

JSOC and NetDRMS: Status Report

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1. JSOC Status

2. Data Products — Now and Soon

3. NetDRMS Status & Plans



SDO Pipeline Meeting, Royal Observatory of Belgium, 17 September 2010



JSOC Status

Three DRMS servers:

- hmidb: for data processing
- hmidb2: for data distribution
- shoom: NetDRMS testbed

Stanford SUMS disk cache: 23 30-TB partitions ~ 700 TB
22 at high-water mark (96%); 23rd recently added

4th server (NetDRMS client node with large disk farm) under consideration



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Published JSOC Data Series

Series	Archive Flag	Retention (days)	Future Status
aia_test.lev1	0	60	<i>to be replaced by aia.lev1</i>
aia_test.lev1p5_final	0	30	<i>to be replaced by aia.lev1p5</i>
aia_test.synoptic	-1*	200	<i>to be replaced by aia.synoptic (10000)</i>
aia_test.synoptic2	-1*	200	<i>to be removed</i>
hmi_test.fsVbinned	0	100	<i>to be replaced by hmi.fsVbinned_nrt</i>
hmi_test.Ic_45s	0	90	<i>to be replaced by hmi.IC_45s</i>
hmi_test.Ld_45s	0	90	<i>to be replaced by hmi.Ld_45s</i>
hmi_test.Lw_45s	0	90	<i>to be replaced by hmi.Lw_45s</i>
hmi_test.M_45s	0	90	<i>to be replaced by hmi.M_45s</i>
hmi_test.S_720s	0	90	<i>to be replaced by hmi.S_45s</i>
hmi_test.S2_720s	0	90	<i>to be removed</i>
hmi_test.V_45s	0	90	<i>to be replaced by hmi.V_45s</i>
mdi.fd_M_lev18	1	30	<i>to be replaced by mdi.fd_M (?)</i>
mdi.fd_M_96m_lev18	0	10000	<i>to be replaced by mdi.fd_M_96m (?)</i>
mdi.fd_V_lev18	0	300	<i>to be replaced by mdi.fd_V (?)</i>
su_arta.fd_M_96m_lev18	0	21	<i>to be removed</i>
su_arta.testfits_int	0	7	<i>to be removed</i>



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JSOC Data Series Mirroring by Sites

Series	IAS	KASI	KIS	MPS	NMSU	NSO	ROB	SAO	SDAC	UCLan
aia_test.lev1	(X)			X		X	X	X	X	X
aia_test.lev1p5_final										
aia_test.synoptic						X		X	X	X
aia_test.synoptic2	(X)					X	X	X	X	X
hmi_test.fsVbinned						X				
hmi_test.Ic_45s	(X)			X		X	X	X	X	X
hmi_test.Ld_45s				X		X		X	X	X
hmi_test.Lw_45s				X		X		X	X	X
hmi_test.M_45s	(X)			X	(X)	X	X	X	X	X
hmi_test.S_720s						X	X	X	X	X
hmi_test.S2_720s						X		X	X	X
hmi_test.V_45s	(X)		X	X	(X)	X		X	X	X
mdi.fd_M_lev18										
mdi.fd_M_96m_lev18										
mdi.fd_V_lev18				X						



JSOC Published Data Series Planned (Near Term)

AIA low-level	HMI low-level	HMI high-level	Other
aia.dark	hmi.lev1	hmi.fsVbinned	gong.mrvzi (NSO)
aia.flat	hmi.Ic_45s	hmi.rdVtrack_fd05	gong.site_vzi
aia.cal	hmi.Ld_45s	hmi.rdVtrack_fd15	mdi.fd_M_lev18
aia_lev1	hmi.Lw_45s	hmi.rdVtrack_fd30	mdi.fd_M_96m_lev18
aia.lev1p5	hmi.M_45s	hmi.rdVpspec_fd05	mdi.fd_V_lev18
aia.synoptic	hmi.S_720s	hmi.rdVpspec_fd15	
	hmi.V_45s	hmi.rdVpspec_fd30	
		hmi.rdVfitsf_fd05	
		hmi.rdVfitsf_fd15	
		hmi.rdVfitsf_fd30	
		hmi.rdVfitsc_fd05	
		hmi.rdVfitsc_fd15	
		hmi.rdVfitsc_fd30	
		hmi.rdVflows_fd15_frame	
		hmi.rdVflows_fd30_frame	



NetDRMS Status

NetDRMS — 2.4 β released 31 Aug; corresponds to JSOC 5.10

2.4 β has serious bug, but it only affects archiving to tape (JSOC 5.10 patched)

2.4 expected to include JSOC Mirroring Daemon — release mid-September?

3.0 will correspond to JSOC 6.0 — pipeline production release — release mid-September?

Probably no significant differences between 2.4 and 3.0 — infrastructure stabilized



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Planned Changes to NetDRMS Code (2.4)

Bug fixes

- Fix slony log parser to handle bad insert statements resulting from illegal characters in column values
- Fix hard-coding issue in *sum_rm*
- Fix of remaining *sum_svc* memory leak affecting NSO but not JSOC, if it can be identified
- Inclusion of DELETE statements in slony-log parser

New features

- Disallow publication of series with archive flag -I
- Incorporate JMD code
- Provide mechanism for querying replication server for series subscription information

Under consideration for future releases

- Provide non-slony mechanism (e.g. CGI program like *jsoc_info*) for remote sites to provide DRMS data for local ingest upon request
- Extension of DRMS data naming scheme to incorporate site name, e.g. *jsoc:hmi.M_45s*
- Mechanisms for advertisement of data series availability for subscription
- Improvements in handling of keyword links, multiple segments
- What else is needed ??*

