

Data format Stride checkpointing

March 11, 2017

1 Hierarchy

1.1 level /

1.2 level /Timestep_n

2 Table structure

/configurations	rank dims dtype	1 1 ConfDatatype
/amt_persons	rank dims dtype	1 1 H5T_NATIVE_UINT
/personsTI	rank dims dtype	1 amt_persons PersonTIDatatype
/amt_timesteps	rank dims dtype	1 n_steps H5T_NATIVE_UINT
/Timestep_n/randomgen	rank dims dtype	1 1 RNGDatatype
/Timestep_n/PersonTD	rank dims dtype	1 amt_persons PersonTDDatatype
/Timestep_n/Calendar	rank dims dtype	1 1 CalendarDatatype

2.1 Custom datatypes

2.1.1 ConfDatatype

TBD

2.1.2 RNGDatatype

- H5T_NATIVE_UINT - seed
- (things to hold state of generator)

2.1.3 PersonTIDatatype (time independent)

- H5T_NATIVE_UINT - ID
- H5T_NATIVE_DOUBLE - age
- H5T_NATIVE_CHAR - gender
- H5T_NATIVE_UINT - householdID
- H5T_NATIVE_UINT - schoolID
- H5T_NATIVE_UINT - workID
- H5T_NATIVE_UINT - primcommID
- H5T_NATIVE_UINT - seccommID

2.1.4 PersonTDDatatype (time dependent)

- H5T_NATIVE_HBOOL - athousehold
- H5T_NATIVE_HBOOL - atschool
- H5T_NATIVE_HBOOL - atwork
- H5T_NATIVE_HBOOL - atprimcomm
- H5T_NATIVE_HBOOL - atseccomm
- H5T_NATIVE_HBOOL - participant7
- Compound Datatype :=
 health (5x H5T_NATIVE_UINT, 1x H5T_NATIVE_B8)
 (Attributes from Health class, 8 bit type for enum?)

2.1.5 CalendarDatatype

- H5T_NATIVE_HSIZE - day
- Compound Datatype := dateString (8x H5T_NATIVE_CHAR) - date
 Date in iso format, string of 8 characters.