

hdfint

All the output information is contained in `ext.sp.h5`.

[called by: [xspech](#).]

contents

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1. In addition to the input variables, which are described in [global](#), the following quantities are written to `ext.sp.h5` :

variable	type	description
<code>mn</code>	integer	number of Fourier modes
<code>im(1:mn)</code>	integer	poloidal mode numbers
<code>in(1:mn)</code>	integer	toroidal mode numbers
<code>Mvol</code>	integer	number of interfaces = number of volumes
<code>iRbc(1:mn,0:Mvol)</code>	real	Fourier harmonics, $R_{m,n}$, of interfaces
<code>iZbs(1:mn,0:Mvol)</code>	real	Fourier harmonics, $Z_{m,n}$, of interfaces
<code>iRbs(1:mn,0:Mvol)</code>	real	Fourier harmonics, $R_{m,n}$, of interfaces
<code>iZbc(1:mn,0:Mvol)</code>	real	Fourier harmonics, $Z_{m,n}$, of interfaces
<code>forcetol</code>	real	force-balance error across interfaces
<code>ForceErr</code>	real	force-balance error across interfaces
<code>beltramiererror</code>	real	error in beltrami field (volume integral)
<code>volume</code>	real	total volume = $\sum V_v$
<code>Mrad</code>	integer	the maximum radial (Chebyshev) resolution
<code>TT(0:Mrad,0:1,0:1)</code>	real	the Chebyshev polynomials, T_l , and their derivatives, evaluated at $s = \pm 1$
<code>Btemn(1:mn,0:1,1:Mvol)</code>	real	the cosine harmonics of the covariant poloidal field, i.e. $[[B_{\theta,j}]]$ evaluated on the inner and outer interface in each volume
<code>Bzemn(1:mn,0:1,1:Mvol)</code>	real	the cosine harmonics of the covariant toroidal field, i.e. $[[B_{\zeta,j}]]$ evaluated on the inner and outer interface in each volume
<code>Btomn(1:mn,0:1,1:Mvol)</code>	real	the sine harmonics of the covariant poloidal field, i.e. $[[B_{\theta,j}]]$ evaluated on the inner and outer interface in each volume
<code>Bzomn(1:mn,0:1,1:Mvol)</code>	real	the sine harmonics of the covariant toroidal field, i.e. $[[B_{\zeta,j}]]$ evaluated on the inner and outer interface in each volume
<code>dRbc(1:mn,0:Nvol)</code>	real	Fourier harmonics, R_j , of interfaces; linearly perturbed solution
<code>dZbs(1:mn,0:Nvol)</code>	real	Fourier harmonics, Z_j , of interfaces; linearly perturbed solution
<code>dRbs(1:mn,0:Nvol)</code>	real	Fourier harmonics, R_j , of interfaces; linearly perturbed solution
<code>dZbc(1:mn,0:Nvol)</code>	real	Fourier harmonics, Z_j , of interfaces; linearly perturbed solution
<code>lmns</code>	integer	resolution of straight fieldline transformation

2. All quantities marked as real should be treated as double precision.