NAME

ibd2sdi − InnoDB utility for extracting serialized dictionary information (SDI) from an InnoDB tablespace

SYNOPSIS

ibd2sdi [*options***]** *file_name1* **[***file_name2 file_name3 ...]*

DESCRIPTION

ibd2sdi is a utility for extracting serialized dictionary information (SDI) from InnoDB tablespace files. SDI data is present all persistent InnoDB tablespace files.

ibd2sdi can be run on file−per−table tablespace files (*.ibd files), general tablespace files (*.ibd files), system tablespace files (ibdata* files), and the data dictionary tablespace (mysql.ibd). It is not supported for use with temporary tablespaces or undo tablespaces.

ibd2sdi can be used at runtime or while the server is offline. During DDL operations, ROLLBACK operations, and undo log purge operations related to SDI, there may be a short interval of time when **ibd2sdi** fails to read SDI data stored in the tablespace.

ibd2sdi performs an uncommitted read of SDI from the specified tablespace. Redo logs and undo logs are not accessed.

Invoke the **ibd2sdi** utility like this:

shell> **ibd2sdi [***options***]** *file_name1* **[***file_name2 file_name3 ...***]**

ibd2sdi supports multi−file tablespaces like the InnoDB system tablespace, but it cannot be run on more than one tablespace at a time. For multi−file tablespaces, specify each file:

shell> **ibd2sdi ibdata1 ibdata2**

The files of a multi−file tablespace must be specified in order of the ascending page number. If two successive files have the same space ID, the later file must start with the last page number of the previous file + 1.

ibd2sdi outputs SDI (containing id, type, and data fields) in JSON format. ibd2sdi Options.PP **ibd2sdi** supports the following options:

- **−−help**, **−h**

  Displays command−line help.

  ```
  shell> ibd2sdi −−help
  Usage: ./ibd2sdi [−v] [−c <strict−check>] [−d <dump file name>] [−n] filename1 [filenames]
  See http://dev.mysql.com/doc/refman/8.0/en/ibd2sdi.html for usage hints.
    −h, −−help          Display this help and exit.
    −v, −−version       Display version information and exit.
    −#, −−debug[=name]  Output debug log. See
                        http://dev.mysql.com/doc/refman/8.0/en/dbug−package.html
    −d, −−dump−file=name
                        Dump the tablespace SDI into the file passed by user.
                        Without the filename, it will default to stdout
    −s, −−skip−data     Skip retrieving data from SDI records. Retrieve only id
                        and type.
    −i, −−id=#          Retrieve the SDI record matching the id passed by user.
    −t, −−type=#        Retrieve the SDI records matching the type passed by
                        user.
    −c, −−strict−check=name
                        Specify the strict checksum algorithm by the user.
                        Allowed values are innodb, crc32, none.
    −n, −−no−check      Ignore the checksum verification.
  ```

```
  -p, --pretty        Pretty format the SDI output.If false, SDI would be not
                      human readable but it will be of less size
                      (Defaults to on; use --skip-pretty to disable.)
Variables (--variable-name=value)
and boolean options {FALSE|TRUE}  Value (after reading options)
--------------------------------- ----------------------------------------
debug                             (No default value)
dump-file                         (No default value)
skip-data                         FALSE
id                                0
type                              0
strict-check                      crc32
no-check                          FALSE
pretty                            TRUE
```

- **--version**, **-v**

  Displays MySQL version information.

  ```
  shell> ibd2sdi --version
  ibd2sdi  Ver 8.0.3-dmr for Linux on x86_64 (Source distribution)
  ```

- **--debug[=***debug_options***]**, **-# [***debug_options***]**

  Prints a debug log. For debug options, refer to Section 29.5.4, “The DBUG Package”.

  ```
  shell> ibd2sdi --debug=d:t /tmp/ibd2sdi.trace
  ```

- **--dump-file=**, **-d**

  Dumps serialized dictionary information (SDI) into the specified dump file. If a dump file is not specified, the tablespace SDI is dumped to stdout.

  ```
  shell> ibd2sdi --dump-file=file_name ../data/test/t1.ibd
  ```

- **--skip-data**, **-s**

  Skips retrieval of data field values from the serialized dictionary information (SDI) and only retrieves the id and type field values, which are primary keys for SDI records.

  ```
  shell> ibd2sdi --skip-data ../data/test/t1.ibd
  ["ibd2sdi"
  ,
  {
          "type": 1,
          "id": 330
  }
  ,
  {
          "type": 2,
          "id": 7
  }
  ]
  ```

- **--id=#**, **-i #**

  Retrieves serialized dictionary information (SDI) matching the specified table or tablespace object

id. An object id is unique to the object type. Table and tablespace object IDs are also found in the id column of the mysql.tables and mysql.tablespace data dictionary tables. For information about data dictionary tables, see Section 14.1, “Data Dictionary Schema”.

```
shell> ibd2sdi --id=7 ../data/test/t1.ibd
["ibd2sdi"
,
{
            "type": 2,
            "id": 7,
            "object":
                        {
    "mysqld_version_id": 80003,
    "dd_version": 80003,
    "sdi_version": 1,
    "dd_object_type": "Tablespace",
    "dd_object": {
        "name": "test/t1",
        "comment": "",
        "options": "",
        "se_private_data": "flags=16417;id=2;server_version=80003;space_version=1;",
        "engine": "InnoDB",
        "files": [
            {
                "ordinal_position": 1,
                "filename": "./test/t1.ibd",
                "se_private_data": "id=2;"
            }
        ]
    }
}
}
]
```

- **--type=#**, **-t #**

  Retrieves serialized dictionary information (SDI) matching the specified object type. SDI is provided for table (type=1) and tablespace (type=2) objects.

```
shell> ibd2sdi --type=2 ../data/test/t1.ibd
["ibd2sdi"
,
{
            "type": 2,
            "id": 7,
            "object":
                        {
    "mysqld_version_id": 80003,
    "dd_version": 80003,
    "sdi_version": 1,
    "dd_object_type": "Tablespace",
    "dd_object": {
        "name": "test/t1",
        "comment": "",
        "options": "",
```

```
        "se_private_data": "flags=16417;id=2;server_version=80003;space_version=1;",
        "engine": "InnoDB",
        "files": [
          {
            "ordinal_position": 1,
            "filename": "./test/t1.ibd",
            "se_private_data": "id=2;"
          }
        ]
      }
    }
    }
    ]
```

- **−−strict−check**, **−c**

  Specifies a strict checksum algorithm for validating the checksum of pages that are read. Options include innodb, crc32, and none.

  In this example, the strict version of the innodb checksum algorithm is specified:

  shell> **ibd2sdi −−strict−check=innodb ../data/test/t1.ibd**

  In this example, the strict version of crc32 checksum algorithm is specified:

  shell> **ibd2sdi −c crc32 ../data/test/t1.ibd**

  If you do not specify the **−−strict−check** option, validation is performed against non−strict innodb, crc32 and none checksums.

- **−−no−check**, **−n**

  Skips checksum validation for pages that are read.

  shell> **ibd2sdi −−no−check ../data/test/t1.ibd**

- **−−pretty**, **−p**

  Outputs SDI data in JSON pretty print format. Enabled by default. If disabled, SDI is not human readable but is smaller in size. Use −−skip−pretty to disable.

  shell> **ibd2sdi −−skip−pretty ../data/test/t1.ibd**

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SEE ALSO

For more information, please refer to the MySQL Reference Manual, which may already be installed locally and which is also available online at http://dev.mysql.com/doc/.

AUTHOR

Oracle Corporation (http://dev.mysql.com/).