PRO PDF - Features Implementation Guide

🎨 Theme System

Implementation

PRO PDF now includes a fully functional light/dark theme system using `next-themes` .

Components

- **ThemeToggle** (`components/theme-toggle.tsx`)
- Dropdown menu with Light, Dark, and System options
- Animated icons (sun/moon)
- Persistent theme selection

Features

- ✅ Light Mode
- ✅ Dark Mode
- ✅ System Preference Detection
- ✅ Smooth transitions
- ✅ Persistent storage (localStorage)
- ✅ Server-side rendering support

Usage

The theme toggle is available in the header on all pages. Users can:

1. Click the sun/moon icon
2. Select Light, Dark, or System
3. Theme persists across sessions

Technical Details

- Uses `next-themes` for theme management
- Default theme: System preference
- Class-based theme switching (`dark` class on `<html>`)
- No flash of unstyled content (FOUC)

🔒 Zero-Knowledge Encryption

Implementation

Client-side encryption with zero server knowledge of encryption keys.

Components

- **EncryptionManager** (`components/encryption-manager.tsx`)
- **Encryption Utils** (`lib/encryption.ts`)
- **Progress Tracker** (`lib/progress-tracker.ts`)

Features

- ✅ AES-256-GCM encryption
- ✅ Client-side key generation
- ✅ Browser-based key storage (IndexedDB)
- ✅ Passphrase protection
- ✅ Multiple encryption keys support
- ✅ Real-time encryption progress
- ✅ Zero server knowledge

Usage

1. Click the Shield icon in header
2. Create encryption key with passphrase
3. Files are automatically encrypted before upload
4. Encryption indicator shows when active

📊 Real-Time Progress Indicators

Implementation

WebSocket-based progress tracking for PDF operations.

Components

- **RealtimeProgressIndicator** (`components/realtime-progress-indicator.tsx`)
- **Progress Hook** (`hooks/use-progress-stream.ts`)
- **Batch Progress** (`components/batch-progress.tsx`)

Features

- ✅ Real-time progress updates
- ✅ Step-by-step operation display
- ✅ Visual progress bars
- ✅ Batch operation tracking
- ✅ Error handling
- ✅ Completion animations

🔄 PDF Tools

Available Tools

1. Merge PDFs

- Combine multiple PDFs
- Drag-and-drop reordering
- Visual preview
- Batch processing

2. Split PDF

- Split by page ranges

- Extract specific pages
- Multiple output files

3. Compress PDF

- Quality settings (Low, Medium, High)
- Size reduction preview
- Maintains visual quality

4. Convert PDF

- PDF to Word, Excel, PowerPoint
- Image formats (JPG, PNG)
- Batch conversion
- Format detection

5. Sign PDF

- Digital signatures
- Draw signature pad
- Upload signature image
- Signature positioning

6. Encrypt PDF

- User password (open protection)
- Owner password (permissions)
- AES-256 encryption
- Permission controls

💼 Job Queue System

Implementation

Priority-based job scheduling and monitoring.

Components

- **Jobs Page** (`app/jobs/page.tsx`)
- **JobsContent** (`components/jobs/jobs-content.tsx`)
- **JobConfigDialog** (`components/jobs/job-config-dialog.tsx`)

Features

- ✅ Priority levels (High, Medium, Low)
- ✅ Recurring schedules (Daily, Weekly, Monthly)
- ✅ Job status tracking
- ✅ Progress monitoring
- ✅ Retry failed jobs
- ✅ Cancel running jobs
- ✅ Job history

Job Statuses

- **Pending:** Waiting to start

- **Processing:** Currently running
- **Completed:** Successfully finished
- ✅ **Failed:** Error occurred
- **Cancelled:** Manually stopped

🎯 Additional Features

File Upload

- Drag-and-drop support
- Multiple file selection
- Real-time progress
- File size validation (10MB guest, 1GB premium)
- Type validation

File Preview

- High-quality PDF preview
- Zoom controls
- Page navigation
- Thumbnail view

Batch Operations

- Process multiple files
- Batch download
- Progress tracking
- Error handling

Search & Filter

- File name search
- Type filtering
- Date filtering
- Status filtering

Shareable Links

- Generate public links
- Set expiration dates
- Download limits
- Password protection
- Revoke access

Cloud Storage (Premium)

- Persistent file storage
- Access from anywhere
- Auto-sync
- Backup & recovery

Cookie Consent

- GDPR compliant
- Customizable
- Persistent preference
- Analytics opt-in/out

Onboarding

- Welcome slideshow
- Feature highlights
- Skip/Next navigation
- One-time display

🎨 UI/UX Features

Design System

- Consistent color palette
- Responsive layout
- Mobile-optimized
- Accessibility features

Components

- Modern UI components (shadcn/ui)
- Smooth animations
- Loading states
- Error boundaries
- Toast notifications

Navigation

- Sticky header
- Breadcrumbs
- Mobile menu
- User dropdown

🔐 Security Features

Authentication

- Email/password login
- NextAuth.js integration
- JWT tokens
- Session management
- Secure cookies

Data Protection

- HTTPS only
- CSRF protection
- XSS prevention
- SQL injection protection
- Rate limiting

Privacy

- Zero-knowledge encryption
- Auto-delete guest files
- No file content logging
- GDPR compliant

📱 Responsive Design

- Desktop optimized
- Tablet support
- Mobile friendly
- Touch gestures
- Adaptive layouts

🚀 Performance

- Server-side rendering
- Code splitting
- Lazy loading
- Image optimization
- CDN delivery
- Caching strategies

📊 Analytics (Future)

- User behavior tracking
- Conversion tracking
- Performance monitoring
- Error tracking
- A/B testing ready

🌐 SEO Optimization

- Meta tags

- Open Graph
- Twitter Cards
- Sitemap
- Robots.txt
- Structured data

Test Account

For testing all features:
- **Email:** john.doe@example.com
- **Password:** password123
- **Premium Status:** Active