# Functional Requirement

### 1.1 Asset Registration Function

\*\*Function Number: FR-01\*\*

\*\*Description:\*\* Administrators can register new assets in the asset management module by filling out a form. The system generates a unique asset ID and records the operation log.

\*\*Input:\*\*

- Asset ID (optional)

- Asset name (required)

- Asset category (drop-down selection)

- Purchase date (date picker)

- Using department (linked to organizational structure)

- Asset status (new/in use/idle)

- Asset description (optional text)

\*\*Output:\*\*

- New asset information stored in the database

- Asset operation log record generated

- Asset list updated and asset status dashboard refreshed

---

### 1.2 Asset Usage Application Function

\*\*Function Number: FR-02\*\*

\*\*Description:\*\* Users can submit asset usage applications. The system automatically generates an approval process based on the application type and notifies the approver, while recording the relevant operation log.

\*\*Input:\*\*

- Applicant information (auto-filled)

- Application asset (linked to available asset list)

- Start of usage time

- End of usage time

- Application purpose

- Attachments (contracts/explanatory documents)

\*\*Output:\*\*

- Application number generated

- Approval process instance created

- Usage application operation log recorded

- Asset status and approval dashboard updated

---

### 1.3 Asset Transfer Application Function

\*\*Function Number: FR-03\*\*

\*\*Description:\*\* Users can submit asset transfer applications. The system automatically creates a multi-level approval process and records operation logs and asset status changes.

\*\*Input:\*\*

- Applicant information (auto-filled)

- Asset to be transferred

- Original using department (auto-associated)

- Target department/recipient (selected from organizational structure tree)

- Planned transfer date

- Reason for transfer

- Handover attachments

\*\*Output:\*\*

- Transfer number generated

- Multi-level approval process created

- Asset ownership information updated

- Operation log recorded and relevant personnel notified

---

### 1.4 Asset Return Function

\*\*Function Number: FR-04\*\*

\*\*Description:\*\* Users can return assets. The system verifies the return conditions, updates the asset status, and generates a return record, while triggering the asset inspection process.

\*\*Input:\*\*

- Target asset (to be returned)

- Actual return date

- Return description

- Asset condition (good/minor wear/damaged)

- On-site photos

\*\*Output:\*\*

- Return number generated

- Asset status updated to "Pending administrator confirmation"

- Return operation log recorded

- Return report generated and inspection notification sent

---

### 1.5 Asset Damage Reporting Function

\*\*Function Number: FR-05\*\*

\*\*Description:\*\* Users can report asset damage. The system generates an approval process based on the damage type and status, and generates a maintenance/scrapping recommendation report.

\*\*Input:\*\*

- Target asset

- Damage type (natural wear/human damage/accidental damage)

- Date of discovery

- Degree of damage rating

- On-site photos/videos

- Accident description

- Preliminary handling suggestion

\*\*Output:\*\*

- Electronic damage report number generated

- Asset status updated to "Pending disposal"

- Three-level approval process initiated

- Preliminary loss assessment report generated

- Operation log recorded

---

### 1.6 Asset Information Query Function

\*\*Function Number: FR-06\*\*

\*\*Description:\*\* Users and administrators can query asset information based on various conditions. The system returns a list of assets that meet the query conditions and records the query operation.

\*\*Input:\*\*

- Asset ID

- Asset name

- Asset category

- Asset status

- Affiliated department

- Purchase date range

\*\*Output:\*\*

- Paginated display of assets that meet the conditions

- Entry for viewing asset details

- Query log recorded

- Common query conditions saved

---

### 1.7 Asset Status Update Function

\*\*Function Number: FR-07\*\*

\*\*Description:\*\* Administrators can update asset status. The system verifies the status transition rules, updates the asset data, and generates a status change record.

\*\*Input:\*\*

- Target asset ID

- Target status (drop-down selection)

- Effective time of change

- Change description

- Attachments

\*\*Output:\*\*

- Asset status field updated

- Status change record generated

- Operation log recorded

- Status change notification sent

---

### 1.8 New User Creation Function

\*\*Function Number: FR-08\*\*

\*\*Description:\*\* Administrators can create new user accounts. The system assigns initial permissions based on roles and records the user creation operation log.

\*\*Input:\*\*

- Username

- Name

- Affiliated department (organizational structure tree)

- User role (multiple selection)

- Contact information (email/phone number)

- Effective date

\*\*Output:\*\*

- User ID generated

- Initial permission configuration

- User creation log recorded

- Activation email sent

---

### 1.9 User Deletion Function

\*\*Function Number: FR-09\*\*

\*\*Description:\*\* Administrators can delete user accounts. The system performs a soft deletion and disassociates permissions and asset links, while recording the deletion operation log.

\*\*Input:\*\*

- Target user ID

- Reason for deletion

- Alternative plan (deactivation/permission recovery)

- Asset recipient (if applicable)

\*\*Output:\*\*

- User status marked as "Deleted"

- Permissions and asset relationships disassociated

- Deletion log recorded

- Cancellation notification sent

---

### 1.10 Modify User Information Function

\*\*Function Number: FR-10\*\*

\*\*Description:\*\* Administrators can modify basic user information. The system verifies the validity of the fields and records snapshots of the data before and after modification.

\*\*Input:\*\*

- Target user ID

- Fields to be modified (e.g., name, department, position, contact information)

- Reason for modification

\*\*Output:\*\*

- Updated user information fields

- Modification snapshot generated

- Operation log recorded

- Information change notification sent

---

### 1.11 View User Information Function

\*\*Function Number: FR-11\*\*

\*\*Description:\*\* Administrators or users can view basic user information, permissions, asset associations, and operation logs. The system records the viewing behavior.

\*\*Input:\*\*

- Username

- Department

- Role

- Account status

\*\*Output:\*\*

- User information card, including basic information, permission information, asset associations, operation logs

- Viewing operation log recorded

---

### 1.12 Disable User Account Function

\*\*Function Number: FR-12\*\*

\*\*Description:\*\* Administrators can disable user accounts. The system recovers permissions and terminates the approval process, while recording the disable operation log.

\*\*Input:\*\*

- Target user ID

- Reason for disablement (resignation/long-term inactivity/security risk)

- Supplementary explanation

\*\*Output:\*\*

- User status updated to "Disabled"

- Permissions recovered

- Operation log recorded

- Disablement notification sent

---

### 1.13 Permission Allocation Function

\*\*Function Number: FR-13\*\*

\*\*Description:\*\* Administrators can allocate permissions to users. The system verifies permission conflicts and records the permission allocation operation log.

\*\*Input:\*\*

- Target user ID

- Permission name

- Permission type

- Permission scope

- Validity period

\*\*Output:\*\*

- Permission allocation record generated

- User permission configuration updated

- Permission grant notification sent

- Operation log recorded

---

### 1.14 Revoke Permission Function

\*\*Function Number: FR-14\*\*

\*\*Description:\*\* Administrators can revoke user permissions. The system checks whether the permission is effective and records the permission revocation operation log.

\*\*Input:\*\*

- Target user ID

- Permissions to be revoked

- Reason for revocation

- Supplementary explanation

\*\*Output:\*\*

- Permission status updated to "Revoked"

- Permission association disassociated

- Permission revocation notification sent

- Operation log recorded

---

### 1.15 View Permission Function

\*\*Function Number: FR-15\*\*

\*\*Description:\*\* Administrators or users can view permission configuration information. The system provides permission details and associated role information, and records the viewing operation log.

\*\*Input:\*\*

- Permission name

- Permission type

- Status (effective/expired)

- Associated roles

\*\*Output:\*\*

- Permission details page, including basic information, associated roles, operation records, impact scope

- Viewing operation log recorded

---

### 1.16 Modify Permission Function

\*\*Function Number: FR-16\*\*

\*\*Description:\*\* Administrators can modify user or role permission configurations. The system verifies the compliance of permission combinations and records the change operation log.

\*\*Input:\*\*

- Target user/role ID

- Added permissions

- Removed permissions

- Permission validity period

- Data access scope

\*\*Output:\*\*

- Permission configuration updated

- Change record generated

- Permission change notification sent

- Operation log recorded

---

### 1.17 Submit Application Function

\*\*Function Number: FR-17\*\*

\*\*Description:\*\* Users can submit various types of applications (such as asset usage, asset transfer, etc.). The system automatically generates an approval process and records the application submission log.

\*\*Input:\*\*

- Applicant information

- Application type

- Related assets/permissions

- Time range

- Attachments

- Urgency level

\*\*Output:\*\*

- Application number generated

- Approval process instance created

- Submission log recorded

- Approval notification sent

---

### 1.18 View Application Status Function

\*\*Function Number: FR-18\*\*

\*\*Description:\*\* Users or approvers can view the approval status of applications. The system provides a timeline, approval nodes, and a reminder function.

\*\*Input:\*\*

- Application type

- Application status

- Time range

- Applicant

- Approver

\*\*Output:\*\*

- Application status list

- Approval process details

- Approval node progress

- Query log recorded

---

### 1.19 Revoke Application Function

\*\*Function Number: FR-19\*\*

\*\*Description:\*\* Users can revoke their submitted applications. The system terminates the approval process and records the revocation operation log.

\*\*Input:\*\*

- Target application number

- Reason for revocation

- Supplementary explanation

\*\*Output:\*\*

- Application status updated to "Revoked"

- Approval process terminated

- Operation log recorded

- Revocation notification sent

---

### 1.20 Submit Approval Function

\*\*Function Number: FR-20\*\*

\*\*Description:\*\* Users or approvers can submit approval forms. The system automatically assigns the approval process based on the approval type and records the approval operation log.

\*\*Input:\*\*

- Approval type

- Reason for approval

- Related assets/permissions

- Time range

- Amount

- Attachments

- Approver

\*\*Output:\*\*

- Approval number generated

- Approval process instance created

- Operation log recorded

- Approval notification sent

---

### 1.21 View Approval Progress Function

\*\*Function Number: FR-21\*\*

\*\*Description:\*\* Users or administrators can view the real-time progress of the approval process. The system provides a visual process diagram and timeline display.

\*\*Input:\*\*

- Approval number

- Approval type

- Approval status

- Approver

- Time range

\*\*Output:\*\*

- Approval progress detail page, including process diagram, approval nodes, timeline, operation records

- Viewing log recorded

---

### 1.22 Cancel Approval Function

\*\*Function Number: FR-22\*\*

\*\*Description:\*\* Approvers can cancel the approval process. The system terminates the approval and notifies the applicant, while recording the cancellation operation log.

\*\*Input:\*\*

- Target approval number

- Reason for cancellation

- Supplementary explanation

\*\*Output:\*\*

- Approval status updated to "Cancelled"

- Approval process terminated

- Operation log recorded

- Cancellation notification sent

---

### 1.23 View Approval Record Function

\*\*Function Number: FR-23\*\*

\*\*Description:\*\* Administrators or users can query historical approval records. The system provides detailed approval information and statistical data, and records the query operation log.

\*\*Input:\*\*

- Approval number

- Approval type

- Approval status

- Approver

- Time range

\*\*Output:\*\*

- Approval record list

- Approval details page

- Statistical information

- Query log recorded

---

### 1.24 Operation Log Recording Function

\*\*Function Number: FR-24\*\*

\*\*Description:\*\* The system automatically records all user operations, including operation type, time, user, operation object, and data change snapshots.

\*\*Input:\*\*

- Operation type

- Operation user

- Operation time

- Operation object (assets/users/permissions)

- Data change snapshots before and after

\*\*Output:\*\*

- Operation log database record

- Unique operation log ID generated

- Operation content and timestamp recorded

---

### 1.25 View Operation Log Function

\*\*Function Number: FR-25\*\*

\*\*Description:\*\* Administrators can view operation logs. The system provides query conditions and detailed log display, and records the log viewing behavior.

\*\*Input:\*\*

- Operation type

- Operation time range

- Operation user

- Operation object (assets/users/permissions)

- Operation result status

\*\*Output:\*\*

- Operation log list

- Log details page

- Viewing log recorded

- Common query conditions saved

---

### 1.26 Export Operation Log Function

\*\*Function Number: FR-26\*\*

\*\*Description:\*\* Administrators can export operation logs. The system supports multiple formats for export and records the export operation log.

\*\*Input:\*\*

- Operation type

- Time range

- Operation user

- Export format (Excel/PDF/CSV)

\*\*Output:\*\*

- Watermarked operation log file generated

- Export log recorded

- Download notification email sent

---

### 1.27 View Approval Process Function

\*\*Function Number: FR-27\*\*

\*\*Description:\*\* Users or administrators can view detailed information of the approval process. The system provides a process diagram and approval node status display.

\*\*Input:\*\*

- Approval process number

- Approval type

- Approval status

- Approver

- Time range

\*\*Output:\*\*

- Approval process detail page, including process diagram, approval node status, timeline

- Viewing log recorded

---

### 1.28 Modify Approval Process Function

\*\*Function Number: FR-28\*\*

\*\*Description:\*\* Administrators can modify approval process templates. The system verifies the rationality of the process structure and records the process modification log.

\*\*Input:\*\*

- Approval process number

- Added/removed nodes

- Node attribute configuration (approver/conditions/notification method)

- Reason for modification

\*\*Output:\*\*

- New version of the approval process generated

- Change log recorded

- Process change notification sent

- Configuration synchronized to related subsystems

---

### 1.29 Manage Assets Function

\*\*Function Number: FR-29\*\*

\*\*Description:\*\* Administrators can manage asset information, including modifying asset status, uploading materials, updating maintenance information, etc., and record management logs.

\*\*Input:\*\*

- Asset ID

- Asset status

- Storage location

- Maintenance expiration date

- Photos/documents

- Asset category

- Approver

\*\*Output:\*\*

- Updated asset data

- Asset management record generated

- Operation log recorded

- Asset change notification sent

---

### 1.30 Manage Users Function

\*\*Function Number: FR-30\*\*

\*\*Description:\*\* Administrators can manage user information, including account status, department, permissions, etc., and record management operation logs.

\*\*Input:\*\*

- Username

- Department

- Position

- Account status

- Contact information

- Reason for modification

\*\*Output:\*\*

- Updated user information

- Management record generated

- Operation log recorded

- User change notification sent

---

### 1.31 Manage Permissions Function

\*\*Function Number: FR-31\*\*

\*\*Description:\*\* Administrators can manage permission configurations, including permission allocation, revocation, modification, and conflict detection, and record permission operation logs.

\*\*Input:\*\*

- Permission name

- Permission type

- Target user/role

- Permission scope

- Validity period

- Reason for modification

\*\*Output:\*\*

- Updated permission configuration

- Permission change record generated

- Permission change notification sent

- Operation log recorded

---

### 1.32 Manage Approval Process Function

\*\*Function Number: FR-32\*\*

\*\*Description:\*\* Administrators can manage approval process templates, including creation, modification, deletion, and effectiveness strategies, and record process management operation logs.

\*\*Input:\*\*

- Approval process name

- Type

- Node configuration

- Approver

- Effectiveness strategy

- Reason for modification

\*\*Output:\*\*

- Updated approval process template

- Management operation log recorded

- Approval process change notification sent

---

### 1.33 Generate Reports Function

\*\*Function Number: FR-33\*\*

\*\*Description:\*\* Administrators can generate various types of reports, including asset status, approval timeliness, operation logs, etc., and record the report generation log.

\*\*Input:\*\*

- Report type

- Time range

- Department

- Asset category

- Statistical dimensions

- Filter conditions

\*\*Output:\*\*

- Interactive report preview generated

- Report file exported (PDF/Excel/CSV)

- Generation log recorded

---

### 1.34 View Reports Function

\*\*Function Number: FR-34\*\*

\*\*Description:\*\* Administrators or users can view generated reports. The system provides filtering, sorting, and exporting functions, and records the report viewing log.

\*\*Input:\*\*

- Report type

- Time range

- Department

- Asset category

- Filter conditions

\*\*Output:\*\*

- Display of report data and charts

- Export support

- Viewing log recorded

- Common query conditions saved

---

### 1.35 Export Reports Function

\*\*Function Number: FR-35\*\*

\*\*Description:\*\* Administrators can export report data. The system supports multiple formats and records the export operation log.

\*\*Input:\*\*

- Report type

- Time range

- Department

- Asset category

- Export format

- Watermark addition

- Desensitization settings

\*\*Output:\*\*

- Watermarked report file generated

- Export log recorded

- Download notification email sent