

**Product Requirement Specification  
MBScope, Snapshot Data (SSD) File Format**

**994-0118-005  
Rev A**

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Created By	<b>Stephen Pickett</b> Electrical Engineer	June 07, 2012
Created By	<b>Mauricio Munoz</b> Electrical Engineer	June 07, 2012
Approved By	<b>Tim A Harris</b> Electrical Engineering Manager	June 07, 2012

REVISION HISTORY

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## 2 SNAPSHOT DATA FILE FORMAT

### 2.1 SSD file

The snapshot data shall be stored to a text file with a SSD extension. This file is divided into header and data sections.

#### 2.1.1 Header Section

The header section is in the form of an INI file (see SKF document 994-0118-003) with the following sections, parameters and values. The data interpretation format and an example of a typical value, is also provided for each parameter.

Section	Parameter	Description	Format	Valid Options	Example	Controller Types
[File Info]	Version	Trending file version	float	1.0	1.0	All
	Type	Always set to "Snapshot"	string	Snapshot	Snapshot	All
[Trend Info]	Architecture	A string describing the type of architecture from which the trend file was generated	string	<linked to an MBScope enumerated type>	ERSP300	All
	Controller Type	A string describing the type of controller from which the trend file was generated	string	<linked to an MBScope enumerated type>	ERSP300	All
	Snapshot Type	A string indicating the type of data stored in the snapshot file (snapshots for time data and spectrum for frequency data)	string	"Snapshots", "Spectrum"	Snapshot	All
	FSV Scope Channels On	Indicates if scope channels are normalized to full scale values	string	"True", "False"	"False"	All
	Sample Length	Indicates the snapshot sample length used to plot the stored snapshot	int	<linked to "sample span" or "spectral resolution" in Snapshots tool>	5950	All
	Sampling Frequency	Sampling frequency in Hz of the signals being displayed in the current snapshot	double	<linked to channel sampling frequency>	14000	All
	DT	Time step (ms) only for Snapshot Type = Snapshot	double	<linked to channel sampling frequency>	0.0714285714285714	All
	DF	Frequency step (Hz) only for Snapshot Type = Spectrum	double	<linked to "spectral resolution" in Snapshots tool >	0.01	All

#### 2.1.2 Data Section

The data section shall be in the form of a tab-delimited table. The start of the data section is denoted by the section tag [data] and is followed on the next line by the column headers. Each proceeding line contains data related to the column headers defined in the table below. **If there is no data for a particular channel in a given frame, the cell will be left empty.**

Column Header	Description	Data Format
Time(ms) or Freq(Hz)	Frame time or spectrum frequency (2 decimal digits of precision)	float
{NameOfCh0}	Channel 1 data in engineering units (2 decimal digits of precision)	float

{NameOfCh1}	Channel 2 data in engineering units (2 decimal digits of precision)	float
{NameOfCh2}	Channel 3 data in engineering units (2 decimal digits of precision)	float
...	...	...
{NameOfCh[n-1]}	Channel [n-1] data in engineering units (2 decimal digits of precision)	float

2.1.3 Example

The following is an example of a TSD file, captured from an EA300 controller at maximum sample frequency, no triggering.

```
[File Info]
Type=Snapshot
Version=1.0
[Snapshot Info]
Architecture=ERSP300
Controller Type=ERSP300
Snapshot Type=Snapshots
FSV Scope Channels On=False
Sample Length=5950
Sampling Frequency=14000
DT=0.0714285714285714

[data]
Time(ms)      PositionV13      PositionW13      PositionV24      PositionW24      PositionZ12      PositionV57      PositionW57      PositionZ1
0             -313.85 -313.85      -313.85          -313.85          -475.52          -313.85          -313.85          -95.1
0.0714        -314.48 -314.48      -314.48          -314.48          -476.49          -314.48          -314.48          -95.3
0.1429        -315.11 -315.11      -315.11          -315.11          -477.43          -315.11          -315.11          -95.49
0.2143        -315.72 -315.72      -315.72          -315.72          -478.36          -315.72          -315.72          -95.67
0.2857        -316.31 -316.31      -316.31          -316.31          -479.26          -316.31          -316.31          -95.85
0.3571        -316.9  -316.9        -316.9          -316.9          -480.15          -316.9          -316.9          -96.03
...

```

