

ANGEL FSS ERP - COMPREHENSIVE APPLICATION DOCUMENTATION

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1. Executive Summary

Angel FSS ERP is a multi-department Laravel 12 web application for internal enterprise operations. It centralizes work across HR, Sales, Finance, Procurement, Inventory, Marketing, IT/Security, Legal, Facilities, Compliance, Management, Projects, Approvals, and Audit.

Core characteristics:

- Multi-organization data scoping (organization_id on most business tables).
- Passwordless authentication for users (magic links).
- Elevated super-admin maintenance path (magic link plus OTP confirmation for department controls).
- Role plus duty-based authorization model.
- Built-in audit logging for sensitive write operations.
- CSV export across major modules.
- Contract authoring plus staged e-signature flow.
- Company branding and default currency management with optional live exchange-rate conversion.

2. Technology Stack

Backend:

- PHP ^8.2
- Laravel Framework ^12.0
- Livewire ^4.1

Frontend/build:

- Vite ^7
- Tailwind CSS ^4
- Blade templates
- Font Awesome

Data and queues:

- Laravel database-backed sessions/queue/cache defaults in .env.example
- Migration-driven schema (70 tables from migration inventory)

Mail and integrations:

- Laravel Mail for magic links, OTP, approvals, project/task/legal notifications
- External exchange-rate HTTP call to <https://open.er-api.com/v6/latest/{BASE}> when currency conversion is requested in branding admin

3. Repository Structure

Top-level notable paths:

- app/Http/Controllers - all module controllers and business workflows
- app/Models - ORM entities
- app/Support - shared helpers (AuditLogger, CsvExport, Branding, etc.)
- app/Services - business services (employee code generation, currency conversion, exchange rate lookups)
- routes/web.php - primary route definitions (189 routes)
- database/migrations - schema definition and evolution

- database/seeder/CoreSeeder.php - baseline departments, roles, duties, optional company admin bootstrap
- resources/views - Blade UI templates
- docs/ - project documentation artifacts

4. Runtime Architecture

Pattern:

- Server-rendered Laravel app using Blade views.
- Controllers orchestrate validation, authorization, ORM actions, and redirects.
- No public JSON API surface as the primary contract; workflows are form-driven web routes.

Cross-cutting services:

- AuditLogger writes structured audit events to audit_logs.
- CsvExport standardizes stream-download CSV output.
- ProjectActivityLogger writes project timeline events.

Middleware aliases (from bootstrap/app.php):

- superadmin -> EnsureSuperAdmin
- companyadmin -> EnsureCompanyAdmin

5. Authentication and Session Model

5.1 Standard user login

Controller: AuthgicLinkController

Flow:

1. User enters email on /.
2. System generates a random token, stores only SHA-256 hash in magic_links with guard web, expiry, IP, user-agent.
3. System emails login URL.
4. On token consumption, link must be unused and unexpired.
5. User must exist and not be inactive (deactivated or suspended-until future date).
6. Session is regenerated and user is logged in.

5.2 Super-admin login

Controller: SuperAdmin1

Flow:

1. Super-admin email must be in config/superadmin.php emails list.
2. Magic link issued with guard superadmin.
3. On consume, system creates/activates a local user record if needed and stores superadmin_email in session.
4. Access to /super-admin/departments requires superadmin middleware.

5.3 Super-admin OTP for department maintenance

Controller: SuperAdminntController

Flow:

1. Super-admin selects departments and requests OTP.
2. OTP hash stored in otp_challenges (guard superadmin) with TTL.
3. OTP sent to all configured super-admin emails.

- Valid OTP applies department enabled/disabled mapping on organization_departments pivot.

5.4 Logout

Both regular and super-admin logout clear auth/session and super-admin session keys.

6. Authorization Model

Authorization layers:

- Organization scoping checks are enforced widely: many operations require matching organization_id.
- Company admin checks via role slug company_admin or super-admin shortcut (User::isCompanyAdmin()).
- Duty checks via duties pivot (e.g. manage_finance, manage_hr, etc.).
- Project membership and role checks (owner, manager, member, viewer) for project actions.

Seeded role slugs:

- company_admin
- manager
- contributor
- viewer

Seeded duty keys:

- manage_users
- manage_projects
- manage_finance
- manage_sales
- manage_hr
- manage_procurement
- manage_inventory
- manage_marketing
- manage_it
- manage_legal
- manage_facilities
- manage_compliance
- manage_management

7. Route Surface

php artisan route:list --except-vendor reports 189 routes.

Primary entry points:

- / login
- /dashboard
- Module roots: /hr, /sales, /finance, /procurement, /inventory, /marketing, /it-security, /legal, /facilities, /compliance, /management, /projects, /approvals, /activity
- Admin: /admin/branding, /admin/audit-logs
- Company admin user management: /company-admin/users
- Super-admin console: /super-admin/*

8. Module-by-Module Functional Reference

8.1 HR ('HrController')

Sections:

- employees, leaves, holidays, compensation, reports, policies

Capabilities:

- Employee profile CRUD with extended HR attributes.
- Leave CRUD.
- Holiday CRUD.
- Policy CRUD.
- Salary-change history capture when compensation changes.
- Organization-level employee ID settings (staff_id_prefix, staff_id_suffix, staff_id_mode, staff_id_digits).
- CSV exports for employees, leaves, holidays, policies.

Notable enums:

- employment_type: full_time, part_time, contract
- employee status: active, on_leave, terminated
- leave type: annual, sick, unpaid, compassionate, other
- leave status: pending, approved, rejected, cancelled
- policy status: draft, active, archived

Access:

- Company admin or duty manage_hr.

8.2 Sales ('SalesController')

Sections:

- overview, customers, deals, quotes, orders, activities

Capabilities:

- CRUD for customers, deals, quotes, orders, sales activities.
- CSV exports across all sales entities.

Notable enums:

- deal stage: lead, qualified, proposal, won, lost
- quote status: draft, sent, accepted, rejected
- order status: pending, confirmed, fulfilled, cancelled
- activity type: call, email, meeting, demo, follow_up

Access:

- Company admin or duty manage_sales.

8.3 Finance ('FinanceController')

Sections:

- overview, invoices, payments, expenses, payables, reports

Capabilities:

- Invoice CRUD.
- Payment CRUD.

- Expense CRUD.
- Vendor bill CRUD.
- Status summaries for invoices and bills.
- CSV exports for invoices, payments, expenses, bills.

Notable enums:

- invoice status: draft, sent, paid, overdue
- payment method: bank, card, cash, transfer
- expense status: pending, approved, paid, rejected
- bill status: unpaid, approved, paid, overdue

Access:

- Company admin or duty manage_finance.

8.4 Procurement ('ProcurementController')

Sections:

- overview, vendors, orders, receiving, performance, reports

Capabilities:

- Vendor CRUD.
- Purchase order CRUD.
- Receipt CRUD.
- Vendor review CRUD.
- CSV exports for vendors/orders/receipts/reviews.

Approval integration:

- Creating a purchase order also creates approval_requests row with status pending.
- Company-admin users receive approval request email notification.

Notable enums:

- PO status: draft, submitted, approved, rejected, received
- receipt status: received, partial, returned

Access:

- Company admin or duty manage_procurement.

8.5 Inventory ('InventoryController')

Sections:

- overview, items, movements, locations, reports

Capabilities:

- Item/location/movement CRUD.
- CSV exports for items, locations, movements.

Notable enums:

- movement type: in, out, adjust, transfer

Access:

- Company admin or duty manage_inventory.

8.6 Marketing ('MarketingController')

Sections:

- overview, campaigns, leads, attribution, content, reports

Capabilities:

- Campaign/lead/metric/content CRUD.
- CSV exports for campaigns/leads/metrics/content.

Notable enums:

- campaign status: draft, active, paused, completed
- lead status: new, contacted, qualified, unqualified
- content status: draft, scheduled, published

Access:

- Company admin or duty manage_marketing.

8.7 IT & Security ('ItSecurityController')

Sections:

- overview, assets, incidents, access, attestations, reports

Capabilities:

- IT asset/incidence/access-review/attestation CRUD.
- CSV exports for each group.

Notable enums:

- asset status: in_use, available, retired
- incident severity: low, medium, high, critical
- incident status: open, investigating, resolved, closed
- access review status: planned, in_progress, complete
- attestation status: pending, completed, overdue

Access:

- Company admin or duty manage_it.

8.8 Legal ('LegalController')

Sections:

- overview, contracts, obligations, reports

Capabilities:

- Contract CRUD with rich document_html editor data.
- Signatory management with recipient types: external, user, department.
- Ordered signing waves via signing_order.
- Signature request email dispatch.
- Public sign endpoint by token supporting modes draw, upload, type.
- Signed-contract print views (internal and token-based external).
- Obligation CRUD.
- CSV exports for contracts and obligations.

Contract/signing statuses in use:

- Contract status: draft, active, expired, terminated
- Signing status lifecycle: draft, sent, partially_signed, signed
- Obligation status: open, in_progress, complete

Important behavior:

- Signed signatories cannot be removed or reordered to different order.
- Next signing batch is sent only after current signing order is fully signed.
- Signature metadata records IP and user-agent.

Access:

- Company admin or duty manage_legal.

8.9 Facilities ('FacilitiesController')

Sections:

- overview, tickets, schedules, vendors, reports

Capabilities:

- Facility ticket/vendor/schedule CRUD.
- CSV exports for tickets/vendors/schedules.

Notable enums:

- ticket status: open, in_progress, resolved
- priority: low, medium, high
- schedule frequency: weekly, monthly, quarterly, yearly
- schedule status: scheduled, in_progress, completed

Access:

- Company admin or duty manage_facilities.

8.10 Compliance ('ComplianceController')

Sections:

- overview, items, risks, controls, evidence, reports

Capabilities:

- Compliance item/risk/control/evidence CRUD.
- CSV exports for all four groups.

Notable enums:

- item status: open, in_review, closed
- risk impact/likelihood: low, medium, high
- risk status: open, mitigating, closed
- control status: active, testing, retired

Access:

- Company admin or duty manage_compliance.

8.11 Management ('ManagementController')

Sections:

- overview, alerts, reports

Capabilities:

- Alert/report CRUD.
- CSV exports for alerts and reports.

Notable enums:

- alert severity: low, medium, high
- alert status: open, acknowledged, closed
- report status: draft, published

Access:

- Company admin or duty manage_management.

8.12 Projects ('ProjectController' + related)

Capabilities:

- Project CRUD and listing filters.
- Default Kanban columns on create: Backlog, In Progress, Review, Done.
- Project members with role control.
- Task create/move and assignee assignment.
- Time entry add/edit/delete + CSV export.
- Project activity feed and dashboard counters.

Notable enums:

- project status: active, on_hold, completed
- member role: owner, manager, member, viewer
- task priority: low, medium, high
- task status inferred from column (Done => done, else open)

Permission highlights:

- Project visibility requires membership unless super-admin.
- Member management requires owner/manager role (or super-admin).
- Project status update allowed for project member, manager role, company admin, or super-admin.
- Time entry edit/delete allowed for owner entry, project owner/manager, or super-admin.

8.13 Approvals ('ApprovalController')

Capabilities:

- Approval inbox (latest 100, filtered by what current user can act on).
- Approve/reject updates with audit trail.
- Auto-syncs target entity status for mapped entity classes.

Permission logic:

- Immediate allow: company admin or manager role.
- Else department-handle based mapping by entity_type (finance, hr, sales, procurement, inventory, marketing, it/legal/facilities/compliance/management/operations groups).

Status enum:

- pending, approved, rejected

8.14 Audit Logs ('AuditLogController')

Capabilities:

- Filterable audit log view (actor, action, date range).
- CSV export.
- Organization-scoped query behavior.

8.15 Company Admin User Management ('CompanyAdminController')

Capabilities:

- User CRUD in organization.
- Role, duty, and department assignment.
- Avatar upload/update to public disk.
- Auto employee profile creation with generated employee code when possible.
- Auto-send magic link on user creation.

User statuses:

- active, suspended, deactivated

8.16 Branding and Currency Admin ('Admin0oller')

Capabilities:

- Brand name/logo text/colors update.
- Logo and favicon uploads.
- Organization default currency update.
- Optional live-rate conversion of many monetary tables when currency changes.
- Conversion metadata persisted in organization_settings.

Supported currencies from config:

- USD, EUR, GBP, NGN, CAD, AUD, ZAR, KES, GHS, INR, JPY, CNY, AED, SAR, CHF

9. Data Model Overview

The migration inventory yields 70 tables. Most business tables include organization_id for tenancy-style scoping.

Core identity and access tables:

- users, roles, role_user, duties, duty_user, departments, department_user, organizations, organization_departments

Security/auth tables:

- magic_links, otp_challenges, audit_logs

Project domain:

- projects, project_members, project_columns, tasks, task_assignees, time_entries, project_activities

Department domains:

- HR: employee_profiles, employee_leaves, employee_salary_changes, organization_holidays, organization_policies
- Sales: customers, deals, sales_quotes, sales_orders, sales_activities
- Finance: invoices, payments, expenses, vendor_bills
- Procurement: vendors, purchase_orders, purchase_receipts, vendor_reviews
- Inventory: inventory_items, inventory_locations, inventory_movements
- Marketing: marketing_campaigns, marketing_leads, campaign_metrics, content_items
- IT/Security: it_assets, it_incidents, access_reviews, policy_attestations

- Legal: legal_contracts, legal_contract_signatories, contract_obligations
- Facilities: facility_tickets, facility_vendors, maintenance_schedules
- Compliance: compliance_items, compliance_risks, compliance_controls, compliance_evidence
- Management: management_alerts, executive_reports

Process/governance tables:

- approval_requests, organization_settings, brand_settings

Framework/runtime tables:

- cache, cache_locks, jobs, job_batches, failed_jobs, sessions, password_reset_tokens

10. Observability and Auditing

Logging behavior:

- Most mutating operations create audit_logs records with actor, action, entity, payload, IP, and user-agent.
- Project-specific changes also write project_activities timeline records.

Admin tooling:

- /admin/audit-logs UI with filters plus CSV export.

11. Configuration and Environment

Important .env settings:

- App: APP_NAME, APP_ENV, APP_DEBUG, APP_URL
- DB/session/cache/queue/mail standard Laravel keys
- Branding defaults: BRAND_*, DEFAULT_CURRENCY
- Auth TTLs: MAGIC_LINK_TTL, SUPERADMIN_MAGIC_LINK_TTL
- Optional bootstrap admin seed: COMPANY_ADMIN_EMAIL, COMPANY_ADMIN_NAME

Config files of note:

- config/superadmin.php - super-admin email allowlist and OTP/magic-link TTL.
- config/magiclink.php - user/super-admin TTL values.
- config/branding.php - brand keys and default colors.
- config/currencies.php - supported currency codes.

12. Setup, Run, and Build

Local setup:

1. composer install
2. npm install
3. cp .env.example .env
4. php artisan key:generate
5. php artisan migrate
6. php artisan storage:link
7. npm run build (or npm run dev)
8. php artisan serve

Useful scripts:

- composer run dev starts app server, queue listener, logs, and vite concurrently.
- composer test clears config and runs test suite.

13. Deployment Notes

Minimum deployment actions:

- Build frontend assets (npm run build).
- Apply migrations (php artisan migrate --force).
- Ensure writable storage paths and symlink (public/storage).
- Ensure mail configuration is valid for magic-link and OTP delivery.

Operational risk points:

- If mail is misconfigured, login/OTP workflows fail for users and super-admins.
- Live currency conversion depends on external exchange-rate API availability.

14. Test Coverage Snapshot

Feature tests present in repository include:

- login page availability
- project visibility restrictions
- project status authorization
- approval authorization behavior
- legal contract signing flow
- super-admin maintenance access behavior

This provides targeted behavior coverage but is not exhaustive end-to-end coverage for every module.

15. Security and Data Governance Notes

Implemented safeguards:

- Time-limited, single-use magic links with hashed token storage.
- Super-admin email allowlist plus OTP challenge for department toggling.
- Frequent organization-level scoping checks.
- Duty- and role-based authorization checks at controller level.
- Audit records for sensitive write actions.

Recommended hardening priorities:

- Add explicit rate-limiting for magic-link and OTP request endpoints.
- Expand policy-based authorization classes for centralized access rules.
- Add additional automated tests for each module's access boundaries.
- Add background delivery/retry strategy for high-volume email workflows.

16. Appendix A - Full Migration Table Inventory

Format: table|column1,column2,... (base create migrations)

```

users|name,email,email_verified_at,password password_reset_tokens|email,token,created_at
sessions|id,user_id,ip_address,user_agent,payload,last_activity cache|key,value,expiration
cache_locks|key,owner,expiration jobs|queue,payload,attempts,reserved_at,available_at,created_at
job_batches|id,name,total_jobs,pending_jobs,failed_jobs,failed_job_ids,options,cancelled_at,created_at,finished_at
failed_jobs|uuid,connection,queue,payload,exception,failed_at brand_settings|key,value
magic_links|email,token_hash,guard,expires_at,used_at,ip,user_agent organizations|name,status
departments|key,name,description roles|name,slug role_user|role_id,user_id duties|key,name,description
duty_user|duty_id,user_id organization_departments|organization_id,department_id,enabled
otp_challenges|guard,email,otp_hash,expires_at,used_at,ip,user_agent
projects|organization_id,department_id,name,description,status,start_date,due_date
project_members|project_id,user_id,role project_columns|project_id,name,sort_order

```

tasks|project_id,project_column_id,title,description,priority,status,due_date,sort_order
 task_assignees|task_id,user_id time_entries|project_id,task_id,user_id,minutes,entry_date,note
 audit_logs|actor_id,actor_guard,actor_email,action,entity_type,entity_id,payload_json,ip,user_agent
 project_activities|project_id,user_id,message,meta_json
 employee_profiles|user_id,organization_id,manager_id,job_title,employment_type,status,start_date,end_date
 customers|organization_id,name,email,phone,status
 deals|customer_id,owner_id,name,value,stage,expected_close
 invoices|organization_id,customer_id,amount,status,due_date
 vendors|organization_id,name,email,phone,status
 purchase_orders|organization_id,vendor_id,total_amount,status,expected_date
 inventory_items|organization_id,sku,name,quantity,reorder_level
 compliance_items|organization_id,title,status,due_date,owner_id
 approval_requests|organization_id,requester_id,approver_id,entity_type,entity_id,status,note
 marketing_campaigns|organization_id,owner_id,name,channel,budget,status,start_date,end_date
 it_assets|organization_id,assigned_to,asset_tag,name,status,last_audit_date
 legal_contracts|organization_id,owner_id,title,counterparty,status,effective_date,renewal_date
 facility_tickets|organization_id,requested_by,title,status,priority,due_date,notes
 employee_leaves|organization_id,employee_profile_id,requested_by,type,status,start_date,end_date,reason
 organization_holidays|organization_id,name,date,notes
 employee_salary_changes|employee_profile_id,changed_by,previous_amount,new_amount,currency,note
 organization_policies|organization_id,created_by,title,category,status,effective_date,summary,document_url
 sales_quotes|organization_id,customer_id,owner_id,amount,status,valid_until,notes
 sales_orders|organization_id,customer_id,owner_id,amount,status,order_date,notes
 sales_activities|organization_id,customer_id,user_id,type,logged_at,notes
 payments|organization_id,invoice_id,received_by,amount,method,paid_on,notes
 expenses|organization_id,submitted_by,category,amount,status,spent_on,notes
 vendor_bills|organization_id,vendor_id,amount,status,due_date,notes
 purchase_receipts|organization_id,purchase_order_id,received_by,status,received_on,notes
 vendor_reviews|organization_id,vendor_id,reviewed_by,score,notes
 inventory_locations|organization_id,name,code,notes
 inventory_movements|organization_id,inventory_item_id,location_id,moved_by,type,quantity,moved_on,reference,notes
 marketing_leads|organization_id,owner_id,name,email,source,status,notes
 campaign_metrics|marketing_campaign_id,leads,conversions,cost,revenue,reported_on
 content_items|organization_id,owner_id,title,channel,status,publish_on,notes
 it_incidents|organization_id,owner_id,title,severity,status,opened_on,resolved_on,notes
 access_reviews|organization_id,title,status,review_date,notes
 policy_attestations|organization_id,user_id,policy_name,status,due_on
 contract_obligations|legal_contract_id,description,status,due_date
 facility_vendors|organization_id,name,service_type,email,phone
 maintenance_schedules|organization_id,facility_vendor_id,title,frequency,next_due_on,status,notes
 compliance_risks|organization_id,owner_id,title,category,impact,likelihood,status,mitigation_plan,review_date
 compliance_controls|organization_id,owner_id,name,control_type,frequency,status,last_tested_on,next_review_on,description
 compliance_evidence|organization_id,compliance_control_id,compliance_risk_id,title,evidence_type,collected_on,storage_location
 management_alerts|organization_id,owner_id,title,severity,status,source,notes
 executive_reports|organization_id,created_by,title,period_start,period_end,status,summary
 organization_settings|organization_id,key,value department_user|department_id,user_id
 legal_contract_signatories|legal_contract_id,name,email,token,status,sent_at,viewed_at,signed_at,signature_type,signature

17. Appendix B - Notable Additive Migration Fields

The following important fields are added by later Schema::table(...) migrations and may not appear in Appendix A base-create extraction:

- users: status, suspended_until, organization_id, department_id, avatar_path
- audit_logs: organization_id

- deals: organization_id
- employee_profiles: employee_code, phone, date_of_birth, address, emergency_contact, emergency_phone, salary_amount, salary_currency
- legal_contracts: document_html, signing_status, sent_for_signature_at, fully_signed_at, signature_request_message
- legal_contract_signatories: user_id, department_id, recipient_type, signing_order