

06 Data Model

Data Model

Plotwise Writer Projects are self-contained SQLite3 databases.

ER Diagram / Schemas

Here's the schema definition which is stored as a resource in the Plotwise Writer executable.

```
CREATE TABLE metadata
(
  id INTEGER PRIMARY KEY AUTOINCREMENT,
  "key" TEXT,
  value TEXT
);

CREATE TABLE folders
(
  id INTEGER PRIMARY KEY AUTOINCREMENT,
  parent_id INTEGER REFERENCES folders (id) ON DELETE CASCADE,
  name TEXT NOT NULL,
  sort_index INTEGER DEFAULT 0,
  flags INTEGER DEFAULT (0) NOT NULL
);

CREATE TABLE files
(
  id INTEGER PRIMARY KEY AUTOINCREMENT,
  folder_id INTEGER,
  name TEXT NOT NULL,
  sort_index INTEGER DEFAULT (0),
  updated_at DATETIME DEFAULT (CURRENT_TIMESTAMP),
  CONSTRAINT FK_files_folders FOREIGN KEY (folder_id) REFERENCES folders (id) ON DELETE CASCADE
```

```
);

CREATE TABLE content
(
  id      INTEGER PRIMARY KEY AUTOINCREMENT,
  file_id INTEGER NOT NULL,
  content_md TEXT NOT NULL,
  updated_at DATETIME DEFAULT (CURRENT_TIMESTAMP),
  is_autosave INTEGER NOT NULL,
  content_hash TEXT NOT NULL,
  CONSTRAINT FK_autosave_files FOREIGN KEY (file_id) REFERENCES files (id) ON DELETE CASCADE
);

CREATE TABLE tags
(
  id INTEGER NOT NULL PRIMARY KEY AUTOINCREMENT,
  label TEXT NOT NULL,
  color TEXT NOT NULL
);

CREATE TABLE _version
(
  id INTEGER NOT NULL PRIMARY KEY AUTOINCREMENT,
  version TEXT NOT NULL,
  date DATETIME DEFAULT (CURRENT_TIMESTAMP)
)
```

Migrations

Migrations are run every time a project is opened or created. This should bring the project schema up to date automatically. Each migration is logged in the `_version` table so that each one is only run once.

Version Mismatches

It's possible that someone could open a project file using an older version of the software. If the database version is higher than the current software version, a warning should be displayed and the file opened in read only mode. An effort should be made to display the project data, but there should be no guarantees.

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