TSTool Training

Introduction to
Regional Climate Center (RCC)
Applied Climate Information System (ACIS)
Web Service Data

Version: 10.00.01, 2011-05-09

Duration: 15 minutes

Level: Introduction

This Presentation

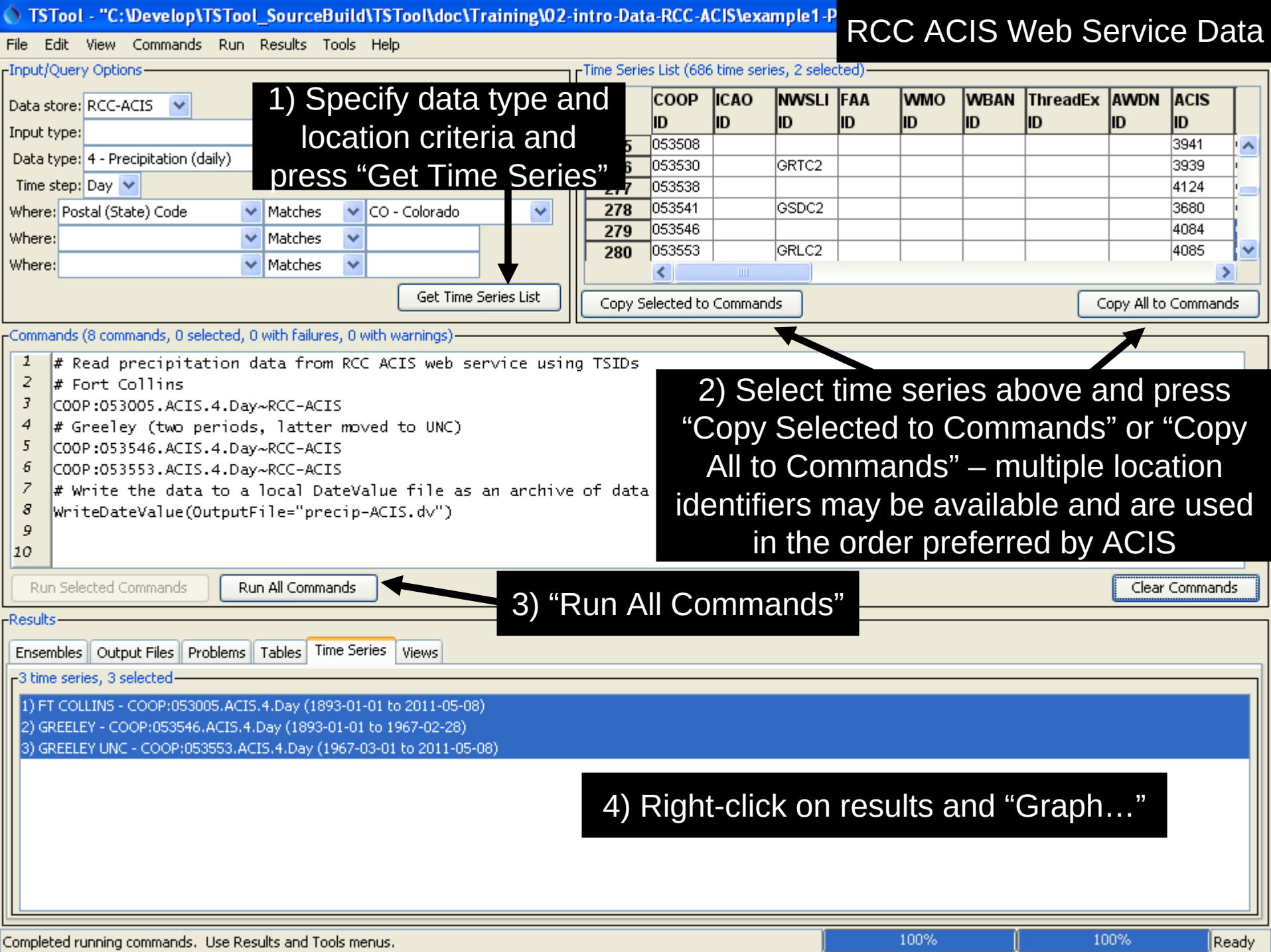
- Provides an introduction using TSTool with RCC ACIS data
- Is designed for self-paced training
- Is accompanied by examples, each of which reside in a folder distributed with this presentation
  - See the doc/Training folder under the software installation
  - Full use of RCC ACIS web services with TSTool requires internet access

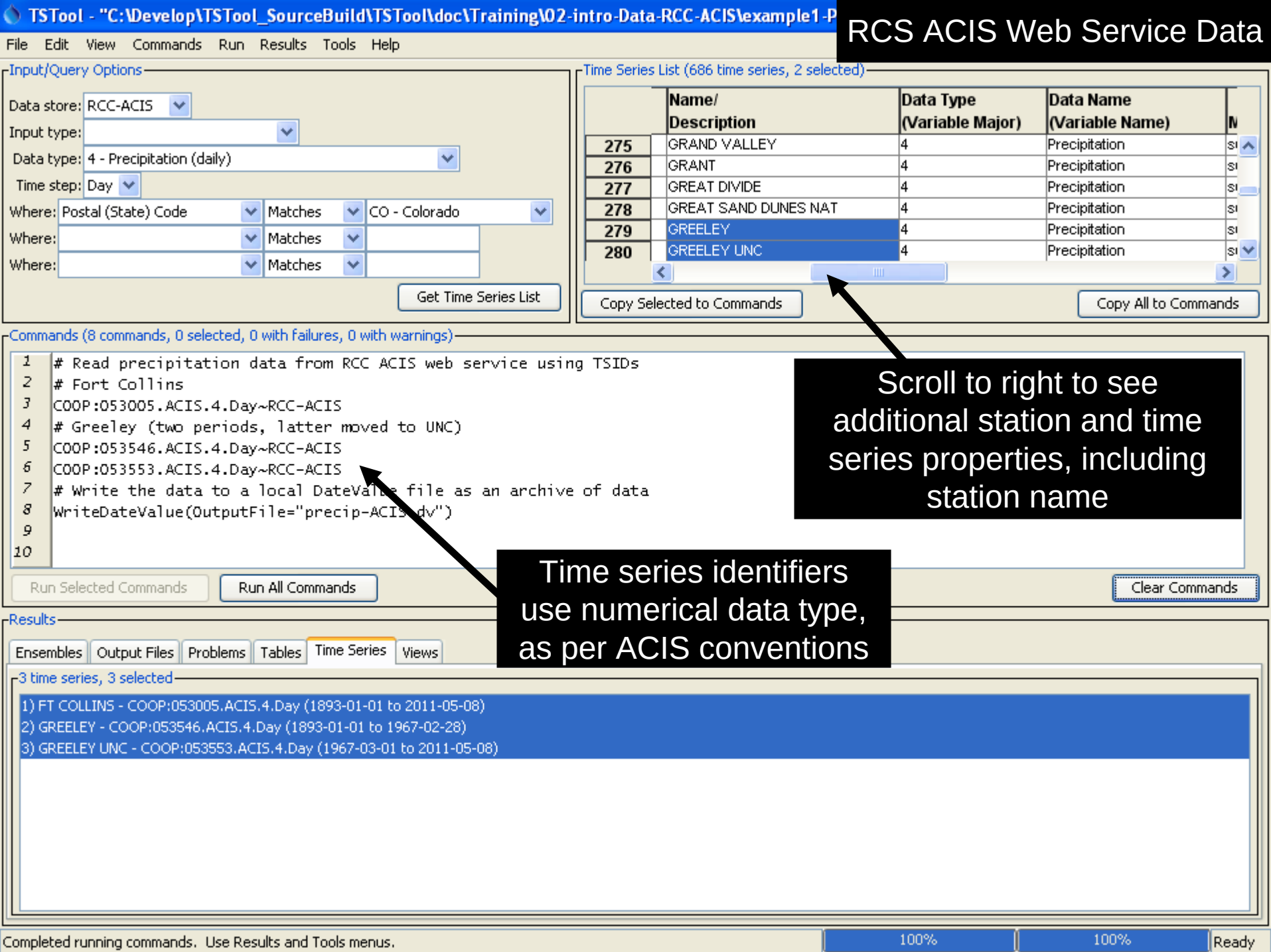
RCC ACIS Web Service Data

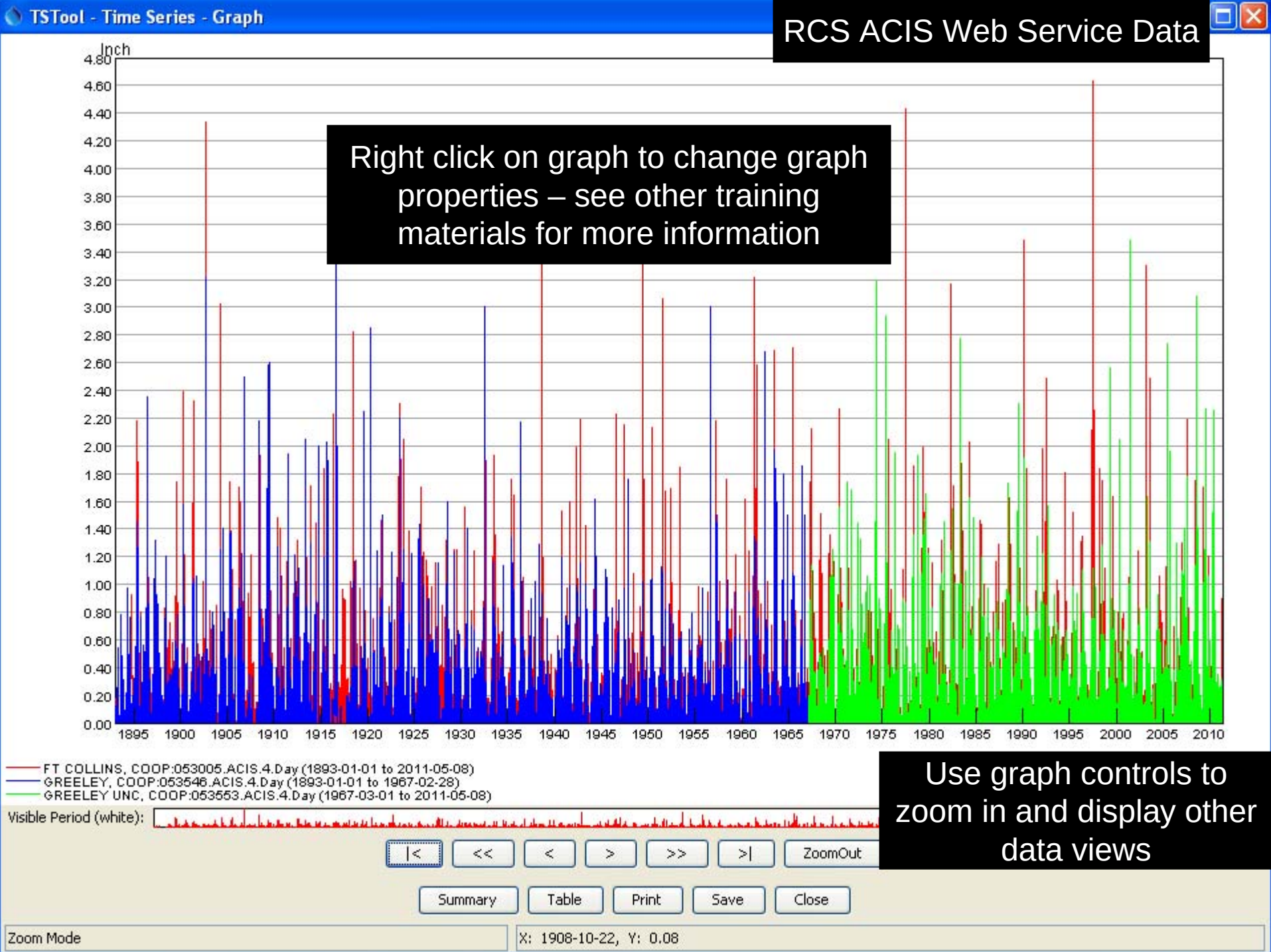
- Provides access to National Climatic Data Center (NCDC) data archives and real-time data
- Data are “best estimate” based on multiple data feeds
- Requires internet access
- Currently limited to daily data and mainly has been tested with core data types (precipitation, temperature, etc.), but additional data types will be supported in the future
- Performance is impacted by network speed (may be best to harvest data, save locally, and then use local data for further processing)

See example1-Precipitation\daily-precip.TSTool

(the following slide illustrates how to create this command file)


TSTool - "C:\Develop\TSTool_SourceBuild\TSTool\doc\Training\02-intro-Data-RCC-ACIS\example1-P
RCC ACIS Web Service Data
File Edit View Commands Run Results Tools Help
Input/Query Options
Data store: RCC-ACIS
Input type:
Data type: 4 - Precipitation (daily)
Time step: Day
Where: Postal (State) Code Matches CO - Colorado
Where: Matches
Where: Matches
Get Time Series List
1) Specify data type and location criteria and press "Get Time Series"
Time Series List (686 time series, 2 selected)
COOP ID
ICAO ID
NWSLI ID
FAA ID
WMO ID
WBAN ID
ThreadEx ID
AWDN ID
ACIS ID
053508 3941
053530 GRTC2 3939
053538 4124
278 053541 GSDC2 3680
279 053546 4084
280 053553 GRLC2 4085
Copy Selected to Commands
Copy All to Commands
Commands (8 commands, 0 selected, 0 with failures, 0 with warnings)
1 # Read precipitation data from RCC ACIS web service using TSIDs
2 # Fort Collins
3 COOP:053005.ACIS.4.Day~RCC-ACIS
4 # Greeley (two periods, latter moved to UNC)
5 COOP:053546.ACIS.4.Day~RCC-ACIS
6 COOP:053553.ACIS.4.Day~RCC-ACIS
7 # Write the data to a local DateValue file as an archive of data
8 WriteDateValue(OutputFile="precip-ACIS.dv")
9
10
2) Select time series above and press "Copy Selected to Commands" or "Copy All to Commands" – multiple location identifiers may be available and are used in the order preferred by ACIS
Run Selected Commands
Run All Commands
3) "Run All Commands"
Clear Commands
Results
Ensembles Output Files Problems Tables Time Series Views
3 time series, 3 selected
1) FT COLLINS - COOP:053005.ACIS.4.Day (1893-01-01 to 2011-05-08)
2) GREELEY - COOP:053546.ACIS.4.Day (1893-01-01 to 1967-02-28)
3) GREELEY UNC - COOP:053553.ACIS.4.Day (1967-03-01 to 2011-05-08)
4) Right-click on results and "Graph…"
Completed running commands. Use Results and Tools menus.
100%
100%
Ready


TSTool - "C:\Develop\TSTool_SourceBuild\TSTool\doc\Training\02-intro-Data-RCC-ACIS\example1-P
RCS ACIS Web Service Data
File Edit View Commands Run Results Tools Help
Input/Query Options
Data store: RCC-ACIS
Input type:
Data type: 4 - Precipitation (daily)
Time step: Day
Where: Postal (State) Code Matches CO - Colorado
Where: Matches
Where: Matches
Get Time Series List
Time Series List (686 time series, 2 selected)
Name/ Description
Data Type (Variable Major)
Data Name (Variable Name)
275 GRAND VALLEY 4 Precipitation
276 GRANT 4 Precipitation
277 GREAT DIVIDE 4 Precipitation
278 GREAT SAND DUNES NAT 4 Precipitation
279 GREELEY 4 Precipitation
280 GREELEY UNC 4 Precipitation
Copy Selected to Commands
Copy All to Commands
Commands (8 commands, 0 selected, 0 with failures, 0 with warnings)
1 # Read precipitation data from RCC ACIS web service using TSIDs
2 # Fort Collins
3 COOP:053005.ACIS.4.Day~RCC-ACIS
4 # Greeley (two periods, latter moved to UNC)
5 COOP:053546.ACIS.4.Day~RCC-ACIS
6 COOP:053553.ACIS.4.Day~RCC-ACIS
7 # Write the data to a local DateValue file as an archive of data
8 WriteDateValue(OutputFile="precip-ACIS.dv")
9
10
Run Selected Commands
Run All Commands
Clear Commands
Results
Ensembles Output Files Problems Tables Time Series Views
3 time series, 3 selected
1) FT COLLINS - COOP:053005.ACIS.4.Day (1893-01-01 to 2011-05-08)
2) GREELEY - COOP:053546.ACIS.4.Day (1893-01-01 to 1967-02-28)
3) GREELEY UNC - COOP:053553.ACIS.4.Day (1967-03-01 to 2011-05-08)
Completed running commands. Use Results and Tools menus.
100%
100%
Ready
Scroll to right to see additional station and time series properties, including station name
Time series identifiers use numerical data type, as per ACIS conventions


TSTool - Time Series - Graph
RCS ACIS Web Service Data
Inch
4.80
4.60
4.40
4.20
4.00
3.80
3.60
3.40
3.20
3.00
2.80
2.60
2.40
2.20
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
1895 1900 1905 1910 1915 1920 1925 1930 1935 1940 1945 1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010
Right click on graph to change graph properties – see other training materials for more information
FT COLLINS, COOP:053005.ACIS.4.Day (1893-01-01 to 2011-05-08)
GREELEY, COOP:053546.ACIS.4.Day (1893-01-01 to 1967-02-28)
GREELEY UNC, COOP:053553.ACIS.4.Day (1967-03-01 to 2011-05-08)
Visible Period (white):
|<
<<
<
>
>>
>|
ZoomOut
Use graph controls to zoom in and display other data views
Summary
Table
Print
Save
Close
Zoom Mode
X: 1908-10-22, Y: 0.08

More Information

Help…View Documentation to view the TSTool documentation