



WG 1 – SPECCHIO / SpecNet Interactions

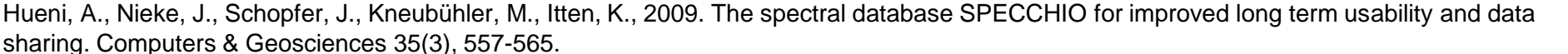
**Updates on interactions within SpecNet: processing of UniSpec
Dualchannel tram data within SPECCHIO**

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- Long-term usage
- Data sharing
- Contextual awareness
- One-stop shop for spectral data
- Support spectroscopy data life cycle

Data Portals

Spectral Information System

Experimental
Planning

Data
Acquisition

Data
Ingestion

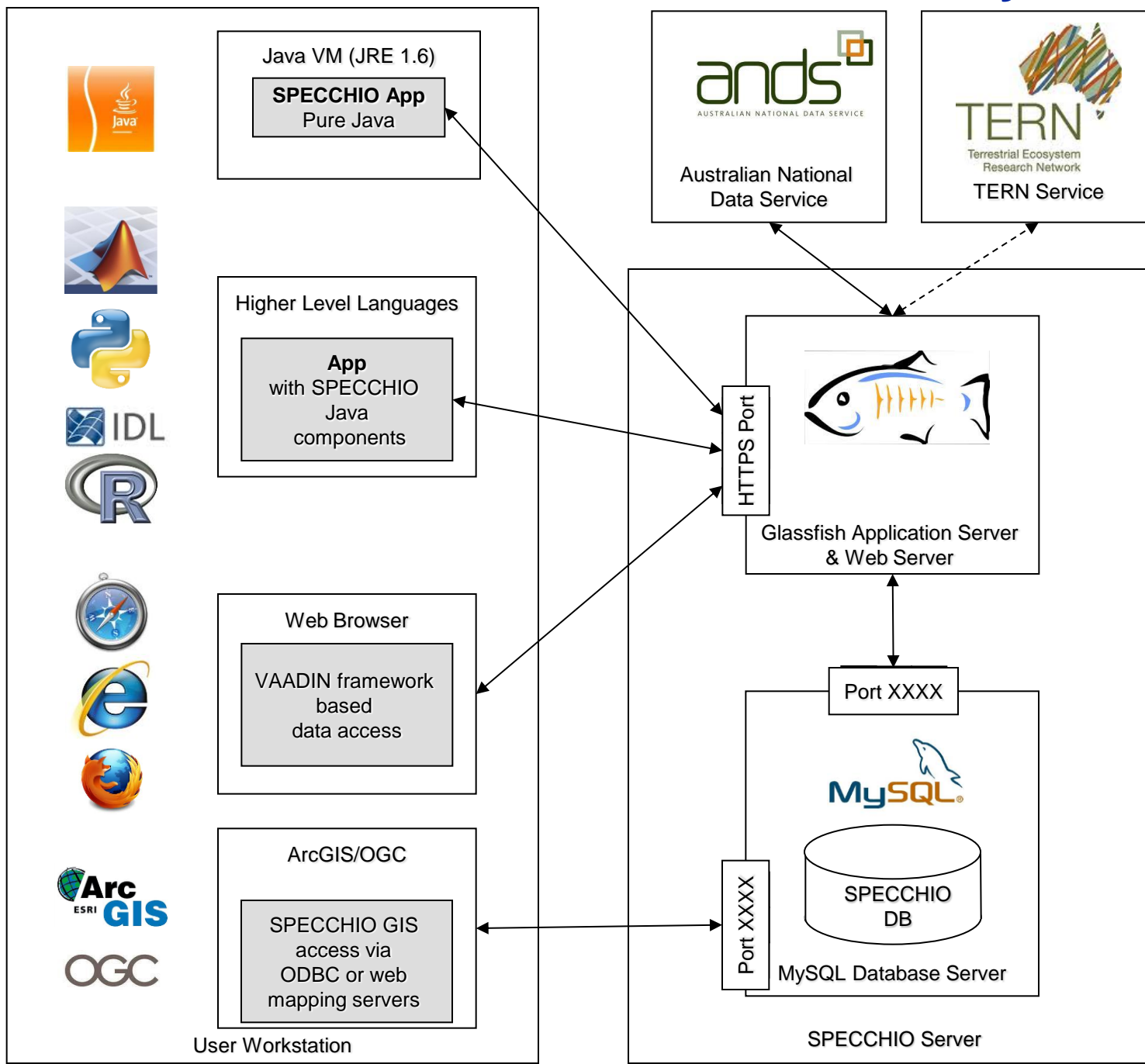
Metadata
Augmentation

Information
Building

Information
Retrieval

SPECCHIO V3

Architecture and System Components



Overview on international efforts



SPECCHIO

SpecNet

- Dec 2014: Research stay at UoA
- UniSpec Tram data processing system – SALSA++
- Paper in preparation

EcoSIS

NASA sponsored
project:
*Ecological
Spectral
Information
System*

- May 2015: Workshop in Madison (WI)
- Dec 2015: Planned session or townhall at AGU



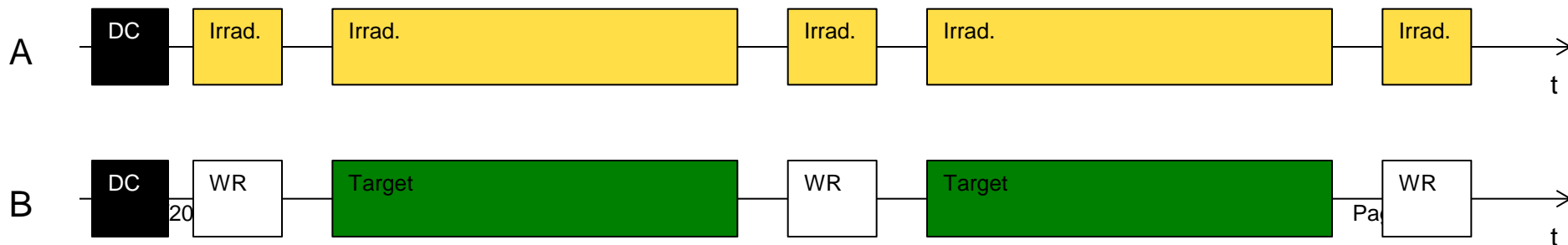
SALSA++

Sky Oaks legacy dataset:
200K spectra collected
over ~10 years

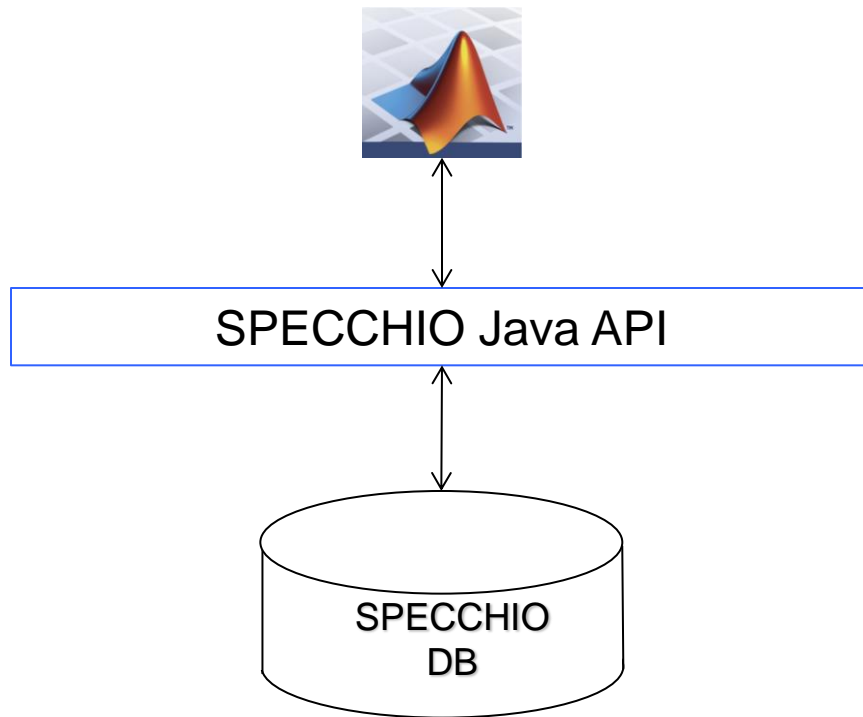


UniSpec: irradiance channel (B)

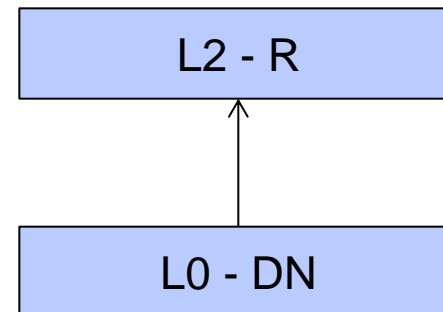
UniSpec: target channel (A)



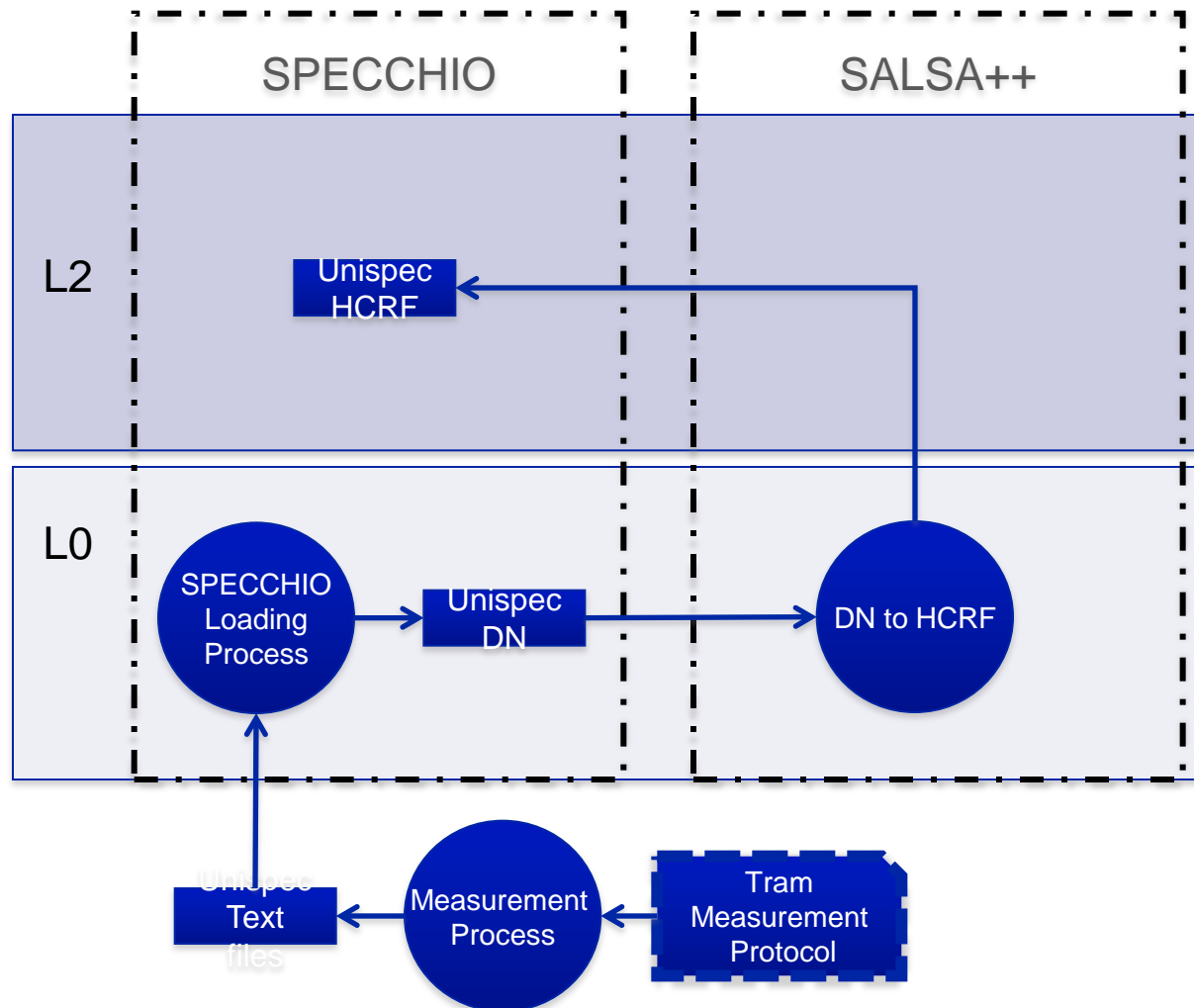
SALSA++ - Diurnal Data Processing



Full day: ~6000 spectra (channels A+B)

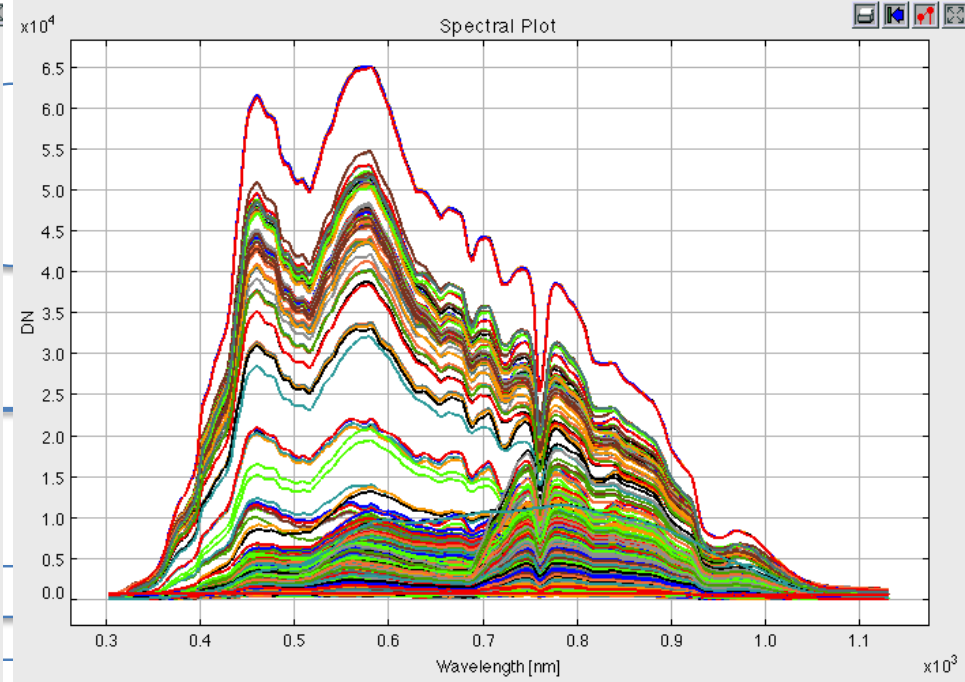
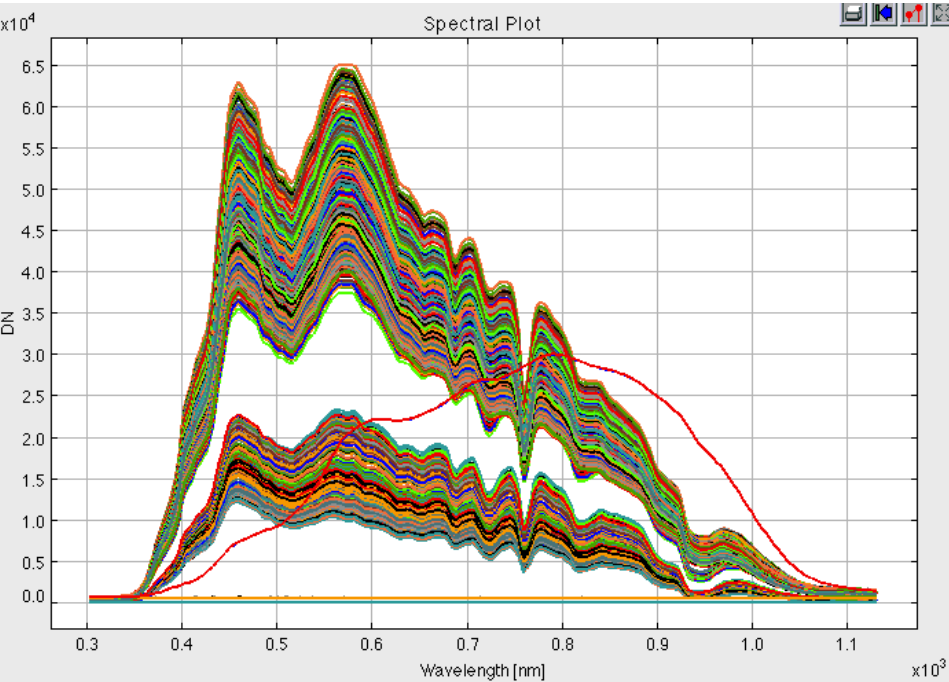


SALSA++ - Diurnal Data Processing



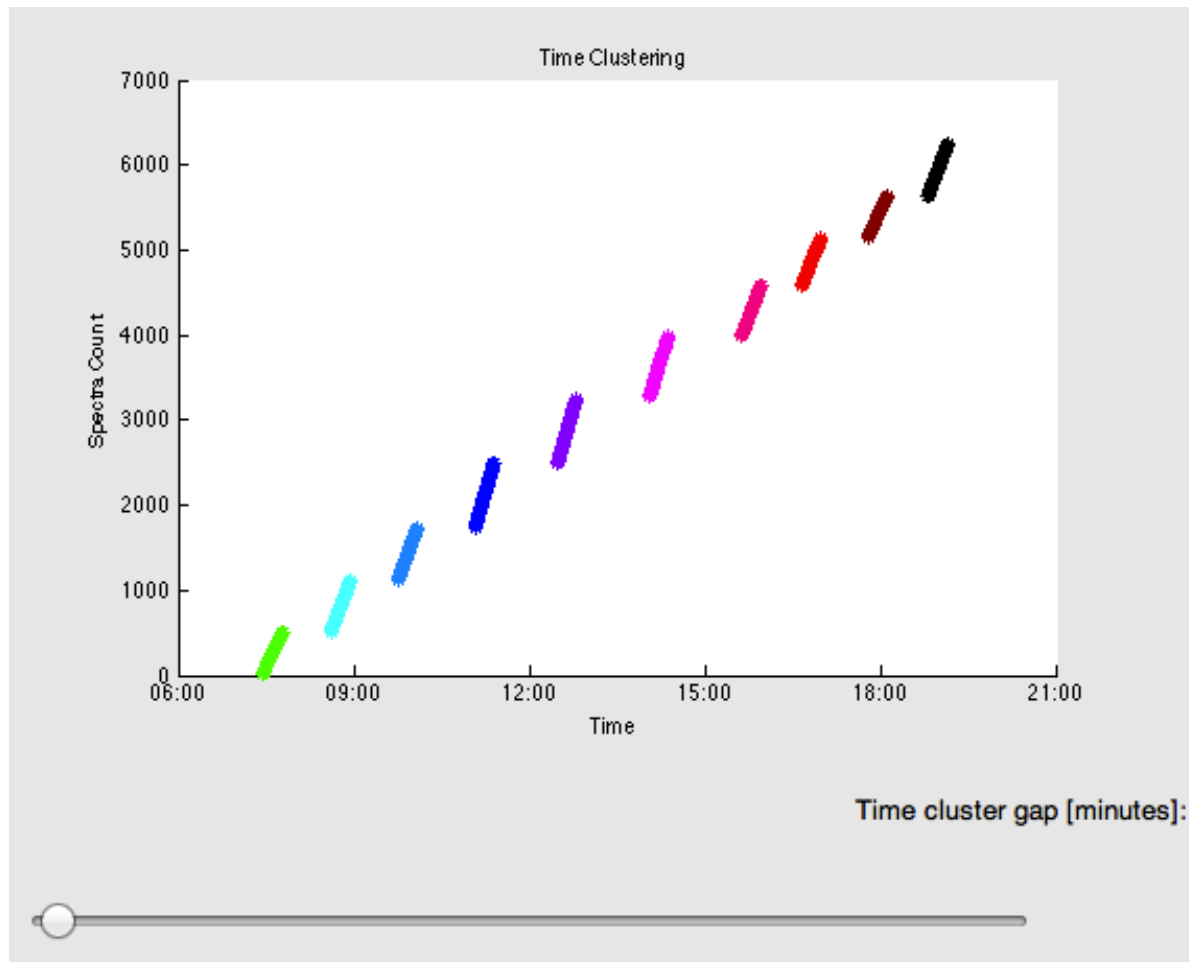


SALSA++ - Diurnal Data Processing

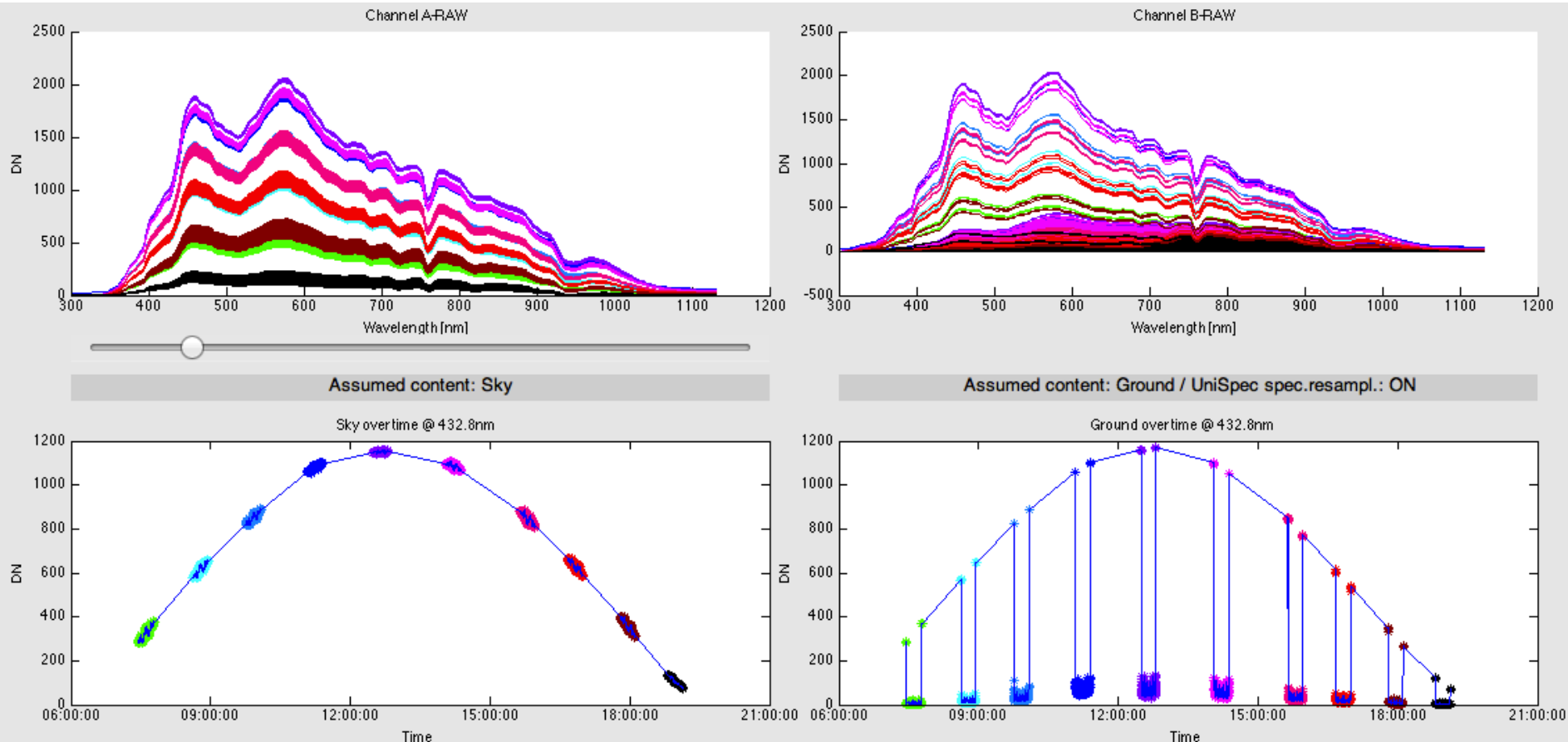




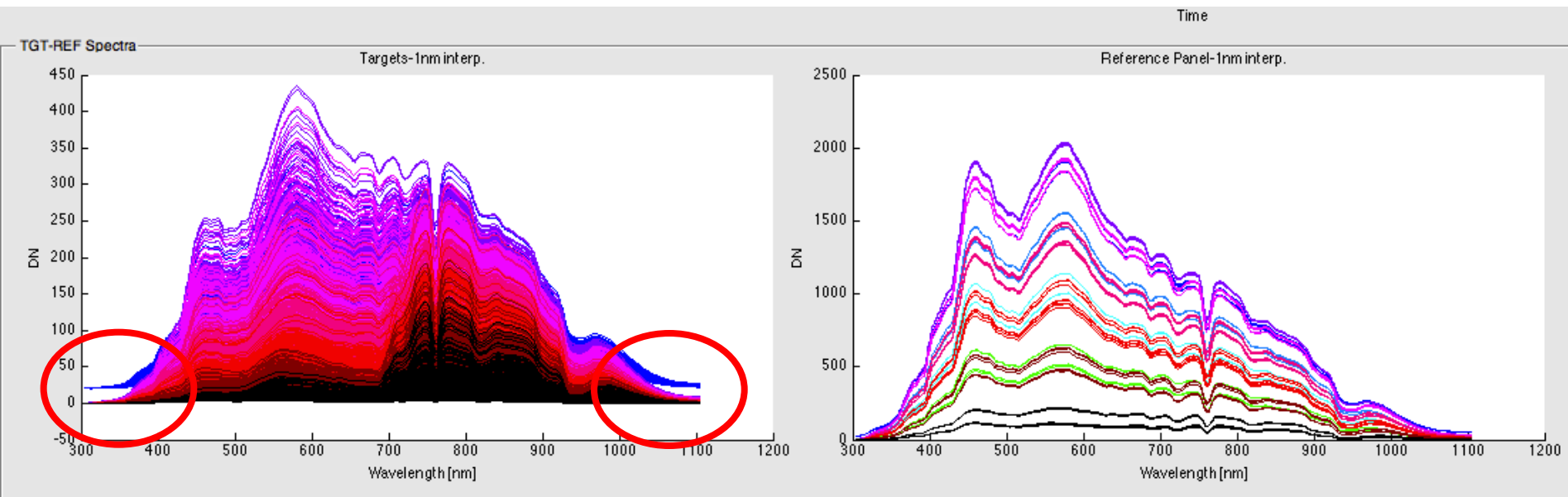
Intra - Diurnal Segmentation



Clustering and IT normalised Data

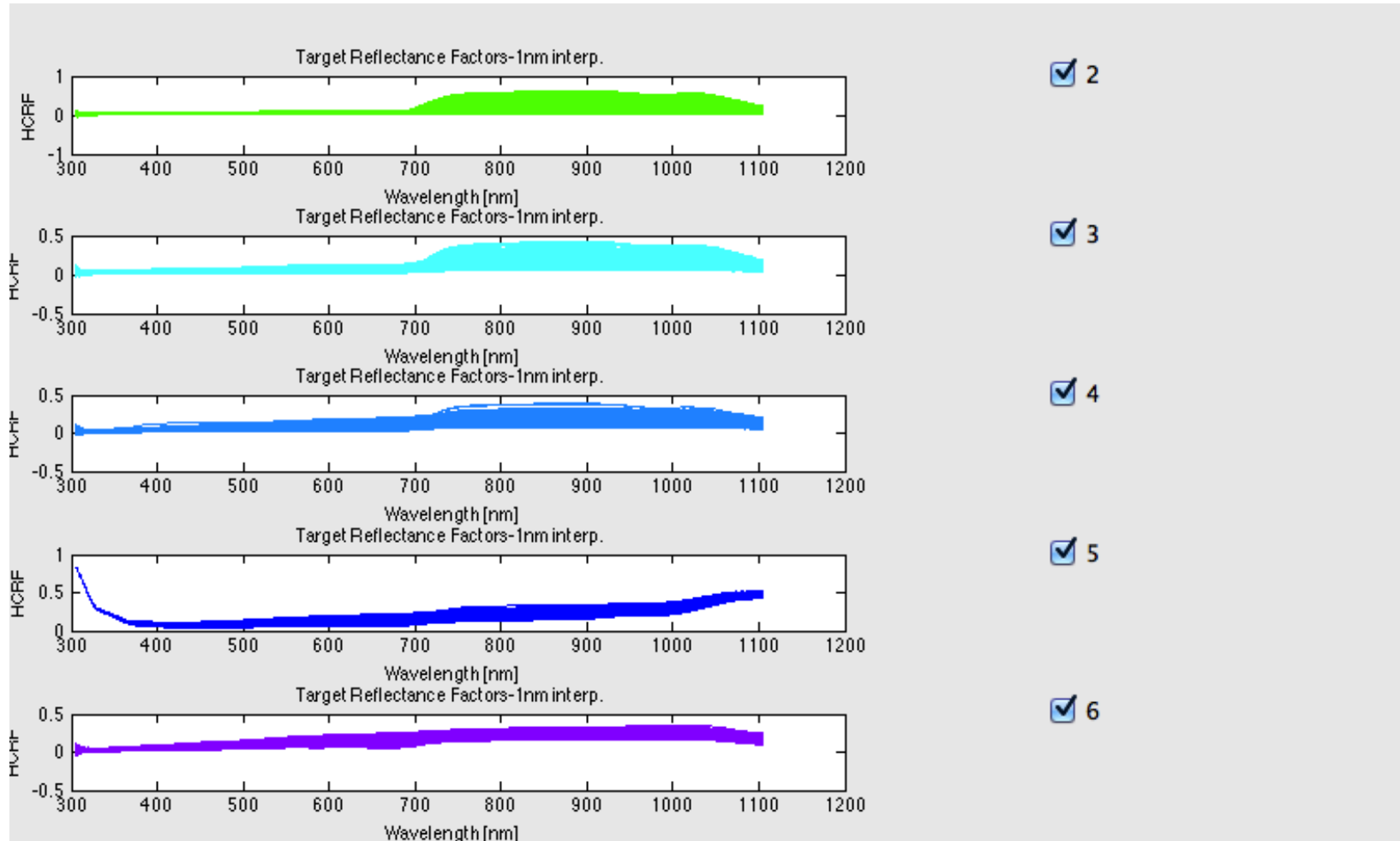


Target and Reference Splitting for upwelling Channel



Visualisations of big datasets are key to identifying sensor issues that might appear very rarely

Per Segment Reflectance Factor Insert





SPECCHIO – Current Status

- Online version: V3.1.4
- Developer version: V3.1.5
- V3.1.5 heavily tested during ABEL training school

SPECCHIO full system installation package for local server installation:

- Available on request by email or via source code from Github

SPECCHIO is open source:

Github Repository: <https://github.com/ahueni/SPECCHIO>

SALSA++ Github: <https://github.com/ahueni/SALSA-PlusPlus>



University of
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UNIVERSITY OF
WOLLONGONG



RSL
measurements | products | policy

Thank you for your attention!

For more information on the current version of SPECCHIO see: www.specchio.ch

https://twitter.com/SPECCHIO_DB 



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