**Date: 07/05/2011 v1-d1**

**How the current h5diff handles common, extra and not-compatible object and attribute regarding result.**

* Refer to the table below

Words definitions:

* ‘Common’ means all of name, type and space are same for comparing the two HDF5 files, or all of type and space are same for comparing the two HDF5 objects.
* ‘Extra object’ means un-matching named object(s) exist in any HDF5 file for comparing the two HDF5 files.
* ‘Extra attribute’ means un-matching named attribute(s) exist in any object for comparing the two HDF5 objects.
* ‘Not-compatible’ means any of type or space is different for comparing two HDF5 files or objects.

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|  | Compare object vs object  (ex: $h5diff file1.h5 file2.h5 /dset1 /dset2) | Compare file vs file  (ex: $h5diff file1.h5 file2.h5) |
| Common object/attribute | If difference exist   * exit code = 1 * Display output   + ‘–v’ option     - display details of the differences (data values)     - display number of differences with name of object or attribute   + Default (without ‘–v’ option)     - display number of differences with names of object or attribute | If difference exist   * exit code = 1 * Display output   + ‘–v’ option     - object status list     - display details of the differences (data values)     - display number of differences with name of object or attribute   + Default (without ‘–v’ option)     - display number of differences with names of object or attribute |
| Extra object | N/A because user specifies obj1 and obj2 directly; no extra object. | * exit code = 1 * Display output   + None as default (without verbose option)   + Use ‘-v’ to verify     - List of object status on top |
| Extra attribute | * exit code = 0 (Bug: should be 1) * Display output   + None as default (without verbose option)   + Use ‘-v1’ or ‘-v2’ to verify     - attribute status line and list | * exit code = 0 (Bug: should be 1) * Display output   + None as default (without verbose option)   + Use ‘-v1’ or ‘-v2’ to verify     - attribute status line and list |
| Not-compatible object | * exit code = 0 * Display output   + Default (without ‘–v’ or’ –c’)     - display “Some objects are not comparable”   + With ‘–v’ or ‘-c’     - Display reason of not-compatible; each type or space of given objects | Dataset vs dataset   * exit code = 0 * Display output   + Default (without ‘-v’ or ‘-c’)     - display “Some objects are not comparable”   + with ‘-v’ or ‘-c’     - Display reason of not-compatible; each type or space of not-compatible dataset |
| Mixing different objects (dataset , group, type) as same name   * Bugs exist, need to be fixed. Incorrect behaviors. |
| Not-compatible attribute | * exit code =0 * Display output   + Default (without ‘-v’ or ‘-c’)     - display “Some objects are not comparable”   + Use ‘-v’ or ‘-c’     - Display reason of not-compatible; each type or space of not-compatible attribute   + Use ‘-v1’ or ‘-v2’ to view details     - attribute status line or list | * exit code =0 * Display output   + Default (without ‘-v’ or ‘-c’)     - display “Some objects are not comparable”   + Use ‘-v’ or ‘-c’     - Display reason of not-compatible; each type or space of not-compatible attribute   + Use ‘-v1’ or ‘-v2’ to view details     - attribute status line or list |