**Post-Production Workflow Management System**

**Requirements Analysis & System Architecture**

**Executive Summary**

A comprehensive web-based platform to centralize and automate post-production workflows across VFX, Sound Editorial, Colour, Restoration, and Delivery departments, with seamless DaVinci Resolve integration and project lifecycle management.

**Core System Components**

**1. Project Setup & Configuration**

**Initial Project Parameters:**

* Production dates and timeline management
* Film classification (silent film: Yes/No)
* Music requirements and publisher selection
* VFX requirements assessment
* Team composition (Composer, VFX artists, Sound editors)
* Server storage allocation and access permissions

**Automated Project Initialization:**

* Template-based project creation
* Automatic file organization and storage setup
* Budget estimation based on film duration and requirements
* Resource allocation and capacity planning

**2. User Management & Role-Based Access**

**User Categories:**

* **Staff**: Editors, Artists, Technicians
* **Management**: Project Managers, Producers, Department Heads
* **Vendors**: External contractors and service providers
* **Clients**: Content owners providing requirements and feedback
* **Super Admin**: System administrators with template creation rights

**Permission Levels:**

* Department-specific access controls
* Project-based authorization
* Server and storage access management
* Document and asset permissions

**3. Department-Specific Workflows**

**Film Restoration Department**

* Restoration checklists and quality control
* Frame-by-frame analysis and processing
* Before/after comparison tools
* Progress tracking for restoration tasks

**VFX & Compositing**

* Shot breakdown and allocation
* VFX pipeline management
* Compositor task assignment
* Render queue management with server speed optimization

**Sound Editorial**

* Music licensing management (default $1000/track)
* Composer coordination
* Audio mixing workflows
* Sound synchronization tracking

**Color Grading**

* Color continuity management
* DaVinci Resolve integration
* Approval workflow for color decisions
* Version control for color grades

**Delivery & QC**

* Final output specifications
* Quality control checklists
* Delivery format management
* Client approval workflows

**4. Financial Management Module**

**Budget Planning**

* Template-based cost estimation
* Duration-dependent pricing models
* Resource cost allocation
* Music licensing fee management

**Invoicing System**

* Contractor payment processing (per film/per minute rates)
* Service provider billing
* Budget vs. actual cost tracking
* Financial reporting and analytics

**Resource Costing**

* Job title-based cost pricing
* Render time and server usage costs
* Equipment and software licensing fees
* Overtime and holiday pay calculations

**5. AI-Powered Project Intelligence**

**Copyright & Legal Analysis**

* Automatic film identification (name + publish year)
* Public domain status verification
* Copyright clearance reporting
* Legal team investigation workflow

**Shot Analysis**

* Automated shot breakdown (e.g., 678 shots analysis)
* Frame count and duration calculations
* Processing time estimation
* Resource requirement prediction

**6. Integration & Technical Features**

**DaVinci Resolve Integration**

* Direct project import/export
* Shot data synchronization
* Render queue management
* Version tracking and backup

**Multi-Server Storage & Asset Management**

* **Per-Project Server Architecture**: Each film project utilizes multiple dedicated local servers for distributed storage
* **Granular Server Authentication**: Staff authentication system for specific server access permissions
* \*\*Automated file organization across server clusters
* \*\*Cross-server asset backup and versioning
* \*\*Load balancing and redundancy management
* \*\*Server-specific access logs and audit trails

**7. Project Lifecycle Management**

**Phase 1: Project Setup**

* Project information gathering
* Team assembly ("squad" creation)
* Shot allocation and breakdown
* Initial budget and timeline establishment

**Phase 2: Project Processing**

* Real-time dashboard monitoring
* Resource allocation tracking
* Capacity management (green light system)
* Progress reporting and updates

**Phase 3: Project Reporting**

* Document generation and management
* Meeting notes compilation
* Checklist completion tracking
* Progress reports and analytics

**Phase 4: Project Delivery**

* Electronic signature generation
* Final delivery checklist
* Client approval documentation
* Project closure procedures

**8. Communication & Collaboration**

**Notification System**

* @ mention functionality
* Alert system for deadlines and updates
* Email and in-app notifications
* Escalation procedures for urgent issues

**Document Management**

* Meeting notes integration
* Template management system
* Version control for all documents
* Electronic signature capabilities

**Team Collaboration**

* Real-time project dashboards
* Inter-department communication tools
* Client feedback integration
* Approval workflow management

**9. Resource & Capacity Management**

**Team Planning**

* Weekly capacity allocation tracking
* Availability status indicators
* Skill-based task assignment
* Outsourcing management

**Equipment & Software**

* Server capacity monitoring
* Render queue optimization
* Software license management
* Hardware utilization tracking

**11. Multi-Server Authentication & Security**

**Project-Based Server Access Control**

* **Individual Server Authentication**: Each film project's servers require separate authentication credentials
* **Role-Based Server Permissions**: Different access levels based on user roles and project involvement
* **Server-Specific User Groups**: Team members assigned to specific servers based on their project responsibilities
* **Dynamic Access Management**: Ability to grant/revoke server access in real-time as project needs change

**Security & Access Management**

* **Multi-Factor Authentication (MFA)**: Enhanced security for server access
* **Session Management**: Automatic timeout and session renewal for server connections
* **Access Logging**: Comprehensive audit trails for all server access attempts and file operations
* **Permission Inheritance**: Automatic server access assignment based on project team membership

**Server Infrastructure Management**

* **Server Health Monitoring**: Real-time status tracking of all project servers
* **Capacity Management**: Storage utilization tracking across multiple servers per project
* **Backup Coordination**: Automated backup processes across server clusters
* **Disaster Recovery**: Failover procedures and data recovery protocols

**Network Security**

* **VPN Integration**: Secure remote access to project servers
* **Firewall Configuration**: Project-specific network security rules
* **Encrypted File Transfer**: Secure data transmission between servers and workstations
* **Access Location Tracking**: Geographic and IP-based access monitoring

**Process Change Management**

* Version control for project modifications
* Change request approval workflows
* Impact assessment for scope changes
* Client communication for changes

**Quality Assurance**

* Multi-stage approval processes
* Quality control checklists
* Error tracking and resolution
* Final delivery verification

**Key Success Metrics**

**Operational Efficiency:**

* Reduced paper-based processes
* Automated workflow transitions
* Streamlined project delivery times
* Improved resource utilization

**Financial Performance:**

* Accurate budget forecasting
* Cost control and tracking
* Improved profit margins
* Faster invoicing and payment cycles

**Quality Improvements:**

* Consistent delivery standards
* Reduced errors and rework
* Better client satisfaction
* Comprehensive audit trails

**Implementation Priorities**

**Phase 1: Core Platform**

1. User management and authentication
2. Basic project creation and setup
3. DaVinci Resolve integration
4. File storage and organization

**Phase 2: Workflow Automation**

1. Department-specific workflows
2. Task assignment and tracking
3. Notification system
4. Basic reporting capabilities

**Phase 3: Advanced Features**

1. AI-powered analysis tools
2. Financial management module
3. Advanced analytics and reporting
4. Mobile application development

**Phase 4: Optimization**

1. Performance enhancements
2. Cloud storage integration
3. API development for third-party tools
4. Advanced AI capabilities

This comprehensive system will transform your post-production workflow from manual, paper-based processes to a fully automated, integrated digital platform that enhances efficiency, reduces costs, and improves project delivery quality.

**Product Backlog**

**Post-Production Workflow Management System**

**Project:** Post-Production Workflow Management Platform  
**Version:** 1.0  
**Last Updated:** August 25, 2025  
**Total Estimated Effort:** ~18 man-months (396 man-days)

**Backlog Legend**

* **Priority:** Critical, High, Medium, Low
* **Estimate:** mm = man-months, md = man-days (1 month = 22 working days)
* **Status:** Not Started, In Progress, Done
* **Epic:** Grouped related user stories

**EPIC 1: Core Platform Foundation**

*Estimated Total: 3.2mm (70md)*

**US-001: User Management System**

**Priority:** Critical  
**Estimate:** 0.9mm (20md)  
**Status:** Not Started

**As a** system administrator  
**I want** to manage user accounts with role-based permissions  
**So that** I can control access to different system features and projects

**Acceptance Criteria:**

* Create, update, delete user accounts
* Assign roles (Super Admin, Manager, Staff, Vendor, Client)
* Manage department assignments and skills
* Bulk user import via CSV
* User authentication and session management
* Password policies and security controls

**Technical Notes:**

* JWT token authentication
* Role-based access control (RBAC)
* Integration with company Active Directory (optional)

**US-002: Project Creation and Setup**

**Priority:** Critical  
**Estimate:** 0.8mm (18md)  
**Status:** Not Started

**As a** project manager  
**I want** to create new projects with comprehensive setup  
**So that** I can initialize all project parameters and team assignments

**Acceptance Criteria:**

* Multi-step project creation wizard
* Template-based project initialization
* Team member assignment with capacity checking
* Server allocation and access control
* Budget estimation and approval workflow
* Project code auto-generation

**Technical Notes:**

* Wizard component with validation
* Database schema for project hierarchy
* Integration with server management APIs

**US-003: Dashboard and Navigation**

**Priority:** Critical  
**Estimate:** 0.7mm (15md)  
**Status:** Not Started

**As a** user  
**I want** an intuitive dashboard with navigation  
**So that** I can quickly access relevant information and features

**Acceptance Criteria:**

* Responsive dashboard layout
* Role-based content display
* Real-time statistics and metrics
* Quick action buttons
* Search and filter functionality
* Notification center

**Technical Notes:**

* React.js components
* Real-time WebSocket connections
* Responsive CSS framework

**US-004: Basic Database and API Foundation**

**Priority:** Critical  
**Estimate:** 0.8mm (17md)  
**Status:** Not Started

**As a** developer  
**I want** a robust database schema and API framework  
**So that** the system can handle complex relationships and scale effectively

**Acceptance Criteria:**

* Database design for all entities
* RESTful API endpoints
* Data validation and sanitization
* Error handling and logging
* API documentation
* Database migration scripts

**Technical Notes:**

* PostgreSQL database
* Node.js/Express.js API
* Swagger API documentation
* Database indexing strategy

**EPIC 2: Multi-Server Infrastructure**

*Estimated Total: 2.1mm (46md)*

**US-005: Server Management System**

**Priority:** Critical  
**Estimate:** 0.9mm (20md)  
**Status:** Not Started

**As a** system administrator  
**I want** to manage multiple servers per project  
**So that** I can allocate appropriate resources and maintain security

**Acceptance Criteria:**

* Server inventory management
* Health monitoring and status tracking
* Capacity management and alerts
* Server tagging by department/function
* Automated provisioning workflows
* Performance metrics collection

**Technical Notes:**

* Server monitoring agents
* REST APIs for server communication
* Docker containerization support
* Integration with virtualization platforms

**US-006: Server Authentication System**

**Priority:** Critical  
**Estimate:** 1.2mm (26md)  
**Status:** Not Started

**As a** project manager  
**I want** granular server access control  
**So that** team members can only access authorized servers for their projects

**Acceptance Criteria:**

* Individual server authentication credentials
* Role-based server permissions
* Real-time access grant/revoke
* Multi-factor authentication support
* Comprehensive audit logging
* Credential rotation and management

**Technical Notes:**

* OAuth 2.0 / SAML integration
* Encrypted credential storage
* Session management across servers
* Audit log compliance (SOX, HIPAA)

**EPIC 3: DaVinci Resolve Integration**

*Estimated Total: 2.3mm (51md)*

**US-007: DaVinci Resolve API Connection**

**Priority:** High  
**Estimate:** 0.8mm (18md)  
**Status:** Not Started

**As a** project manager  
**I want** to connect to DaVinci Resolve instances  
**So that** I can import project data automatically

**Acceptance Criteria:**

* Auto-discovery of DaVinci Resolve instances
* Secure API connection establishment
* Project listing and metadata retrieval
* Connection status monitoring
* Error handling and retry logic
* Multiple version support

**Technical Notes:**

* DaVinci Resolve API documentation research
* Python scripting for DaVinci integration
* WebSocket connections for real-time sync

**US-008: Shot Import and Synchronization**

**Priority:** High  
**Estimate:** 1.0mm (22md)  
**Status:** Not Started

**As a** project manager  
**I want** to import shots from DaVinci Resolve  
**So that** I can automatically populate the project with accurate shot data

**Acceptance Criteria:**

* Shot metadata import (timecodes, duration, effects)
* Timeline structure preservation
* Batch import with progress indication
* Conflict resolution for duplicate shots
* Bidirectional synchronization
* Version tracking and change detection

**Technical Notes:**

* EDL/XML parsing capabilities
* Frame-accurate timecode handling
* Background job processing for large imports

**US-009: Automatic Task Generation**

**Priority:** High  
**Estimate:** 0.5mm (11md)  
**Status:** Not Started

**As a** project manager  
**I want** tasks to be automatically created from imported shots  
**So that** I can quickly assign work without manual task creation

**Acceptance Criteria:**

* Rule-based task generation per shot
* Task assignment based on team member skills
* Dependency mapping between tasks
* Duration estimation based on shot complexity
* Bulk task editing and modification
* Template-based task creation

**Technical Notes:**

* Business rule engine
* Task dependency graph algorithms
* Machine learning for duration estimation

**EPIC 4: Shot and Task Management**

*Estimated Total: 2.8mm (62md)*

**US-010: Shot Management Interface**

**Priority:** High  
**Estimate:** 0.8mm (18md)  
**Status:** Not Started

**As a** user  
**I want** to view and manage all project shots  
**So that** I can track progress and make updates efficiently

**Acceptance Criteria:**

* Comprehensive shot listing with metadata
* Status tracking and updates
* Filtering and search capabilities
* Bulk operations (status updates, assignments)
* Shot preview and playback
* Comments and annotations

**Technical Notes:**

* Video thumbnail generation
* Advanced filtering components
* Bulk update UI patterns

**US-011: Task Assignment and Tracking**

**Priority:** High  
**Estimate:** 1.0mm (22md)  
**Status:** Not Started

**As a** team member  
**I want** to see my assigned tasks and update progress  
**So that** I can manage my workload and communicate status

**Acceptance Criteria:**

* Personal task dashboard
* Progress updates and status changes
* Time tracking and logging
* File upload and deliverable submission
* Comment threads and discussions
* Task dependency visualization

**Technical Notes:**

* Drag-and-drop task boards
* File upload with virus scanning
* Real-time collaboration features

**US-012: Quality Control Workflow**

**Priority:** High  
**Estimate:** 0.6mm (13md)  
**Status:** Not Started

**As a** QC specialist  
**I want** structured quality control workflows  
**So that** I can ensure consistent quality standards

**Acceptance Criteria:**

* Customizable QC checklists
* Approval/rejection workflows
* Issue tracking and resolution
* Quality metrics and reporting
* Revision request management
* Final approval sign-offs

**Technical Notes:**

* Configurable workflow engine
* Digital signature integration
* Quality metrics dashboard

**US-013: Advanced Task Dependencies**

**Priority:** Medium  
**Estimate:** 0.4mm (9md)  
**Status:** Not Started

**As a** project manager  
**I want** to define complex task dependencies  
**So that** work flows smoothly between departments

**Acceptance Criteria:**

* Visual dependency mapping
* Automatic task scheduling based on dependencies
* Critical path analysis
* Dependency change impact assessment
* Parallel task execution planning
* Bottleneck identification

**Technical Notes:**

* Graph algorithms for dependency resolution
* Gantt chart visualization
* Critical path method (CPM) implementation

**EPIC 5: Financial Management**

*Estimated Total: 1.8mm (40md)*

**US-014: Budget Management System**

**Priority:** High  
**Estimate:** 0.8mm (18md)  
**Status:** Not Started

**As a** project manager  
**I want** comprehensive budget tracking  
**So that** I can control costs and maximize profitability

**Acceptance Criteria:**

* Template-based budget creation
* Real-time cost tracking
* Budget vs actual reporting
* Cost allocation by department/task
* Budget approval workflows
* Variance analysis and alerts

**Technical Notes:**

* Integration with accounting systems
* Currency conversion support
* Budget template engine

**US-015: Music Licensing Management**

**Priority:** Medium  
**Estimate:** 0.4mm (9md)  
**Status:** Not Started

**As a** project manager  
**I want** to manage music licensing and costs  
**So that** I can track rights and ensure legal compliance

**Acceptance Criteria:**

* Publisher database management
* Licensing fee tracking ($1000 default)
* Rights expiration monitoring
* Legal compliance reporting
* Contract document storage
* Usage tracking and auditing

**Technical Notes:**

* Document management integration
* Automated reminder system
* Legal compliance dashboards

**US-016: Invoicing and Payment System**

**Priority:** Medium  
**Estimate:** 0.6mm (13md)  
**Status:** Not Started

**As a** manager  
**I want** automated invoicing for contractors  
**So that** I can streamline payment processes

**Acceptance Criteria:**

* Automated invoice generation
* Multiple payment models (fixed, hourly, percentage)
* Payment tracking and reminders
* Contractor payment processing
* Financial reporting and analytics
* Integration with accounting software

**Technical Notes:**

* PDF invoice generation
* Payment gateway integration
* QuickBooks/SAP integration APIs

**EPIC 6: AI and Analytics**

*Estimated Total: 1.7mm (37md)*

**US-017: AI-Powered Copyright Analysis**

**Priority:** Medium  
**Estimate:** 0.9mm (20md)  
**Status:** Not Started

**As a** legal team member  
**I want** AI-powered copyright analysis  
**So that** I can identify potential legal issues early

**Acceptance Criteria:**

* Film identification by name and year
* Public domain status detection
* Copyright clearance reporting
* Risk assessment scoring
* Legal precedent database
* Automated flag generation

**Technical Notes:**

* Machine learning models for film recognition
* Legal database integration
* Natural language processing for contracts

**US-018: Shot Analysis and Processing Intelligence**

**Priority:** Medium  
**Estimate:** 0.8mm (17md)  
**Status:** Not Started

**As a** project manager  
**I want** AI-powered shot analysis  
**So that** I can optimize resource allocation and timing

**Acceptance Criteria:**

* Automatic shot complexity analysis
* Processing time estimation
* Resource requirement prediction
* Render queue optimization
* Quality prediction modeling
* Performance benchmarking

**Technical Notes:**

* Computer vision for shot analysis
* Machine learning for time estimation
* GPU/CPU utilization optimization

**EPIC 7: Communication and Collaboration**

*Estimated Total: 1.5mm (33md)*

**US-019: Notification and Alert System**

**Priority:** High  
**Estimate:** 0.6mm (13md)  
**Status:** Not Started

**As a** user  
**I want** comprehensive notifications  
**So that** I stay informed about important project updates

**Acceptance Criteria:**

* Real-time in-app notifications
* Email notification preferences
* @ mention functionality
* Escalation procedures
* Mobile push notifications
* Notification history and management

**Technical Notes:**

* WebSocket real-time messaging
* Email templating system
* Mobile app notification APIs

**US-020: Document Management System**

**Priority:** Medium  
**Estimate:** 0.5mm (11md)  
**Status:** Not Started

**As a** team member  
**I want** centralized document management  
**So that** I can access and collaborate on project documents

**Acceptance Criteria:**

* Document upload and versioning
* Template library management
* Collaborative editing features
* Electronic signature integration
* Access control and permissions
* Search and tagging capabilities

**Technical Notes:**

* Cloud storage integration (AWS S3, Google Drive)
* Version control system
* Electronic signature APIs (DocuSign)

**US-021: Meeting and Communication Tools**

**Priority:** Medium  
**Estimate:** 0.4mm (9md)  
**Status:** Not Started

**As a** team member  
**I want** integrated communication tools  
**So that** I can collaborate effectively with the team

**Acceptance Criteria:**

* Meeting scheduling and calendar integration
* Video conference integration
* Team chat and messaging
* Meeting notes and action items
* Screen sharing and presentation tools
* Integration with external tools (Slack, Teams)

**Technical Notes:**

* Calendar API integration (Google, Outlook)
* Video conferencing SDK (Zoom, WebRTC)
* Real-time messaging infrastructure

**EPIC 8: Reporting and Analytics**

*Estimated Total: 1.4mm (31md)*

**US-022: Project Reporting Dashboard**

**Priority:** High  
**Estimate:** 0.7mm (15md)  
**Status:** Not Started

**As a** manager  
**I want** comprehensive project reports  
**So that** I can monitor performance and make informed decisions

**Acceptance Criteria:**

* Real-time project dashboards
* Customizable report templates
* Progress tracking and metrics
* Resource utilization analysis
* Timeline and milestone reporting
* Export capabilities (PDF, Excel)

**Technical Notes:**

* Business intelligence framework
* Data visualization libraries (D3.js, Chart.js)
* Report scheduling and automation

**US-023: Performance Analytics**

**Priority:** Medium  
**Estimate:** 0.7mm (16md)  
**Status:** Not Started

**As a** executive  
**I want** detailed performance analytics  
**So that** I can optimize operations and improve efficiency

**Acceptance Criteria:**

* Team performance metrics
* Project profitability analysis
* Resource efficiency tracking
* Quality metrics and trends
* Predictive analytics
* Benchmarking against industry standards

**Technical Notes:**

* Data warehouse design
* ETL processes for data aggregation
* Machine learning for predictive analytics

**EPIC 9: System Administration**

*Estimated Total: 1.2mm (26md)*

**US-024: System Configuration and Settings**

**Priority:** High  
**Estimate:** 0.4mm (9md)  
**Status:** Not Started

**As a** system administrator  
**I want** comprehensive system configuration  
**So that** I can customize the system for organizational needs

**Acceptance Criteria:**

* Global system settings management
* Workflow configuration tools
* Integration settings and APIs
* Security policy configuration
* Backup and recovery procedures
* Performance monitoring tools

**Technical Notes:**

* Configuration management database
* Admin interface with validation
* System health monitoring

**US-025: Data Backup and Recovery**

**Priority:** High  
**Estimate:** 0.5mm (11md)  
**Status:** Not Started

**As a** system administrator  
**I want** automated backup and recovery  
**So that** critical data is protected and recoverable

**Acceptance Criteria:**

* Automated backup scheduling
* Point-in-time recovery capabilities
* Disaster recovery procedures
* Data integrity verification
* Backup monitoring and alerts
* Cloud backup integration

**Technical Notes:**

* Database backup strategies
* File system backup integration
* Recovery testing procedures

**US-026: Security and Compliance**

**Priority:** Critical  
**Estimate:** 0.3mm (6md)  
**Status:** Not Started

**As a** security officer  
**I want** comprehensive security controls  
**So that** sensitive data is protected and compliance requirements are met

**Acceptance Criteria:**

* Security audit logging
* Data encryption at rest and in transit
* Access control monitoring
* Compliance reporting (SOC 2, GDPR)
* Security incident response
* Regular security assessments

**Technical Notes:**

* Encryption key management
* Security monitoring tools
* Compliance framework implementation

**EPIC 10: Mobile and API Extensions**

*Estimated Total: 1.0mm (22md)*

**US-027: Mobile Application**

**Priority:** Low  
**Estimate:** 0.6mm (13md)  
**Status:** Not Started

**As a** team member  
**I want** mobile access to key features  
**So that** I can stay productive while away from my desk

**Acceptance Criteria:**

* Native mobile app (iOS/Android)
* Task management and updates
* Notification handling
* File preview and basic editing
* Offline capability
* Biometric authentication

**Technical Notes:**

* React Native or Flutter framework
* Offline data synchronization
* Mobile-optimized UI/UX

**US-028: Public API and Integrations**

**Priority:** Low  
**Estimate:** 0.4mm (9md)  
**Status:** Not Started

**As a** developer  
**I want** comprehensive API access  
**So that** I can integrate with external tools and workflows

**Acceptance Criteria:**

* RESTful API with full CRUD operations
* API authentication and rate limiting
* Webhook support for real-time updates
* SDK development (Python, JavaScript)
* API documentation and examples
* Integration marketplace

**Technical Notes:**

* GraphQL API consideration
* API versioning strategy
* Developer portal and documentation

**Priority Distribution Summary**

| **Priority** | **User Stories** | **Estimated Effort** |
| --- | --- | --- |
| Critical | 6 | 4.6mm (101md) |
| High | 9 | 8.2mm (180md) |
| Medium | 11 | 4.6mm (101md) |
| Low | 2 | 1.0mm (22md) |
| **Total** | **28** | **18.4mm (404md)** |

**Development Phases Recommendation**

**Phase 1: Foundation (6 months)**

* US-001, US-002, US-003, US-004, US-005, US-006
* Core platform with user management and server infrastructure

**Phase 2: Integration (4 months)**

* US-007, US-008, US-009, US-010, US-011
* DaVinci Resolve integration and basic workflow

**Phase 3: Advanced Features (4 months)**

* US-012, US-014, US-019, US-022, US-024, US-025, US-026
* QC workflows, financial management, and system administration

**Phase 4: Intelligence & Analytics (3 months)**

* US-017, US-018, US-023, US-013
* AI features and advanced analytics

**Phase 5: Polish & Extensions (2 months)**

* US-015, US-016, US-020, US-021, US-027, US-028
* Remaining features and mobile/API extensions

**Risk Assessment**

**High Risk Items**

* **US-007**: DaVinci Resolve API availability and documentation
* **US-006**: Complex multi-server authentication system
* **US-017**: AI model accuracy and legal liability

**Medium Risk Items**

* **US-008**: Large file handling and performance
* **US-025**: Data backup and recovery complexity
* **US-027**: Mobile development resource requirements

**Mitigation Strategies**

* Early prototype development for high-risk items
* Parallel development tracks where possible
* Regular stakeholder review and feedback cycles
* Phased rollout with user testing

**Note:** Estimates include development, testing, and documentation time. Actual effort may vary based on team experience, technical complexity discoveries, and requirement changes during development.