

JCSDA Software Integration & JCSDA resources

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JCSDA

Joint Center for Satellite Data Assimilation

A multi-agency research center created to improve the use of satellite data
for analyzing and predicting the weather, the ocean, the climate and the environment





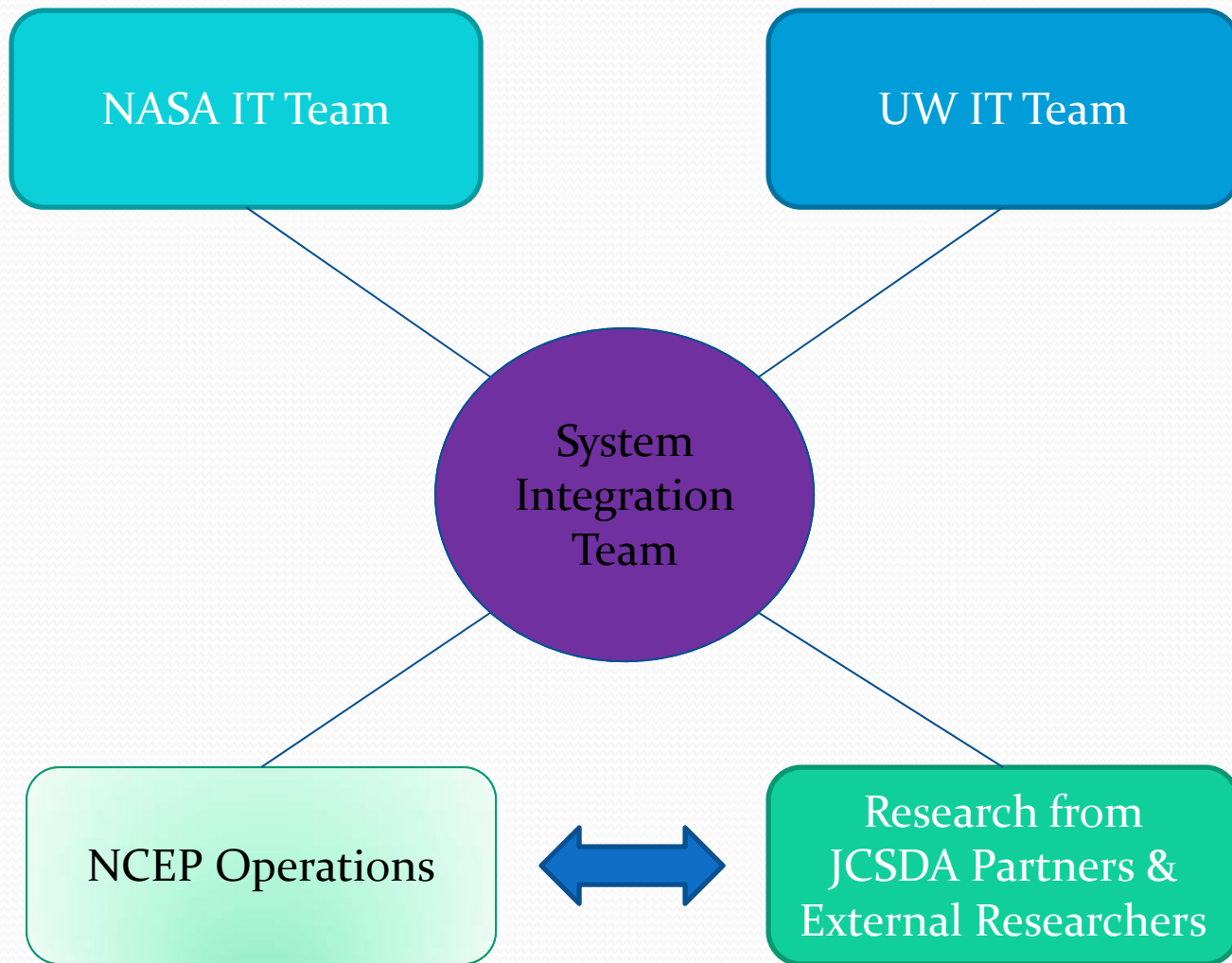
Outline

- Why having a JCSDA dedicated cluster?
- System Integration Team in a Nutshell
- JIBB & S4 Specs
- Software Integration
- Shared Directory Structure
- Web-Site and collaborative workspaces

Why having a JCSDA dedicated cluster?

- Allow users to run experiments in research mode, using similar tools and models as those running operationally
- Be a central place for deliverables, tools, codes, that could be shared by all partners, to minimize duplication and promote leveraging
- Comprehensive end-to-end testing system : from a testbed dataset to an impact assessment tool
- Should greatly improve the transition process of codes and databases (generated from internal and external research activities) into operations

System Integration Team in a Nutshell



NASA Cluster - JIBB

- Hardware
 - 3,456 total cores - 2.8 GHz Intel
 - 11.5 TB total RAM
 - 385 TB total storage
 - 32 Gbps Infiniband Network
- Quotas
 - \$HOME : 20GB/user ; mirrored but not backed up (2 TB total)
 - \$NOBACKUP: 1TB/user ~ 5-10TB/NWP user; Not backed up (~300 TB total)
- No proprietary or restricted access data is allowed on the S4 systems
- JCSDA investigators are eligible for accounts. Contact Lars Peter Riishojgaard, Sid Boukabara or Jim Yoe to request an account

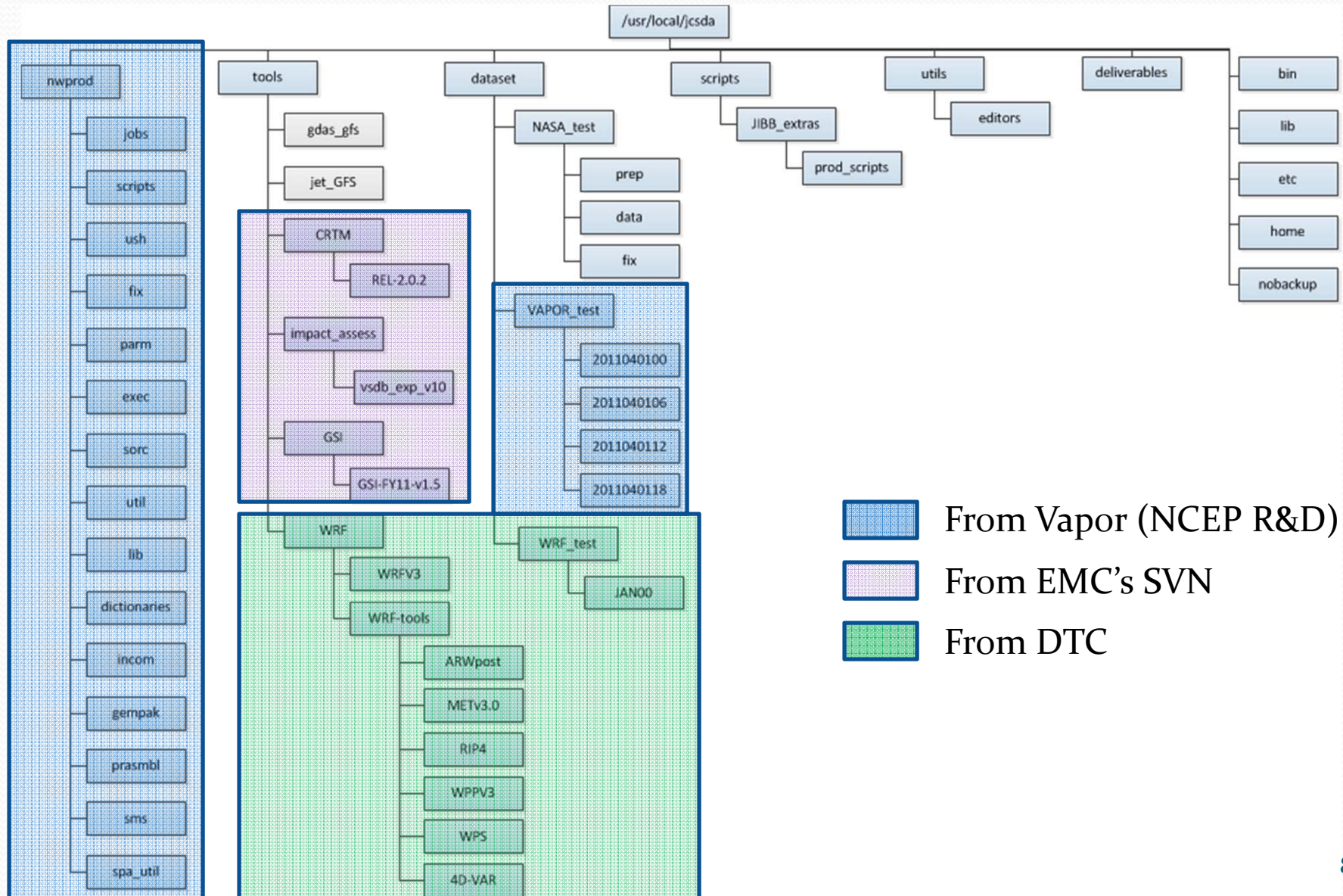
University of Wisconsin Cluster – S4

- Hardware
 - 3072 compute cores - 2.2GHz AMD Opteron cores
 - 8TB of total RAM
 - 456TB Usable Storage
 - 40Gbps Infiniband Fabric
- Quotas
 - \$HOME : 20GB/user ; backed up nightly (1 TB total)
 - \$DATA : 3TB/user ; Not backed up (may request a larger quota ; request reviewed by S4 committee) (200 TB total)
- No proprietary or restricted access data is allowed on the S4 systems
- Contact Sid Boukabara for account request
- Timeline:
 - Currently finishing hardware setup and preliminary software setup
 - June 1st: JCSDA system integration team installs tools/models and Beta users arrive
 - July 1st: Users are welcome!

Software Integration

- Available on JIBB / First Install on S4
 - CRTM 2.0.2
 - WRF 3.2.1 & 3.3
 - WRF Tools (WPS, ARWpost, RIP4, WRF-DA (VAR), WRF_NMM, MET)
 - GSI 1.5
 - GDAS-GFS (forecast step only) via /nwprod
 - DART
 - NCL
- Coming soon
 - GDAS-GFS (forecast, post, verif, analysis, prep) via /nwprod
 - Latest /nwprod (was updated a couple weeks ago)
 - Impact Assessment Package
 - MIRS
 - UPP
 - LIS (?)
 - Others: NCVIEW, NCO, F2C, Octave, Matlab
- Other tools can be available upon request

Shared Space Directory Structure



Collaborative Workspace/Website

- Have a **central location** where partners can easily know what the status of each project is on JIBB and S4
- Allow easy **communication** between partners and the JCSDA team by having a central set of FAQs, posts ...
- Allow for partner **collaboration**
- Under construction on JCSDA website:
 - a introduction page describing the mission as a whole
 - documentation available for download (static pages)
 - links to our 2 different collaborative workspace (Modeling Guru for JIBB / SSEC Workspace for S4 – both are accessible with the same login/password used on each respective machine)

Modeling Guru Workspace

NASA NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

+ NASA Portal
+ Request an Account
+ Modeling Guru Home

Modeling Guru

Welcome, **Marie Devaliere** (Log out) [New](#) [Your Stuff](#) [History](#) [Browse](#)

NASA Modeling Guru > Computing Systems & Technologies > jibb - JCSDA Machine (private) > Documents

▲ Up to Documents in jibb - JCSDA Machine (private)

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Getting Started on JIBB

VERSION 3

Created on: May 19, 2011 3:12 PM by Marie Devaliere - Last Modified: May 20, 2011 9:12 AM by Marie Devaliere

Dear users,

Here, you will find information about getting started on JIBB. If you find some information is missing, please let us know, so we can better assist you.

How do I connect to JIBB ?

Via Putty

You can easily connect to JIBB via putty. Your session screen should look as follow:

Actions

- Edit document
- Manage versions
- Move document
- Manage collaboration
- Delete document
- Stop email notifications
- Send as email
- View as PDF
- View print preview
- Bookmark this

Bookmarked By (0)

View: **Everyone**

No public bookmarks exist for this content.

SSEC Workspace



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[Site Map](#) [Accessibility](#) [Contact](#)

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You are here: [Home](#) → [Groups](#) → [S4](#)

Navigation

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- [Requesting Help with S4/badger](#)
- [S4 Badger Cluster User Guide](#)
- [S4 Policies](#)
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S4

by [Technical Computing](#) — last modified Apr 27, 2011 11:40 AM

Supercomputer for Satellite Simulations and data assimilation Studies (S4)

- [Introduction](#) — by [Scott Nolin](#) — last modified May 13, 2011 12:40 PM
Information for new badger S4/badger cluster users.
- [Requesting Help with S4/badger](#) — by [Scott Nolin](#) — last modified Apr 27, 2011 01:43 PM
How to request help with the S4 systems.
- [S4 Badger Cluster User Guide](#) — by [Scott Nolin](#) — last modified May 13, 2011 12:38 PM
Guide for using the s4 badger cluster at SSEC
- [S4 Policies](#) — by [Technical Computing](#) — last modified May 12, 2011 03:52 PM
S4 Policy Documentation
- [S4 Community Content](#) — by [Scott Nolin](#) — last modified May 18, 2011 01:52 PM
S4 users can create content here
- [S4 Account Creation Procedure](#) — by [Scott Nolin](#) — last modified May 18, 2011 03:25 PM
S4 account request and creation process

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Questions?