

VO Services Validation from Euro-VO Registry

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Issue/Revision: 1.0

Reference: VO Services Validation

Status: Issued

ESA UNCLASSIFIED - Releasable to the Public

VO Services compliancy tests



1. Services compliancy tests for:

- a. SIAP 1.0, SSAP 1.0, SCS 1.0, TAP 1.0 (taplint Mark Taylor)



Slide 2

VO Services compliancy results



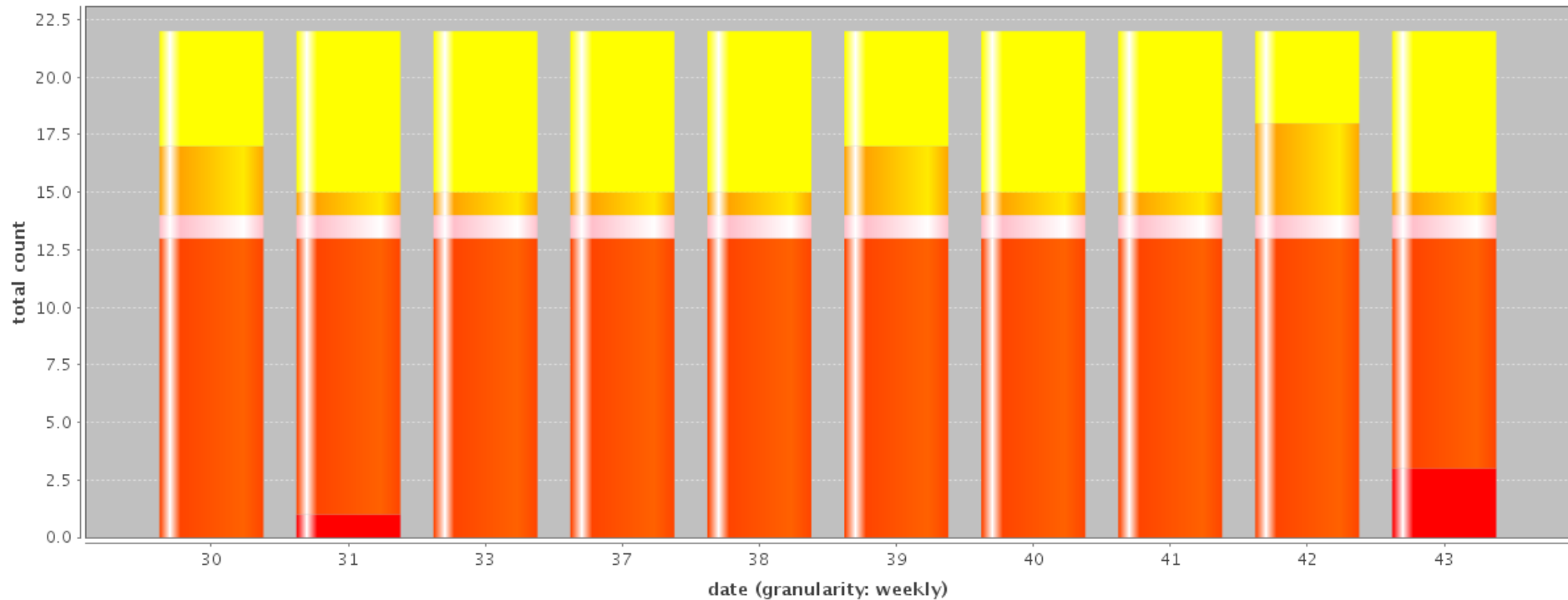
- E: no criterion succeeds ■ D: all requirements fail but some other criterion (of lesser importance) succeeds
- C--: at least three (3) requirements fail, but at least one (1) requirement equally succeeds
- C-: at least two (2) requirements fail, but at least one (1) requirement equally succeeds
- C: at least one (1) requirement fails, but at least one (1) requirement equally succeeds
- B: no requirement fails, but at least one warning fails ■ A: no requirement or warning fails, but at least one recommendation fails
- A+: no requirement, warning or recommendation fails ■ A++: no criterion fails

1. Results could be grouped and simplified
2. GREEN (A++, A+, A, B)
 - a. All requirements compliant
3. ORANGE (C, C-, C--)
 - a. Between 1 and 3 requirements non compliant
4. RED (C--, D, E)
 - a. More than 3 requirements non compliant

SIA Compliancy Euro-VO Registry



repo 'ESAVO', SIA compliance category distribution over time
 2015-06-30→2015-10-30 (Z#=1110) (loops:1→49 | 2015-07-24→2015-10-27)
 # total @ earliest timepoint with actual data: 30, @ latest: 214



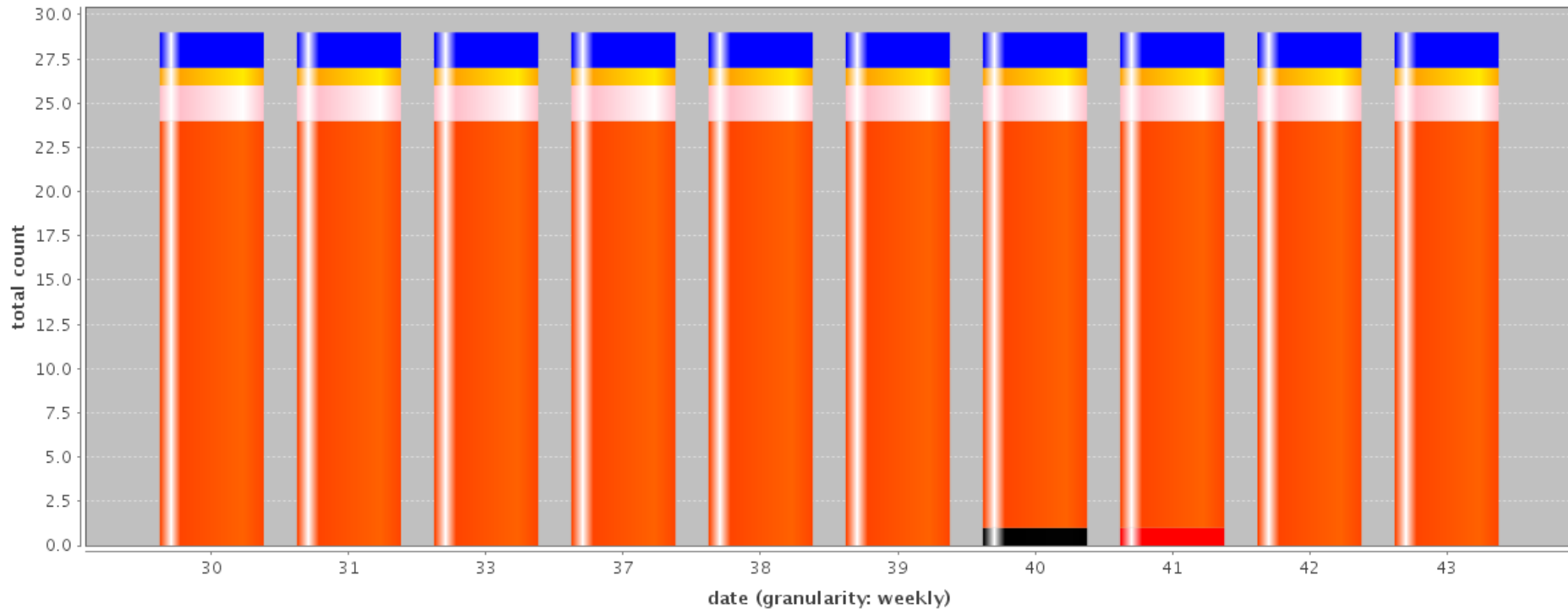
■ E: no criterion succeeds ■ D: all requirements fail but some other criterion (of lesser importance) succeeds ■ C--: at least three (3) requirements fails, but at least one (1) requirement equally succeeds
■ C-: at least two (2) requirements fails, but at least one (1) requirement equally succeeds ■ C: at least one (1) requirement fails, but at least one (1) requirement equally succeeds
■ B: no requirement fails, but at least one warning fails ■ A: no requirement or warning fails, but at least one recommendation fails ■ A+: no requirement, warning or recommendation fails
■ A++: no criterion fails



SSAP Compliancy Euro-VO Registry



repo 'ESAVO', SSA compliance category distribution over time
 2015-06-30→2015-10-30 (Σ#=1421) (loops:1→49 | 2015-07-24→2015-10-27)
 # total @ earliest timepoint with actual data: 29, @ latest: 54



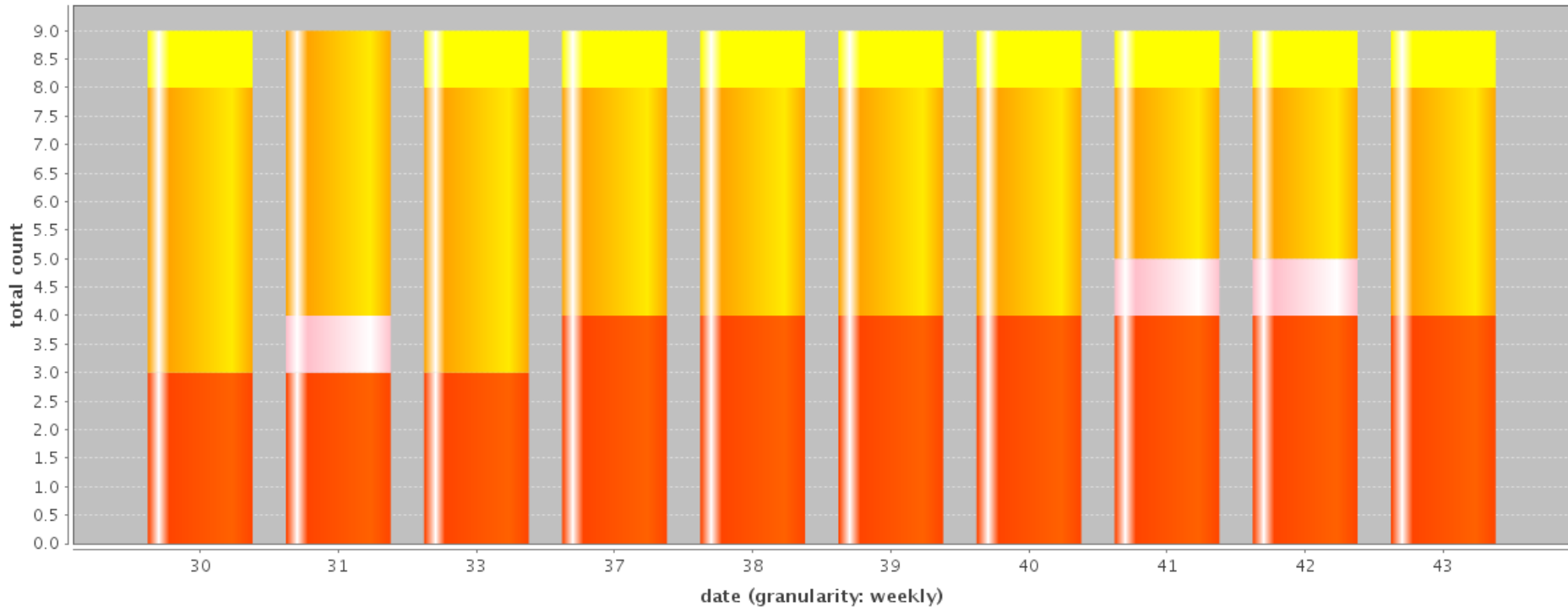
■ E: no criterion succeeds ■ D: all requirements fail but some other criterion (of lesser importance) succeeds ■ C-: at least three (3) requirements fails, but at least one (1) requirement equally succeeds
■ C-: at least two (2) requirements fails, but at least one (1) requirement equally succeeds ■ C: at least one (1) requirement fails, but at least one (1) requirement equally succeeds
■ B: no requirement fails, but at least one warning fails ■ A: no requirement or warning fails, but at least one recommendation fails ■ A+: no requirement, warning or recommendation fails
■ A++: no criterion fails



TAP Compliancy Euro-VO Registry



repo 'ESAVO', TAP compliance category distribution over time
 2015-06-30→2015-10-30 (Σ#=441) (loops: 1→49 | 2015-07-24→2015-10-27)
 # total @ earliest timepoint with actual data: 23, @ latest: 36



■ E: no criterion succeeds ■ D: all requirements fail but some other criterion (of lesser importance) succeeds ■ C--: at least three (3) requirements fails, but at least one (1) requirement equally succeeds
■ C-: at least two (2) requirements fails, but at least one (1) requirement equally succeeds ■ C: at least one (1) requirement fails, but at least one (1) requirement equally succeeds
■ B: no requirement fails, but at least one warning fails ■ A-: no requirement or warning fails, but at least one recommendation fails ■ A+: no requirement, warning or recommendation fails
■ A++: no criterion fails



VO Services non compliancy



1. Some requirements are systematically non compliant in almost all VO services supposed to implement them
2. Reasons for non compliancy:
 1. Service validator is wrong ?
 2. Requirement not clear and therefore wrongly implemented (too strictly in the validator and too loosely in the service) ?
 3. "Wrong" requirement, conscientiously not implemented ?

Non compliant requirement failing in 100% of the services



Failing Validation Criteria

Validation criteria whose failure percentage (over all time) is in the following range [100%~100%].

Report run time: 2015-10-22T01-25-14.

service type	criterion code	# successes	# failures	% failures
sia:SimpleImageAccess	4.2.4.b.iii	0	496	100.00
ssa:SimpleSpectralAccess	4.2.5.11n	0	117	100.00
ssa:SimpleSpectralAccess	4.2.5.11q	0	117	100.00

[See more details](#)

Non compliant requirement failing in >90% of the services



Failing Validation Criteria

Validation criteria whose failure percentage (over all time) is in the following range [90%~100%).

Report run time: 2015-10-22T01-25-24.

service type	criterion code	# successes	# failures	% failures
cs:ConeSearch	2.3b	1375	37239	96.44
sia:SimpleImageAccess	.metd.xsd	49	447	90.12
sia:SimpleImageAccess	.effc.xsd	49	447	90.12
ssa:SimpleSpectralAccess	4.2.5.6c	3	114	97.44
ssa:SimpleSpectralAccess	4.2.5.11g	4	113	96.58
ssa:SimpleSpectralAccess	4.2.3.1	4	113	96.58
ssa:SimpleSpectralAccess	4.2.5.11p	4	113	96.58
ssa:SimpleSpectralAccess	4.2.5.11h	6	111	94.87
ssa:SimpleSpectralAccess	4.2.5.6b	10	107	91.45
tr:TableAccess	W UNSC	3	79	96.34

[See more details](#)

How to improve the VO services compliancy – 1 ?



Reasons for non compliancy:

1. Service validator is wrong ?
 - ✓ Fix the service validator

2. Requirement not clear and therefore wrongly implemented (too strictly in the validator and too loosely in the service) ?
 - ✓ Update Standard with ERRATA and/or update service validators
 - ✓ Need to inform service providers for updating their service

3. “Wrong” requirement, conscientiously not implemented ?
 - ✓ Update Standard with ERRATA
 - ✓ Update service validators (downgrade REQ -> REC/WARNING/EXTRA?)
 - ✓ Services will then become compliant

How to improve the VO services compliancy – 2 ?



Classifying Services Compliancy

1. GREEN (A++, A+, A, B), all requirements compliant
 - ✓ Nothing to do (congrats to service provider ;-)
2. ORANGE (C, C-, C--), between 1 and 3 requirements non compliant
 - ✓ Contact service provider with non compliant requirements
3. RED (C--, D, E), more than 3 requirements non compliant
 - ✓ Contact service provider with non compliant requirements
 - ✓ If not improvement
 - Make service inactive ? Remove the service ?