# Offline Requirements

reviewed 10-Apr-2002, completed 18-Apr-2002, submitted as ALMA-SW-018

TBD items left in document: — items for SSR

- **1.1-R3** supported platforms

- **1.1-R4** benchmarks

- **1.1-R5** pipeline functionality

- **1.2-R5** defect levels and bug fix timescales

- **3.2-R1** archive data format

- **3.2-R1.2** other data formats (visibilities)

- **3.2-R2** supported media (e.g. DAT)

- **4.1-R1** standard calibration modes

- **4.2-R1** atmospheric model (pipeline)

- **5.1-R1** image data and formats (also **3.4-R2**)

- **5.3-R2.2** ALMA primary beams

- **6.2-R4** standard line catalogs

- **6.2-R5** line catalog format

- **8.1-R1** simulation capability (L1 and L2)

# AIPS++ Auditing

Next - begin audit of AIPS++ versus requirements

## Who? — SSR and AIPS++

- Myers, Viallefond, Morita

- discuss common issues with NAUG (NRAO AIPS++ User Group), IRAM, OVRO/BIMA, NAOJ, and EVLA project

## What? — auditing scheme

- identify missing non-ALMA-specific functionality

- identify missing ALMA-specific functionality $\rightarrow$ allocate 10 FTE-years?

- scorecard (see proposed scheme below)

- priorities in ALMA-SW-018 1/2/3 = 4:2:1 $\rightarrow$ need to focus effort

## When? — start auditing process

- target 1-Sep-2002 before September ASAC

- other relevant date is PDR in December

- note that AIPS++ will likely mature sigificantly over next year, so be prepared to update audit on that timescale

# Auditing Scorecard

Tim Cornwell's proposal:

| | |
|---|---|
| core capability | 50% |
| human interface | 10% |
| documentation | 10% |
| testing | 10% |
| optimization | 10% |
| management | 10% |

My proposal: (approximate weights by area and test type)

| Area | Area Weight | efficient | accurate | reliable | easy-to-use |
|---|---|---|---|---|---|
| core capability | [50%] | 25% | 25% | 25% | 25% |
| user interface | [25%] | 25% | - | 25% | 50% |
| install/mainain | [10%] | 25% | - | 50% | 25% |

| | | accurate | easy-to-use | complete | understandable |
|---|---|---|---|---|---|
| docs/help | [15%] | 25% | 25% | 25% | 25% |

# Benchmarking

Who? — SSR sub group

- Myers, Viallefond, Morita (same as auditors?)

- others, e.g. IRAM group (phase 3 of their tests?)

- enlist help of others familiar with other packages (MIRIAD,etc.)

What? — specs and goals

- speed (absolute and versus other packages)

- accuracy (versus input model?)

- on what platforms (memory, cpu, etc.)?

    — fiducial data sets

- simulations w/60 antennas (Viallefond)

- different dataset sizes (range of "data rates")

- cover standard modes (continuum, spectral line)

- cover bands (start 3mm, 650GHz)

- plus some "extreme" datasets of interest?

When? — start benchmarking process

- target 1-Dec-2002 before PDR?

- would be nice to get some tests before September ASAC

- interaction with auditing?

- ongoing during next 5 years during development process