

# FEATURES

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## 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.