File Catalog Database

H.Ito

March 14, 2005

1 FILECATALOG database organization

The name of the BRAHMS file catalog database is "FILECATALOG" and it is running at brahms-db0.rcf.bnl.gov. It currently consists of 9 tables shown in Table1.

Table 1: Tables in FILECATALOG

Table Name
DataInfo
DataQuality
DataTypes
DataVersion
DetectorGroup
DiskNames
HpssInfo
ProductionVersion
Quality

1.1 DataInfo table

The DataInfo table consists of 8 columns shown in Table 2. This table holds information for every sequence file for each version. A user can find the status of the data by his/her web browser at *http://pii3.brahms.bnl.gov/daq-cgi-bin/FindDataLocations.pl.*

1. DataId: it holds unique integer value for each file.
2. RunNo: run number
3. SeqNo: sequence number
4. VersionId: data version id from DataVersion table (See Section 1.4).

Table 2: Columns in DataInfo

Field	Type	Null	Key	Default	Extra
DataId	int(11)		PRI	NULL	auto_increment
RunNo	int(11)			0	
SeqNo	int(11)			0	
VersionId	int(11)			0	
ProductionVerId	int(11)			NULL	
DiskId	int(11)			0	
Status	enum('Init','InDisk','Deleted','Failed')			Init	
CreationDate	datetime			0000-00-00 00:00:00	

5. ProductionVerId: production version id from ProductionVersion table(See Section 1.8).

6. DiskId: data disk id from DiskNames table (see Section 1.6).

7. Status: shows the status of the file. There are 4 different status:Init when a job for making this file is submitted, InDisk when a jobhas completed normaly, Deleted when a file is removed (using rmdata.rb) and Failed when job has ended abnormaly.

8. CreationDate: show a time of the job submittion.

1.2 DataQuality table

1.3 DataTypes table

The DataTypes table consists of 2 columns shown in Table 3. It holds a name of a type of a file with unique id. At the time ofthis writting, it holds the following five data types: ltr, gtr, dst,raw and cdat. And, their corresponding TypeIds are 1, 2, 3, 4 and5, respectively.

Table 3: DataTypes table

Field	Type	Null	Key	Default	Extra
TypeId	int(11)		PRI	NULL	auto_increment
Name	char(10)				

1.4 DataVersion table

The DataVersion table consists of 11 columns shown in Table 4. It holds the information about how the file has been created.

Table 4: DataVersion table

Field	Type	Null	Key	Default	Extra
VersionId	int(11)		PRI	NULL	auto_increment
VersionNo	int(11)			0	
DataTypeId	int(11)			0	
InputVerId	int(11)			0	
BratVer	varchar(15)				
RootVer	varchar(15)				
Script	text				
Creator	varchar(30)				
Comments	text			NULL	
RunNo	int(11)			NULL	
ProductionVerId	int(11)			0	

1. VersionId: Unique integer for each run number, version number anddata type.
2. VersionNo: data version number of data
3. DataTypeId: data type idendification number (See Section 1.3)
4. InputVerId: data VersionId of the input file
5. BratVer: BRAT version number
6. RootVer: ROOT version number
7. Script: content of the bratmain script used for analysis.
8. Creator: name of the person
9. Comments: optional comment
10. RunNo: Run number
11. ProductionVerId: Production version id (See Section 1.8)

1.5 DetectorGroup table

1.6 DiskNames table

The DiskNames table consists of 2 columns shown in Table 5. It holds the name of the directory where the data file is located(eg. /brahms/data01/, /brahms/data02/, etc...) DiskId is unique foreach data directory.

Table 5: DiskNames table

Field	Type	Null	Key	Default	Extra
DiskId	int(11)		PRI	NULL	auto_increment
Location	varchar(100)				

1.7 HpssInfo table

1.8 ProductionVersion table

The ProductionVersion table consists of 5 columns shown in Table 6. It holds unique identification number for each production versionnumber, data type and run period. (Note: a run period is obtainedfrom Runs table of RUNDB database.) A user can access this table byhis/her web browser at *http://pii3.brahms.bnl.gov/daq-cgi-bin/EnterNewProduction.pl*.

Table 6: ProductionVersion table

Field	Type	Null	Key	Default	Extra
ProductionVerId	int(11)		PRI	NULL	auto_increment
Comment	text	YES		NULL	
DataTypeId	int(11)			NULL	
ProductionVerNo	int(11)			NULL	
RunPeriod	int(11)			0	

1.9 Quality table

2 Inter-connections between different tables of FILECATALOG

The tables in FILECATLOG are inter-connected through their columns. This can be seen in Figure 1. By usingSQL Join command, one can easily add two or more tables to createone virtual table, which is used for query.

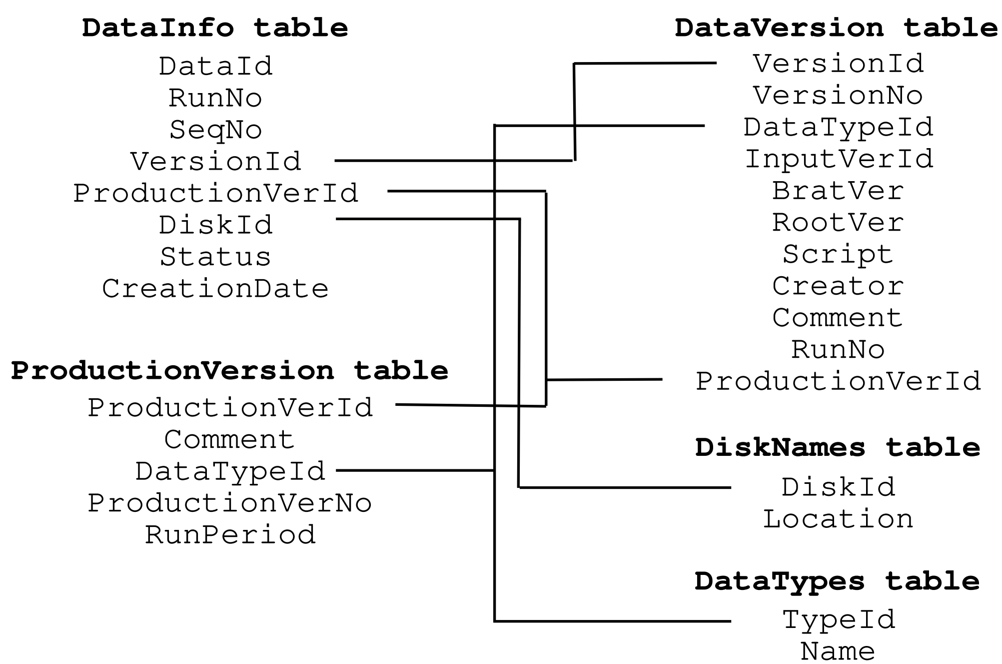

Figure 1: FILECATALOG (SQL) Join diagram