <Enter the new password>
Re-enter new Password: <Enter the new password, again>
Succeeded
```

### 11.2 Your personal information in the SDAS user-database

When you applied the account of SDAS, we requested your information (ex. Affiliation, E-mail address) and recorded them to our database. **We use your personal information only for contacting with you.** On the following web page, you can check and revise your information in our database

[https://hinode.nao.ac.jp/SDAS\\_bin/AcRenew/](https://hinode.nao.ac.jp/SDAS_bin/AcRenew/)

Your E-mail address is important because we use it for informing the extension procedure of your account. Please revise you E-mail address when your address is changed, as soon as possible.

### **11.3 System Usage**

You can check the usage of the IDL server and the PC Cluster (CPU Usage/Load Average) and the usage the scratch directories at the following URL.

[https://hinode.nao.ac.jp/SDAS/sysinfo\\_e.shtml](https://hinode.nao.ac.jp/SDAS/sysinfo_e.shtml)

Please cooperate for the load balancing of the SDAS.

### **11.4 Personal Homepage**

We do not provide the service of personal homepages, except the NAOJ staffs and the collaborators of the joint researches with the NAOJ staffs. Please open your personal homepage on own institute. If you need your personal homepage for the joint research, please ask to the system administrator through your collaborator in NAOJ.

### **11.5 Mail system is not available**

There is no mail system for users in the system. Please use the mail system of own institute.

### **11.6 System Maintenance and Announcements from the System Administrator**

The day of the system maintenance is 3rd Monday every month. In the day, you cannot use any resources of SDAS. When we need inform you about the SDAS, ex. emergency maintenance, we send you the mail and post the information at the following URL.

[http://hinode.nao.ac.jp/SDAS/index\\_e.shtml](http://hinode.nao.ac.jp/SDAS/index_e.shtml)

### **11.7 Contact the system administrator and the staffs of the solar projects**

In order to receive your comments and questions, we prepared the following mail addresses. Please send mails to the proper address.

Please replace [\_at\_] with @.

System administrator(Ex. login, VPN, disks)	sysadm[at_]hinode.nao.ac.jp
Hinode Science Center(SOT/XRT/EIS)	situmon[at_]hinode.nao.ac.jp
Solar Observatory(Solar Flare telescope, etc.)	admin[at_]solar.mtk.nao.ac.jp
Nobeyama Radio Polarimeter	norp-help[at_]solar.nro.nao.ac.jp
Nobeyama Radioheliograph	norh-help[at_]st4a.stelab.nagoya-u.ac.jp

## 11.8 Request to Users

When you publish your work using the resource of SDAS, we would like to ask you to acknowledge the ADC as follows.

- Case 1: When you analyze the data obtained by the Hinode satellite on the SDAS.

This work was (partly) carried out on the Solar Data Analysis System operated by the Astronomy Data Center in cooperation with the Hinode Science Center of the National Astronomical Observatory of Japan.

- Case 2: When you analyze the data obtained by the Solar Observatory on the SDAS.

This work was (partly) carried out on the Solar Data Analysis System operated by the Astronomy Data Center in cooperation with the Solar Observatory of the National Astronomical Observatory of Japan.

- Case 3: When you analyze the other data on the SDAS.

This work was (partly) carried out on the Solar Data Analysis System operated by the Astronomy Data Center of the National Astronomical Observatory of Japan.