

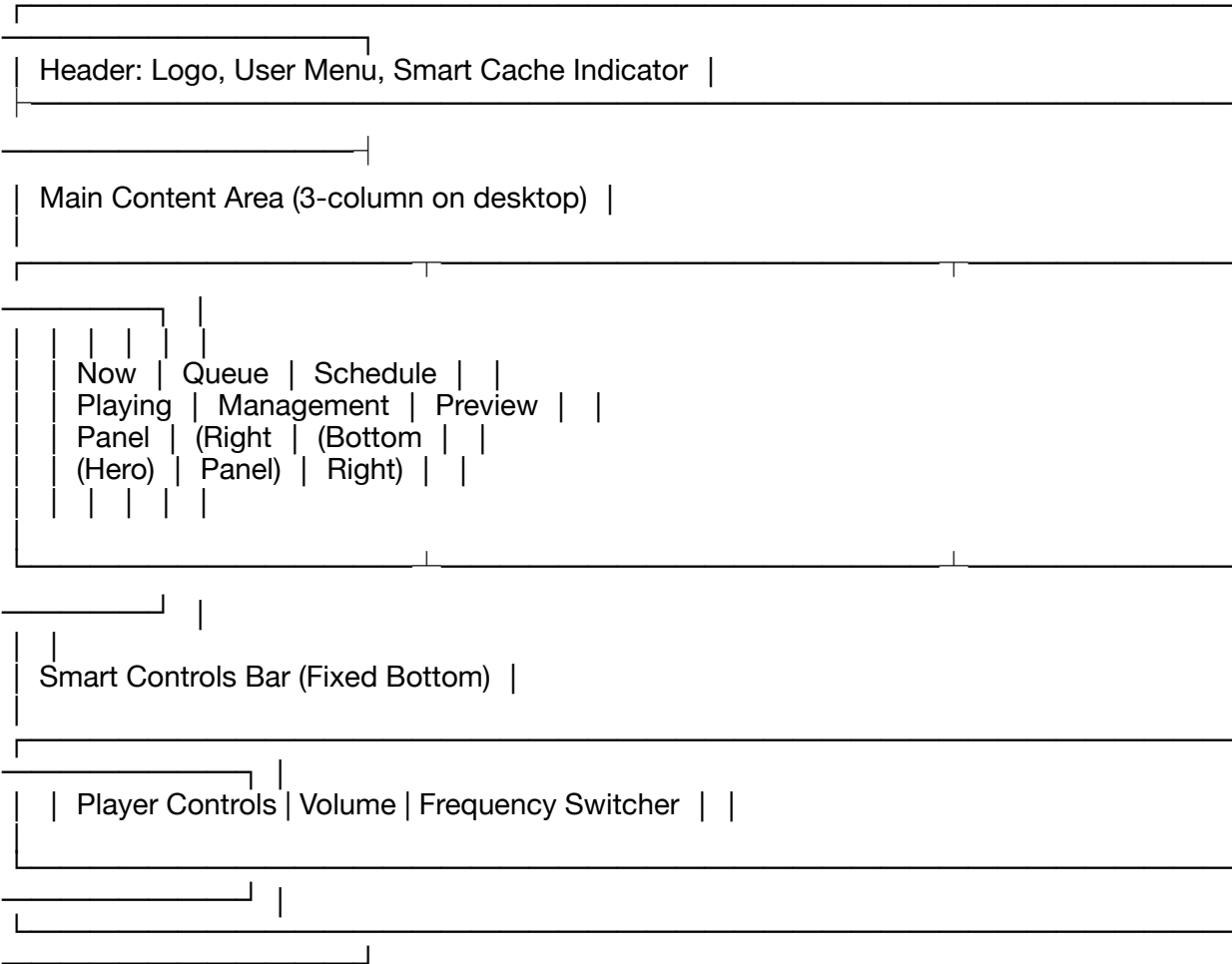
# AURASTREAM UI:UX DETAYLI TASARIM DOKÜMANTASYONU - AI-OPTIMIZED VERSİYON

markdown  
# AuraStream UI:UX Detaylı Tasarım Dokümantasyonu

## 1. B2B VENUE APP – MEKAN YÖNETİM PANELİ

### 1.1. Dashboard (Ana Ekran) – Component Specification

**\*\*Layout Structure:\*\***



## A. Hero Section – Now Playing Area

**\*\*Component: `NowPlayingHero`\*\***

**\*\*Visual Elements:\*\***

- **\*\*Album Art:\*\*** 400x400px center display
- **\*\*Visualizer Overlay:\*\*** Optional (Waveform, Spectrum, Particles)
- **\*\*Track Info:\*\*** Title, Artist, BPM, Frequency badge
- **\*\*Progress:\*\*** Visual progress bar with time display
- **\*\*Controls:\*\*** Play/Pause, Like, Skip with reason

**\*\*Interactive Features:\*\***

### 1. Visualizer Stilleri:\*\*

- **\*\*Waveform:\*\*** Traditional amplitude display
- **\*\*Circular Spectrum:\*\*** Frequency rings
- **\*\*Particle Field:\*\*** Music-reactive particles
- **\*\*Toggle:\*\*** Settings dropdown for visualizer selection

### 2. Smart Skip System:\*\*

```
``typescript
interface SkipReason {
  id: 'too_slow' | 'wrong_mood' | 'technical' | 'other';
  label: string;
  icon: string;
  affects_algorithm: boolean; // Whether this affects
  recommendation
}
```

// Skip flow:

1. User clicks skip button
2. Modal appears with reason options
3. Selection logged for algorithm improvement
4. Track skipped with smooth transition

### 3. BPM/Frequency Display:

- BPM: Click to open BPM adjustment modal
- Frequency: Color-coded badge (440Hz: purple, 432Hz: green)

- Interaction: Click frequency to toggle (with crossfade)

States:

- Loading: Skeleton with pulsing animation
- Playing: Animated visualizer, rotating album art (subtle)
- Paused: Static visualizer, paused animation
- Error: Error message with retry option
- Offline: "Offline Mode" badge, limited controls

## B. Queue Management (Sağ Panel)

Component: QueueManager

Data Structure:

```
typescript
interface QueueItem {
  id: string;
  track: Track;
  position: number;
  duration: number;
  cached: boolean;
  scheduled_time?: string; // For scheduled plays
}

interface QueueState {
  items: QueueItem[];
  current_index: number;
  shuffle: boolean;
  repeat: 'none' | 'one' | 'all';
  locked: boolean; // Admin lock to prevent changes
}
```

UI Features:

### 1. Drag & Drop Reordering:

- Visual: Item lifts on drag with shadow
  - Drop Zones: Highlight between items
  - Animation: Smooth repositioning
  - Limitation: Disabled when queue locked
2. Quick Remove (Mobile):

- Gesture: Swipe left to reveal delete
  - Confirmation: "Swipe to delete" hint
  - Undo: Toast notification with undo option
  - Haptic Feedback: On successful delete
3. Queue Lock Feature:

- Toggle: Admin-only switch
  - Visual: Lock icon, disabled drag handles
  - Notification: "Queue locked by admin" banner
  - Override: Admin PIN to unlock
4. Preview System:

- Trigger: Click on queue item
- Duration: 15-second snippet
- Visual: Mini-player overlay
- Controls: Play snippet, add to now playing

## C. Smart Controls Bar (Alt Panel - Sticky)

Component: SmartControlsBar

Sub-components:

### 1. Player Controls:

- Buttons: Previous, Play/Pause, Next
  - Progress: Draggable seek bar with buffered segments
  - Time Display: Current/Remaining time (toggle)
2. Advanced Volume Control:

- Auto Ducking:  
typescript

```
interface AutoDuckingConfig {
  enabled: boolean;
  sensitivity: 'low' | 'medium' | 'high';
  duck_amount: number; // 0-100%
  restore_delay: number; // seconds
}
```

- Zone Control: (Multi-zone venues)
  - UI: Zone selector with individual sliders
  - Presets: "Evening", "Daytime", "Quiet Hours"
  - Sync: Master control with zone overrides

### 3. Frequency Switcher:

- Options: 440Hz (Standard), 432Hz (Relaxing), 528Hz (Healing)
- Transition: 3-second crossfade
- Visual: Animated frequency wave during transition
- Restriction: Premium feature badge for non-standard frequencies

### Subscription Locked State (Ödeme Yapılmadı):

- Eğer abonelik süresi dolduysa, Player arayüzü "Blur" (Bulanık) olur.
- Tam ortada bir Modal çıkar: "*Hizmete devam etmek için ödemenizi güncelleyin.*"
- Offline olsa bile müzik çalma fonksiyonları devre dışı kalır (AES key iptali ile).

## 1.2. Schedule Manager (Zaman Çizelgesi)

Component: ScheduleManager

## Layout:

text

Weekly View (Default):

Week Selector [< Jan 15-21 >] [+ New Schedule]						
Day Columns (7)						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
8-12 Chill						
12-14 Lunch						

## Schedule Slot Specification:

### Data Model:

```
typescript
interface ScheduleSlot {
  id: string;
  day: 0-6; // 0=Monday
  start_time: string; // "08:00"
  end_time: string;   // "12:00"
  name: string;       // "Morning Chill"
  mood: string[];
  bpm_range: { min: number; max: number };
  frequency: 440 | 432 | 528;
  genre_restrictions?: string[];
  instrumental_only?: boolean;
  track_pool_size: number;
}
```

## Smart Features:

## 1. Template Library:

- Pre-sets: "Cafe Classic", "Modern Restaurant", "Spa Ambience"
- Application: One-click apply to day/week
- Customization: Save current schedule as template
- Sharing: Template export/import (JSON)

## 2. Conflict Detection:

- Visual: Overlapping slots highlighted in red
- Warning: "Schedule conflict" modal with resolution options
- Auto-resolve: Suggest adjustments based on patterns

## 3. Weather Integration:

```
typescript
interface WeatherRule {
  condition: 'rain' | 'snow' | 'sunny' | 'cloudy';
  temperature_range?: { min: number; max: number };
  action: 'switch_to_template' | 'adjust_mood' | 'notify';
  template_name?: string;
  mood_adjustment?: string[]; // Add/remove moods
}
```

## 4. Holiday Override:

- Detection: Calendar integration + manual entries
- Override: Temporary schedule replacement
- Restoration: Auto-revert after holiday
- Notification: "Holiday schedule active" banner

## Slot Editing Modal:

### Form Fields:

1. Time Range: Start/End time picker with 15-minute increments
2. Mood Selection: Multi-select with mood chips
3. BPM Range: Dual-slider with numeric input

- 4. Frequency: Radio buttons with premium badges
- 5. Restrictions: Checkboxes for instrumental, language, etc.
- 6. Track Pool: Size selector with "Auto-fill" option

#### Validation Rules:

- Minimum slot duration: 30 minutes
- Maximum slot duration: 8 hours
- BPM range: 40-220 BPM
- No overlapping slots (enforced)

### 1.3. Analytics Dashboard (İstatistikler)

Component: AnalyticsDashboard

#### Data Visualization Components:

##### 1. Today's Summary Cards:

- Metrics: Tracks Played, Total Duration, Skip Rate, Likes
- Comparison: vs. Yesterday, vs. Last Week
- Trend: Up/down arrows with percentage
- Detail: Click to expand detailed view

##### 2. Playback Heatmap:

- X-axis: Time of day (00:00-23:59)
- Y-axis: Days of week
- Color Intensity: Play count
- Interaction: Hover for exact counts, click to see tracks

##### 3. Top Tracks Table:

```
typescript
interface TrackMetric {
  track: Track;
  play_count: number;
  skip_count: number;
  skip_rate: number;
  avg_listen_duration: number;
  peak_time: string; // When most played
}
```



#### 4. Mood Distribution:

- Chart Type: Donut/Pie chart
- Data: Play counts by mood
- Interaction: Click slice to filter analytics
- Time Range: Selectable (Day, Week, Month)

#### Advanced Analytics (Premium):

#### 5. Customer Sentiment Correlation:

- Metric: Skip rate vs. time of day, vs. staff changes
- Visual: Scatter plot with trend line
- Insights: "Higher skip rates during shift changes"

#### 6. Competitor Benchmarking:

- Data Source: Aggregated anonymous industry data
- Metrics: Play diversity, skip rates, track popularity
- Visual: Radar chart comparison
- Actionable: "You play 20% less jazz than similar venues"

#### 7. Seasonal Trends:

- Analysis: Play patterns by season, holiday, weather
- Visual: Multi-line chart over time
- Predictive: "Based on trends, recommend these tracks for winter"

#### Export & Reporting:

- Formats: PDF (styled report), CSV (raw data), PNG (charts)
- Scheduling: Automated weekly/monthly reports
- Sharing: Email to multiple recipients
- Templates: Custom report templates

## 1.4. Settings & Configuration

Component: `VenueSettings`

## Tab Structure:

1. Playback Settings
2. Offline Mode
3. Appearance
4. Security
5. Connectivity

## Playback Settings:

## Crossfade Configuration:

- Slider: 0-10 seconds
- Preview: Test crossfade with sample audio
- Type: Equal-power vs. linear (advanced)

## Gapless Playback:

- Toggle: Enable/disable
- Buffer: Pre-load next track settings
- Indicator: Visual buffer status

## Auto Skip Rules:

```
typescript
interface AutoSkipRule {
  condition: 'silence' | 'low_volume' | 'quality_issue';
  threshold: number; // seconds or dB
  action: 'skip' | 'pause' | 'notify';
  cooldown: number; // minutes between auto-skips
}
```

## Emergency Pause:

- Shortcut: Configurable hotkey
- Override: Immediate mute all zones
- Restore: Manual restoration required
- Audit: Log all emergency pauses

## Offline Mode Settings:

## Smart Cache Management:

- Size Limit: Slider 500MB-2GB
- Strategy: "Smart" (algorithmic) vs. "Manual"
- Clear Cache: One-button with confirmation
- Cache Analysis: Storage breakdown by mood/genre

## Sync Behavior:

- WiFi Only: Toggle for mobile data preservation
- Background Sync: Enable/disable
- Sync Schedule: Time-based (e.g., overnight)
- Delta Updates: Only download changes

## Fallback Behavior:

- Options: Repeat current playlist, Play silence, Crossfade to backup
- Backup Playlist: Designated offline-safe playlist
- Notification: "Offline mode activated" banner

## Security Settings:

## Staff Access Levels:

- Basic: Play/Pause only
- Standard: Add to queue, adjust volume
- Manager: Schedule changes, analytics view
- Admin: Full access

## PIN Protection:

- Requirement: For certain actions or always
- PIN Reset: Admin-only with email confirmation
- Attempt Limits: Lock after 5 failed attempts
- Timeout: Auto-logout after inactivity

## Session Management:

- Duration: 1-24 hours or "Until logout"
- Renewal: Automatic with activity

- Multiple Sessions: Allow/restrict
- Device Management: View and revoke sessions

## 1.5. Legal & Compliance Center

Component: LegalComplianceCenter

Active License Display:

License Card Component:

- Tier Badge: Business/Enterprise with color coding
- Dates: Start/End with countdown
- Status: Active/Expiring/Expired with visual indicator
- Coverage: Feature list with checkmarks
- Actions: View Contract, Payment History, Renew

Certificate Management:

PDF Certificate Features:

- Dynamic Data: Venue name, address, license number, dates
- QR Code: Links to online verification
- Watermark: Subtle background pattern
- Security: Digital signature verification

Download Options:

- Formats: PDF (print-ready), PNG (digital display)
- Sizes: A4, Letter, Custom
- Language: Multiple language support
- Archival: All historical certificates accessible

Door Sticker Program:

Sticker Specifications:

- Size: 10cm x 10cm standard
- Design: Professional with QR code
- Material: Weather-resistant vinyl

- Shipping: Included with Business+ tiers
- Request Flow:

1. Verify venue address
  2. Select sticker quantity (1-5)
  3. Confirm shipping address
  4. Tracking provided upon shipment
- Compliance Documentation:

Required Documents:

1. Terms of Service: Versioned, with change history
  2. Privacy Policy: GDPR/CCPA compliant
  3. Data Processing Agreement: For business customers
  4. Copyright Policy: DMCA compliance
  5. Accessibility Statement: WCAG compliance
- Update Management:

- Notification: Email for important changes
- Acceptance: Required for continued use
- History: All versions archived
- Diff View: Changes highlighted

## 2. B2C CREATOR STORE - İÇERİK ÜRETİCİ PANELİ

### 2.1. Discovery & Search Interface

Component: CreatorSearchInterface

Three-Column Layout (Desktop):

text

Filters	Search Results	Player
---------	----------------	--------

(Left)	(Center)	Preview (Right)
--------	----------	--------------------

## Left Panel: Advanced Filters

### Filter Categories:

#### 1. Mood Filter:

- Type: Multi-select chips
- Visual: Color-coded, with count badges
- Interaction: Select/deselect, "Select All", "Clear All"
- Popularity: Most used moods highlighted

#### 2. Genre Filter:

- Hierarchy: Main genre → sub-genre expandable
- Selection: Checkbox with partial selection states
- Counts: Number of tracks per genre
- Recent: "Recently used" quick select

#### 3. BPM Range Filter:

- Control: Dual-handle slider with numeric inputs
- Presets: "Slow (60-90)", "Medium (90-120)", "Fast (120-160)"
- Sync: "Match to video FPS" calculator
- Visual: BPM distribution histogram above slider

#### 4. Duration Filter:

- Control: Range slider (seconds or minutes:seconds)
- Use Cases: "Intro (0-30s)", "Background (2-5m)", "Full (3-6m)"
- Smart: "Exact match" vs. "Close match" toggle

#### 5. Frequency Filter:

- Options: All, 440Hz only, 432Hz available, 528Hz available
- Visual: Frequency color badges
- Premium: 432Hz/528Hz require Pro tier

## 6. Instrument Filter:

- Type: Tag-based multi-select
- Visual: Instrument icons
- Logic: AND (all selected) vs. OR (any selected)
- Presence: "With vocals", "Instrumental only"

## Filter State Management:

- URL Sync: Filters in query parameters
- Save/Restore: Session persistence
- Reset: One-click clear all
- Share: Generate filter share link

## Center Panel: Search Results

## View Modes:

1. Grid View (Default): Thumbnail-focused
2. List View: Detail-focused
3. Compact View: Maximum density

## Track Card Component (Grid):

## Layout:

text

[Thumbnail]			
Title (truncated)			
Genre • Duration • BPM			
[Mood Tags]		[Instrument Icons]	
Stats:	♥ 234	↓ 67	\$9
Actions:	[▶]	[♥]	[↓] [⊕]

## Smart Search Features:

### 1. Semantic Search:

- Understanding: "Epic battle scene music for fantasy trailer"
- Extraction: mood=epic, usage=trailer, context=fantasy
- Expansion: Synonyms, related terms
- Confidence: Display match confidence score

### 2. Similar Tracks:

- Algorithm: Based on audio features + metadata
- Trigger: "More like this" button
- Visual: Similarity score indicator
- Feedback: "Not similar" feedback for improvement

### 3. BPM Sync to Video:

- Calculator: Video FPS → Ideal BPM
- Presets: 24fps = 96 BPM, 30fps = 120 BPM
- Range:  $\pm 5$  BPM tolerance setting
- Visual: "Perfect match" badge

### 4. Zero-Result State:

- Not Just Empty: Show recommendations
- Suggestions: Broaden filters, try similar terms
- Content Gap: "Request this type of track" button
- Alternative: Show popular tracks in selected genre

### 5. Visual Query Builder:

```
typescript
interface QueryBlock {
  type: 'filter' | 'operator';
  field?: string;
  operator?: 'AND' | 'OR' | 'AND_NOT';
  value?: any;
  children?: QueryBlock[]; // For nested conditions
}
```



```
// UI Representation:  
[Mood: Chill] + [AND] + [BPM: 90-120] + [AND_NOT] +  
[Instrument: Drums]
```

## Builder Features:

- Drag & Drop: Reorder blocks
- Visual Editing: Click to edit block
- Validation: Real-time syntax checking
- Export: Copy as text, share URL

## 6. Saved Searches:

- Save Point: After applying filters
- Naming: Custom name with emoji support
- Notification: Toggle for new matching tracks
- Management: List, edit, delete, run

## Right Panel: Player Preview

## Component: InlinePlayerPreview

## Features:

- Auto-play: On track hover (configurable delay)
- Snippet: 30-second preview starting at best point
- Visualizer: Mini waveform
- Controls: Play/pause, volume, expand to full player
- Queue: Add previewed tracks to quick queue

## Quick Actions:

- License: One-click start license wizard
- Like: Add to favorites
- Compare: Side-by-side with current track
- Share: Generate track share link

## 2.2. Track Detail Page

Component: TrackDetailPage

Page Structure:

Header Section:

- Back Navigation: Breadcrumb or back button
- Title: Large, prominent
- Quick Actions: Play, Like, License, Share
- Metadata Bar: Genre, Mood, Duration, BPM, Key, Frequency

Content Areas:

1. Media Section:

- Album Art: Large display with zoom
- Waveform: Interactive with markers
- Playback: Full player controls
- Visualizer: Selectable visualizations

2. Technical Details:

- Instruments: Icon list with prominence indicators
- Audio Analysis: LUFS, dynamic range, frequency spectrum
- Formats Available: Badges for MP3, FLAC, WAV, stems
- Frequency Versions: Available frequencies with samples

3. Usage Statistics:

- Popularity: Like count, license count
- Platform Usage: YouTube, Instagram, etc. breakdown
- Demographics: Top countries, content types
- Trend: Popularity over time chart

4. Usage Recommendations:

- Context-Based: "Perfect for:"
  - Vlog background
  - Travel montage

- Cafe ambience
- Morning routine videos
- Examples: Links to example usages (with permission)
- Mood Transitions: "Pairs well with:" track recommendations

## 5. Similar Tracks:

- Algorithmic: Based on multiple factors
- Visual: Thumbnail grid with similarity score
- Filter: "More/less similar" adjustment
- Refresh: Get new recommendations

## Interactive Elements:

### Waveform Interaction:

- Click to Seek: Jump to point in track
- Section Markers: Intro, verse, chorus, outro
- Loop Selection: Click+drag to create loop region
- Zoom: Horizontal zoom for detailed editing

### A/B Comparison:

- Feature: Compare with another track
- Visual: Split screen with synchronized playback
- Metrics: Side-by-side technical comparison
- Decision: "Which is better for my project?" helper

## 2.3. License Wizard (Modal Flow)

Component: LicenseWizard

### Wizard Structure:

text  
Modal Overlay (Fixed Position)

Header: Step X/Y [Close]
Content Area (Step-dependent)

Footer: [Back] [Next/Cancel]
------------------------------

## Step 1: Usage Type Selection

### Selection Grid:

- Options: YouTube, Podcast, Advertisement, Twitch, Instagram, Film, Corporate, Other
- Visual: Icon cards with descriptions
- Selection: Single select (radio behavior)
- Recommendation: "Most popular for your account"

### Usage-Specific Guidance:

- YouTube: Content ID protection details
- Podcast: Multiple episode coverage
- Advertisement: Broadcast vs. digital differences
- Film: Theater vs. streaming rights

## Step 2: Project Details

### Form Fields:

#### 1. Project Name:

- Requirement: Min 3 chars, max 100
- Validation: No special characters, unique per user
- Suggestion: Auto-suggest based on past projects
- Importance: Used in PDF certificate

#### 2. YouTube Channel ID (Optional):

- Purpose: Content ID whitelisting
- Validation: Format check, existence verification
- Helper: "Find your channel ID" guide link
- Privacy: Clear explanation of data usage

### 3. Estimated Audience Size:

- Tiers: 0-10K, 10K-100K, 100K-1M, 1M+
- Purpose: Pricing transparency, capacity planning
- Honor System: No verification, affects support level
- Guidance: "Be honest for best protection"

### 4. Format Selection:

- Options: MP3 (320kbps), FLAC (Lossless), WAV (Uncompressed)
- Pricing: Base + add-ons clearly displayed
- Recommendation: Based on usage type
- Preview: Sample download for each format

### 5. Frequency Selection:

- Options: 440Hz (Standard), 432Hz (+\$2), 528Hz (+\$5)
- Preview: A/B comparison player
- Education: "What is 432Hz?" explainer modal
- Restriction: 432Hz/528Hz require Pro tier

### Real-time Pricing Display:

- Base Price: Always visible
- Add-ons: Expandable details
- Total: Large, prominent
- Breakdown: Click for detailed breakdown

### Step 3: Review & Payment

### Order Summary Component:

### Layout:

text  
TRACK DETAILS

Sunset Boulevard Chill Acoustic • 95 BPM • 4:12 [▶ Preview] [Change Track]
--

## PROJECT DETAILS

- Project: Sabah Rutini Vlog – Ocak 2026
- Usage: YouTube (Content ID Protected)
- Audience: 0–10K viewers

## SELECTED OPTIONS

✓ MP3 320kbps	Included
✓ FLAC Lossless	+\$5.00
✓ 432Hz Version	+\$2.00
x WAV Uncompressed	Not selected

## PRICE BREAKDOWN

Base License	\$9.00
FLAC Upgrade	+\$5.00
432Hz Version	+\$2.00
<hr/>	
Total	\$16.00

## Legal Requirements:

### Mandatory Checkboxes:

1. "I agree to the Terms of Service"
2. "I understand AuraStream is not responsible for third-party platform algorithm changes"
3. "I will use the Dispute Support Pack for Content ID claims"
4. "I confirm this project does not violate content guidelines"

### Liability Modal (Risk Management):

- Trigger: Before payment submission
- Content: Clear disclaimer of platform risks
- Acknowledgment: Required checkbox
- Tone: Professional but not frightening

### Payment Flow:

### Payment Method Selection:

- Options: Credit Card, PayPal, Crypto (BTC/ETH)
- Icons: Brand logos with saved methods
- Security: "Secure payment" badge
- Processing: Clear status during processing

Success State:

- Confirmation: Order number, receipt email
- Downloads: Auto-start with progress
- Next Steps: "What to do next" guide
- Support: Quick access to dispute center

Download Package Contents:

1. Audio Files: Selected formats in ZIP
2. PDF License: Custom certificate
3. Dispute Pack: TXT with Asset ID + dispute text
4. Readme: Usage instructions
5. Invoice: PDF receipt

## 2.4. My Library (Kütüphane)

Component: CreatorLibrary

View Modes:

### 1. Grid View:

- Focus: Visual thumbnail browsing
- Layout: Responsive masonry grid
- Hover: Quick preview and actions
- Bulk: Checkbox selection for batch operations

### 2. List View:

- Focus: Metadata and management
- Columns: Track, Project, License, Date, Actions
- Sort: By any column
- Filter: Quick text search

### 3. Table View:

- Focus: Data analysis
- Features: Column customization, export
- Advanced: Filter by multiple criteria
- Summary: Totals and statistics footer

Library Organization:

Collections System:

```
typescript
interface Collection {
  id: string;
  name: string;
  description?: string;
  cover_track_id?: string;
  tracks: string[]; // Track IDs
  created_at: string;
  updated_at: string;
}
```

Collection Features:

- Drag & Drop: Add/remove tracks
- Smart Collections: Auto-populated by rules
- Sharing: Public/private/secret link
- Export: Collection as playlist file

Track Management:

Bulk Actions:

1. Download: All selected tracks in one ZIP
2. Add to Collection: Quick assignment
3. Update Metadata: Batch edit project names
4. Renew Licenses: Extend download availability
5. Delete: Remove from library (with archive)

Quick Preview:

- Hover: 5-second auto-play after 500ms



- Controls: Play/pause, skip, volume
- Context: Show track details tooltip
- Flow: Click to go to detail page

Usage Analytics:

Per-Track Metrics:

- Downloads: Count and dates
- Projects: Which projects used this track
- Platforms: Where it's been used
- Performance: Compared to similar tracks

Library Insights:

- Spending: Total license costs over time
- Genre Distribution: What types you license most
- Frequency Usage: 440Hz vs 432Hz preference
- Trends: Licensing patterns over time

Expiration Management:

Download Window:

- Default: 7 days from license
- Renewal: Extend for additional 7 days
- Warning: "Expires in 24 hours" notification
- Archive: Expired licenses still visible (read-only)

License Status:

- Active: Download available
- Expiring: < 24 hours remaining
- Expired: Download disabled
- Renewed: Extended download period

## 2.5. YouTube Dispute Center

Component: YouTubeDisputeCenter


Core Functionality:

- Asset ID Management: Track YouTube Content ID claims
- Dispute Automation: Generate dispute text
- Channel Protection: Whitelist channels
- Claim Monitoring: Track dispute status

## Channel Management:

### Registered Channels Table:

text

Channel	Status	Protected Tracks
Tech Review TR (UC1a2b3c4d5e...)	 Active (2 days ago)	23 [Manage] [Remove]

### Channel Registration Flow:

1. Input: YouTube channel URL or ID
2. Verification: Ownership confirmation (via video description)
3. Processing: 24-48 hour verification period
4. Protection: Auto-add to Content ID whitelist

### Channel Limits:

- Maximum: 100 tracks per channel
- Verification: Re-verify every 30 days
- Notifications: Email for verification requests
- Suspension: Inactive channels auto-removed after 90 days

### Dispute Process:

#### Step-by-Step Guide:

1. Receive Claim: Notification from YouTube
2. Find Asset ID: In dispute center for claimed track
3. Copy Template: Pre-written dispute text
4. Submit: Through YouTube Studio

## 5. Track: Status in dispute center

### Dispute Template:

text

This content is legally licensed through AuraStream.

License Details:

- Asset ID: ALS-2026-YT-94821
- License Holder: [User Name]
- Project: [Project Name]
- License Date: [Date]

This claim should be released as the content is properly licensed.

Contact [support@aurastream.com](mailto:support@aurastream.com) for verification.

### Success Metrics:

- Claim Release Rate: % of disputes successful
- Average Resolution Time: Days to release claim
- Common Issues: Tracked for process improvement
- User Satisfaction: Feedback on dispute experience

### Proactive Protection:

### Content ID Monitoring:

- Automated: Regular checks for new claims
- Alerts: Email notification of claims
- Dashboard: Claim status overview
- History: All past claims with outcomes

### Best Practices Guide:

- Prevention: How to avoid claims
- Documentation: Keeping license records
- Communication: Working with YouTube
- Escalation: When to contact AuraStream support

### Support Integration:

## Direct Support Access:

- Priority: Dispute users get faster response
- Evidence: Attach claim screenshots
- Status Updates: Real-time from support team
- Resolution: Mark as resolved with notes

### 2.6. Sonic Tailor (Custom Order Wizard)

#### Sipariş Formu (Wizard):

1. **Referans:** YouTube/Spotify linki yapıştırma alanı.
2. **Detaylar:** Genre seçimi, BPM slider, Mood tag'leri.
3. **Prompt:** "Bir kahve dükkanı için yağmurlu havada çalan piyano..." gibi serbest metin alanı.
4. **Ödeme:** Sipariş başına ücretin onayı (Kredi veya Doğrudan Ödeme). **Sipariş Takip Ekranı:**
  - Status Bar: "AI Üretiyor" -> "Editör İnceliyor" -> "Hazır".
  - Preview: Tamamlanan parçayı dinleme ve revize isteme butonu.

## 3. ADMIN FACTORY PANEL - ÜRETİM VE KALİTE KONTROL

#### Failed Jobs Screen (Hata Ekranı):

- Üretimi başarısız olan şarkılar (Suno API hatası vb.) burada listelenir.
- "Retry" butonu ile işlem tekrar kuyruğa alınır.

**Venue App / Dashboard** (Sayfa 2-3 civarı) bölümüne şu maddeyi ekle:

#### Lock Screen (Kilit Ekranı):

- Abonelik süresi dolduğunda (`subscription_status !== 'active'`), Player ekranı blurlanır ve "Ödemenizi Güncelleyin" uyarısı çıkar. Offline modda olsa bile müzik çalınamaz.

## 3.1. Production Dashboard

Component: AdminProductionDashboard

Real-time Overview:

Today's Production Stats:

- Cards: Pending, Approved, Rejected, Processing
- Trend: vs. yesterday, vs. last week
- Goals: Daily target progress
- Efficiency: Tracks per hour metric

Pipeline Visualization:

Progress Pipeline:

text

Raw → QC → Processing → Active

[████████████████████] 73%

- 8 tracks in FFmpeg processing
- 12 tracks waiting S3 upload
- 3 tracks in QC review





Worker Status:

- FFmpeg Workers: Busy/Idle with queue length
- Sync Workers: Meilisearch sync status
- Health: CPU, memory, error rates
- Scaling: Auto-scale recommendations

Alert Center:

- Priority: Critical, Warning, Info
- Categories: Production, Quality, System
- Actions: Quick resolution buttons
- History: Past 24 hours of alerts

Tabs Navigation:

1.  Generator: AI music generation interface
2.  QC Station: Quality control workspace
3.  Analytics: Production metrics and insights
4.  Settings: System configuration

## 3.2. AI Generator Interface

Component: AIGeneratorInterface

Generation Modes:

### 1. Suno API (Fast):

- Speed: ~2 minutes per track
- Cost: \$0.50 per track
- Quality: Good for background music
- Use Case: High-volume production

### 2. Suno Web (Manual):

- Speed: ~5 minutes per track
- Cost: \$0.75 per track
- Quality: Higher quality, more control
- Use Case: Premium tracks, specific needs

Prompt Engineering Interface:

Prompt Builder:

```
typescript
interface GenerationPrompt {
  description: string; // Natural language description
  genre: string;       // Primary genre
  mood: string[];      // Array of moods
  bpm: number;         // Target BPM
  duration: number;    // Duration in seconds
  energy: 1-5;         // Energy level
  instrumental: boolean;
  tuning: '440' | '432';
  target_use: ('venue' | 'creator')[];
}
```

## Smart Features:

### 1. Template Library:

- Categories: "Cafe Morning", "Restaurant Dinner", "Spa Relax"
- Usage Stats: Success rate, popularity
- Customization: Save current settings as template
- Sharing: Template export/import

### 2. A/B Testing:

- Method: Same prompt, different seeds
- Count: 2-5 variations per generation
- Comparison: Side-by-side playback
- Selection: Choose best, discard others

### 3. Batch Queue:

- Size: 20-30 tracks per batch
- Scheduling: Nighttime processing
- Priority: Set batch priority level
- Monitoring: Real-time batch progress

### 4. Cost Tracking:

- Dashboard: Monthly spend, remaining budget

- Alerts: Near limit warnings
- Optimization: Cost per quality suggestions
- Reporting: ROI analysis per track

Generation Parameters:

Advanced Controls:

- Temperature: Creativity vs. consistency (0.0-1.0)
- Seed: For reproducible results
- Model: AI model selection
- Custom Instructions: Technical specifications

Target Audience Settings:

- B2B (Venue): Focus on loopability, consistency
- B2C (Creator): Focus on uniqueness, emotional impact
- Dual-use: Balance both requirements

Preview & Selection:

Generated Track Grid:

- Visual: Waveform thumbnail
- Metadata: Auto-extracted BPM, key, duration
- Quality Score: AI-predicted quality
- Actions: Listen, Approve, Reject, Regenerate

Batch Management:

- Select All: Quick approval/rejection
- Compare: A/B listening mode
- Export: Metadata export for external review
- Archive: Store for future reference

### 3.3. Quality Control Station

Component: QCStation

Dual-Panel Workspace:



## Left Panel: Track Queue

- Filter: By status, genre, date
- Sort: Priority, date, random
- Preview: Quick 15-second listen
- Assignment: Assign to specific reviewer

## Right Panel: QC Workspace

### Waveform Editor:

- Zoom: Horizontal and vertical zoom
- Selection: Click+drag for detailed inspection
- Markers: Place markers for issues
- Regions: Define intro, verse, chorus, outro

### Spectral Analyzer Overlay:


- Visual: Color-coded frequency spectrum
- Issues: Red highlights for clipping, phase issues
- Dynamic Range: LUFS visualization
- Comparison: Reference track overlay

### Automated Analysis Results:


### Quality Metrics Display:


text

Audio Quality: Excellent (96/100)

|— LUFS: -13.8 (Target: -14) 

|— Clipping: Detected at 2:34-2:36 

|— BPM: 94.8 (Consistent) 

|— Noise Floor: -62 dBFS (Good) 

### Metadata Editor:

### Form Sections:

1. Basic Info: Title, artist (default: "AuraStream AI")
2. Classification: Genre, mood tags, instruments
3. Technical: BPM, key, language
4. Market Fit: Target venues, usage contexts
5. Custom Tags: Project-specific tags

#### Smart Tagging:

- AI Suggestions: Based on audio analysis
- Validation: Required fields highlighted
- Consistency: Check against existing catalog
- Completeness: Progress indicator





#### Frequency Modulation Options:

#### Conversion Settings:

- 432Hz Version: Create downsampled version
- 528Hz Version: Premium conversion
- Quality: High/Medium/Low processing
- Preview: A/B comparison with original

#### QC Decision Interface:

#### Decision Buttons:

-  Approve & Process: Move to processing pipeline
-  Request Changes: Send back with notes
-  Reject: Remove from production
-  Skip: Move to next, revisit later

#### Rejection Reasons:

1. Poor Audio Quality: Clipping, noise, artifacts
2. Off-brand: Doesn't match AuraStream style
3. Too Repetitive: Lack of musical development
4. Metadata Incomplete: Missing crucial information
5. Legal Concerns: Copyright or content issues

#### Batch Operations:

## Smart Batch QC:

- Similar Tracks: Group by genre/mood for batch review
- Template Application: Apply same metadata to similar tracks
- Bulk Approval: Approve all tracks meeting criteria
- Issue Flagging: Flag common issues across batch

## Workflow Optimization:

## Keyboard Shortcuts:

- Space: Play/Pause
- A: Approve
- R: Reject
- S: Skip
- ←/→: Previous/Next track
- Ctrl+Z: Undo last action

## Reviewer Assignment:

- Specialization: Assign by genre expertise
- Workload Balancing: Even distribution
- Quality Tracking: Reviewer approval rates
- Blind Review: Random order to prevent bias

## Quality Assurance:

## Double-review System:

- Critical Tracks: High-value or problematic tracks
- New Reviewers: All decisions reviewed initially
- Random Sampling: 10% of approvals re-reviewed
- Disagreement Resolution: Third reviewer for conflicts

## QC Analytics:

- Approval Rate: By reviewer, by genre, over time
- Common Issues: Trending problems needing attention
- Efficiency: Tracks reviewed per hour

Quality Impact: Approved track performance metrics

### 3.3.1. Failed Jobs Monitor (Hata Ekranı)

- **Görünüm:** Kırmızı uyarı ikonuyla listelenen, üretimi başarısız olmuş şarkılar.
- **Aksiyonlar:** "Retry" (Tekrar Dene) butonu ve "View Error Log" (Hata Sebebinini Gör) butonu.

## 3.4. Processing Monitor

Component: ProcessingMonitor

Real-time Pipeline Visualization:

Stage Progress:

text

Track: Sunset Boulevard

— Stage 1/5: Normalizing Audio  
[████████████████████] 65%

ETA: 45 seconds

Worker: ffmpeg-worker-03

— Stage 2/5: Transcoding AAC  
[Waiting...]

— Stage 3/5: Transcoding FLAC  
[Waiting...]

— Stage 4/5: Frequency Shift (432Hz)  
[Waiting...]

— Stage 5/5: S3 Upload  
[Waiting...]

Processing Stages Specification:

Stage 1: Normalization (-14 LUFS)

- Duration: ~3 minutes average
- Metrics: Input LUFS, adjustment amount, output LUFS

- Validation: Within  $\pm 1$  LU tolerance
- Retry: Auto-retry if outside tolerance

#### Stage 2: AAC Transcoding

- Format: AAC-LC 256kbps
- Settings: Joint stereo, constant bitrate
- Quality: VBR quality check
- Output: .m4a container

#### Stage 3: FLAC Transcoding

- Format: FLAC level 5
- Settings: 16-bit, 44.1kHz
- Compression: Verify lossless integrity
- Output: .flac container

#### Stage 4: Frequency Conversion (Optional)

- Algorithm: High-quality sample rate conversion
- Quality: Minimum phase alteration
- Validation: Frequency analysis verification
- Output: Separate file per frequency



#### Stage 5: S3 Upload


- Destination: Processed bucket
- Metadata: File metadata injection
- Permissions: Set appropriate ACLs
- Verification: MD5 checksum validation

#### Worker Pool Management:

##### Worker Status Grid:

text

Worker	Status	Queue
ffmpeg-worker-01	 Busy	3
ffmpeg-worker-02	 Idle	0

ffmpeg-worker-03 |  Error | -

## Worker Health Metrics:

- CPU Usage: Current and trend
- Memory: Usage and leaks detection
- Errors: Recent error count and types
- Uptime: Current session duration

## Auto-scaling Rules:

- Scale Up: Queue length > 10 for 5 minutes
- Scale Down: All workers idle > 30 minutes
- Max Workers: 10 per environment
- Cooldown: 5 minutes between scaling actions

## Error Handling & Recovery:

### Common Errors:

1. FFmpeg Crash: Restart worker, retry track
2. S3 Timeout: Exponential backoff retry
3. Disk Full: Alert admin, pause processing
4. Memory Leak: Restart worker, investigate

### Dead Letter Queue:

- Threshold: 3 failed attempts
- Inspection: Error details and logs
- Manual Retry: Admin override option
- Alert: Notify admin of stuck tracks

## Performance Optimization:

### Batch Processing:

- Grouping: Similar tracks processed together
- Cache Reuse: Shared resources between tracks

- Parallelization: Multiple stages concurrent when possible
- Priority Queue: VIP or urgent tracks prioritized

Resource Monitoring:

- Cost Tracking: Processing cost per track
- Efficiency: Tracks processed per \$ spent
- Bottleneck Detection: Slowest stage identification
- Optimization: Suggestions for improvement

## 3.5. Content Analytics

Component: ContentAnalyticsDashboard

Production Metrics:

Monthly Production Overview:

text

January 2026 Production

- Generated: 247 tracks
- Approved: 189 (76.5%)
- Rejected: 58 (23.5%)
- Avg QC Time: 8.4 minutes

Trend Analysis:

- Approval Rate Trend: 30-day moving average
- Quality Trends: Average quality score over time
- Efficiency: Tracks per day, cost per track
- Seasonality: Production patterns by season

Rejection Analysis:

Top Rejection Reasons:

1. Poor Audio Quality (18 tracks)
2. Off-brand (12 tracks)
3. Too Repetitive (9 tracks)

#### 4. Metadata Incomplete (8 tracks)

##### Pattern Detection:

- By Genre: Rejection rates per genre
- By Reviewer: Consistency across reviewers
- By Time: Rejection patterns throughout day
- Actionable Insights: "Electronic tracks have 40% higher rejection rate"

##### Performance Analytics:

##### Genre Performance (Venue):

1. Chill Acoustic (Avg plays: 245)
2. Ambient Electronic (Avg plays: 189)
3. Jazz Lounge (Avg plays: 156)

##### Download Performance (Creator):

1. Cinematic Epic (Avg licenses: 89)
2. Upbeat Pop (Avg licenses: 76)
3. Tech House (Avg licenses: 64)

##### Correlation Analysis:

- Quality vs. Performance: Do higher quality tracks perform better?
- Metadata vs. Discovery: How tags affect search performance
- Production Time vs. Quality: Is more time worth it?

##### Cost Analytics:

##### Monthly Cost Breakdown:

- Suno API: \$142.50 (59.6%)
- FFmpeg Processing: \$38.20 (16.0%)
- S3 Storage: \$12.80 (5.4%)
- CloudFront: \$45.60 (19.1%)
- Total: \$239.10



## Cost Optimization:

- Per Track Cost: Average and distribution
- Waste Analysis: Cost of rejected tracks
- Efficiency Gains: Cost reductions over time
- ROI: Revenue generated per cost spent

## Content Gap Analysis:

## Unmet Demand Detection:

- Source: Search logs with zero results
- Analysis: Weekly report of top gaps
- Action: Priority for AI generation
- Verification: Track performance after creation

## Market Trend Analysis:

- Emerging Genres: Growing search interest
- Seasonal Demand: Holiday, weather-related trends
- Competitor Analysis: What others are producing
- Innovation Opportunities: White space identification

## Reporting & Export:

## Report Types:

1. Daily Digest: Key metrics and alerts
2. Weekly Analysis: Trends and insights
3. Monthly Business Review: Comprehensive analysis
4. Ad-hoc: Custom date ranges and filters

## Export Options:

- Formats: PDF (formatted), CSV (raw data), Excel (pivot tables)
- Automation: Scheduled email reports
- Sharing: Team access with permissions
- Integration: API for external BI tools

## Predictive Analytics:

## Forecasting:

- Demand Prediction: Expected search volumes
- Production Planning: How many tracks to generate
- Resource Allocation: Worker scaling predictions
- Revenue Forecasting: Based on historical patterns

## Recommendation Engine:

- Production Focus: What to generate next
- Quality Improvements: Where to focus QC efforts
- Pricing Optimization: What features to price differently
- Market Expansion: New genres or moods to explore

## 8. VISUAL THEME CONFIGURATION

### \*\*1. BRAND ATMOSPHERE (Atmosfer & His):\*\*

\* \*\*Core Style:\*\* "Clean Modern Professional".

\* \*\*Referans:\*\* Epidemic Sound'un ferahlığı ve netliği ile Artlist'in modern tipografisinin birleşimi.

\* \*\*Mood:\*\* Güven veren, teknolojik ama sanatsal. Aşırı karmaşık veya "Underground" değil, kurumsal ve erişilebilir.

### \*\*2. TYPOGRAPHY (Tipografi):\*\*

\* \*\*Font Family:\*\* \*\*Sans-Serif\*\* (Modern & Geometrik).

\* \*\*Primary Font:\*\* `Inter` veya `DM Sans`.

\* \*\*Characteristics:\*\* Yüksek okunabilirlik, temiz hatlar. Başlıklarda (Headings) `Bold` ve `Tracking-Tight` (sıkı harf aralığı) kullanımı.

### \*\*3. COLOR PALETTE (Renk Stratejisi):\*\*

\* \*\*Primary (Brand):\*\* `#F97316` (Vivid Orange - Muzibu referansı, Enerji) VEYA `#2563EB` (Electric Blue - Teknoloji). \*Karar: Proje genelinde tutarlılık için birini seç.\*

\* \*\*Backgrounds:\*\*

\* \*\*Dark Mode (Default for Creator):\* `#0F172A` (Slate 900) - Tam siyah değil, göz yormayan derin lacivert-gri.

\* \*\*Light Mode (Default for Admin/Venue):\* `#FFFFFF` ile `#F8F8F8` (Slate 50) kombinasyonu.

\* \*\*Accent (Vurgular):\*\* Neon etkili Gradient geçişler (özellikle "AI Generate" butonlarında).

#### \*\*4. CORE UI COMPONENTS (Kritik Bileşenler):\*\*

##### \* \*\*A. The Player (Referans: Epidemic Sound):\*\*

\* \*\*Type:\*\* \*\*Interactive Waveform\*\*.

\* \*\*Structure:\*\* Sabit alt bar (Sticky Footer).

\* \*\*Visualization:\*\* Şarkının genliğine (amplitude) göre çizilen dinamik dalga formu. Çalan kısım parlak, kalan kısım silik.

\* \*\*Interaction:\*\* Dalganın üzerine tıklayarak şarkıda gezinme (Scrubbing).

##### \* \*\*B. Discovery & Filtering (Referans: Epidemic Sound):\*\*

\* \*\*Layout:\*\* "Faceted Search" (Yönlü Arama).

\* \*\*Placement:\*\* Masaüstünde sol panel (Sidebar), mobilde "Bottom Sheet".

\* \*\*Elements:\*\*

\* \*\*Mood/Genre:\*\* Seçilebilir "Chips" (Etiketler).

\* \*\*BPM/Duration:\*\* "Range Slider" (Aralık çubuğu).

\* \*\*Instruments:\*\* Checkbox listesi.

##### \* \*\*C. Scheduling Grid (Referans: Soundtrack Your Brand):\*\*

\* \*\*Context:\*\* Sadece Venue App -> Schedule sayfası.

\* \*\*Interaction:\*\* \*\*Drag & Drop\*\* (Sürükle-Bırak).

\* \*\*Visual:\*\* Haftalık Takvim Izgarası (Outlook/Google Calendar benzeri ama daha basitleştirilmiş).

\* \*\*Blocks:\*\* "Sabah Cazı", "Öğle Popu" gibi renkli blokların saat dilimlerine yerleştirilmesi.

#### \*\*5. MOTION & EFFECTS:\*\*

- \* **Micro-Interactions:** Butonlarda "Hover" durumunda hafif yukarı kalkma ve gölge artışı (translate-y-1).
- \* **Transitions:** Sayfa geçişlerinde "Fade-in" (Opaklık artışı). Sert geçişler yok.
- \* **Glassmorphism:** Modallarda ve Player arka planında hafif buzlu cam efekti (backdrop-blur-md).

## ## 6. BACKEND ARCHITECTURE & ADMIN UX CONFIGURATION

### **1. ADMIN PANEL UX PHILOSOPHY (Yönetim Paneli Felsefesi):**

\* **Core Reference:** **Stripe Dashboard** (Primary) + **Linear** (Secondary/QC).

\* **Layout Structure:**

\* **Sidebar:** Stripe tarzı, koyu zeminli, gruplandırılmış menü (Home, Payments, Customers, Products, **Factory**, **Disputes**).

\* **Page Headers:** Sayfa başlığının yanında kritik aksiyonlar (Örn: "New Track", "Export CSV") ve filtreleme çubuğu.

\* **Data Density:** "High Density". Ekrana az bilgi sığdırmak yerine, Excel gibi sık ve detaylı satırlar (Compact Rows).

\* **Typography:** `Inter` font ailesi (Stripe'in kullandığı fonta çok yakındır), sayısal verilerde `Tabular Nums` (eş genişlikli rakamlar).

### **2. MODULE SPECIFIC UX (Modül Bazlı Deneyim):**

\* **A. Customer & Finance (Referans: Stripe):**

\* **Customer Detail View:** Sol tarafta profil özeti, sağ tarafta "Timeline" (Zaman Tüneli).

\* **Timeline:** "Abonelik Başladı", "Ödeme Alındı", "Lisans İndirildi", "Fatura Kesildi" gibi olayların kronolojik akışı.

\* **Status Badges:** Renk kodlu, yuvarlak köşeli haplar (Pill).

\* **Paid** (Yeşil), **Past Due** (Kırmızı), **Trialing** (Mavi).

\* \*\*B. Factory & QC Station (Referans: Linear):\*\*

\* \*\*Keyboard First:\*\* Bu modül tamamen klavye ile yönetilmeli.

\* \*\*Shortcuts:\*\*

\* `Space`: Play/Pause

\* `J / K`: Sonraki / Önceki Şarkı

\* `A`: Approve (Onayla ve Sıradakine Geç)

\* `R`: Reject (Reddetme Modalı Aç)

\* `T`: Add Tag (Etiketleme inputuna odaklan)

\* \*\*Speed:\*\* Sayfa yenileme yok. SPA (Single Page Application) mantığında anlık geçişler.

\* \*\*C. Queue Visualization (Referans: BullMQ / Sidekiq):\*\*

\* \*\*Monitor:\*\* "Failed Jobs" sekmesinde hata alan işler için Stripe tarzı detay görünümü (Request/Response logları).

\* \*\*Action:\*\* Hata logunun hemen yanında "Retry Job" butonu.

\*\*3. API DESIGN STANDARDS (API Standartları):\*\*

\* \*\*Style:\*\* RESTful (Strict).

\* \*\*Response Format:\*\* JSend Standard ({ status: 'success', data: { ... } }).

\* \*\*Error Handling:\*\* RFC 7807 uyumlu. Hata mesajları insan tarafından okunabilir olmalı ("message": "Credit card was declined.").

\* \*\*Pagination:\*\* Cursor-based pagination (Stripe API standardı). `limit`, `starting\_after` parametreleri ile.

\*\*4. DATABASE & NAMING (İsimlendirme):\*\*

\* \*\*Tables:\*\* `snake\_case` ve çoğul (Örn: `subscription\_items`, `dispute\_logs`).

\* \*\*IDs:\*\* Stripe-like Prefix IDs (Debug kolaylığı için).

\* User: `usr\_123...`

\* Track: `trk\_456...`

\* License: `lic\_789...`