

# Report from regional grid LDG and Middleware Working Group.



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# Status of global ILDG Services

## VOMS

<https://grid-voms.desy.de:8443/voms/ildg>

- > Stable operation
- > O(38) members suspended because AUP not re-accepted  
Notifications missed or not received?

## Webpage

<http://plone.jldg.org/ildg>

- > Seems rather stable
- > Content out of date (e.g. [ildg@sapac.edu.au](mailto:ildg@sapac.edu.au))

## INCA

- > Not yet migrated
- > Might be (partly) substituted by extensions of Itools



## New MWWG Members

> ?

## MWWG Discussions and Activities

- > No regular meetings recently
- > Some informal exchanges (OW, ...)
- > Some progress on ltools (LDG specific?)



## LDG Status:

- > All services **run stable**
- > Users have usually **no running client software** (ltools) any more, but don't know how to do low-level access (and can't be expected to ...)
- > Huge **pile-up** of CLS configs to be uploaded (about 150 ensembles, 60 000 configs, 250 TB)



# Itools (re-design)

## Aim and strategy of current re-implementation of Itools

- ⊖ rely on availability of common software components on host system (instead of including them in deployed package)
- ⊕ reduce dependence on problematic components (e.g. java clients)
- ⊕ upgrade LCG components from lcgutils to gfal2
- ⊕ additional support for handling of markup and binaries

## Modular and gradual functionality in new Itools

host	prerequisites	regional grid	available functionality
perl + curl		MDC	list ensembles and configs download metadata
+ grid-proxy-init		FC	locate configs (e.g. for low-level access)
+ SRM client		SE	download configs
+ voms-proxy-init		LDG_MDC	upload metadata (and administration)
+ LCG utils or gfal2		LDG_FC	download + upload configs

**Q:** Which regional grids do (already/still) have a running FC?



## Support for easy markup (lmu)

Assume that users

- (i) know how and from where to collect info required for QCDmlConfig (e.g. ad-hoc values, shell commands, custom scripts, ...)
- (ii) are willing to (once) insert info from (i) into some tree data structure (specified by XML or other more handy format, e.g. `\item`)

Then the “markup tool”

- > parses (ii)
- > generates corresponding XML output
- > replaces content of elements by (i) (e.g. specified values, output of commands, or defaults)
- > validates XML



# Example: (meta-)data handling in CLS runs

Nf=2+1 Cfg Status x

https://www-zeuthen.desy.de/alpha/internal-cls-nf21/stat/ Ixquick HTTPS

ID	who	where	cnfg	crc	transfer	check	archive			mirror		
					2do	2do	2do	done	TB	done	TB	
N400ta	ES	M	310	20 (200)	1	0	0	0	20	0.2	0	0.0
N401ta	ES	M	330	15 (315)	0	0	0	0	15	0.1	0	0.0
N401r00	ES	M	1008	1008	45	0+(45)	0+(45)	0	56.1	7.9	117	1.0

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**S4 Ensembles (128 x 32<sup>3</sup>, beta=3.46 , 2.42 GB/cfg)**

ID	simulation				storage (Zeuthen)					(Regensburg)	
	who	where	cnfg	crc	transfer	check	archive			mirror	
					2do	2do	2do	done	TB	done	TB
S400ta	JS	M	225	17 (200)	0	0	0	17	0.0	0	0.0
S400r00	JS	M	872	872	0	0	0	872	2.1	872	2.1
S400r01	JS	M	870	870	0	0	0	870	2.1	870	2.1

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**J5 Ensembles (192 x 64<sup>3</sup>, beta=3.85 , 28.99 GB/cfg)**

ID	simulation				storage (Zeuthen)					(Regensburg)	
	who	where	cnfg	crc	transfer	check	archive			mirror	
					2do	2do	2do	done	TB	done	TB
J500t	MP	B	10	1 (0)	0	0	0	1	0.0	0	0.0
J500r01	MP	B	48	48	0	0	0	48	1.4	0	0.0
J500r02	MP	B	54	54	0	0	0	54	1.6	0	0.0
J500r03	MP	B	92	92	0	92	0+(92)	0	0.0	0	0.0

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**Total Ensembles**

ID	simulation				storage (Zeuthen)					(Regensburg)	
	who	where	cnfg	crc	transfer	check	archive			mirror	
					2do	2do	2do	done	TB	done	TB
Total	*	*	*	*	186	589	594	57206	246.5	37739	209.4

Last updated: Wed Mar 23 07:02:31 2016



## Support for (un-)packing binaries (`lpack`)

- > pack binary data and ILDG records into lime file  
(with light-weight and cleaned re-implementation of lime-1.3.2)
- > compute checksum (for XML)
- > list and extract individual records
- > perform integrity and compliance checks  
(crc, endianness, IEEE, unitarity)





## Support for tests and checks (`lcheck`)

- > no-regression test of ltools functionality
  - > test access to main services (MDC, FC, SE)
  - > check consistency of (LDG) resources
  - > collect statistics
- host installation
  - automatic monitoring
  - detect errors + zombies
  - status webpage?



## Status of Itools development

functionality	implementation
metadata download	ok
config download	ok (gfal2 incomplete)
config upload	delayed
LDG MDC admin	incomplete
lcheck	in progress
lbin	in progress
lmu	experiments



## Plans and pressing issues:

- > Finish new version of Itools
- > Update content of webpage(s)
- > Alternative concepts for FC (LDG)
- > Clarify policy for access restrictions

