



# Welcome to AMPS!

Reference card for AMPS 5.3

This card contains getting started information and a quick reference for AMPS 5.3. More comprehensive information is available on the 60East web site at [crankuptheamps.com](http://crankuptheamps.com).

## Learn about AMPS

AMPS includes full documentation. 60East regularly updates the documentation based on analysis of incoming questions and customer feedback. Get up-to-date documentation at

<http://crankuptheamps.com/documentation>

AMPS features and usage	<i>AMPS User Guide</i>
Configuring AMPS	<i>AMPS Configuration Guide</i>
Developing with AMPS	<i>AMPS Development Guide for Java, Python, C#/.NET, C/C++, or JavaScript</i>
AMPS utilities	<i>AMPS Utilities Guide</i>

## AMPS Filters

*expression1 operator expression2*

### expression

- identifier** An XPath-like identifier for a field in the message: /id or /order/@type
- literal** A literal value: 42 or 'puppies'
- conditional** Inline comparison: IF ( *expression* , *value\_if\_true* , *value\_if\_false* )
- arithmetic** Expressions combined with an arithmetic operator ( + , - , \* , / , % , MOD )
- valuelist** A list of values (for use with the set operators) ( 2 , 4 , 6 , 8 )

### operator

- comparison** ==, =, >, >=, <, <=, !=, <>
- regex match** LIKE
- set** IN, NOT IN, BETWEEN
- string** BEGINS WITH, ENDS WITH

**combine filters** AND, OR, NOT

```
/price * /qty > 100000 AND /item = 'puppies'
/state LIKE '.*Dakota'
/id IN (5, 6, 8, 10, 11, 42)
5000 < /order/maximumBid
```

## Getting Support

<a href="http://support.crankuptheamps.com/">http://support.crankuptheamps.com/</a>	Online support and searchable FAQ
<a href="mailto:support@crankuptheamps.com">support@crankuptheamps.com</a>	Email support for questions
<a href="mailto:crash@crankuptheamps.com">crash@crankuptheamps.com</a>	Email address for minidump files
<a href="http://crankuptheamps.com/releases">http://crankuptheamps.com/releases</a>	Join the mailing list for release announcements
<a href="http://crankuptheamps.com/newsletter">http://crankuptheamps.com/newsletter</a>	Subscribe to the 60East Newsletter

When contacting support, please include:

- AMPS version number
- Operating system, distribution and kernel version
- Expected behavior, observed behavior, and differences
- If you have a minidump file, be sure to include that file in an email to [crash@crankuptheamps.com](mailto:crash@crankuptheamps.com).

Your company may have priority support for outages: please see the AMPS contact at your company for details.

## AMPS Utilities

amps_journal_dump	Print the contents of an AMPS journal file
amps_sow_dump	Print the contents of a State of the World file
amps-grep	Search the errors and events log for messages matching a string or pattern
ampserr	Print more detailed information about an AMPS error
spark	Command-line tool for sending commands to AMPS, used for troubleshooting and diagnostics

## Working With AMPS

Start AMPS

```
$ ./bin/ampServer config_file
```

Create a sample configuration file

```
$ ./bin/ampServer --sample-config > sample.xml
```

## spark Quick Reference

Check to see if an AMPS server is reachable at the specified address

```
$ ./spark ping -server localhost:9007 -proto amps -type json
```

### Publish

Publish from standard input

```
$ echo '{ "id": 1, "data": "boo" }' \  
| ./spark publish -server localhost:9007 \  
-topic messages -proto amps -type json
```

Publish from a file

```
$ ./spark publish -server localhost:9007 -proto amps \  
-type json -topic messages -file saved-messages.json
```

spark publishes each line in the file as a message

### Subscribe

Subscribe to a topic

```
$ ./spark subscribe -server localhost:9007 -topic messages \  
-proto amps -type json
```

Subscribe to a topic with a filter

```
$ ./spark subscribe -server localhost:9007 -proto amps \  
-type json -topic messages -filter '/id > 20'
```

spark stays running and prints messages from the subscription as the messages arrive.

### Bookmark Replay

Replay messages from the beginning of the transaction log

```
$ ./spark subscribe -server localhost:9007 -proto amps \  
-type json -topic Trades -bookmark 0
```

Replay messages from a specific point in time

```
$ ./spark subscribe -server localhost:9007 -proto amps \  
-type json -topic Trades -bookmark 20170601T083000
```

spark replays the historical messages and stays running and prints messages from the subscription as new messages arrive.

### SOW

Retrieve the current state of a SOW topic

```
$ ./spark sow -server localhost:9007 -proto amps \  
-type json -topic sow-test
```

Retrieve the current state of a SOW topic in order

```
$ ./spark sow -server localhost:9007 -proto amps \  
-type json -topic sow-test -orderby /agent
```

Retrieve SOW messages matching a filter

```
$ ./spark sow -server localhost:9007 -proto amps \  
-type json -topic sow-test -filter '/id % 23 = 0'
```

Copy the current contents of a topic SOW to another server

```
$ ./spark sow -server hostone:9007/amps/json -topic a \  
| ./spark publish -server hosttwo:9007/amps/json \  
-topic b
```

### SOW and Subscribe

Retrieve SOW messages and subscribe to updates

```
$ ./spark sow_and_subscribe -server localhost:9007 \  
-proto amps -type json -topic messages-sow \  
-filter '/id in (1, 5, 7, 42) OR /id > 90'
```

Retrieve SOW messages, subscribe to updates, and request OOF notification

```
$ ./spark sow_and_subscribe -server localhost:9007 \  
-proto amps -type json -topic messages-sow \  
-filter "/status = 'available'" -opts 'oof'
```

spark stays running and prints messages from the subscription as the messages arrive.

### Delete from SOW

Delete all messages from a SOW topic

```
$ ./spark sow_delete -server localhost:9007 -proto amps \  
-type json -topic Trades -filter '1=1'
```

Delete all messages that match a filter from a SOW topic

```
$ ./spark sow_delete -server localhost:9007 -topic Trades \  
-filter "/order/id = '3457A22E'"
```