ROSETTA - UNIDATA'S WEB-BASED DATA TRANSLATION TOOL

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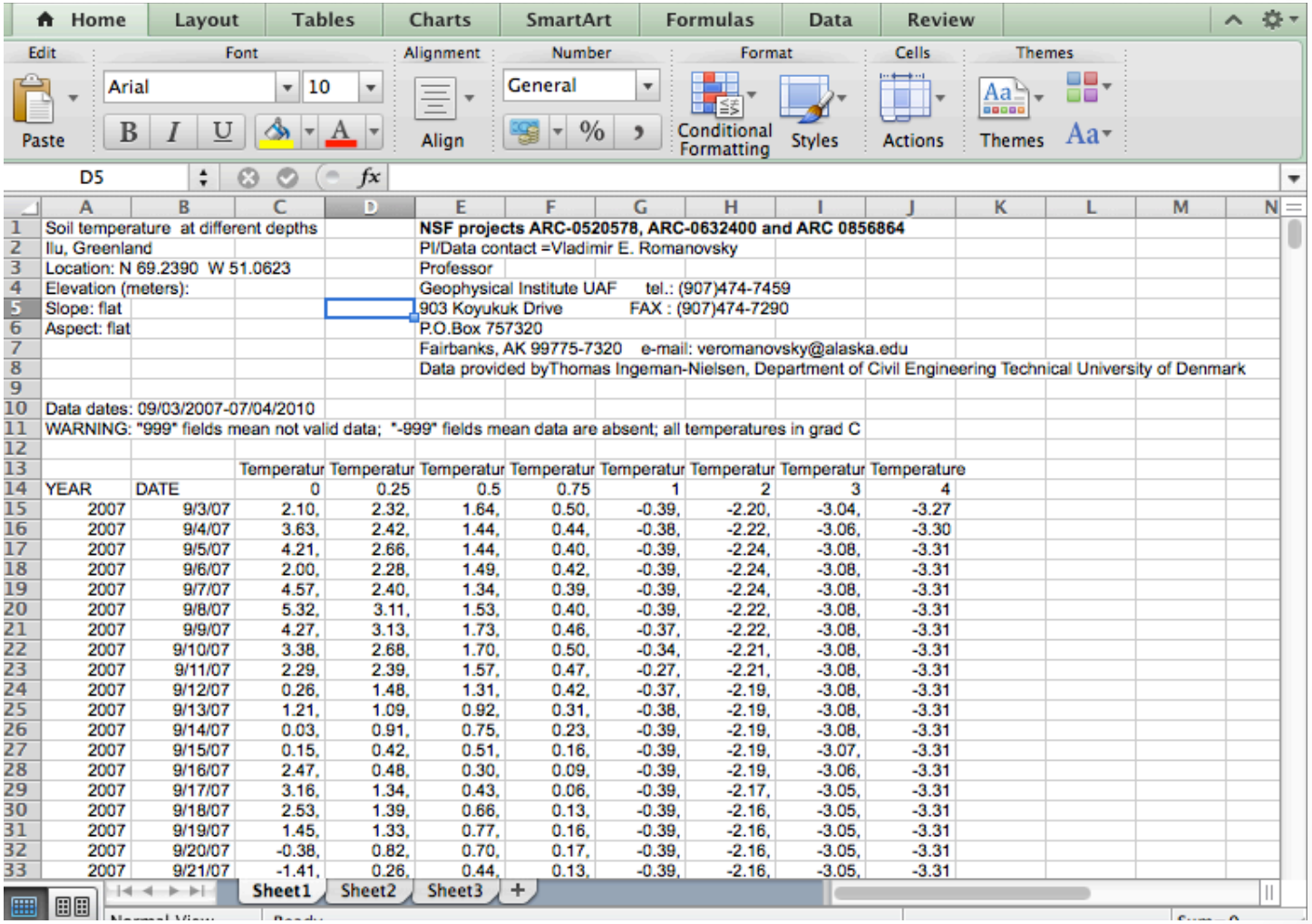
2015 Unidata Users Workshop – June 24th

Rosetta

Rosetta

- What is Rosetta?
  - Vision: General Purpose Data Format Translator
  - Goal: Get data into standard format

What Many Users Like to Use



	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Soil temperature at different depths				**NSF projects ARC-0520578, ARC-0632400 and ARC 0856864**									
2	Ilu, Greenland				PI/Data contact =Vladimir E. Romanovsky									
3	Location: N 69.2390 W 51.0623				Professor									
4	Elevation (meters):				Geophysical Institute UAF tel.: (907)474-7459									
5	Slope: flat				903 Koyukuk Drive FAX : (907)474-7290									
6	Aspect: flat				P.O.Box 757320									
7					Fairbanks, AK 99775-7320 e-mail: veromanovsky@alaska.edu									
8					Data provided byThomas Ingeman-Nielsen, Department of Civil Engineering Technical University of Denmark									
9														
10	Data dates: 09/03/2007-07/04/2010													
11	WARNING: "999" fields mean not valid data; "-999" fields mean data are absent; all temperatures in grad C													
12														
13			Temperatur	Temperatur	Temperatur	Temperatur	Temperatur	Temperatur	Temperatur	Temperature				
14	YEAR	DATE	0	0.25	0.5	0.75	1	2	3	4				
15	2007	9/3/07	2.10,	2.32,	1.64,	0.50,	-0.39,	-2.20,	-3.04,	-3.27				
16	2007	9/4/07	3.63,	2.42,	1.44,	0.44,	-0.38,	-2.22,	-3.06,	-3.30				
17	2007	9/5/07	4.21,	2.66,	1.44,	0.40,	-0.39,	-2.24,	-3.08,	-3.31				
18	2007	9/6/07	2.00,	2.28,	1.49,	0.42,	-0.39,	-2.24,	-3.08,	-3.31				
19	2007	9/7/07	4.57,	2.40,	1.34,	0.39,	-0.39,	-2.24,	-3.08,	-3.31				
20	2007	9/8/07	5.32,	3.11,	1.53,	0.40,	-0.39,	-2.22,	-3.08,	-3.31				
21	2007	9/9/07	4.27,	3.13,	1.73,	0.46,	-0.37,	-2.22,	-3.08,	-3.31				
22	2007	9/10/07	3.38,	2.68,	1.70,	0.50,	-0.34,	-2.21,	-3.08,	-3.31				
23	2007	9/11/07	2.29,	2.39,	1.57,	0.47,	-0.27,	-2.21,	-3.08,	-3.31				
24	2007	9/12/07	0.26,	1.48,	1.31,	0.42,	-0.37,	-2.19,	-3.08,	-3.31				
25	2007	9/13/07	1.21,	1.09,	0.92,	0.31,	-0.38,	-2.19,	-3.08,	-3.31				
26	2007	9/14/07	0.03,	0.91,	0.75,	0.23,	-0.39,	-2.19,	-3.08,	-3.31				
27	2007	9/15/07	0.15,	0.42,	0.51,	0.16,	-0.39,	-2.19,	-3.07,	-3.31				
28	2007	9/16/07	2.47,	0.48,	0.30,	0.09,	-0.39,	-2.19,	-3.06,	-3.31				
29	2007	9/17/07	3.16,	1.34,	0.43,	0.06,	-0.39,	-2.17,	-3.05,	-3.31				
30	2007	9/18/07	2.53,	1.39,	0.66,	0.13,	-0.39,	-2.16,	-3.05,	-3.31				
31	2007	9/19/07	1.45,	1.33,	0.77,	0.16,	-0.39,	-2.16,	-3.05,	-3.31				
32	2007	9/20/07	-0.38,	0.82,	0.70,	0.17,	-0.39,	-2.16,	-3.05,	-3.31				
33	2007	9/21/07	-1.41,	0.26,	0.44,	0.13,	-0.39,	-2.16,	-3.05,	-3.31				

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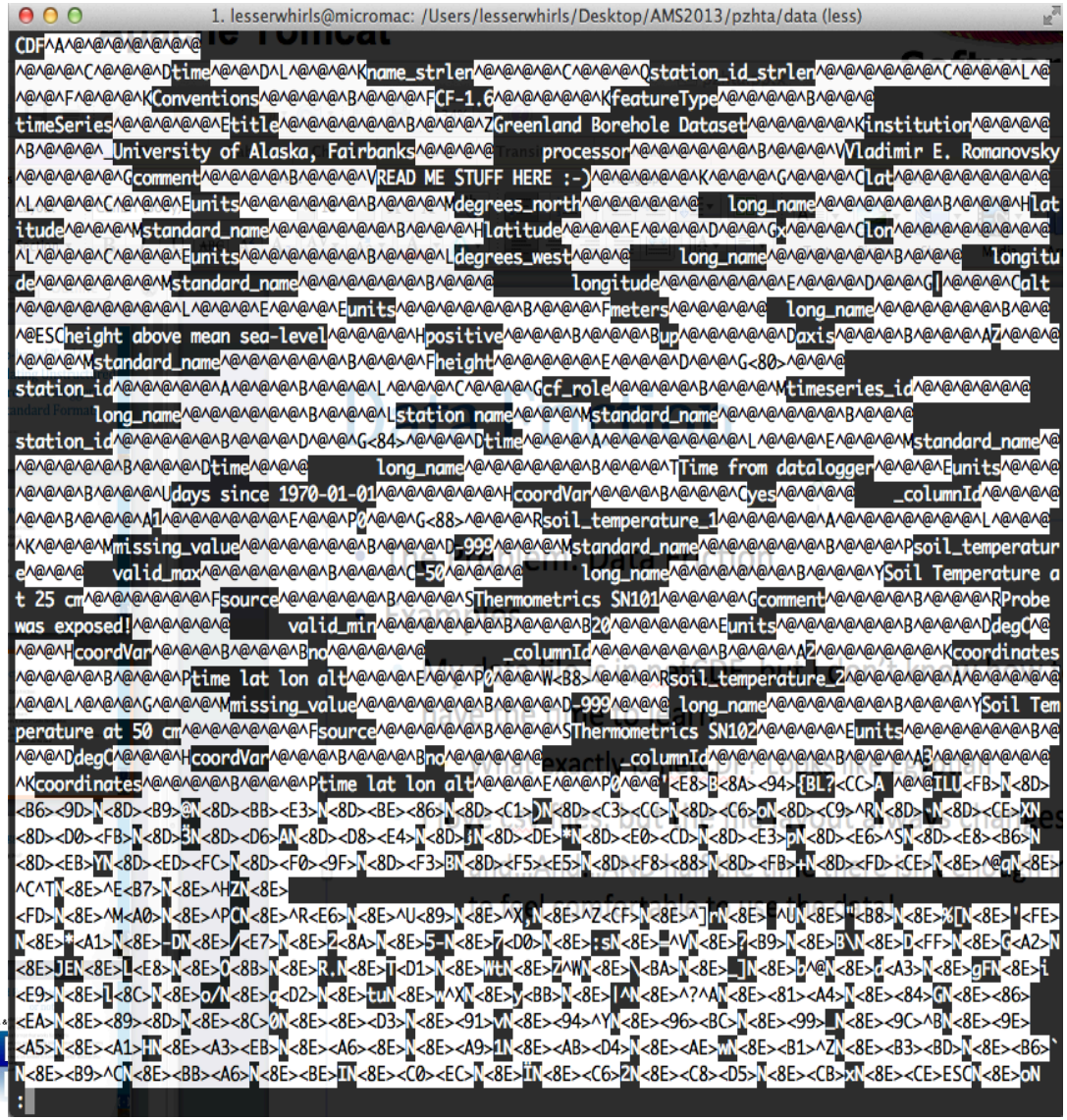
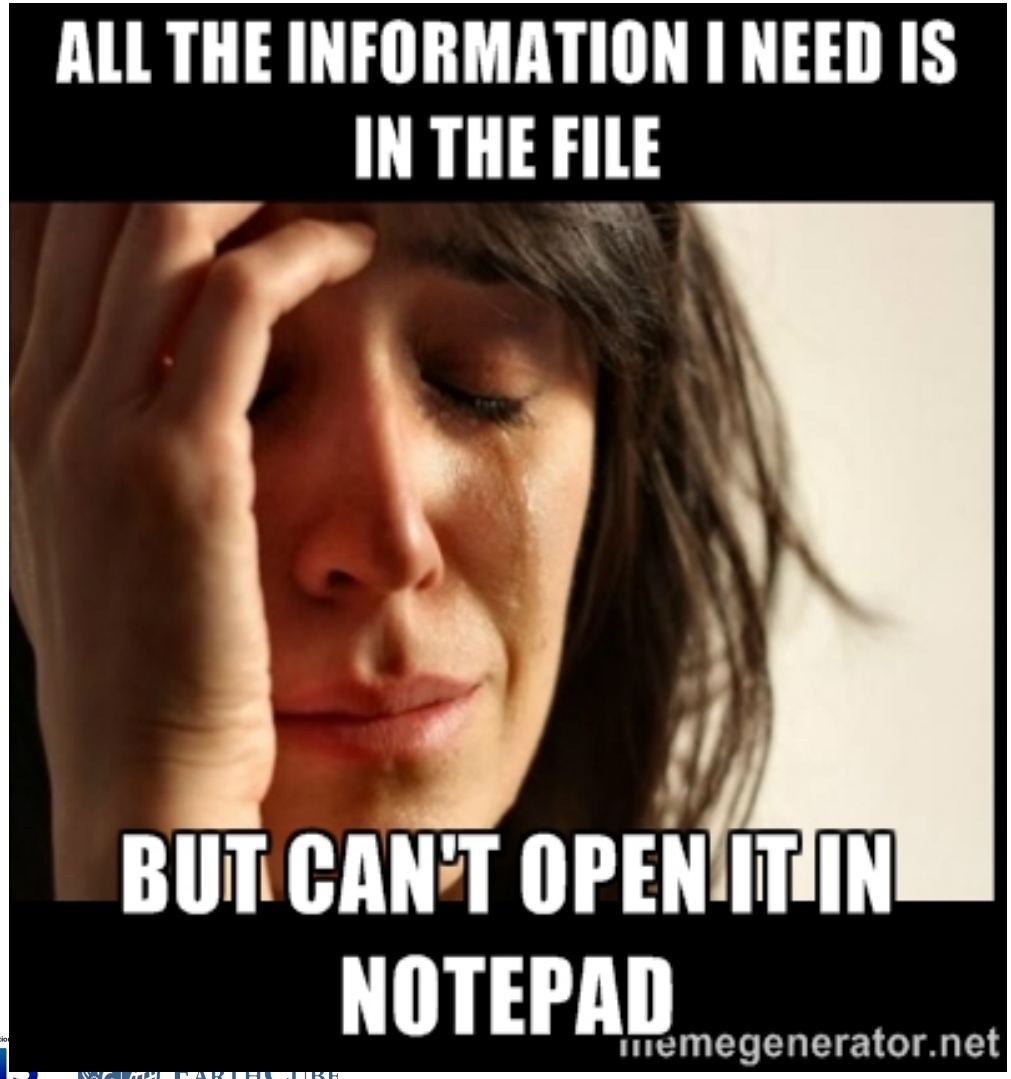
What a Standard Format "Looks" Like



What a Standard Format "Looks" Like



Rosetta

- What is Rosetta?
  - Vision: General Purpose Data Format converter
  - Goal: Get data into standard format ***while still providing users with a format <u>they want to use</u>*** through the use of standard web services.

Rosetta

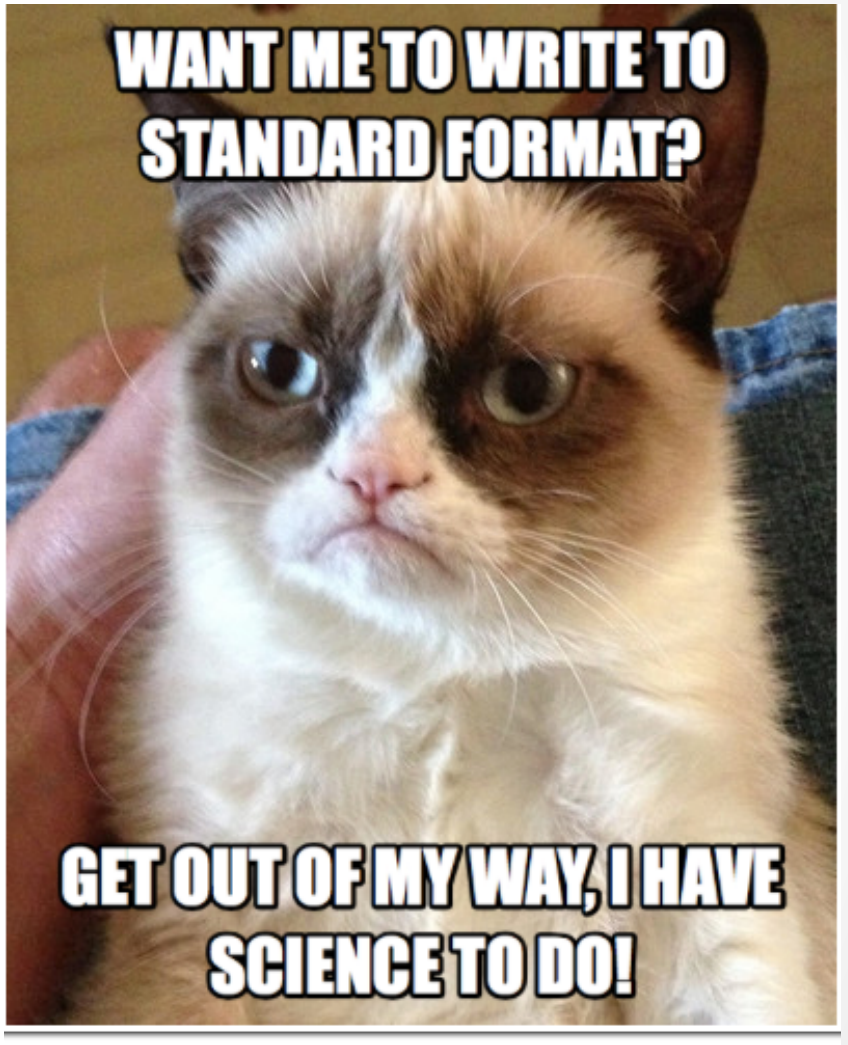
- Why bother translating data into a standard format?
  - What works for the data provider may not work well for the data users scientific workflow.

Rosetta

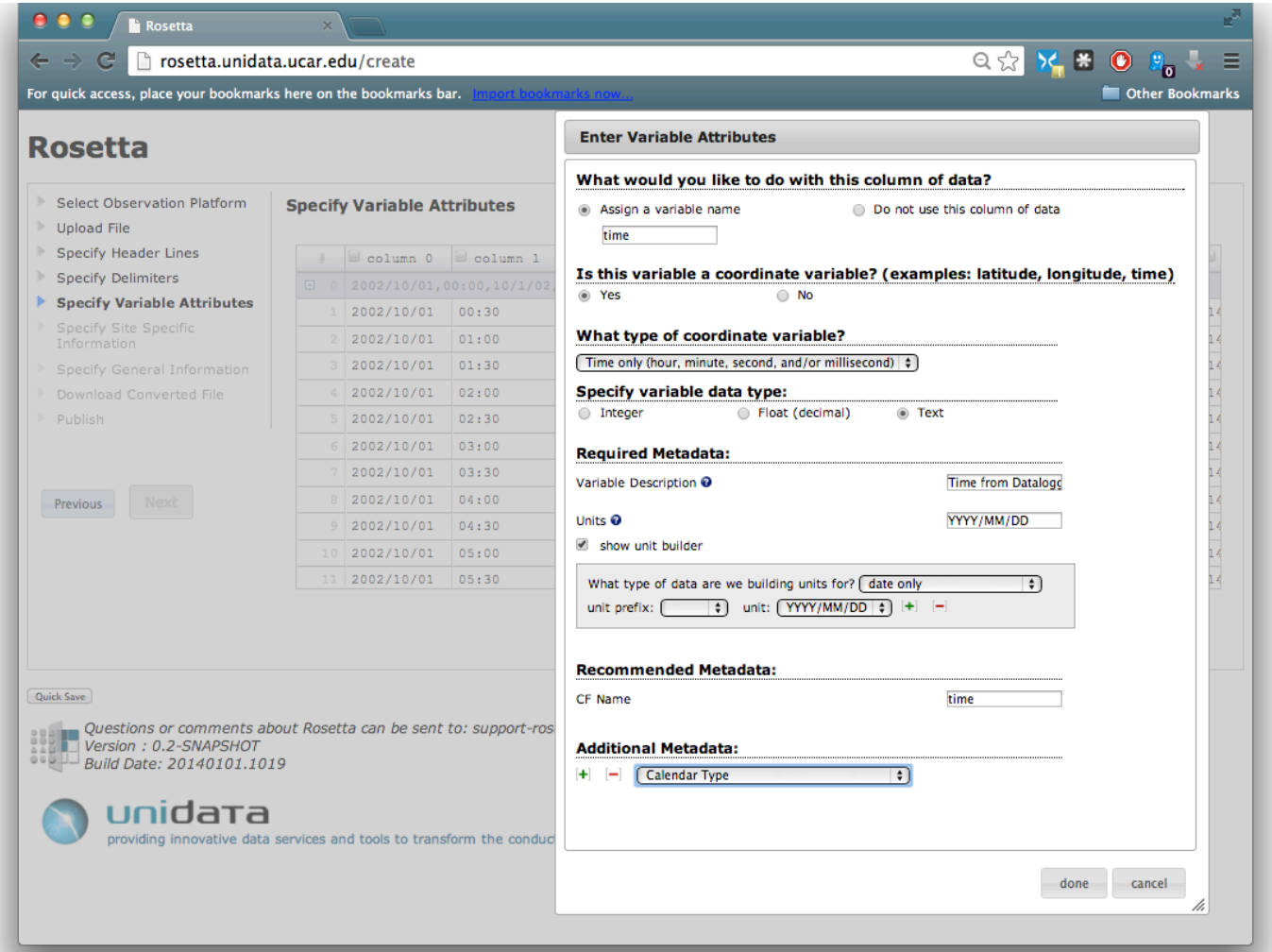
- What does translating data into a standard format buy us?
  - Standard format -> a variety of output formats (programmatically!)
  - Enable subsetting, aggregation, visual data “previews”, enhancing search through automated rich metadata extraction, remote access, etc.

Rosetta

It's really all about the end users of the data (which could be you!)… but we need to get out of the data providers way as quickly as possible.



Wizard Based Format Translation



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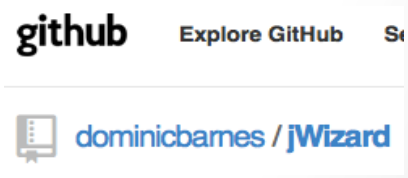
Technology Stack

- Java WebApp
  - Java
  - Apache Tomcat
  - Spring MVC
  - netCDF-Java(CDM)
  - JavaScript
    - jQuery, SlickGrid, jWizard

{js}



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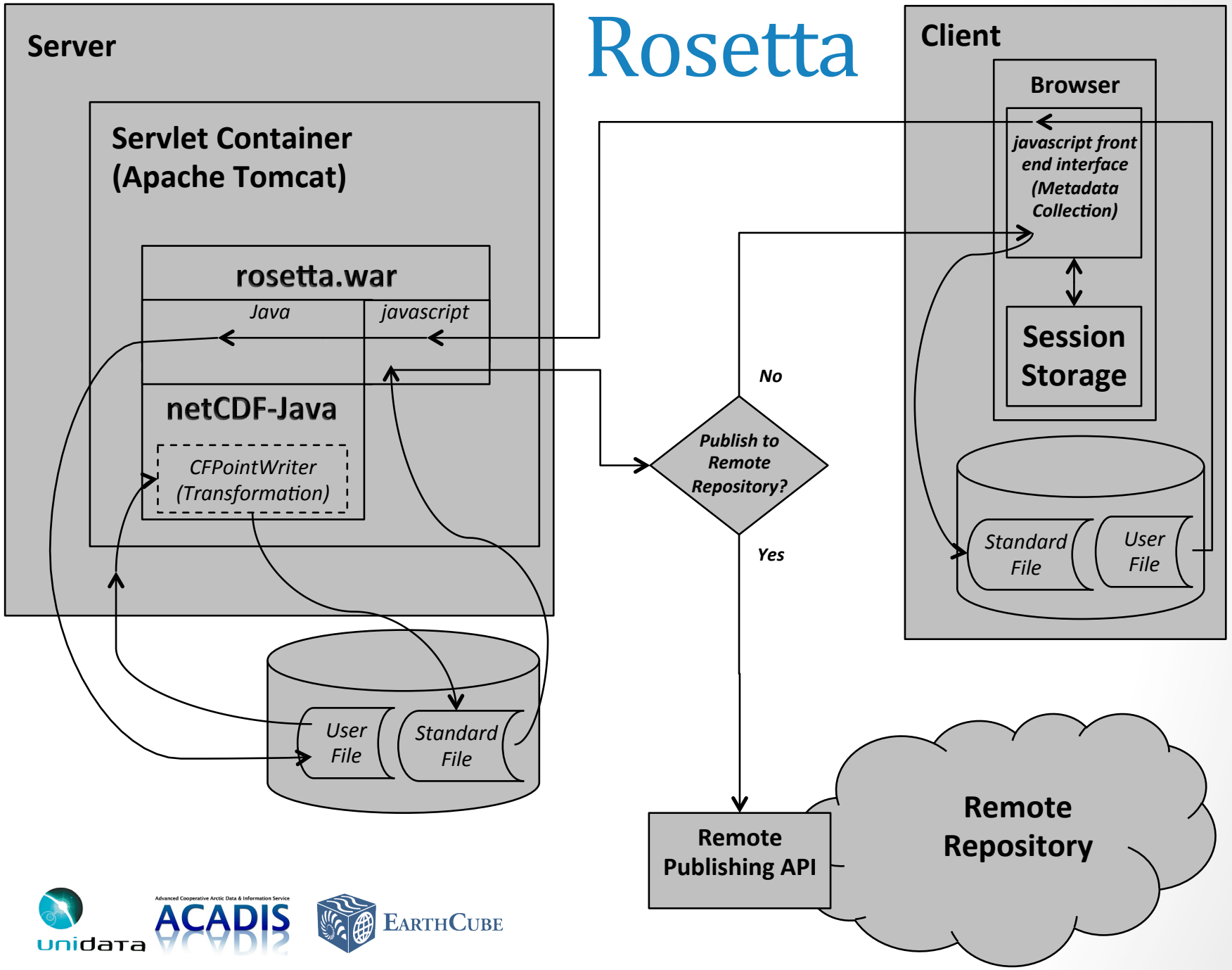

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Rosetta

- Open to collaboration!
- Always looking for 'badASCII' example files
- Email:

  support-rosetta@unidata.ucar.edu

Rosetta

- Home page:

  http://www.unidata.ucar.edu/software/rosetta/

- Live testing site:

  http://rosetta.unidata.ucar.edu

- Source code on GitHub:

  http://www.github.com/Unidata/rosetta

Rosetta

- Development supported by:

  NSF Award 1344155 (**GEO**): *Unidata 2018: Transforming Geoscience through Innovative Data Services*

  NSF Award 0833450 (**AGS**): *Unidata 2013: A Transformative Community Facility for the Atmospheric and Related Sciences*

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  NSF Award 1343785 (**ICER**): *EarthCube Building Blocks: Integrating Discrete and Continuous Data*