# Uniform interface and behavior among tools for following symbolic links

# Subject

Uniform behavior for ***‘--follow-symlinks’*** option among tools (h5diff, h5ls , h5copy and h5dump)

This option is subject to the ‘symbolic links (soft and external)’ not the ‘hard link’.

# Background

We recently made decision to use ***‘—follow-symlinks’*** option among tools. And the option will need to be applied for the tools. (h5ls for now and h5copy, h5dump as needed).

However there is discrepant behavior between h5copy and other tools (h5diff and h5ls) with following link option(s). Currently the h5copy follows link either with or without the follow link option when link(s) is directly specified. The highlights show the discrepancy from other tools.

So a decision needs to be made for the uniform behavior among tools.

# Current option(s) and behavior among tools

## When link(s) is directly specified to the tool

### h5diff

* Follow the link(s) (soft and/or external) only when ***‘—follow-symlinks’*** option is used.

### h5ls

* Follow external links only when ‘***–E’*** or ***’ –external’*** option is used.
* No follow soft link currently available.

### h5copy

* Follow soft link either with/without ‘-f soft’ option
* Follow external link either with/without ‘-f ext’ option

### h5dump

* Follow soft link as default
* Follow external link as default

## When group(s) is specified and link(s) is under the group.

### h5diff

* No traverse through group supported yet, thus there is no following link for this case.

### h5ls

* Follow external links only when ***‘–E’*** or ’***–external’*** option is used.
* No follow soft link currently available.

### h5copy

* Follow soft links to copy the end object only when ***‘-f soft’*** is used***.***
* Follow external links to copy the end object only when *‘****-f ext’*** is used.

### h5dump

* Follow external links as default.
* No follow soft link.

# Expected uniform behavior along with ‘—follow-symlinks’ among tools

## When link(s) is directly specified to the tool

Here link means symbolic links like soft and external link.

### h5diff

* Follow the link(s) when ***‘—follow-symlinks’*** option is used.

### h5ls

* Follow the link(s) when ***‘—follow-symlinks’*** option is used.

### h5copy

* Follow the link(s) when ***‘—follow-symlinks’*** option is used. (like other)

### h5dump

* Follow the link(s) when ***‘—follow-symlinks’*** option is used.

## When group(s) is specified and link(s) is under the group.

### h5diff

* No traverse through group supported, thus there is no following link for this case yet.

### h5ls

* Follow the link(s) when ***‘—follow-symlinks’*** option is used.

### h5copy

* Follow the link(s) when ***‘—follow-symlinks’*** option is used.

### h5dump

* Follow the link(s) when ***‘—follow-symlinks’*** option is used.

# Suggestion

Suggest keeping the consistency for following link(s) among tools.

Distinguish ‘hard link’ from symbolic links (soft and external) and use ‘—follow-symlinks’ for following the symbolic links.