



Earth Science Information Partners

Tracey Pilone, ESIP Board Member, Element84

DOE Cyberinfrastructure Annual Meeting
April 24, 2017

- ESIP COMMUNITY VISION

To be a leader in promoting the **collection, stewardship and use** of Earth science data, information and knowledge that is responsive to societal needs.



ESIP COMMUNITY



Multiple Science
Domains



Corporate

users

data providers

application
developers

data archives

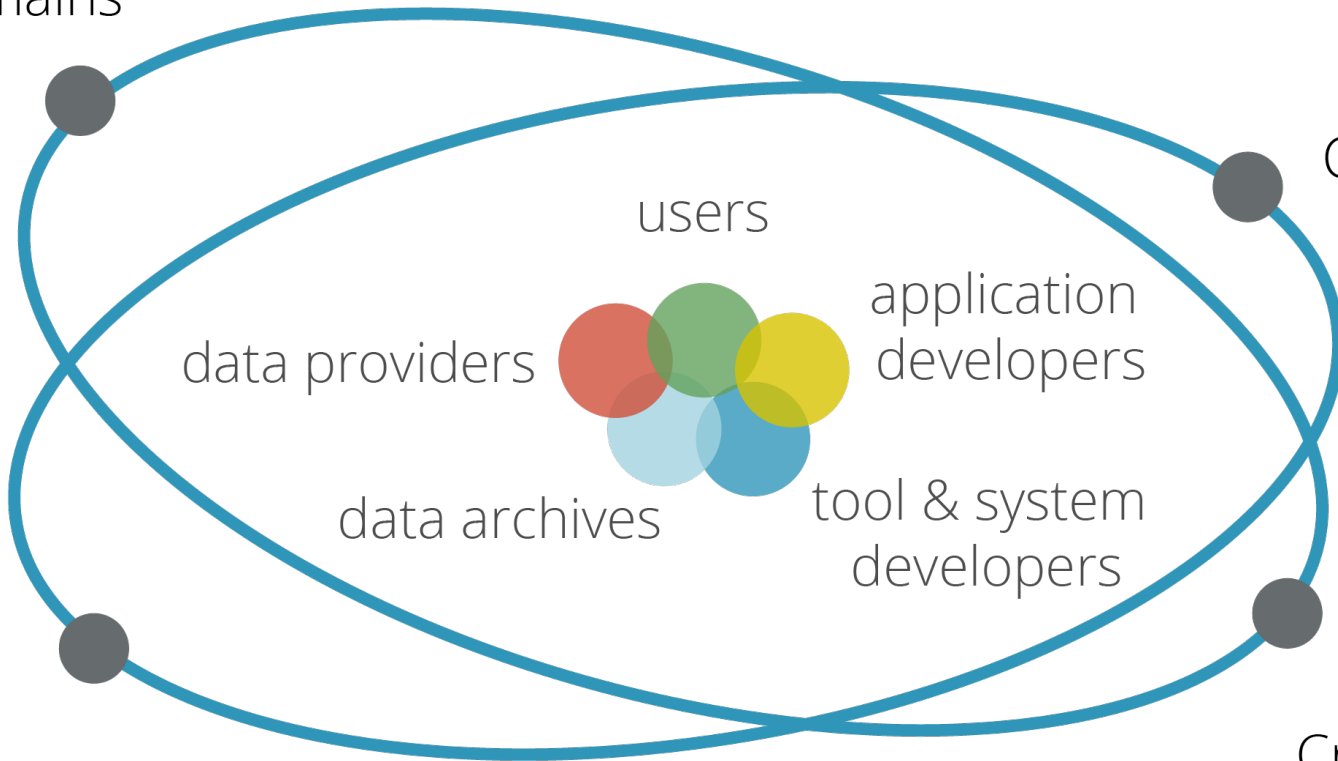
tool & system
developers



Academia



Cross-
Agency



• TYPES OF ESIP MEMBERS

Type I: Data Centers

- NASA DAACs (NSIDC)
- NOAA (NCEI)
- NSF Data Facilities

Type II: Researchers and Tool Developers

- Academia (NCAR, LASP, Ronin Institute, GEIA)
- Government labs

ESIP Assembly:

- One partner, one vote
- Annual business meeting at ESIP Winter Meeting
- Leadership elected from Assembly representatives

Type III: Application Developers

- Commercial (HDF)
- Nonprofit (Unidata, UNAVCO)
- Educational (GLOBE)

Type IV: Strategic Partners

- NASA
- NOAA
- USGS

Type V: Network Partners

Element

84

Element 84

[Home](#) [Hire Us](#) [Work For Us](#) [News](#) [Blog](#) [Contact Us](#)



-  **AQUA** 16,787.2 mph
-  **TERRA** 16,787.5 mph

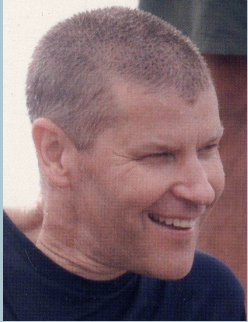
MODIS Aqua / Terra near-realtime satellite data

Today at 4:38 AM

We're **Element 84** and we're taking on some of the biggest challenges in software: **petabyte search**, **consumer streaming**, **Earth science repositories**—high performance systems for some of the biggest corporate and government clients in the world.

Standing Committee Chairs

Rich Signell



Soren Scott



Tracey Pilone



Shelley Olds



Matt Mayernik



Beth Huffer



Program Committee

President & Vice President

Emily Law



Christine White



Administrative Committee Chairs

Mike Daniels



Helen Conover



Danie Kinkade



BOARD

At-large Board Directors

Peter Fox



Karen Moe



Mark Parsons



2017 ESIP LEADERSHIP

• ESIP HISTORY

- 1998: NASA with NRC prompting creates ESIP Federation
- ESIP creates its constitution: member run, member led
- 2003 ESIP forms nonprofit administrative arm
- 2005ish NOAA adds funding for community building
- 2016 USGS steps up
- 2017 ESIP becomes single organization and is a premier virtual science organization



• ESIP SHARED AGENDA

2016-2020 Strategic Plan

- **Increase the use** and value of Earth science data and information.
- **Strengthen the ties** between observations and user communities
- Promote techniques to **articulate and measure the socioeconomic value** and benefit of Earth science data, information, and applications.
- **Position ESIP** to play a major role in Earth science issues

2017 Annual Theme



The graphic features a network of icons including a globe, a person, a satellite, and a lightbulb, connected by lines. To the right of the icons, the text reads: **STRENGTHENING TIES BETWEEN OBSERVATIONS AND USER COMMUNITIES**. Below this, the event details are listed: **Date:** January 11-13th, **Location:** Bethesda Marriott North Hotel *Just outside Washington, D.C.*, **Call for Sessions Opens:** September 19th, and **More Information:** meetings.esipfed.org. The ESIP logo is in the bottom right corner.

**STRENGTHENING TIES
BETWEEN OBSERVATIONS
AND USER COMMUNITIES**

Date: January 11-13th
Location: Bethesda Marriott North Hotel
Just outside Washington, D.C.
Call for Sessions Opens: September 19th
More Information: meetings.esipfed.org



Values

Agile | Collaborative | Collegial | Community-driven | Innovative
Neutral | Open | Participatory | Voluntary

• ESIP BACKBONE



Erin Robinson



Bruce Caron



Dan Keyes

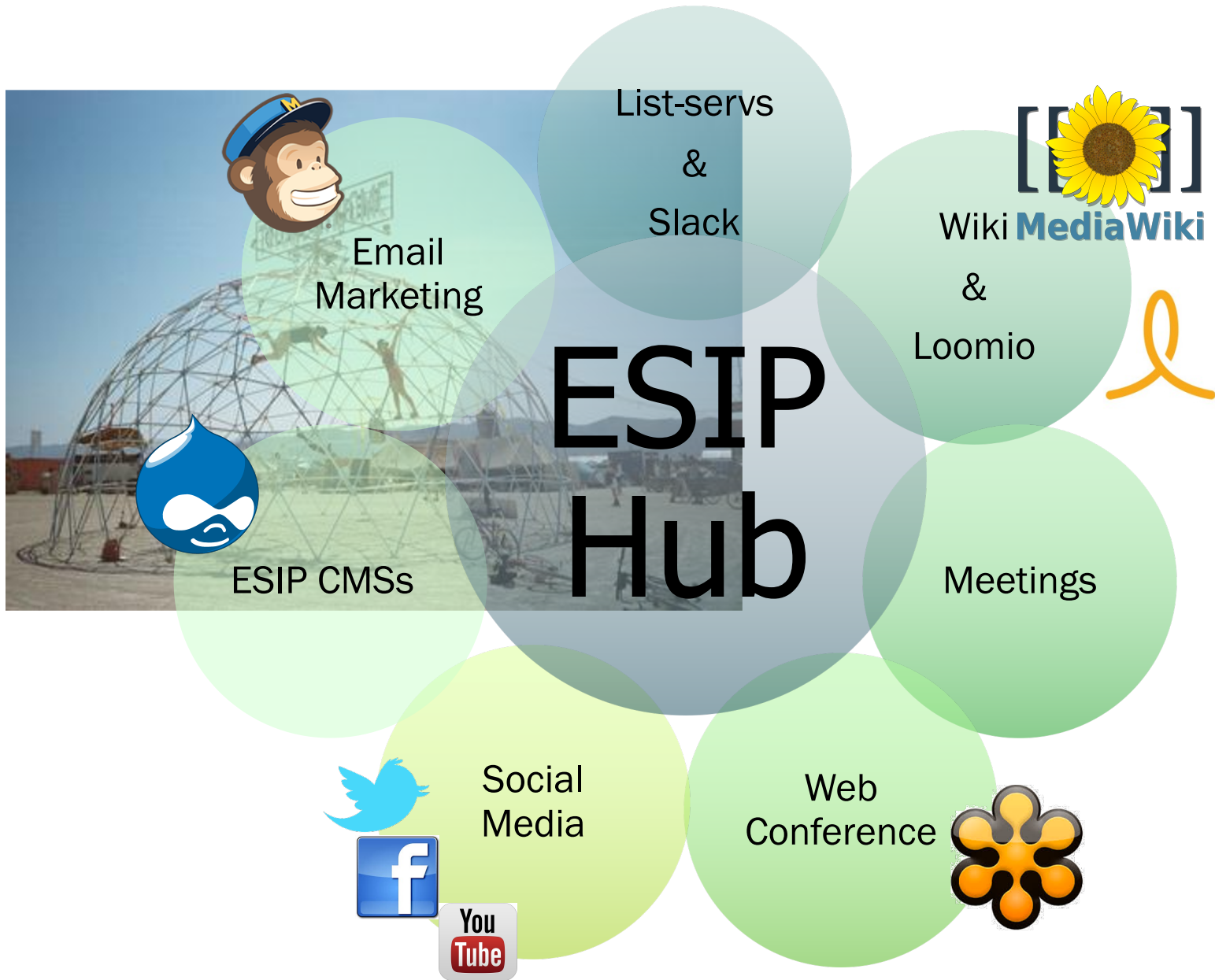


Annie Burgess



Annie Keyes

ESIP BACKBONE



2300 people have been to ESIP meetings in the past 12 years



Welcoming first-timers! (about a third of the group every summer)

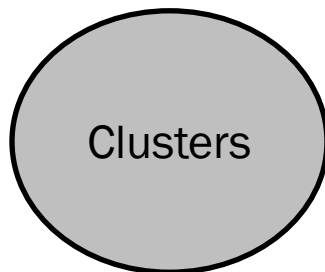
ESIP Visioneers goal: BEST Earth Science Data Meeting anywhere!

COLLABORATION AREA STRUCTURE

Features

- Formed by sending VP email
- For any reason
- Ends when the last person hangs up

- Agriculture & Climate
- CLEAN – Climate Literacy
- Cloud Computing
- Disaster Lifecycle
- Discovery
- Documentation
- Drones
- Drupal
- Energy & Climate
- Envirosensing
- Science Software



COLLABORATION AREA STRUCTURE

Features

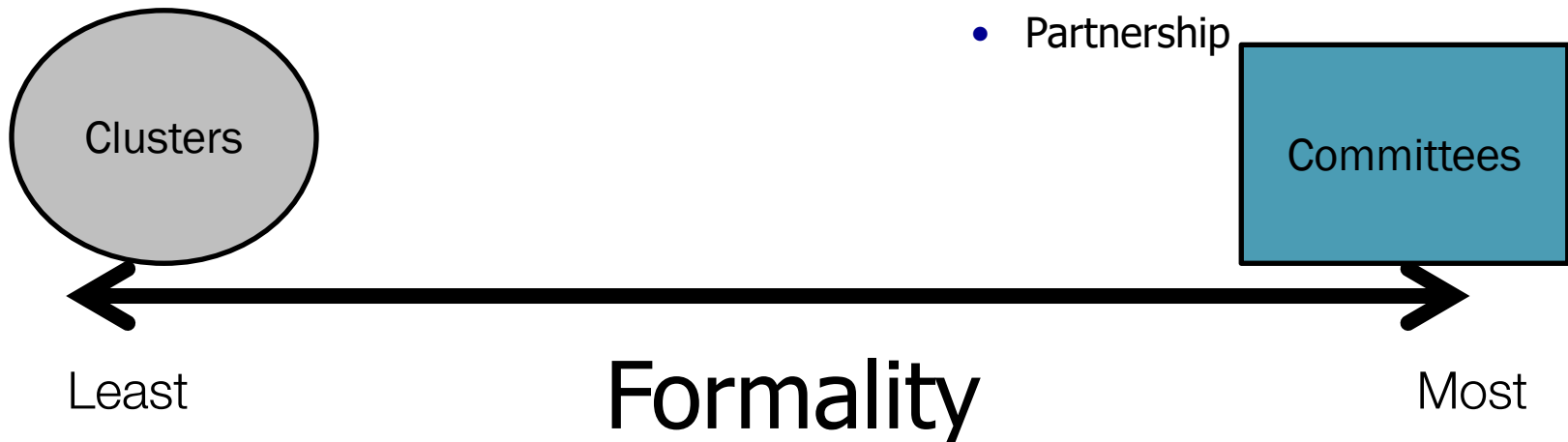
- Chair elected by Assembly
- Chair serves on Executive Committee
- Budget*

Standing Committees

- Data Stewardship
- Education
- Information Technology and Interoperability
- Products and Services
- Semantic Technology

Administrative Committees

- Constitution and Bylaws
- Finance and Appropriations
- Nominations
- Partnership

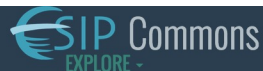


• THINGS ESIP PRODUCES

- Community-generated best practices
- Consensus governance on conventions
- Professional development & outreach
- Mini-grant Funding - FUNding Friday & Incubator awards provide seed money to make stuff happen



DATA CITATION GUIDELINES



Learn Meeting Help

Log in

Data Citation Guidelines for Data Providers and Archives

Submitted by superadmin on Thu, 03/01/2012 - 11:36

Event:

Winter Meeting 2012

Collaboration Area:

Data Preservation

DOI /EZId:

doi:10.7269/P34F1NNJ

Technical Reports:

Document Status

This document was approved by the ESIP Assembly 5 January 2012. The Data Stewardship Committee was charged with maintaining the Guidelines to ensure they remain functional and relevant.

The document was put out for review by all ESIP members 17 August 2011. As of 31 December 2011 some minor revisions have been made in response to feedback from the ESIP community and continually emerging guidance from the broader information science community.

Introduction and Summary

Data citation is an evolving but increasingly important scientific practice. We see several important purposes of data citation:

- To aid scientific reproducibility through direct, unambiguous reference to the precise data used in a particular study. (This is the paramount purpose and also the hardest to achieve).
- To provide fair credit for data creators or authors, data stewards, and other critical people in the data production and curation process.
- To ensure scientific transparency and reasonable accountability for authors and stewards.
- To aid in tracking the impact of data set and the associated data center through reference in scientific literature.
- To help data authors verify how their data are being used.
- To help future data users identify how others have used the data.

Reused:



- ESIP Data Stewardship created
- ESIP Assembly endorsed in 2012 (Way ahead of it's time)
- Served as a model for NASA, NOAA, NSF, Group on Earth Observations, ...
- ESIP has been influential in Force11 and RDA, influencing directions based on this work

<http://commons.esipfed.org/node/308>

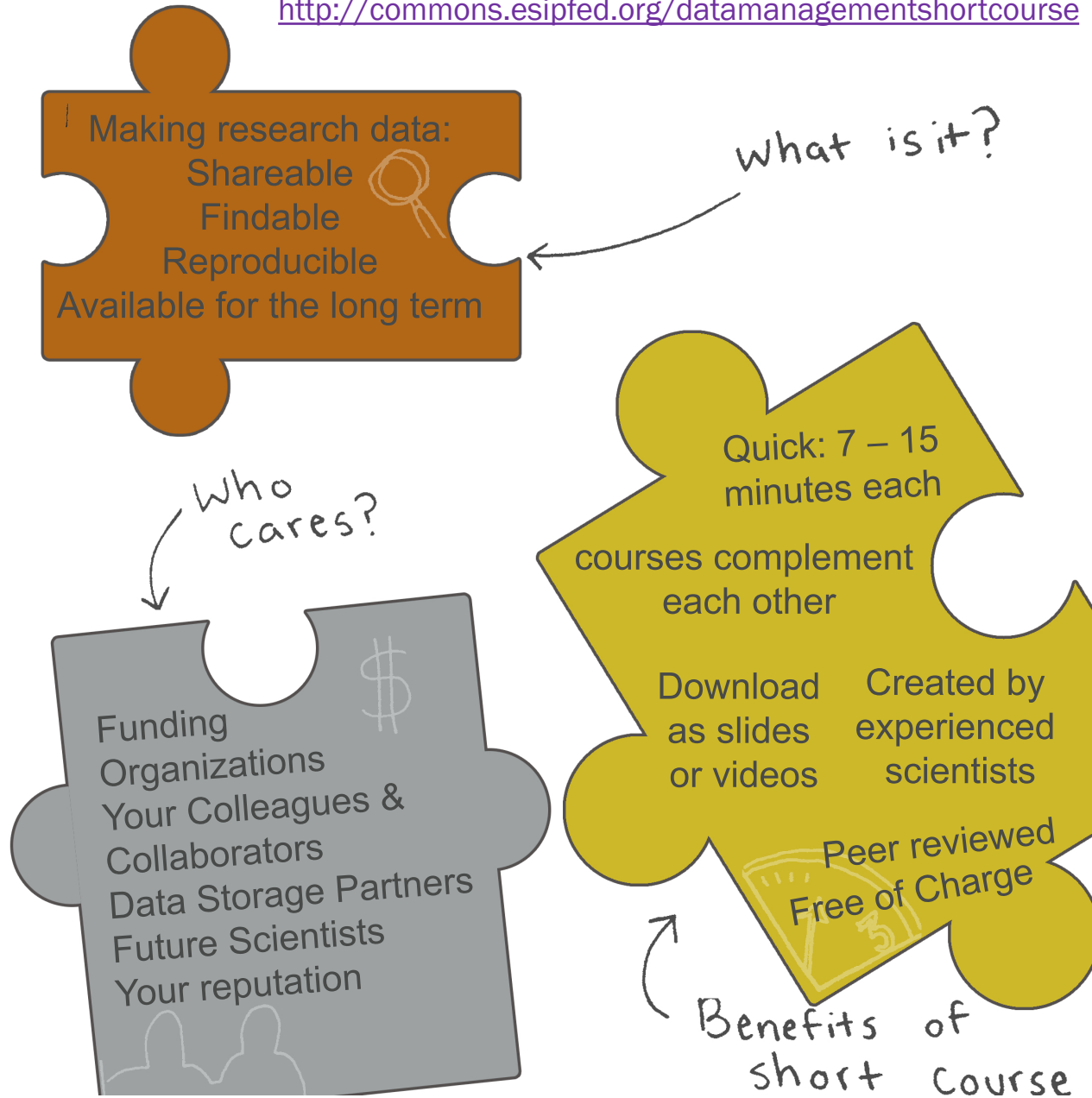
DATA MANAGEMENT FOR SCIENTISTS SHORT COURSE

A project of
The Federation of Earth
Science Information Partners
(ESIP Federation),
the Data Conservancy,
and the United States
National Oceanic
and Atmospheric
Administration (NOAA).



THE DATA MANAGEMENT PUZZLE

<http://commons.esipfed.org/datamanagementshortcourse>



DMT CLEARINGHOUSE

Browse

Framework

[DataONE Education Modules](#)
[ESIP Data Management for Scientists Short Course](#)
[USGS Science Support Framework](#)

All Learning Resources

DataONE Data Management Module 02: Data Sharing

More ▾

 PUBLIC DOMAIN  DataONE Education Modules

May 2012

Analyze Assure Collect Describe Discover Integrate Plan Preserve

DataONE Data Management Module 03: Data Management Planning

More ▾

 PUBLIC DOMAIN  DataONE Education Modules Plan

May 2012

Creating Documentation and Metadata: Creating a Citation for Your Data

More ▾

 CC BY  ESIP Data Management for Scientists Short Course Local Data Management

September 2012

Local Data Management - Data Formats: Using Self-describing Data Formats

More ▾

 CC BY  ESIP Data Management for Scientists Short Course Local Data Management

January 2013

[Dmtclearinghouse.esipfed.org](http://dmtclearinghouse.esipfed.org)

Publicly available for comment!

TECH DIVES



tech dive esip



What is a vector tile?

A binary-encoded, gridded square containing layers, features of vector coordinates, and attributes unique to those features.

IT&I Tech Dive Webinars

ESIP • 9 videos • 4 views • Last updated on Jan 24, 2017

Cool new technology showcased every month during the ESIP Information Technology and Interoperability Committee's call. For all future calls:

http://wiki.esipfed.org/index.php/Interoperability_and_Te...

▶ Play all

◀ Share

⚙ Playlist settings

- 1 2016-12-08 ESIP Tech Dive: Vector Tiles
by ESIP
- 2 2016-10-13 ESIP Tech Dive: Introducing 3D Tiles
by ESIP
- 3 2016-10-13 ESIP Tech Dive: EarthCube Integration and Test Environment
by ESIP
- 4 2016-09-08 ESIP Tech Dive: Apache Open Climate Workbench (OCW)
by ESIP
- 5 2016-08-11 Tech Dive: "Community Data Analysis Tools (CDAT)": Ch...
by ESIP

Next Tech Dive - 13 April 2017: "Processing Planetary-Scale Data in the Cloud": Drew Bollinger, Development Seed

Summary: Modern cloud-based infrastructure has had a huge effect on our ability to process, manipulate, and publish satellite imagery at scale. We'll discuss current methods of making imagery available across different platforms and how this is supported by the efforts of groups like AWS to publish open satellite data.

https://www.youtube.com/playlist?list=PL8X9E6I5_i8i070SY0UwMjGrw4UzjCmlc

SOFTWARE GUIDELINES

<https://esipfed.github.io/Software-Assessment-Guidelines/guidelines.html>

For quick access, place your bookmarks here on the bookmarks bar. [Import bookmarks now...](#)

ESIP Software Guidelines

About

ESIP Software Guidelines

Editor: Soren Scott

IN DRAFT Oct 2016

Please refer to the [contribution guidelines](#) if you have comments or suggestions.

Materials referenced in this document can be found in [References and Bibliography](#)

Licensed under: [CC-BY 3.0 U.S.](#)

[Motivation](#)

[Background](#)

[Developing Software Guidelines: A Community-driven Process](#)

[What Is Research Code?](#)

[Community and Stakeholders](#)

[Research Software Projects](#)

[Scenarios](#)

[Development Process and Project Maturity](#)

[Systems](#)

[Goals of this Document](#)

[Guidelines](#)

[Principles](#)

[Sustainable Code](#)

[Clean, standardized code](#)

[The codebase is well-structured and consistently structured.](#)

[Code follows the language's recommended style guide or the research group's style guide.](#)

[Conformance to the style is verified using a linter.](#)

[Linting is included during automated testing.](#)

[Errors and exception handling follows recommends practices for the language used.](#)

[Versioned code](#)

[Source code is maintained in a version control system \(VCS\).](#)

[Source code uses a versioning scheme.](#)

[Source code uses tagged releases.](#)

[Redistributable](#)

[Source code includes build scripts to automate builds.](#)

[Scripts or configurations are provided for creating binary installers.](#)

[For desktop GUIs, provide an installer.](#)

[Tested](#)

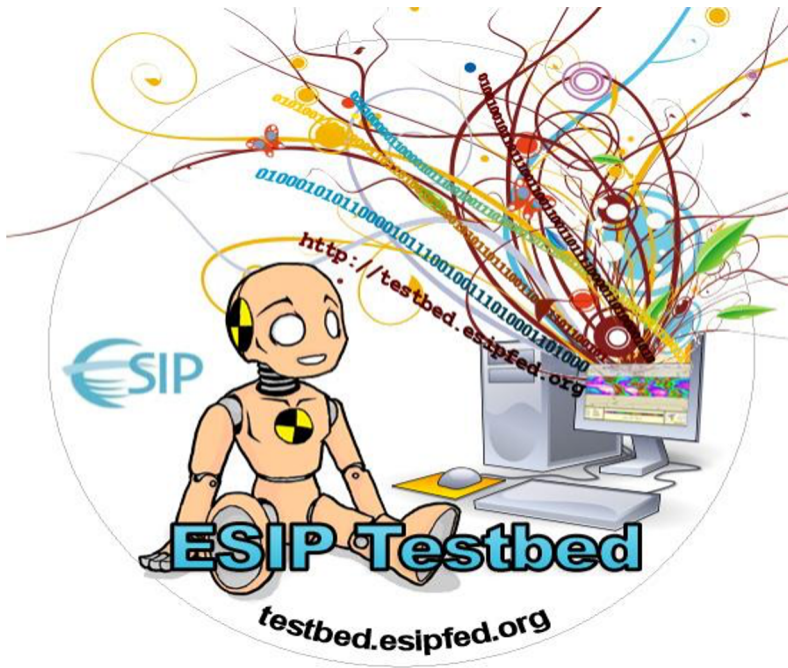
[Source code includes unit and integration tests.](#)

[Tests limit dependence on external services where possible.](#)

[Testing is automated through a continuous integration system.](#)

<https://esipfed.github.io/Software-Assessment-Guidelines/guidelines.html>

- Mini-Grants for Innovation



Incubator – twice a year call to fund high risk novel ideas



2015 ESIP Summer Meeting FUNding Friday Winners

GET INVOLVED

The screenshot shows the ESIP website's main page. At the top, there is a navigation bar with links for 'ABOUT', 'NEWS', 'MEETINGS', 'GET INVOLVED', and 'CONTACT'. Below the navigation bar is a large banner with the text 'Earth Science Information Partners' and 'CONNECTING SCIENCE, DATA AND USERS'. A 'Learn More at ESIP 101' button is visible. Below the banner is a 'Main Page' section with a 'Welcome to the ESIP Federation Wiki' message. The page is divided into two columns: 'Highlights' and 'ESIP Outputs and Outcomes'. The 'Highlights' column lists several events and awards, including the 2015-07-14 ESIP Summer Meeting in Asilomar, CA, and the 2014-10-31 Martha Maiden Award. The 'ESIP Outputs and Outcomes' column lists various initiatives like 'ESIP Meetings Optimize Collaboration' and 'Open Forum for Community-Driven Collaborations'. Below the website screenshot is a photo of a large group of people seated at tables in a conference room, with the ESIP logo overlaid on the image. The text 'Discover research from ESIP' is written below the photo.

Join us at the ESIP Summer Meeting!

July 25-28, 2017

Bloomington, Indiana

Details:

<http://www.esipfed.org/meetings/upcoming-meetings/esip-summer-meeting-2017>

 #esipfed
@ESIPFed

<http://esipfed.org>

<http://wiki.esipfed.org>

<https://esip.figshare.com/>



Thank you

**Follow-up with Erin Robinson, Executive Director
erinrobinson@esipfed.org**

DOE Cyberinfrastructure Annual Meeting

April 24, 2017

