

# XINA Struct Trend

The XINA Struct Trend command line utility generates trend data products for a specified time range or Event Intervals. It is used by the XINA Trend Task. Generated data products include:

- Binned trend data
- Configurable trend plots
- Log file

## Arguments

Name	Req	Description	Default
cache		Cache directory path. Used for any persistent caching across tasks for optimization purposes.	
conf	?	File path to the JSON config containing the trend parameters.	
env	?	File path to the JSON environment file which defines environment parameters such as project specific paths.	
help		Print available options.	
host		XINA Tunnel host.	"localhost"
port		XINA Tunnel port.	41746
import	?	Import directory path. Files that need to be imported will be placed here. <code>struct_trend</code> is responsible for generating the corresponding import action file but <code>xina-run</code> will perform the actual importing.	
log	?	File path that log events will be written to.	
out	?	Output directory path. Files placed here will be uploaded and accessible directly from the Task interface (e.g. notifications panel).	
post	?	Post directory path (for post-import outputs) e.g. uploading log files to the Task record.	
task	?	File path to the JSON file containing info about the Task.	
temp	?	Temp directory path for storing temporary files during execution.	

# conf

The below table describes the available fields in the `conf` JSON file and is used to control how data should be trended.

Name	Type	Req	Description	Default
model	utf8text	?	Path of model to trend data from e.g. <code>moma.fm</code>	
copy	boolean		If true, the zip file will be uploaded and available from the Task interface.	false
trend	utf8text		The name of the <a href="#">Trend Definition</a> to generate the trend for. If provided, then the <code>profiles</code> , <code>trend_conf</code> , and <code>plot_conf</code> will be loaded from it.	
label	utf8text		The text that will be used to name the files and final zip file. The format will be like <code>2024_06_12_00_00_00_2024_06_12_00_20_00_profile_label</code>	
profiles	set(utf8string)		Name of profile(s) to include in trend	
trend_conf	struct_trend_conf		See <a href="#">struct_trend_conf</a>	
plot_conf	jsonobject		See <a href="#">trend plot conf</a>	

## Example conf:

This example performs a trend export with fields provided directly in the conf object.

```
{
  "label": "Test_Trend_From_Conf",
  "desc": "This is a test trend. The Trend parameters are provided in the conf.",
  "model": "model.path",
  "copy": true,
  "profiles": [
    "TEST_PROFILE"
  ],
  "trend_conf": {
    "t": [
      {
        "start": "2024-11-01T00:00:00Z",
        "end": "2024-11-01T00:10:00Z"
```

```
    }  
  ],  
  "bin_minutes": 1,  
  "disable_filter": false,  
  "intervals": null  
},  
"plot_conf": {}  
}
```

In this example, the trend will be generated from an existing [Trend Definition](#) named `TEST_TREND`.

```
{  
  "trend": "TEST_TREND",  
  "model": "model.path",  
  "copy": true  
}
```

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