SCIAMACHY Product handbook maintenance

Bremen, 15.06.2016









Outline

- 1) Update procedure
 - 2) Using the wiki
- 3) What needs to be updated?
- 4) Who needs to update what?
 - 5) Schedule







1) Update procedure

Log in

- Get a login for ESA Earth Observation at: https://eo-sso-idp.eo.esa.int/idp/AuthnEngine
- Inform Gabriele to get editing rights for the handbook copy

Handbook copy

- Not public visible copy of the handbook:
 https://earth.esa.int/web/guest/sciamachy-handbook-version-2
- Will replace the current version after the update
- Advantage: we can "publish" the changes and use complete functionality of the wiki
- The style of the copy (yellow titles) is different to the public visible version (blue titles) to better distinguish them and will be adjusted after the update
- Take care if there are blue titles somewhere, there are still some wrong links leading to the public version

Alternative

 If you don't want to get a login, send me the changes with respect to the public visible version of the handbook at:

https://earth.esa.int/web/guest/missions/esa-operational-eo-missions/envisat/instruments/sciamachy-handbook/wiki





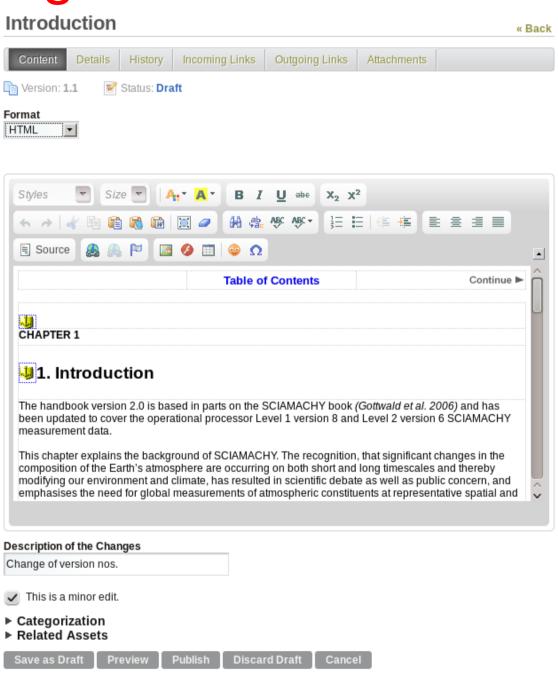




2) Using the wiki

• Edit

- Brings you to an online editor to edit the page
- "Source" allows to edit the html code
- "Publish" saves your changes and makes them visible to everybody







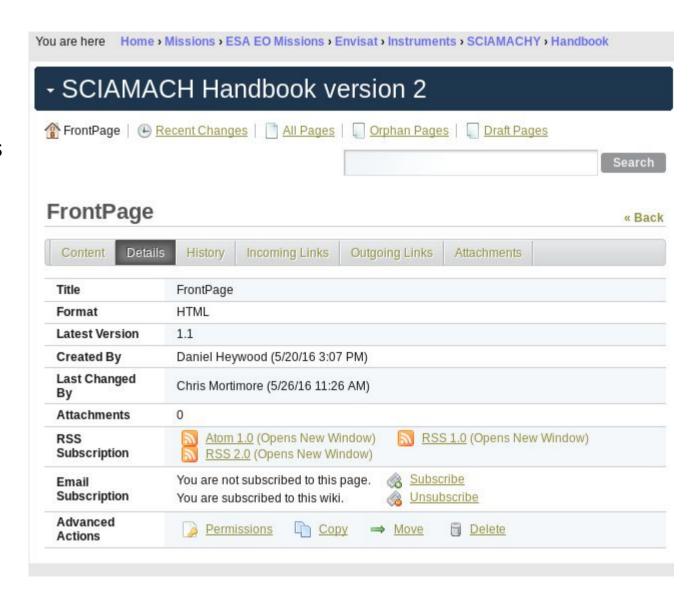


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2) Using the wiki

Details

 Here you can subscribe to pages to be informed by email if anybody edits them





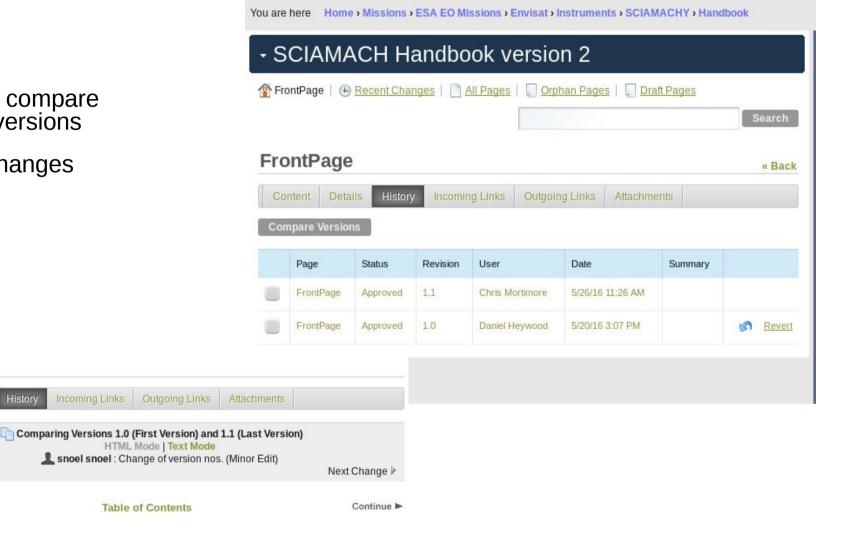




2) Using the wiki

History

- Find and compare different versions
- Revert changes



CHAPTER 1

1. Introduction

Introduction

Previous Change

History

The handbook version 12.0 is based in parts on the SCIAMACHY book (Gottwald et al. 2006) and has been updated to cover the operational processor Level 1 version 7-8 and Level 2 version 5-6 SCIAMACHY measurement data.









3) What needs to be updated?

Content

- Change from L1V8/L2V6 to L1V9/L2V7
- Replace outdated figures and update text where necessary
- Check links, references, ...

Formatting

- The wiki is based on the printed SCIAMACHY handbook
- The way it was created leads to a structure which is still based on the original printed pages and not on chapters or sections
- Suggestion: Pages are ok, but sections should not be split over two pages if possible
- The numbering of sections and subsections is inconsistent between different chapters

What to do first?

- Formatting: the advantages would be that
 - It would make easier to find the content to change
 - Before everything for L1V9/L2V7 is decided we cannot start with all content changes
- Content: the advantage would be that the content change would start from the same structure as the public visible version

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3) What needs to be updated?

Formatting

 The way it was created leads to a structure which is still based on the original printed pages and not on chapters or sections, see
 Table_of_content.pdf

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	CHAPTER 1	
1	Introduction	1-01
	Issues: Page ends before section	
1.2	The Road to SCIAMACHY	<u>1-02</u>
	Issues: Page ends before section	
	The Initial Phases of SCIAMACHY	<u>1-05</u>
1.3	SCIAMACHY's Goals	<u>1-06</u>
	The Atmospheric Layers	<u>1-07</u>
	Anthropogenic Impact on the Earth-Atmosphere System	<u>1-08</u>
	Issues: Figure on next page	
	Tropospheric Chemistry	<u>1-09</u>
	Issues: Figure on next page	
	Page ends before section	1 10
	The Tropopause Region	<u>1-10</u>
	Stratospheric Chemistry and Dynamics	<u>1-11</u>
	Issues: Page ends before section	
	Mesospheric Chemistry and Dynamics	<u>1-12</u>
	Global Warming and Climate Change	<u>1-12</u>
	CHAPTER 2	
2	SCIAMACHY: The Instrument onboard ENVISAT	<u>2-01</u>

2	SCIAMACHY: The Instrument onboard ENVISAT	<u>2-01</u>
2.1	Measurement Goals	<u>2-01</u>
2.2	SCIAMACHY on ENVISAT	<u>2-02</u>
	Issues: Next section starts before end of page	
	Orbit and Attitude	<u>2-02</u>
	Issues: Section starts on previous page Page ends before section	
	ENVISAT On-board Resources	<u>2-04</u>
	Issues: Page ends before section	
	ENVISAT Ground Segment	<u>2-05</u>
2.3	Instrument Description	<u>2-06</u>
2.3.1	Science Requirements and Instrument Concept	<u>2-06</u>
2.3.2	Optical Assembly	<u>2-07</u>
	Scanner Mechanisms and Baffles	<u>2-08</u>
	Issues: Page ends before section	
	Telescope and Spectrometer	<u>2-09</u>
	<u>Detector Modules</u>	<u>2-10</u>
	Calibration Unit	<u>2-11</u>
	Polarization Measurement Device	<u>2-11</u>
2.3.3	<u>Thermal Subsystems</u>	<u>2-12</u>
	Radiator A and Active Thermal Control	2-12

4) Who needs to update what?

- Basically everybody can implement changes where necessary
- List from my email:
 - Changes/ questions/ additions?
 - What happens if several people should update one chapter?



Chapter 1

General check [Katja Weigel, Stefan Noel]

Chapter 2

General check [Manfred Gottwald, Katja Weigel, Stefan Noel]

New chapter 2.5 "In-Orbit Operations and Performance 2002-2012" [Manfred Gottwald]

2.3.2 Polarization Measurement Device: IUP [Patricia Liebing]/SRON [Ralph Snel]

Chapter 3

Update figures, all, mainly [DLR, IUP, KNMI, + others]

Include Stratospheric Aerosol and H2O and Mesospheric metals?

[IUP Katja Weigel + others]

Scientific limb cloud product [IUP Patricia Liebing]

Include occultation data products? [Klaus Bramstedt, Stefan Noel]

Chapter 4

- 4.1.2 The scanner model approach [Klaus Bramstedt]
- 4.2 Detector Corrections changes for channel 6+? [Günther Lichtenberg]
- 4.4 Stray Light [Günther Lichtenberg]
- 4.5 Polarisation [Klaus Bramstedt, Patricia Liebing, Günther Lichtenberg, Ralph Snel]
- 4.6 Radiometric Calibration [Klaus Bramstedt, Günther Lichtenberg, Ralph Snel]
- 4.7 Optical Throughput Monitoring [Klaus Bramstedt]

Chapter 5

5.4.2 Application of Inversion Theory to Limb Retrieval incl. Table 5-3 [DLR, IUP]

5.5.2 Limb/Nadir Matching [IUP Nabiz Rahpoe]

Chapter 6

6.1 Level 0 Products [DLR Manfred Gottwald]

6.2 Operational Level 1b Products and Algorithms [DLR Günther Lichtenberg]

6.2.2.2 Dead and Bad Pixel Mask [Ralph Snel]

6.2.2.7 Polarization Correction [Patricia Liebing, Stefan Noel, Günther Lichtenberg, Ralph Snel]

6.2.2.8 Radiometric Correction [Klaus Bramstedt, Günther Lichtenberg, Ralph Snel]

6.2.2.10 and 6.2.4 Degradation Correction [Klaus Bramstedt, Ralph Snel]

(fig 6-3 and 4-6 are identical?)

6.2.3 Relevant Auxiliary Data [Klaus Bramstedt]

6.2.6 Data Format Description [DLR Günther Lichtenberg, Manfred Gottwald]

6.2.7 Product Quality Information [DLR, IUP, ESA]

6.3 Operational Level 2 Products and Algorithms [DLR]

6.3.3.1 Ozone Profile [DLR, IUP]

6.3.3.4 Cloud flagging and top height [Kai-Uwe Eichmann, Sergei Gretschany]

6.3.5 Data Format Description [DLR Günther Lichtenberg, ESA]

6.3.6 Product Quality Information [BIRA, ESA]

6.3.7 Software Tools [ESA]

Tropsopheric NO2 and BrO need to be added to Chapter 6? [Christophe Lerot, Sergei Gretschany] (There is something about tropospheric NO2 in Chapter 5.6.1)

Eventually some chapters mentioned above needs to be merged and some added.

5) Schedule

- Planed to finish the handbook in September 2016
- Is that to early?
- When will the baseline for L1V9/L2V7 be ready?
- Start with the update of the format or the content?







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Thank you for your attention!















