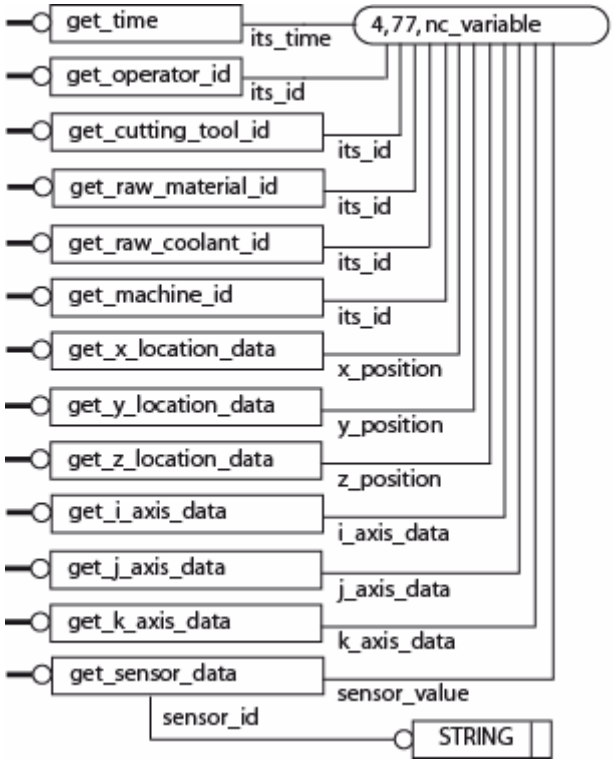
Block I functions: Options to log the data.

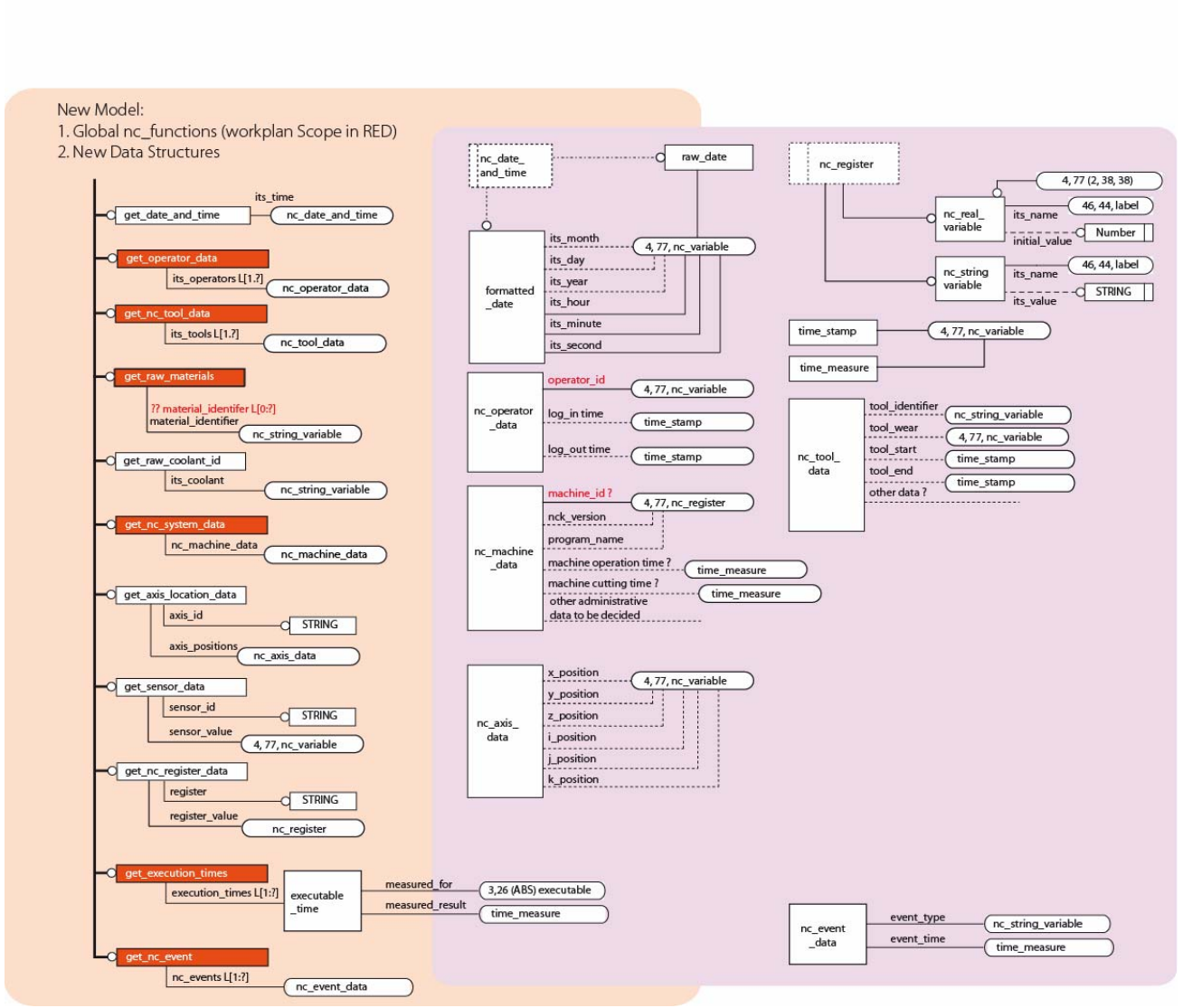
- Options to Store traceability data:
  - Option 1. traceability data to be logged “in the AP238 files”.
    - As defined NOW, nc_functions record the data using simple data types (nc_variable). **But NEW data structures may be defined (and some mew functions)**.
  - Option 2. traceability data to be logged “in separate files” (but with standard format).
    - NEW data type to log the data in separate files (DATA MODEL FOR THE LOG FILE)

Traceability nc-functions (block I type) as they are NOW



Option 1. Data logged in the AP238 file

Traceability nc-functions (block I type): NEW data structures (and some mew functions).



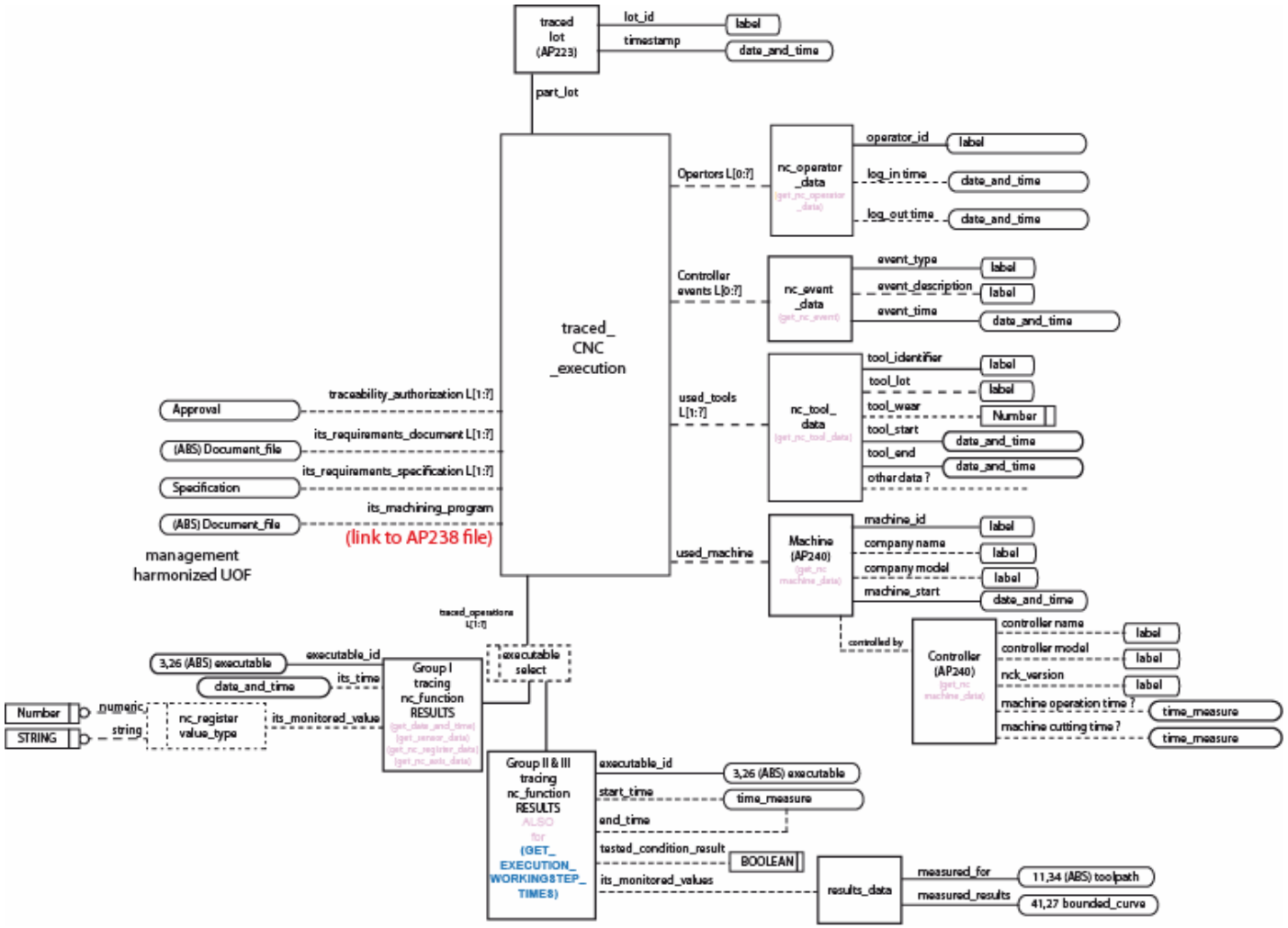
Model Notes.

- **New Data Structures.**
  - Current real data type variable (nc_variable)

    + a new nc_variable data type = STRING is enough (?) to define new complex (variable type) data structures …
- **Global Functions ?**
  - **Workplan scope for Asynchronous events (recorded by time) ???**
    - Example: Get_operator → log all operators during part machining.
  - **New Functions**
    - **Get_execution_times → Enables the link between global functions data (asynchronous events) and workinstep execution ???**
    - Get_nc_events

Option 2. Data logged in separate files.

Traceability nc-functions (block I type): NEW Data model for the log file.



Model Notes.

- **If data not logged inside AP-238**
  - A model to structure this data and link it with AP238 entities (workpiece and workingsteps).
    - AP-238 file link.
    - Workpiece link (entity_id)→ for global functions (get_operator, get_nc_machine_data)
    - Workinstep/Nc_function link → for single value group I and group II and III nc functions.
- NO need for new nc_variable types.
- Some data can be Harmonized with other APs (AP223/AP240)
- New Functions (global):
  - Get_execution_times
  - Get_nc_events