

# Dataless ingest in SC3





# SCConfig Overview

Scconfig the GUI for all\* Seiscomp configuration

Scconfig is organized into the following sections:

Information

System: SC3 application en-/disabling, status

Inventory: used to import/export and view stream configuration data

Modules: per application configurations

Bindings: Network/Station configurations



# scconfig

File Edit



## System

The current status of the system

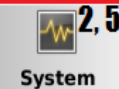
The current status of the system



Information

Update Start Stop Restart Check Enable module(s) Disable module(s) Update configuration

All commands (such as 'start', 'stop') will affect all modules which rows are currently selected. If no row is selected, all modules are affected. You can clear the row selection with ESC.



System



Inventory



Modules



Bindings

Auto	Module	Status
On	spread	not running
On	istiWM	not running
On	istiMT	not running
On	scmag_isti	not running
On	scautoloc	not running
On	scmag	not running
On	istiPAmp	not running
On	scautopick	not running
On	scamp	not running
On	scmaster	not running
On	scevent	not running
On	scqc	not running
On	seedlink	not running
Off	scvsmaglog	not running
Off	istiAP	not running

```
Idle
spread;0;0;1
scmaster;0;0;1
arlink;0;0;0
arlinkproxy;0;0;0
diskmon;0;0;0
ew2sc3;0;0;0
fdsnws;0;0;0
istiAP;0;0;0
istiAlarm;0;0;0
istiFFS;0;0;0
istiMT;0;0;1
istiPAmp;0;0;1
istiWM;0;0;1
ql2sc;0;0;0
scalert;0;0;0
scamp;0;0;1
scautoloc;0;0;1
scautopick;0;0;1
scdb;0;0;0
scenvelope;0;0;0
scevent;0;0;1
scevtlog;0;0;0
scimex;0;0;0
scimport;0;0;0
scm;0;0;0
scmag;0;0;1
```

# Workflow

## 1. Import metadata

Best practice: limit import to one or two network files

## 2. Save and update database. Repeat step 1 as necessary

## 3. Sync keys

## 4. Finish updating station 'keys'/bindings

## 5. Save again and update the database



# Inventory: selecting dataless source

File Edit

## Inventory

Shows available inventory files and provides options to import inventory data also from other formats via import\_inv.

Information System Inventory Modules Bindings

Import Test sync Sync Sync keys

Name	Size
US_00-16_metadata_-HZ.483770.dataless.xml	1.9 MB
README	47 byte(s)
JP_00-16_metadata_...	3 KB
IU_00-16_metadata_...	3 MB
II_00-16_metadata_E...	3 MB
GE_00-16_metadata_...	7 KB
G_00-16_metadata_...	2 KB
AU_00-16_metadata_...	7 MB
AT_00-16_metadata_...	1 KB
arrayDefinitions.test	3 KB
AK_00-16_metadata_-HZ.108892.dataless.xml	2.1 MB

**Import**

Format:

Source:  ...

OK Cancel

**Open**

Look in: /home/alexander/Desktop/Dataless\_Files

Computer	2004_TW_-HZ_metadata.461521.dataless	IM_00-16_metadata_-HZ
alexander	AK_00-16_metadata_-HZ.108892.dataless	IU_00-16_metadata_-HZ
	AT_00-16_metadata_BH-.701645.dataless	JP_00-16_metadata_-HZ.
	AU_00-16_metadata_-HZ.487951.dataless	LD_00-16_metadata_-HZ
	C1_00-16_metadata_-HZ.812344.dataless	MS_00-16_metadata_-HZ
	C_00-16_metadata_-HZ.740200.dataless	NE_00-16_metadata_HH.
	CM_00-16_metadata_BHZ.291257.dataless	PS_00-16_metadata_BHZ
	G_00-16_metadata_-HZ.289232.dataless	TA_4-C_00-16_metadata
	GE_00-16_metadata_BHZ.165588.dataless	TA_D-H_00-16_metadata
	II_00-16_metadata_BHZ.232475.dataless	TA_I-M_00-16_metadata

File name:

Files of type: All Files (\*)

Open Cancel

# Dataless import: success!

The screenshot shows a Linux desktop environment with the following elements:

- System Bar:** Applications, Places, System, Tue Jul 25, 15:07, alexander
- SeisComP3 - system configuration @ localhost.localdomain** window:
  - Inventory:** Shows available inventory files and provides options like Import, Test sync, and Syn.
  - Information:** Name
  - System:** (empty)
  - Inventory:** (empty)
  - Modules:** (empty)
  - Bindings:** (empty)
- Terminal Window (/seiscomp3/bin/seiscomp):**

```
Generating output to /seiscomp3/etc/inventory/MS_00-16_metadata_...
15:07:20 [debug] Adding plugin path: .
15:07:20 [debug] Adding plugin path: /home/alexander/.seiscomp3/plu
15:07:20 [debug] Adding plugin path: /seiscomp3/lib/plugins
15:07:20 [debug] Adding plugin path: /seiscomp3/lib
15:07:20 [debug] Adding plugin path: /seiscomp3/share/plugins
15:07:20 [debug] Adding plugin path: /seiscomp3/lib
15:07:20 [debug] Adding plugin path: /seiscomp3/lib
15:07:20 [debug] Adding plugin path: /seiscomp3/lib
15:07:20 [debug] Adding plugin path: /seiscomp3/lib
15:07:20 [debug] Adding plugin path: /seiscomp3/lib
15:07:20 [debug] Adding plugin path: /seiscomp3/share/plugins/dlsv2i
15:07:20 [debug] Trying to open plugin at /seiscomp3/share/plugins/db
15:07:20 [info] Plugin dbpostgresql registered
15:07:20 [info]
Plugins:
-----
[1]
description: PostgreSQL database driver
author: GFZ Potsdam <seiscomp-devel@gfz-potsdam.de>
version: 0.9.1
API: 1.15.0

15:07:20 [info] START PROCESSING DATALESS
15:07:20 [debug] Start processing station information
15:07:20 [info] Processing station MS BESC 1996,153,00:00:00
15:07:20 [debug] Getting the description of the network
15:07:20 [debug] Insert station
```
- Terminal Window Status:** Program exited normally (highlighted in green)
- Terminal Window Buttons:** OK, Stop

# Updating the database: round 1

## System

The current status of the system

Information

Update Start Stop Restart Check Enable module(s) Disable module(s) Update configuration

All commands (such as 'start', 'stop') will affect all modules which rows are currently selected. If no row is selected, all modules are affected. You can clear the row selection with ESC.

Auto	Module	Status
On	spread	running
On	istiWM	not running
On	istiMT	not running
On	scmag_isti	not running
On	scautoloc	not running
On	scmag	not running
On	istiPAmp	not running
On	scautopick	not running
On	scamp	not running
On	scmaster	running
On	scevent	not running
On	scqc	not running
On	seedlink	not running
Off	scvsmaglog	not running
Off	istiAP	not running

```
Idle
15:10:11 [info] Outgoing messages are encoded to match schema version 0.7
15:10:11 [info] user "_sccfgupd_" connected successfully to localhost:4803
15:10:11 [info] Setting message encoding to binary
15:10:11 [info] Connect to database
15:10:11 [info] Received database service parameters
15:10:11 [info] Trying to connect to postgresql://sysop:sysop@localhost/seiscomp3
15:10:11 [debug] trying to open database postgresql://sysop:sysop@localhost/seiscomp3
15:10:11 [debug] Found database version v0.7
15:10:11 [info] Connected successfully
15:10:11 [info] Loading configuration module
15:10:11 [info] Finished loading configuration module
15:10:11 [debug] Leaving ::done
ation WDC Whiskeytown Dam, Shasta County, California, USA
+ station WMOK Wichita Mountains, Oklahoma, USA
+ station WRAK Wrangell Island, Southeastern Alaska, Alaska, USA
+ station WUAZ Wupatki, Arizona, USA
+ station WVOR Wild Horse Valley, Oregon, USA
+ station WVT Waverly, Tennessee, USA
* configure slarchive
* configure trunk
+ default
+ read 637 stations
+ scautopick
+ read 637 stations
- database is already up-to-date
* configure syncarc
```

# Station bindings: an intro

Applications Places System Tue Jul 25, 15:10 alexander

SeisComP3 - system configuration @ localhost.localdomain

File Edit

## Bindings

Configuration of module-station bindings and binding profiles.

Name	Profile
Networks	
AK	
AT	
AU	
G	
GE	
II	
IU	
JP	
US	

**Network/Station profiles**

**Station-application configurations**

- arlink
- arlink-access
- global
- scautopick
- seedlink
- slarchive

**Station-application configurations are used to provide site-specific configurations. Examples include: 'global' data selectors to specify which stream to use at a station, scautopick bindings specifying filters appropriate for picking at the station in question, and seedlink bindings specifying which Seedlink server will provide the data for that site**

AK AT AU  
G GE II  
IU JP US

alexander@localhos... [PreprocessData.c (~... [alexander@localhos... [alexander@localhos... [prefilters.sac.c (~/ti... [alexander@localhos... SeisComP3 - system ...



# Syncing keys

File Edit

## Inventory

Shows available inventory files and provides options to import inventory data also from other formats via import\_inv.

Import Test sync Sync Sync keys

Name	Size	Type	Date Modified
AK_00-16_metadata_-HZ.108892.dataless.xml	2.1 MB	xml File	17 May 2017 15:16:04
arrayDefinitions.test.dataless.xml	8 KB	xml File	17 May 2017 15:16:04
AT_00-16_metadata_BH-.701645.dataless.xml	391 KB	xml File	23 Jul 2017 16:05:08
AU_00-16_metadata_-HZ.487951.dataless.xml			
G_00-16_metadata_-HZ.289232.dataless.xml			
GE_00-16_metadata_BHZ.165588.dataless.xml			
II_00-16_metadata_BHZ.232475.dataless.xml			
IU_00-16_metadata_-HZ.524105.dataless.xml			
JP_00-16_metadata_-HZ.772238.dataless.xml			
MS_00-16_metadata_-HZ.535801.dataless.xml			
README			
US_00-16_metadata_-HZ.483770.dataless.xml	1.9 MB	xml File	17 May 2017 15:16:04

**Sync keys**

Unless an error is raised the current unsaved bindings configuration will be lost. Make sure that you have saved all changes.  
Do you want to continue?

# New network added

Applications Places System Tue Jul 25, 15:13 alexander

SeisCom3 - system configuration @ localhost.localdomain

## Bindings

Configuration of module-station bindings and binding profiles.

**global/BHZ**

Name	Profile
Networks	
AK	
AT	
AU	
G	
GE	
II	
IU	
IP	
MS	
BESC	
BTDF	
KAPK	
NTU	
PTK	
US	
AAM	
global	BHZ
scautop...	pick_profile
seedlink	tsunami_iris
ACSO	
AGMN	
AUPD	

**global**

**detecStream**  **detecLocid**

Defines the channel code of the preferred stream used eg ...

Defines the location code of the preferred stream used ...

**MLh**

**maxavg**  **ClippingThreshold**  **params**

Define combiner operation for both horizontals (min, ...

MLh clipping level, in raw counts, eg. 80% of  $2^{23}$  = ...

Defines attenuation parameters for MLh. Format: ...

**amplitudes**

Defines general parameters for amplitudes of a certain type.

EHZ BHZ BHZ\_10 BHZ\_00 SHZ HHZ global\_pr... global\_pr...

[alexander@localhos...] [PreprocessData.c (~...)] [alexander@localhos...] [alexander@localhos...] [prefilterssac.c (~/ti...)] [alexander@localhos...]

SeisCom3 - system ...

# Post-network configuration:

Applications Places System Tue Jul 25, 15:14 alexander

SeisComP3 - system configuration @ localhost.localdomain

## Bindings

Configuration of module-station bindings and binding profiles.

Name	Profile
Networks	
AK	
AT	
AU	
G	
GE	
II	
IU	
IP	
MS	
BESC	
global	BHZ
scautop...	pick_profile
seedlink	tsunami_iris
BTDF	
KAPK	
NTU	
PTK	
US	
AAM	
global	BHZ
scautop...	nick_profile

### global/BHZ

**global**

**detecStream**  **detecLocid**

Defines the channel code of the preferred stream used eg ...

Defines the location code of the preferred stream used ...

**MLh**

**maxavg**  **ClippingThreshold**  **params**

Define combiner operation for both horizontals (min, ...)

MLh clipping level, in raw counts, eg. 80% of  $2^{23}$  = ...

Defines attenuation parameters for MLh. Format: ...

**amplitudes**

Defines general parameters for amplitudes of a certain type.

Name
arclink
arclink-access
global
EHZ
BHZ
BHZ_10
BHZ_00
SHZ
HHZ
global_profile
global_profile~

tsunami\_... tsunami\_...

sid\_seed... tsunami\_...

tsunami\_... tsunami\_...

earthworm tsunami\_...

[alexander@localhos... [PreprocessData.c (~... [alexander@localhos... [alexander@localhos... [prepfilterssac.c (~/ti... [alexander@localhos... SeisComP3 - system ...



# Seedlink

File Edit

## Bindings

Configuration of module-station bindings and binding profiles.

- Information
- System
- Inventory
- Modules

Name	Profile
Networks	
AK	
AT	
AU	
AR...	
BHZ	
pick_profile	
tsunami_iris3	
AR...	
AS...	
AS...	
AS...	

global scauto... seedlink

### seedlink/earthworm

<b>access</b> 0.0.0.0/0 List of IP addresses or IP/mask pairs (in ...)	<b>buffers</b> 100 Size of memory buffer (number of recent Mini-SEED ...)	<b>segments</b> 50 Number of disk buffer segments (files under ...)	<b>segsz</b> 1000 Size of one disk buffer segment in the records (512-byte ...)
<b>blanks</b> 10 Number of blank records to insert after the re-scan of ...	<b>encoding</b> [empty] Encoding of Mini-SEED records created by SeedLink. The ...	<b>backfill_buffer</b> 0 Enable backfilling buffer for out-of-order records when ...	

### sources

test\_ohio : ewexport

<b>address</b> 192.168.4.15 Hostname or IP of the Earthworm export server.	<b>port</b> 18105 Port of the Earthworm export server.	<b>proc</b> [empty] Name of the proc object (defined in streams.xml); used ...
--	--	--

Name
tsunami_gfz
tsunami_iris1~
sid_seedlink
tsunami_iris3
tsunami_iris1
tsunami_iris2
earthworm
tsunami_iris4
tsunami_iris2~
slexport
tsunami_iris3~
slarchive

tsunami\_... tsunami\_...

sid\_seed... tsunami\_...

tsunami\_... tsunami\_...

earthworm tsunami\_...

tsunami\_... slexport

# Pick Profile

File Edit

## Bindings

Configuration of module-station bindings and binding profiles.

**Information**

**System**

**Inventory**

**Modules**

Name	Profile
Networks	
▶ AK	
▶ AT	
▼ AU	
▶ AR...	
▶ BHZ	
▶ pick_profile	
▶ tsunami_iris3	
▶ AS...	
▶ AS...	
▶ AS...	

**Bindings**

global	scauto...	seedlink
--------	-----------	----------

### scautopick/pick\_profile

▶ **global**

▼ **scautopick**

**detecEnable** Enables/disables picking on a station.

**detecFilter** `W(4,0,7,2)>>STALTA(2,`  
Defines the filter used for picking. The filtered signal must reach a certain level.

**trigOn** `3`

**trigOff** `1.5`

**timeCorr** `-0.8`  
The time correction applied to a detected pick.

**Location**  
**Evaluated**  
RMHP(10)>>ITAPER(30)>>BW(4,0,7,2)>>STALTA(2,80)

**Name**

- global\_profile
- global\_profile~
- SHZ\_00
- ▼ **scautopick**
  - pick\_NULL
  - pick\_LNZ\_10
  - pick\_BHZ\_20
  - pick\_BNZ\_05
  - pick\_LHZ\_20
  - pick\_BNZ\_20
  - pick\_ENZ\_02
  - pick\_BNZ\_06

EHZ BHZ

BHZ\_10 BHZ\_00

SHZ HHZ

global\_pr... global\_pr...

# Final update

Applications Places System Tue Jul 25, 15:14 alexander

SeisComP3 - system configuration @ localhost.localdomain

File Edit

## System

The current status of the system

**⚠ The configuration is changed but has not been saved yet. It must be saved to run all configuration commands as expected. <- hotkey: CTRL + S**

Update Start Stop Restart Check Enable module(s) Disable module(s) Update configuration

All commands (such as 'start', 'stop') will affect all modules which rows are currently selected. If no row is selected, all modules are affected. You can clear the row selection with ESC.

Auto	Module	Status
On	spread	running
On	istiWM	not running
On	istiMT	not running
On	scmag_isti	not running
On	scautoloc	not running
On	scmag	not running
On	istiPAmp	not running
On	scautopick	not running
On	scamp	not running
On	scmaster	running
On	scevent	not running
On	scqc	not running
On	seedlink	not running
Off	scvsmaglog	not running

```
Idle
spread;1;1;1
scmaster;1;1;1
arlink;0;0;0
arlinkproxy;0;0;0
diskmon;0;0;0
ew2sc3;0;0;0
fdsnws;0;0;0
istiAP;0;0;0
istiAlarm;0;0;0
istiFFS;0;0;0
istiMT;0;0;1
istiPAmp;0;0;1
istiWM;0;0;1
ql2sc;0;0;0
scalert;0;0;0
scamp;0;0;1
scautoloc;0;0;1
scautopick;0;0;1
scdb;0;0;0
scenvelope;0;0;0
scevent;0;0;1
scevtlog;0;0;0
scimex;0;0;0
scimport;0;0;0
scm;0;0;0
```

[alexander@localhos...] [PreprocessData.c (~...)] [alexander@localhos...]

[alexander@localhos...] [prefilterssac.c (~/ti...)] [alexander@localhos...]

SeisComP3 - system ...