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LHCb Bookkeeping commands

The LHCb Bookkeeping allows many queries from the command line interface. Many of them use the DMS option switches. Note that the output of many commands can be piped into others as explained in the DMS twiki.

Before executing the commands in this tutorial

Since at least v8r3p2, doing

```
> SetupProject LHCbDirac
```

no longer works to set the environment. If you want to work with LHCbDirac in bash, instead open a sub-shell with

```
> lb-run LHCbDirac/prod bash --norc
```

Once this is done, the following commands should work within the bash sub-shell you just opened.

Information on files

dirac-bookkeeping-get-files

Get a list of files for a BK query. The list of files can be saved in a file or piped to an other DMS command.

Syntax

```
$ dirac-bookkeeping-get-files --help
Retrieve files of a BK query
Usage:
  dirac-bookkeeping-get-files [option|cfgfile] ... ProdID Type
General options:
  -o: --option=          : Option=value to add
  -s: --section=        : Set base section for relative parsed options
  -c: --cert=           : Use server certificate to connect to Core Services
  -d  --debug           : Set debug mode (-dd is extra debug)
  -h  --help            : Shows this help

Options:
  -P: --Productions=    : Production ID to search (comma separated list)
  -f: --FileType=      : File type (comma separated list, to be used with --Production) [All]
  -  --ExceptFileType= : Exclude the (list of) file types when all are requested
  -B: --BKQuery=       : Bookkeeping query path
  -r: --Runs=          : Run or range of runs (r1:r2)
  -  --DQFlags=        : DQ flag used in query
  -  --StartDate=      : Start date for the BK query
  -  --EndDate=        : End date for the BK query
  -  --Visibility=     : Set visibility (Yes, No, All) [Yes]
  -  --Output=         : Specify a file that will contain the list of files
  -  --MaxFiles=       : Print only <MaxFiles> lines on stdout (20 if output, else All)
```

Example

```
$ dirac-bookkeeping-get-files --Prod 24847 --FileType FULL.DST --Output myTest.txt
Using BKQuery: {'Visible': 'Yes', 'FileType': 'FULL.DST', 'Production': [24847]}
110 files found (showing only first 20 files):
FileName
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000001_1.full.dst
```

```
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000002_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000003_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000004_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000005_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000006_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000007_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000009_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000010_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000011_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000012_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000013_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000014_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000015_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000016_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000017_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000018_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000019_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000020_1.full.dst
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000021_1.full.dst
```

List of 110 files saved in myTest.txt

dirac-bookkeeping-file-metadata

Retrieves the BK metadata of a (list of) file(s). By default only a summary is given while with `--Full` option one gets all information

Syntax

```
$ dirac-bookkeeping-file-metadata --help
  Retrieve metadata from the Bookkeeping for the given files
Usage:
  dirac-bookkeeping-file-metadata [option|cfgfile] ... LFN|File
Arguments:
  LFN:      Logical File Name
  File:     Name of the file with a list of LFNs
General options:
  -o:  --option=      : Option=value to add
  -s:  --section=    : Set base section for relative parsed options
  -c:  --cert=       : Use server certificate to connect to Core Services
  -d   --debug       : Set debug mode (-dd is extra debug)
  -h   --help        : Shows this help

Options:
  -   --File=        : File containing list of LFNs
  -l:  --LFNs=       : List of LFNs (comma separated)
  -   --Terminal     : LFNs are entered from stdin (--File /dev/stdin)
  -   --Full         : Print out all metadata
```

Examples

```
$ dirac-bookkeeping-file-metadata /lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000001
FileName                               Size      GUID
/lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000001_1.full.dst  4815735657 8E8F17D3-

$ dirac-bookkeeping-file-metadata /lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000001
FileName      /lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000001_1.full.dst
ADLER32      None
CreationDate None
DQFlag       OK
EventStat    49797
EventType    90000000
FileSize     4815735657
FileType     FULL.DST
```

```

FullStat      None
GUID          8E8F17D3-D7D6-E211-B39C-003048F17956
GotReplica    Yes
InsertTimeStamp 2013-06-25 11:45:39.300944
InstLuminosity 0
JobId         129552274
Luminosity    4085.68992445
MD5SUM        515cec21800944c0947da0088fd4b2cb
RunNumber     115327

```

dirac-bookkeeping-genXMLCatalog

Allows to get an XML catalog from a list of files or from a Gaudi options file (it can also create a new options file containing PFNs).

Syntax

```

$ dirac-bookkeeping-genXMLCatalog --help
  Create a pool xml catalog slice for the specified LFNs

```

Usage:

```

  dirac-bookkeeping-genXMLCatalog [option|cfgfile] ...

```

General options:

```

-o: --option=      : Option=value to add
-s: --section=     : Set base section for relative parsed options
-c: --cert=        : Use server certificate to connect to Core Services
-d  --debug        : Set debug mode (-dd is extra debug)
-h  --help         : Shows this help

```

Options:

```

-g: --Sites=       : Sites to consider [ALL] (comma separated list)
-S: --SEs=         : SEs to consider [ALL] (comma separated list)
-  --File=         : File containing list of LFNs
-l: --LFNs=        : List of LFNs (comma separated)
-  --Terminal      : LFNs are entered from stdin (--File /dev/stdin)
-  --Options=      : List of option files to consider
-  --NewOptions=   : Name of a new options file to be generated with LFNs (default: none)
-  --Catalog=     : Catalog name (default: pool_xml_catalog.xml)
-  --Depth=       : Depth for ancestor consideration (default: none)
-v  --Verbose     : Verbose gLogger.always(out)
-  --Ignore       : Ignore missing files
-  --GaudiVerbose : Set Gaudi verbose when parsing option files

```

Example

Creating an XML catalog

```

$ cat example.py
from Gaudi.Configuration import *
from GaudiConf import IOHelper
IOHelper().inputFiles([
'LFN:/lhcb/LHCb/Collision11/BHADRONCOMPLETEEVENT.DST/00022761/0001/00022761_00018925_1.bhadroncom
], clear=True)
$ dirac-bookkeeping-genXMLCatalog --File=example.py --Catalog /dev/stdout
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<!-- Edited By PoolXMLCatalog.py -->
<!DOCTYPE POOLFILECATALOG SYSTEM "InMemory">
<POOLFILECATALOG>

  <File ID="8E7DCD3B-3680-E211-8528-003048F00B24">
    <physical>
      <pfn filetype="ROOT" name="root://eoslhcb.cern.ch//eos/lhcb/LHCb/Collision11/BHADRONCOMPLE
    </physical>
    <logical>

```

```

    <lfname="/lhcb/LHCb/Collision11/BHADRONCOMPLETEEVENT.DST/00022761/0001/00022761_00018925
  </logical>
</File>

```

```
</POOLFILECATALOG>
```

```
POOL XML catalog /dev/stdout successfully created
```

Creating a new options file with PFNs:

```

[localhost, Patch] ~ $ dirac-bookkeeping-genXMLCatalog --Option example.py --NewOption examplePFN
New options file examplePFN.py successfully created
[localhost, Patch] ~ $ cat examplePFN.py
from Gaudi.Configuration import *
from GaudiConf import IOHelper
IOHelper().inputFiles([
'root://eoslhcb.cern.ch//eos/lhcb/LHCb/Collision11/BHADRONCOMPLETEEVENT.DST/00022761/0001/0002276
], clear=True)

```

dirac-bookkeeping-file-path

Allows to get the BK path for a file or list of files. It is quite handy to know what is the origin of that file.

Syntax

```
$ dirac-bookkeeping-file-path --help
Return the BK path for the directories of a (list of) files
```

Usage:

```
dirac-bookkeeping-file-path [option|cfgfile] ... LFN|File
```

Arguments:

```

LFN:      Logical File Name
File:     Name of the file with a list of LFNs

```

General options:

```

-o:  --option=      : Option=value to add
-s:  --section=    : Set base section for relative parsed options
-c:  --cert=       : Use server certificate to connect to Core Services
-d   --debug       : Set debug mode (-dd is extra debug)
-h   --help        : Shows this help

```

Options:

```

-   --File=        : File containing list of LFNs
-l:  --LFNs=       : List of LFNs (comma separated)
-   --Terminal     : LFNs are entered from stdin (--File /dev/stdin)
-   --Full         : Print out full BK dictionary (default: print out BK path)
-   --GroupBy=     : Return a list of files per <metadata item>
-   --GroupByPath  : Return a list of files per BK path
-   --GroupByProduction : Return a list of files per production

```

Examples

```
$ dirac-bookkeeping-file-path /lhcb/LHCb/Collision12/FULL.DST/00024847/0000/00024847_00000001_1.f
Failed : []
```

Successful :

```
  /lhcb/LHCb/Collision12/FULL.DST/00024847/0000 : /LHCb/Collision12/Beam4000GeV-VeloClosed-MagD
```

```
[localhost, Patch] ~ $ cat files.txt
```

```

/lhcb/LHCb/Collision11/BHADRONCOMPLETEEVENT.DST/00024034/0000/00024034_00002238_1.bhadron
/lhcb/LHCb/Collision11/CHARM.MDST/00024034/0000/00024034_00002240_1.charm.mdst
/lhcb/LHCb/Collision11/CHARMCOMPLETEEVENT.DST/00024034/0000/00024034_00002242_1.charmcomp
/lhcb/LHCb/Collision11/DIMUON.DST/00024034/0000/00024034_00001915_1.dimuon.dst
/lhcb/LHCb/Collision11/DIMUON.DST/00024034/0000/00024034_00002244_1.dimuon.dst
/lhcb/LHCb/Collision11/EW.DST/00024034/0000/00024034_00002246_1.ew.dst
/lhcb/LHCb/Collision11/LEPTONIC.MDST/00024034/0000/00024034_00002248_1.leptonic.mdst
/lhcb/LHCb/Collision11/PID.MDST/00024034/0000/00024034_00002250_1.pid.mdst
/lhcb/LHCb/Collision11/RADIATIVE.DST/00024034/0000/00024034_00002252_1.radiative.dst

```

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```
/lhcb/LHCb/Collision11/SEMILEPTONIC.DST/00024034/0000/00024034_00002254_1.semileptonic.ds

$ dirac-bookkeeping-file-path --File files.txt --GroupByPath
Successful :
  /LHCb/Collision11/Beam3500GeV-VeloClosed-MagUp/Real Data/Reco14/Stripping20r1p1/90000000/BHADRONCOMPLETEEVENT.DST/00024034/0000/00024034_00002238_1.bhadron
  /lhcb/LHCb/Collision11/BHADRONCOMPLETEEVENT.DST/00024034/0000/00024034_00002238_1.bhadron
  /LHCb/Collision11/Beam3500GeV-VeloClosed-MagUp/Real Data/Reco14/Stripping20r1p1/90000000/CHARM.MDST/00024034/0000/00024034_00002240_1.charm.mdst
  /lhcb/LHCb/Collision11/CHARM.MDST/00024034/0000/00024034_00002240_1.charm.mdst
  /LHCb/Collision11/Beam3500GeV-VeloClosed-MagUp/Real Data/Reco14/Stripping20r1p1/90000000/CHARMCOMPLETEEVENT.DST/00024034/0000/00024034_00002242_1.charmcomp
  /lhcb/LHCb/Collision11/CHARMCOMPLETEEVENT.DST/00024034/0000/00024034_00002242_1.charmcomp
  /LHCb/Collision11/Beam3500GeV-VeloClosed-MagUp/Real Data/Reco14/Stripping20r1p1/90000000/DIMUON.DST/00024034/0000/00024034_00001915_1.dimuon.dst
  /lhcb/LHCb/Collision11/DIMUON.DST/00024034/0000/00024034_00001915_1.dimuon.dst
  /lhcb/LHCb/Collision11/DIMUON.DST/00024034/0000/00024034_00002244_1.dimuon.dst
  /LHCb/Collision11/Beam3500GeV-VeloClosed-MagUp/Real Data/Reco14/Stripping20r1p1/90000000/EW.DST/00024034/0000/00024034_00002246_1.ew.dst
  /lhcb/LHCb/Collision11/EW.DST/00024034/0000/00024034_00002246_1.ew.dst
  /LHCb/Collision11/Beam3500GeV-VeloClosed-MagUp/Real Data/Reco14/Stripping20r1p1/90000000/LEPTONIC.MDST/00024034/0000/00024034_00002248_1.leptonic.mdst
  /lhcb/LHCb/Collision11/LEPTONIC.MDST/00024034/0000/00024034_00002248_1.leptonic.mdst
  /LHCb/Collision11/Beam3500GeV-VeloClosed-MagUp/Real Data/Reco14/Stripping20r1p1/90000000/PID.MDST/00024034/0000/00024034_00002250_1.pid.mdst
  /lhcb/LHCb/Collision11/PID.MDST/00024034/0000/00024034_00002250_1.pid.mdst
  /LHCb/Collision11/Beam3500GeV-VeloClosed-MagUp/Real Data/Reco14/Stripping20r1p1/90000000/RADIATIVE.DST/00024034/0000/00024034_00002252_1.radiative.dst
  /lhcb/LHCb/Collision11/RADIATIVE.DST/00024034/0000/00024034_00002252_1.radiative.dst
  /LHCb/Collision11/Beam3500GeV-VeloClosed-MagUp/Real Data/Reco14/Stripping20r1p1/90000000/SEMILEPTONIC.DST/00024034/0000/00024034_00002254_1.semileptonic.ds
  /lhcb/LHCb/Collision11/SEMILEPTONIC.DST/00024034/0000/00024034_00002254_1.semileptonic.ds

$ dirac-bookkeeping-file-path --File files.txt --GroupByProduction
Successful :
  Production 24034 :
    /lhcb/LHCb/Collision11/BHADRONCOMPLETEEVENT.DST/00024034/0000/00024034_00002238_1.bhadron
    /lhcb/LHCb/Collision11/CHARM.MDST/00024034/0000/00024034_00002240_1.charm.mdst
    /lhcb/LHCb/Collision11/CHARMCOMPLETEEVENT.DST/00024034/0000/00024034_00002242_1.charmcomp
    /lhcb/LHCb/Collision11/DIMUON.DST/00024034/0000/00024034_00001915_1.dimuon.dst
    /lhcb/LHCb/Collision11/DIMUON.DST/00024034/0000/00024034_00002244_1.dimuon.dst
    /lhcb/LHCb/Collision11/EW.DST/00024034/0000/00024034_00002246_1.ew.dst
    /lhcb/LHCb/Collision11/LEPTONIC.MDST/00024034/0000/00024034_00002248_1.leptonic.mdst
    /lhcb/LHCb/Collision11/PID.MDST/00024034/0000/00024034_00002250_1.pid.mdst
    /lhcb/LHCb/Collision11/RADIATIVE.DST/00024034/0000/00024034_00002252_1.radiative.dst
    /lhcb/LHCb/Collision11/SEMILEPTONIC.DST/00024034/0000/00024034_00002254_1.semileptonic.ds

$ dirac-bookkeeping-file-path --File files.txt --GroupBy RunNumber
Failed : []
Successful :
  RunNumber 100254 :
    /lhcb/LHCb/Collision11/BHADRONCOMPLETEEVENT.DST/00024034/0000/00024034_00002238_1.bhadron
    /lhcb/LHCb/Collision11/CHARM.MDST/00024034/0000/00024034_00002240_1.charm.mdst
    /lhcb/LHCb/Collision11/CHARMCOMPLETEEVENT.DST/00024034/0000/00024034_00002242_1.charmcomp
    /lhcb/LHCb/Collision11/DIMUON.DST/00024034/0000/00024034_00001915_1.dimuon.dst
    /lhcb/LHCb/Collision11/DIMUON.DST/00024034/0000/00024034_00002244_1.dimuon.dst
    /lhcb/LHCb/Collision11/EW.DST/00024034/0000/00024034_00002246_1.ew.dst
    /lhcb/LHCb/Collision11/LEPTONIC.MDST/00024034/0000/00024034_00002248_1.leptonic.mdst
    /lhcb/LHCb/Collision11/PID.MDST/00024034/0000/00024034_00002250_1.pid.mdst
    /lhcb/LHCb/Collision11/RADIATIVE.DST/00024034/0000/00024034_00002252_1.radiative.dst
    /lhcb/LHCb/Collision11/SEMILEPTONIC.DST/00024034/0000/00024034_00002254_1.semileptonic.ds
```

Ancestors and descendants

dirac-bookkeeping-get-file-ancestors

Gets a list of ancestors for a given file or list of files. One can define the level up to which to go up as well as also get files without replicas.

Syntax

```
$ dirac-bookkeeping-get-file-ancestors --help
Report ancestors for the given LFNs
Usage:
  dirac-bookkeeping-get-file-ancestors [option|cfgfile] ... [LFN|File] [Level]
Arguments:
  LFN:      Logical File Name
  File:     Name of the file with a list of LFNs
  Level:    Number of levels to search (default: 1)
General options:
  -o: --option=      : Option=value to add
  -s: --section=    : Set base section for relative parsed options
  -c: --cert=       : Use server certificate to connect to Core Services
  -d  --debug        : Set debug mode (-dd is extra debug)
  -h  --help         : Shows this help

Options:
  -  --File=          : File containing list of LFNs
  -l: --LFNs=         : List of LFNs (comma separated)
  -  --Terminal       : LFNs are entered from stdin (--File /dev/stdin)
  -  --All            : Do not restrict to descendants with replicas
  -  --Full           : Get full metadata information on ancestors
  -  --Depth=        : Number of processing levels (default:1)
```

Examples

```
$ dirac-bookkeeping-get-file-ancestors /lhcb/LHCb/Collision11/CHARMTOBESWUM.DST/00022760/0008/000
Failed : []
Successful :
  /lhcb/LHCb/Collision11/CHARMTOBESWUM.DST/00022760/0008/00022760_00088328_1.CharmToBeSwum.dst
  /lhcb/LHCb/Collision11/FULL.DST/00022754/0006/00022754_00060707_1.full.dst : Replica-Yes
  /lhcb/data/2011/RAW/FULL/LHCb/COLLISION11/100254/100254_0000000130.raw : Replica-Yes

$ dirac-bookkeeping-get-file-ancestors /lhcb/LHCb/Collision11/CHARMTOBESWUM.DST/00022760/0008/000
Failed : []
Successful :
  /lhcb/LHCb/Collision11/CHARMTOBESWUM.DST/00022760/0008/00022760_00088328_1.CharmToBeSwum.dst
  /lhcb/LHCb/Collision11/FULL.DST/00022754/0006/00022754_00060707_1.full.dst : Replica-Yes

$ dirac-bookkeeping-get-file-ancestors /lhcb/LHCb/Collision11/CHARMTOBESWUM.DST/00022760/0008/000
Failed :
  /lhcb/LHCb/Collision11/CHARMTOBESWUM.DST/00022760/0008/00022760_12388328_1.CharmToBeSwum.dst
```

dirac-bookkeeping-get-file-descendants

Gets a list of descendants for a given file or list of files. One can define the level up to which to go down as well as also get files without replicas. One may also provide a production number for which to look at in processing chain.

Syntax

```
$ dirac-bookkeeping-get-file-descendants --help
Report descendants for the given LFNs
Usage:
  dirac-bookkeeping-get-file-descendants [option|cfgfile] ... [LFN|File] [Level]
Arguments:
  LFN:      Logical File Name
  File:     Name of the file with a list of LFNs
  Level:    Number of levels to search (default: 1)
General options:
  -o: --option=      : Option=value to add
  -s: --section=    : Set base section for relative parsed options
```

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```
-c: --cert=           : Use server certificate to connect to Core Services
-d  --debug          : Set debug mode (-dd is extra debug)
-h  --help           : Shows this help
```

Options:

```
-      --File=           : File containing list of LFNs
-l:    --LFNs=          : List of LFNs (comma separated)
-      --Terminal       : LFNs are entered from stdin (--File /dev/stdin)
-      --All            : Do not restrict to descendants with replicas
-      --Full           : Get full metadata information on ancestors
-      --Depth=        : Number of processing levels (default:1)
-      --Production=    : Restrict to descendants in a given production (at any depth)
```

Examples

dirac-bookkeeping-get-file-sisters

Gets a list of files that have a common parent (default, therefore looking for sisters) or ancestor at any level (using `--Depth`, in this case cousins at various levels), by default in the same production as the file itself. One can also ask for a *sister/cousin* in an other transformation. The option `--AllFileTypes` allows to get files of a different type (by default one checks only files of the same type).

Syntax

```
$ dirac-bookkeeping-get-file-sisters --help
```

Report sisters (i.e. descendant of ancestor) for the given LFNs

Usage:

```
dirac-bookkeeping-get-file-sisters [option|cfgfile] ... [LFN|File] [Level]
```

General options:

```
-o: --option=         : Option=value to add
-s: --section=       : Set base section for relative parsed options
-c: --cert=          : Use server certificate to connect to Core Services
-d  --debug          : Set debug mode (-dd is extra debug)
-h  --help           : Shows this help
```

Options:

```
-      --File=           : File containing list of LFNs
-l:    --LFNs=          : List of LFNs (comma separated)
-      --Terminal       : LFNs are entered from stdin (--File /dev/stdin)
-      --All            : Do not restrict to sisters with replicas
-      --Full           : Get full metadata information on sisters
-      --Depth=        : Number of ancestor levels (default:1), 2 would be cousins, 3 grand-cou
-      --Production=    : Production to check for sisters (default=same production)
-      --AllFileTypes   : Consider also files with a different type
```

Examples:

```
$ dirac-bookkeeping-get-file-sisters /lhcb/LHCb/Collision11/BHADRON.MDST/00024034/0000/00024034_0
NoSister :
```

```
  /lhcb/LHCb/Collision11/BHADRON.MDST/00024034/0000/00024034_00002236_1.bhadron.mdst
```

```
$ dirac-bookkeeping-get-file-sisters /lhcb/LHCb/Collision11/BHADRON.MDST/00024034/0000/00024034_0
NoCousin : []
```

Successful :

```
  /lhcb/LHCb/Collision11/BHADRON.MDST/00024034/0000/00024034_00002236_1.bhadron.mdst :
  /lhcb/LHCb/Collision11/BHADRONCOMPLETEEVENT.DST/00024034/0000/00024034_00002238_1.bhadron
  /lhcb/LHCb/Collision11/CHARM.MDST/00024034/0000/00024034_00002240_1.charm.mdst
  /lhcb/LHCb/Collision11/CHARMCOMPLETEEVENT.DST/00024034/0000/00024034_00002242_1.charmcomp
  /lhcb/LHCb/Collision11/DIMUON.DST/00024034/0000/00024034_00001915_1.dimuon.dst
  /lhcb/LHCb/Collision11/DIMUON.DST/00024034/0000/00024034_00002244_1.dimuon.dst
  /lhcb/LHCb/Collision11/EW.DST/00024034/0000/00024034_00002246_1.ew.dst
```



```

/lhcb/LHCb/Collision11/LEPTONIC.MDST/00024034/0000/00024034_00002248_1.leptonic.mdst
/lhcb/LHCb/Collision11/PID.MDST/00024034/0000/00024034_00002250_1.pid.mdst
/lhcb/LHCb/Collision11/RADIATIVE.DST/00024034/0000/00024034_00002252_1.radiative.dst
/lhcb/LHCb/Collision11/SEMILEPTONIC.DST/00024034/0000/00024034_00002254_1.semileptonic.ds

```

Statistics

dirac-bookkeeping-get-stats

Returns statistics for a given BK query (number of files, of events, luminosity)

Syntax

```

$ dirac-bookkeeping-get-stats --help
    Get statistical information on a dataset
Usage:
    dirac-bookkeeping-get-stats [option|cfgfile]
General options:
    -o: --option=          : Option=value to add
    -s: --section=        : Set base section for relative parsed options
    -c: --cert=           : Use server certificate to connect to Core Services
    -d: --debug           : Set debug mode (-dd is extra debug)
    -h: --help            : Shows this help

Options:
    -P: --Productions=    : Production ID to search (comma separated list)
    -f: --FileType=       : File type (comma separated list, to be used with --Production) [All]
    - : --ExceptFileType= : Exclude the (list of) file types when all are requested
    -B: --BKQuery=        : Bookkeeping query path
    -r: --Runs=           : Run or range of runs (r1:r2)
    - : --DQFlags=         : DQ flag used in query
    - : --StartDate=       : Start date for the BK query
    - : --EndDate=         : End date for the BK query
    - : --Visibility=      : Set visibility (Yes, No, All) [Yes]
    - : --File=            : File containing list of LFNs
    -l: --LFNs=           : List of LFNs (comma separated)
    - : --Terminal         : LFNs are entered from stdin (--File /dev/stdin)

```

Examples

Unique dataset:

```

$ dirac-bookkeeping-get-stats --BK /LHCb/Collision12//RealData/Reco14/Stripping20r0p1//BHADRON.MDST
For BK query: {'ConfigName': 'LHCb', 'EventType': '90000000', 'FileType': 'BHADRON.MDST', 'Processing': 'Production'}
Getting info from filesSummary...
Nb of Files      : 4'322
Nb of Events     : 43'844'045
Total size       : 329.150 GB (7.5 kB per evt)
Luminosity       : 1.657 /fb
Size per /pb    : 0.2 GB
Files per /fb   : 2609.1

```

```

$ dirac-bookkeeping-get-stats --BK /LHCb/Collision12//RealData/Reco14//FULL.DST
For BK query: {'ConfigName': 'LHCb', 'EventType': '90000000', 'FileType': 'FULL.DST', 'Processing': 'Production'}
Getting info from filesSummary...
Nb of Files      : 584'518
Nb of Events     : 27'814'353'411
Total size       : 2.777 PB (99.9 kB per evt)
Luminosity       : 2.043 /fb
Size per /pb    : 1359.2 GB
Files per /fb   : 286044.6

```

Examples:

Multiple dataset (several file types). In that case an average luminosity is reported as different datasets may have different luminosities.

```
$ dirac-bookkeeping-get-stats --BK /LHCb/Collision12//RealData/Reco14/Stripping20r0p1//ALL.MDST,A
For BK query: {'ConfigName': 'LHCb', 'EventType': '90000000', 'FileType': ['BHADRON.MDST', 'PID.M
Getting info from filesSummary...
Nb of Files      : 54'696
Nb of Events     : 1'673'006'191
Total size       : 80.648 TB
Avg luminosity   : 1.669 /fb
Size per /pb    : 47.7 GB
Files per /fb    : 32774.4
```

This topic: LHCb > LHCbDiracBKCLI

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