# SCIAMACHY
# Operational Processor
# Development and Improvement
# Master Plans & Status

**3rd German SCIAMACHY Validation Team (GSVT) Meeting**

**Bremen, July 7/8, 2003**

**M. Alpers**

**(DLR Bonn, RD-RE)**

# Processor Master Plans

- **Result of management meeting in January 2003: Establish time schedule master plans for further L0-L1b and L1b -> L2 processor development and improvement.**

- **<u>Aims:</u>**

  1. **Monitoring of Processor Development and Improvement Progress.**
  2. **Overview on logical links between work packages and institutions.**
  3. **Tool for direct contact between co-workers.**
  4. **Early Identification of critical paths.**

- **Based on work package information from all involved institutions.**

- **Monitored by DLR Bonn (Management, DR-RE).**

1. **Weekly progress reports.**

# Verification + Validation Cycles 2003

**1. Cycle:**

- **Results ready for ESA Val. Review on Sept. 29, 2003.**
- **L0-L1b Processor: Including Adjustment and all Development and Improvement WPs finished before July 8, 2003! NO corrected Key data included!**
- **L1b-L2 Processor: Including Adjustment and all Development and Improvement WPs finished before August 14, 2003!**

**2. Cycle:**

- **Results ready for the end of 2003.**
- **L0-L1b Processor: Including all Development and Improvement WPs and corrected key data! (Final version of L0-1b processor)**
- **L1b-L2 Processor: Including Adjustment and all Development and Improvement WPs finished before beginning of October 2003!**

# Verification + Validation Cycles 2003

## Re-Calculation Problem (Cycle 1):

- Validation data set definition (about 3000 states).
- Val. Data Set extraction time (parallel from DLR-IMF + D-PAC): 20 days (ongoing)
- Re-Calculation times on ESA/ESRIN stand-alone computer:
  1. L0 -> L1 : ~ 2 min/state
  2. L1b -> L2: ~ 8 min/state
- Time schedule allows only 10 days for L1b -> L2 re-processing
- Only 1500 states of the Val. Data set can be re-calculated for Cycle 1 !!!
- Recommendation:
  - Definition of the most important 1500 states of the Val. Data set.
  - Re-Calculation of only these 1500 states during Cycle 1.
  - Identification of those groups of the SCIA Validation Community, which are involved in the validation of these 1500 states.

# Verification + Validation Cycles 2003

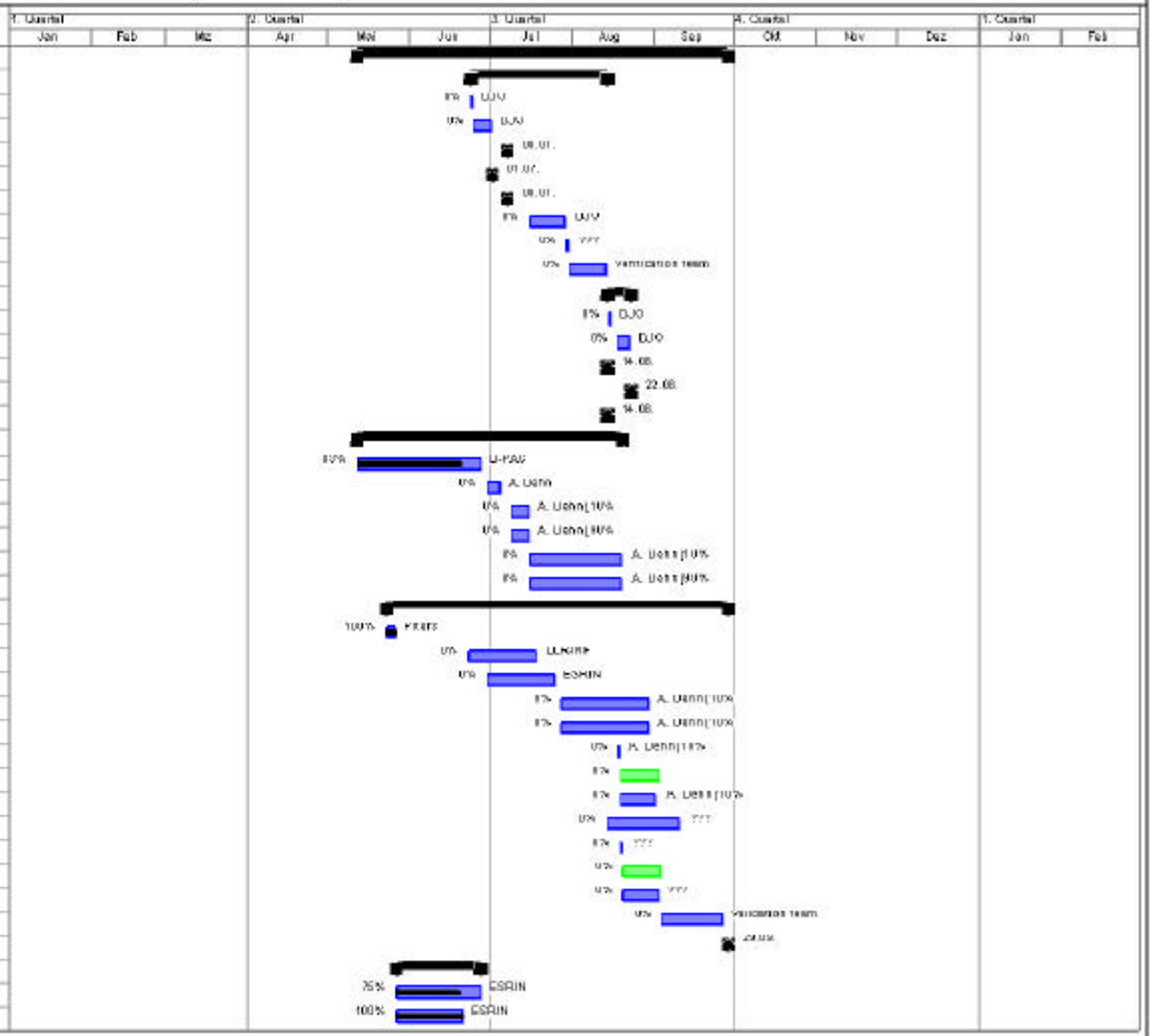
## Key Data Problem:

- Inconsistency in polarisation key data (different coordinate systems).
- New key data not before end of September (resp. institutions: TPD, NIVR)
  - New key data not included in Cycle 1 !!
  - Expected quality of the L1b and for a big part of the L2 data will be not sufficient for a validation work shop end of September 2003.
  - Recommendation:
    - Cancellation of Validation Work Shop in September.
    - “SCIAMACHY Algorithm Status Meeting” instead (duration 2-3 days) with validation of only a few data products.
- Key data task is driver also for Cycle 2 time schedule!

# SCIAMACHY L01-Masterplan (13. status overview: 27.6.2003)
# (ersion 13.0)



| Nr. | Vorgangsname |
|---|---|
| 356 | 5.1 Cycle 1 |
| 358 | **5.1.1 IPF L1b Development** |
| 357 | 5.1.1.1 FAT |
| 358 | 5.1.1.2 SPR correction |
| 359 | 5.1.1.3 Halt on L01 development and improvement |
| 360 | 5.1.1.4 IPF L1b 5.0 operational |
| 361 | 5.1.1.5 IPF L1b 5.1 Operational |
| 362 | 5.1.1.6 Computation of Verification Data |
| 363 | 5.1.1.7 Delivery of Verification Data |
| 364 | 5.1.1.8 Verification |
| 365 | **5.1.2 IPF L2 Development** |
| 366 | 5.1.2.1 FAT |
| 367 | 5.1.2.2 SPR correction |
| 368 | 5.1.2.3 Halt on L1b2 development and improvement |
| 369 | 5.1.2.4 IPF L2 5.0 operational |
| 400 | 5.1.2.5 IPF L2 5.1 Operational |
| 401 | **5.1.3 Calibration Data Set** |
| 402 | 5.1.3.1 Cal Data Set extraction |
| 403 | 5.1.3.2 L0 child extraction |
| 404 | 5.1.3.3 L1 Child Processing, Ver. Data set |
| 405 | 5.1.3.4 ADF generation, Ver. Data set |
| 406 | 5.1.3.5 L1 Child Processing, Val. Data set |
| 407 | 5.1.3.6 ADF generation, Val. Data set |
| 408 | **5.1.4 Validation Data Set** |
| 409 | 5.1.4.1 Val Data Set definition |
| 410 | 5.1.4.2 Val Data Set Extraction from IMF |
| 411 | 5.1.4.3 Val Data Set Extraction from D-PAC |
| 412 | 5.1.4.4 L0 child Extraction |
| 413 | 5.1.4.5 L1 child Processing |
| 414 | 5.1.4.6 NRT L2 child processing, Ver. Data set (cycle 1) |
| 415 | 5.1.4.7 Verification NRT (cycle 1) |
| 416 | 5.1.4.8 NRT L2 child processing, Val. Data set |
| 417 | 5.1.4.9 Data delivery L1 to OFL |
| 418 | 5.1.4.10 OFL L2 child processing, Ver. Data set (cycle 1) |
| 419 | 5.1.4.11 Verification OFL (cycle 1) |
| 420 | 5.1.4.12 OFL L2 child processing, Val. Data set |
| 421 | 5.1.4.13 Validation L1b + L2 (cycle 1) |
| 422 | 5.1.4.14 Validation Review Frascati 29.9-3.10.03 |
| 423 | **5.1.5 Stand Alone HW** |
| 424 | 5.1.5.1 HW installation |
| 425 | 5.1.5.2 Scripts definition |




Projekt: scia_verification_2003_f99
Datum: Do 03.07.03

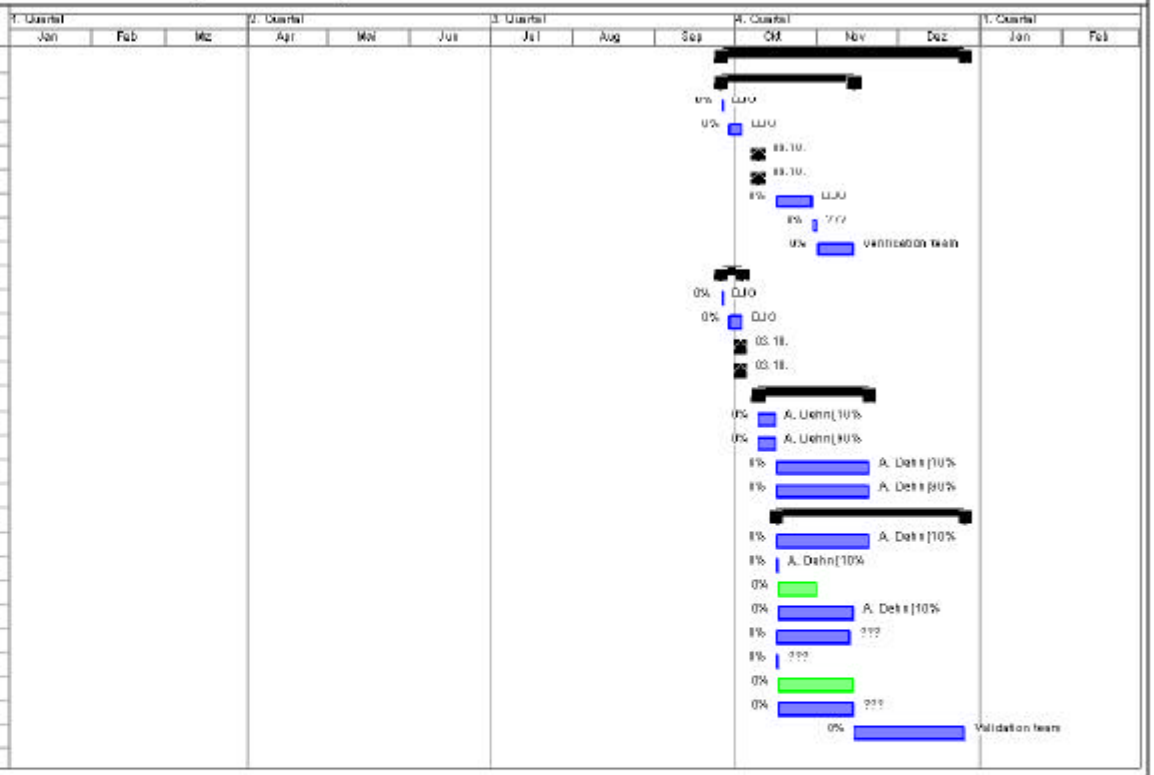
Vorgang | Sammelvorgang | Rollup: In Arbeit | Projektsammelvorgang
In Arbeit | Rollup: Vorgang | Unterbrechung | Gruppierkopf
Meilenstein | Rollup: Meilenstein | Externe Vorgänge | Stichtag

**title translation:** Vorgangsname = wp name; % Arbeit abgeschlossen = % of work already done; Arbeit = work load; Dauer = duration; Anfang = start time; Ende = end time; Vorgänger = predecessor; Nachfolger = successor; Ressourcenname = name of resource.
Colors: RED: new or changed WP; MAGENTA: WP dependent on Key data; GREEN: external WP (interaction between L01 and L1b2 master plans)

# SCIAMACHY L01-Masterplan (13. status overview: 27.6.2003) (ersion 13.0)



| Nr. | Vorgangsname |
|---|---|
| 427 | **5.2 Cycle 2** |
| 428 | **5.2.1 IPF L1b Development** |
| 429 | 5.2.1.1 FAT |
| 430 | 5.2.1.2 SPR correction |
| 431 | 5.2.1.3 End of L01 development and improvement |
| 432 | 5.2.1.4 IPF L1b 6.1 Operational |
| 433 | 5.2.1.5 Computation of Verification Data |
| 434 | 5.2.1.6 Delivery of Verification Data |
| 435 | 5.2.1.7 Verification |
| 436 | **5.2.2 IPF L2 Development** |
| 437 | 5.2.2.1 FAT |
| 438 | 5.2.2.2 SPR correction |
| 439 | 5.2.2.3 Halt on L1b2 development and improvement |
| 440 | 5.2.2.4 IPF L2 6.1 Operational |
| 441 | **5.2.3 Calibration Data Set** |
| 442 | 5.2.3.1 L1 Child Processing, Ver. Data set |
| 443 | 5.2.3.2 ADF generation, Ver. Data set |
| 444 | 5.2.3.3 L1 Child Processing, Val. Data set |
| 445 | 5.2.3.4 ADF generation, Val. Data set |
| 446 | **5.2.4 Validation Data Set** |
| 447 | 5.2.4.1 L1 child Processing |
| 448 | 5.2.4.2 NRT L2 child processing, Ver. Data set (cycle 2) |
| 449 | 5.2.4.3 Verification NRT (cycle 2) |
| 450 | 5.2.4.4 NRT L2 child processing, Val. Data set |
| 451 | 5.2.4.5 Data delivery L1 to OFL |
| 452 | 5.2.4.6 OFL L2 child processing, Ver. Data set (cycle 2) |
| 453 | 5.2.4.7 Verification OFL (cycle 2) |
| 454 | 5.2.4.8 OFL L2 child processing, Val. Data set |
| 455 | 5.2.4.9 Validation L1b + L2 (cycle 2) |
| 456 | |




Projekt: scia_verification_2003_jf99
Datum: Do 03.07.03

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Vorgang | | Sammelvorgang | | Rollup: In Arbeit | | Projektsammelvorgang | |
| In Arbeit | | Rollup: Vorgang | | Unterbrechung | | Gruppenkopf | |
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