title: On Demand Profiling description: Run on demand profiling, detect app hotspots and profile JVM-based based applications such as Spark, Elasticsearch, Solr, Kafka, Hadoop, Storm, Cassandra, HBase, etc.

On-demand profiling is a feature of the App Agent, included in the Sematext Agent package, that lets you profile your own JVM-based applications or even any 3rd party JVM-based applications (e.g. Spark, Elasticsearch, Solr, Kafka, Hadoop, Storm, Cassandra, HBase, etc.).

Notes:

- Profiling is different from Transaction Tracing. Profiling is something you run on demand, for a short period of time, on a specific app/server. It detects application hotspots, just like a typical profiler. Transaction Tracing traces individual *transactions*, such as HTTP requests, and shows slow parts of each such transaction trace. Once enabled, it traces continuously. Using a profiler and having Transaction Tracing is not exclusive - one can use both.
- The profiler does not require you to enable it in the monitoring agent. It requires no restarts. It works with both embedded and standalone agent.
- Sematext Agent (aka SPM client) version 1.29.2 or greater is required.
- Anything that runs in the JVM can be profiled - Java, Scala, Clojure, Groovy, JRuby, JPython, etc.

Known issues:

- In order to profile Elasticsearch server you must enable remote JMX connection (as described standalone monitor setup instructions page) and set SPM_MONITOR_JMX_PARAMS property in a .properties file under the /opt/spm/spm-monitor/conf/ directory.

Resources:

- https://sematext.com/blog/on-demand-java-profiling/