Device data mapping status card

- Device name: **JT-60SA**

- Native data format/data access library:
    - Software provided by external IT company, access via Fortran library
    - Most people use a python wrapper

- Contact persons (name + email) for IMAS / Data mapping:
    - Official IMAS IT position (RO?) recently established at QST
    - Antti Jokinen(working at QST [F4E]) Antti.Jokinen@f4e.europa.eu
    - assisting from ITER are Simon McIntosh & Francesca Poli

- List of IDS with mapped data (+ DD version):
    - in works are
        - Soft-X ray SXR
        - Interferometry $CO_2$
        - Equilibrium & Wall

- How the mapping is done (manually, via tools/scripts, hard-coded vs mapping file…):
    - Working on scripted processing
    - List of needed IDS entries for IDA was compiled (see "appendix" on next pages)

- Pulses (or ranges of) being mapped:
    - For IDA E101008

- Applications that are using the mapped IMAS data:
    - IDA
    - TOKOMTOK (Tomography)
    - potentially ASCOT and JINTRAC

- Data access policy (contact + collaboration + possibility to share test data):
    - no raw data access for non-QST personell. Access effectively through RO.

- Plans over the coming year:
    - Install IMAS centrally (as opposed to installation in user folder)
    - map available (preprocessed) data
    - produce IDSs useful for QST
    - … and hope for relaxation of restrictions.

# IDS entries required for IDA

**Equilibrium**
equilibrium_ids/time_slice/profiles_2d/r
equilibrium_ids/time_slice/profiles_2d/z
equilibrium_ids/time_slice/global_quantities/psi_axis
equilibrium_ids/time_slice/global_quantities/psi_boundary
equilibrium_ids/time_slice/profiles_2d/psi

**interferometer CO2**
interferometer_ids/channel[i]/line_of_sight/first_point/r
interferometer_ids/channel[i]/line_of_sight/first_point/z
interferometer_ids/channel[i]/line_of_sight/first_point/phi
interferometer_ids/channel[i]/line_of_sight/second_point/r
interferometer_ids/channel[i]/line_of_sight/second_point/z
interferometer_ids/channel[i]/line_of_sight/second_point/phi
interferometer_ids/channel[i]/wavelength[0]/value
interferometer_ids/time
interferometer_ids/channel[i]/n_e_line
interferometer_ids/channel[i]/n_e_line_average
Note that only one of the two is needed: n_e_line or n_e_line_average and for the _average the length assumed for the calculation.

**soft_x_ray SXR (**skipping the **sxr_ids/channel** prefix)
name
etendue
line_of_sight (like with interferometry with first and second)
filter_window
energy_band
power and/or brightness

open topic → aperture (modelling measurement with several rays per LOS etc)

**spectrometer_visible VIS** (again skipping prefix)
detector_layout
channel/name
channel/type
channel/aperture
channel/etendue
channel/etendue_method
channel/los_of_sight
channel/detector_image (I guess)
channel/fibre_image (diagnostician would have to comment if applicable)
channel/light_collection_efficiencies
channel/active_spatial_resolution
channel/polarizer
channel/filter_spectrometer