

Real Time Search and Analytics on Big Data - Solr UI

Introduction

This exercise will guide you through the Solr UI. Feel free to click around and explore on your own too! This exercise is intended to be run on the student's local environment and Solr installation.

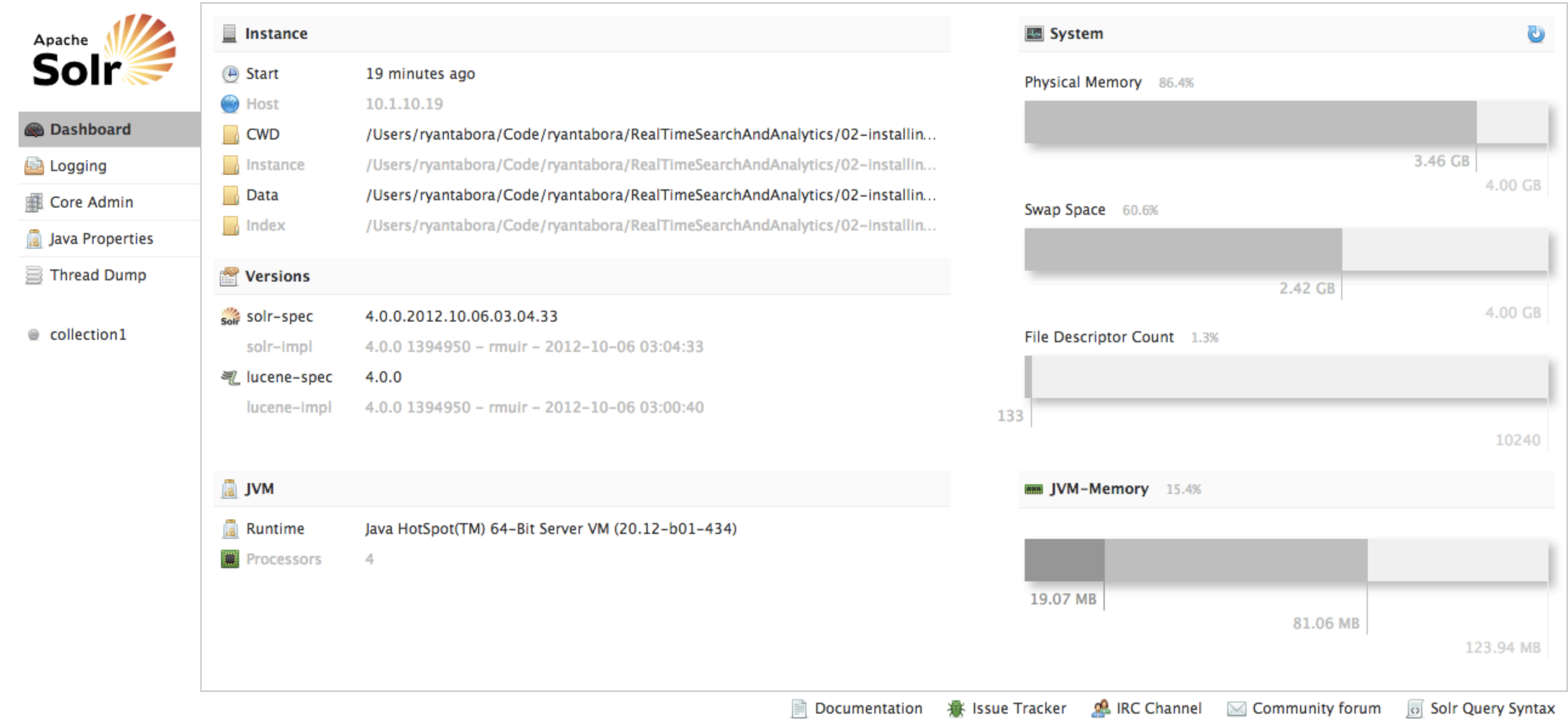
Prerequisites

- Solr should be installed and running.

Browsing the Solr UI

Navigate to the Solr Dashboard.

You can find the Solr UI at <http://localhost:8983/solr/#/>. Open a browser and go to that URL. By default, the dashboard is the first page that you will see.



Solr UI Dashboard

Here you can learn a bit about your Solr installation at a high level, such as which version you're running and how much memory you are using.

Logging Section

Navigate to the logging section of the UI. Here, the Solr UI displays the Solr logs with color coding to help the user easily identify issues.

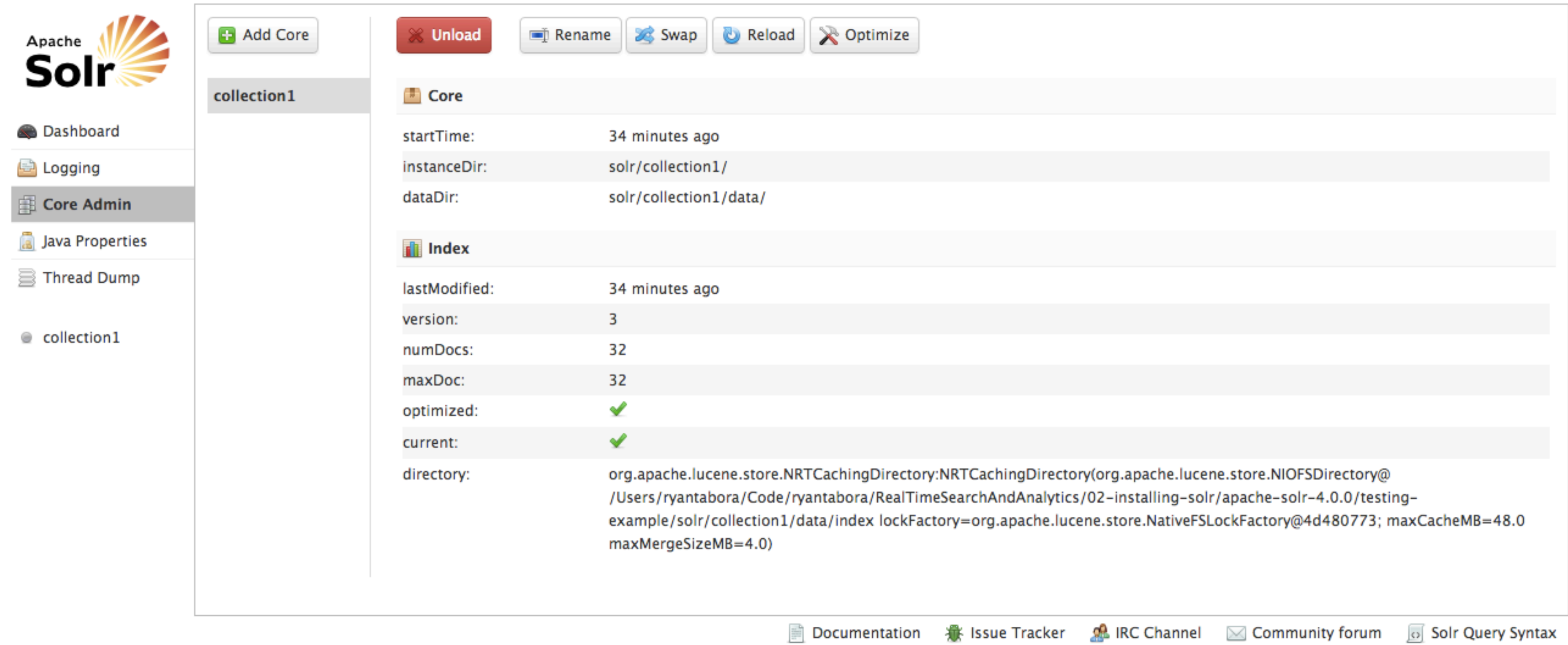
By default, the logging UI displays WARNING messages and higher. If a SEVERE log message is triggered, the user can click an information button to learn more about the error. For example, this one was triggered when an incorrect field was submitted to Solr.

09:13:48	WARNING	FieldTypePluginLoader	StandardTokenizerFactory is using deprecated LUCENE_35 emulation. You should at some point declare and reindex to at least 4.0, because 3.x emulation is deprecated and will be removed in 5.0
09:13:48	WARNING	FieldTypePluginLoader	StopFilterFactory is using deprecated LUCENE_35 emulation. You should at some point declare and reindex to at least 4.0, because 3.x emulation is deprecated and will be removed in 5.0
09:13:48	WARNING	FieldTypePluginLoader	LowerCaseFilterFactory is using deprecated LUCENE_35 emulation. You should at some point declare and reindex to at least 4.0, because 3.x emulation is deprecated and will be removed in 5.0
09:13:48	WARNING	SolrCore	New index directory detected: old=null new=/Users/ryantabora/code/apache/solr/stocks/data/index/
09:13:48	WARNING	UpdateRequestHandler	Using deprecated class: XmlUpdateRequestHandler -- replace with UpdateRequestHandler
09:13:48	WARNING	UpdateRequestHandler	Using deprecated class: BinaryUpdateRequestHandler -- replace with UpdateRequestHandler
10:41:59	SEVERE	SolrCore	org.apache.solr.common.SolrException: undefined field qwreqre org.apache.solr.common.SolrException: undefined field qwreqre

Solr UI Logging

Core Admin Section

Head to the Core Admin section of the UI. Here, you can do some interesting things like adding (if you have the configuration files preset), unloading (will not delete the index, just 'shut it down'), swapping, and renaming cores. You can also view some of the details about the cores themselves. Check how many documents you have indexed!



Solr UI Core Admin

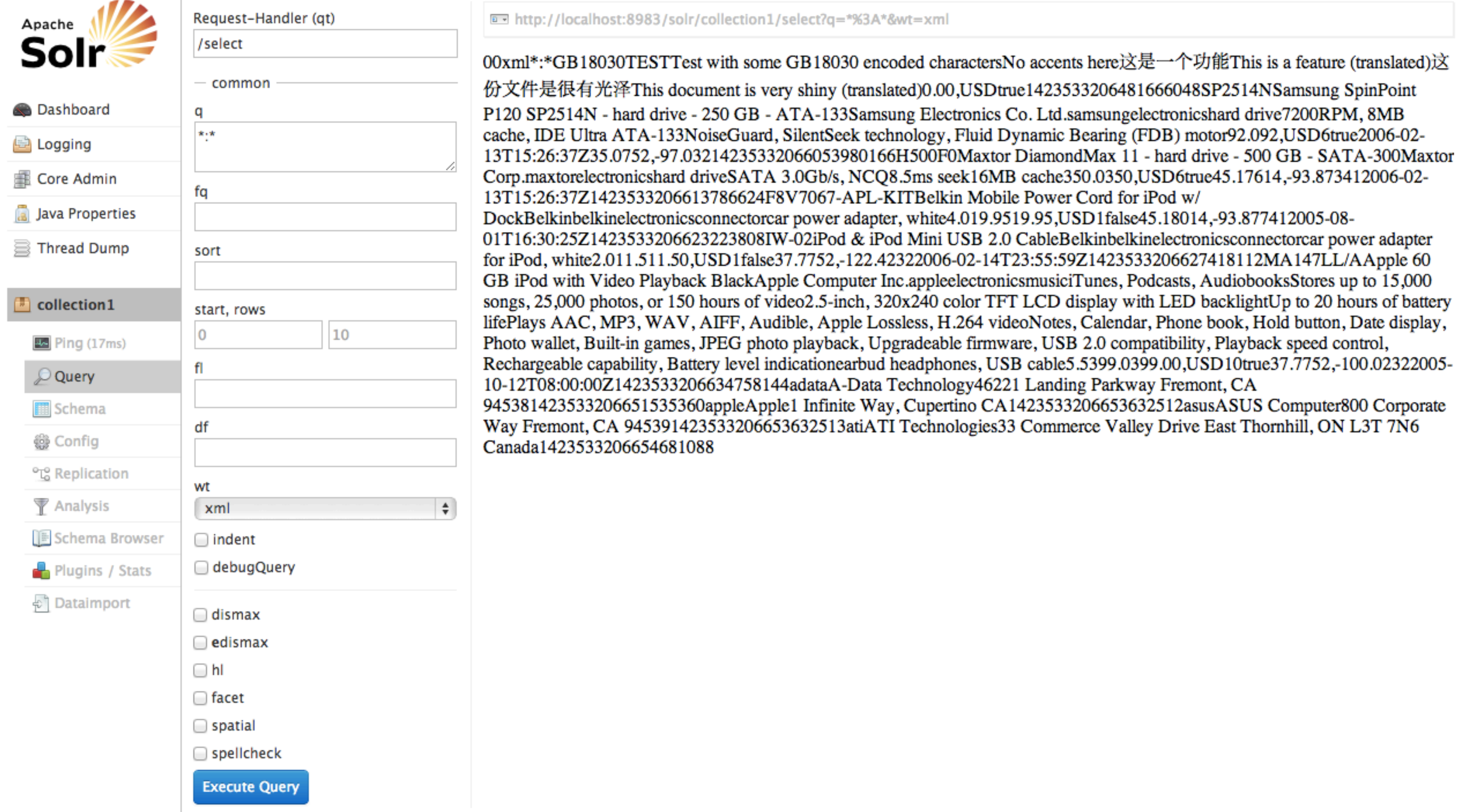
Details Section

We're going to skip the Java Properties and Thread Dump sections as they are pretty self explanatory. The details section will display some information about each collection/core in your Solr installation (per core for standard Solr install, per collection for Solr Cloud). Click collection1 for more details. There are some details about this collection as well as some added functionality on the navigation bar on the left hand side of the UI. Some of the notable sections include:

- Ping: Check to see if the core is running.
- Query: Run queries through an easy to use query builder.
- Schema: View the schema.xml
- Config: View the solrconfig.xml
- Analysis: A very helpful analysis tool for debugging queries and indexed data.

QUERY TOOL

Click on the query tab and look at the query builder tool you can use to submit queries against your index. By default it creates a select all query (*:*). Click execute query and view the results!

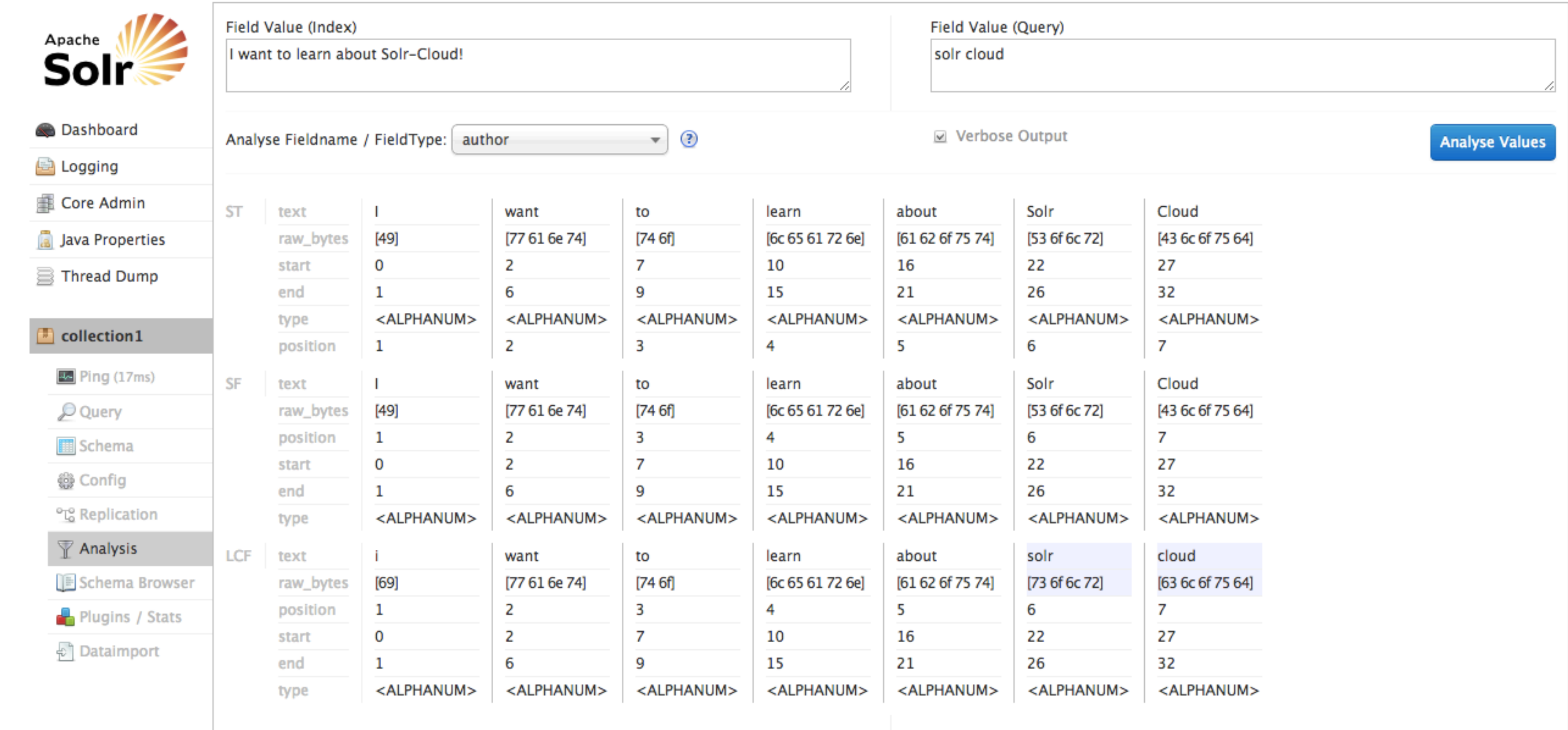


Solr UI Query Tool

ANALYSIS TOOL

Now let's try the Analysis tab. You get two fields, one for the source data that is indexed and another for the query. This way you can play around with how queries will work against different sets of indexed data.

Try entering 'I want to learn about Solr-Cloud!' as the Field Value (Indexed), setting the Fieldname/Fieldtype to author, and entering solr cloud for the Field Value (Query). After clicking Analyse Values you will see the results as they are put through the different analyzers specified in the schema.xml. The Solr UI will automatically highlight any matches if available (here solr and cloud).



Solr UI Analysis Tool

Additional Resources

Feel free to explore the UI, most of it is very intuitive. The wiki is somewhat limited, but you can find it here if you would like to learn more:

- <http://wiki.apache.org/solr/SolrAdminGUI>