FTP Media Sync - Feature List

Based on the codebase and recent development, here's a comprehensive list of the FTP Media Sync application's current features:

Core FTP Synchronization Features

- **Dual FTP Server Management**: Connect to source and target FTP servers simultaneously
- **Bidirectional Sync**: Files can be synced in both directions (source-to-target and target-to-source)
- **Multiple Path Support**: Sync from different folders with different sync rules:
    – On-Air Content folder (unidirectional)
    – Recordings folder (bidirectional)
- **File Filtering**:
    – Filter by file extensions (mp4, mkv, avi, mov, wmv, m4v, flv)
    – Filter by file size (min/max limits)
    – Subdirectory scanning support
- **Sync Options**:
    – Dry run mode (preview changes without actual sync)
    – Overwrite existing files option
    – Keep temporary files for debugging
- **Symbolic Link Support**: Handles /mnt/main ☐ /mnt/md127 symbolic links

File Management

- **File Comparison**: Compare files between servers showing:
    – Files missing on target
    – Files with size differences
    – Target-only files (for bidirectional sync)
    – Identical files
- **Bulk Operations**:
    – Queue multiple files for sync
    – Bulk delete operations
    – Select/deselect all functionality
- **Delete Functionality**: Delete files from either server with dry run option

Media Analysis Features

- **Audio Extraction & Transcription**:
    – Extract audio from video files
    – Transcribe using Faster Whisper
    – Language detection
- **AI Content Analysis** (when configured):
    – Generate content summaries
    – Extract topics, people, locations, events
    – Calculate engagement scores
    – Determine shelf life ratings
- **Metadata Extraction**:

- Parse filename metadata
- Classify content types (psa, meeting, announcement, etc.)
- Calculate duration categories

Database Integration

- **PostgreSQL Storage**: Store analysis results and metadata
- **Content Classification**: 14 different content type categories specific to Atlanta broadcasting
- **Scheduling Metadata**: Track scheduling information for content

Scheduling Features

- **Schedule Creation**: Create daily schedules from analyzed content
- **Schedule Management**:
  - View schedules by date
  - Edit schedule items
  - Delete schedules
  - Export schedules to JSON
- **Playlist Generation**: Export schedules as playlists for broadcast systems
- **FTP Export**: Export schedules directly to FTP servers

User Interface

- **Multi-Panel Dashboard**:
  - Server configuration panel
  - Scanning configuration with folder toggles
  - File comparison results
  - Analysis interface
  - Scheduling interface
- **Real-time Logging**: Detailed operation logs in the UI
- **Progress Tracking**: Visual progress bars for long operations
- **Responsive Design**: Clean, modern interface

Configuration Management

- **Persistent Settings**: Auto-save configuration to JSON
- **Environment Variables**: Support for API keys via .env files
- **Customizable Sync Settings**:
  - File size limits
  - File extensions
  - Connection timeouts
  - Transfer timeouts

Advanced Features

- **Connection Pooling**: Efficient database connection management
- **Retry Logic**: Automatic retry for failed operations
- **Path Mapping**: Handle complex FTP path structures with quoted folders

- **Error Handling**: Comprehensive error logging and user feedback
- **Concurrent Operations**: Analyze multiple files in batch

Security Features

- **Password Protection**: FTP passwords stored securely
- **API Key Management**: Separate storage for OpenAI/Anthropic keys
- **No hardcoded credentials**: All sensitive data in config or environment

Performance Features

- **File Caching**: 15-minute cache for web fetches
- **Efficient Scanning**: Optimized FTP directory listing
- **Smart Verification**: Multiple fallback methods for upload verification
- **Connection Reuse**: Maintain FTP connections across operations

Content Type Classifications

The application recognizes these Atlanta-specific content types: - **an**: Announcement - **bmp**: Bump (short promo) - **imow**: Inside Moving Atlanta Weekly - **im**: Inside Atlanta - **ia**: Interstitial Announcement - **lm**: Legislative Minute - **mtg**: Meeting - **maf**: Moving Atlanta Forward - **pkg**: Package - **pmo**: Promo - **psa**: Public Service Announcement - **szl**: Sizzle Reel - **spp**: Special Projects - **other**: Other/Uncategorized

The application is designed specifically for broadcast media management, with features tailored for managing video content between Castus servers in a television station environment.