

Quick Reference Guide - Version 3.0

💡 Quick Start

Start the Server

```
cd backend  
npm start
```

Server runs on: <http://localhost:3001>

👤 Default Users

Username	Password	Role	Access
sarah.banda	password123	Finance Manager	Budget & FX management
david.mulenga	password123	MD	Budget oversight & reports
james.phiri	password123	Procurement	Multi-currency items
admin	admin123	Admin	Full access

⌚ FX Rates Quick Reference

View Active Rates

```
GET /api/fx-rates
```

Update USD Rate

```
POST /api/fx-rates  
{  
  "currency_code": "USD",  
  "currency_name": "US Dollar",  
  "rate_to_zmw": 28.00,  
  "effective_from": "2025-11-01",  
  "change_reason": "Monthly update"  
}
```

Default Rates

- **ZMW:** 1.00 (base currency)
- **USD:** 27.50
- **EUR:** 29.80

⌚ Budget Management Quick Reference

View All Budgets

```
GET /api/budgets/overview?fiscal_year=2025
```

Check Department Budget

```
GET /api/budgets/department/IT?fiscal_year=2025
```

Approve Budget for Requisition

```
POST /api/requisitions/:id/budget-check  
{  
  "approved": true,  
  "comments": "Budget approved"  
}
```

Default Budgets (2025)

- **IT:** K500,000
- **Finance:** K400,000
- **HR:** K300,000
- **Operations:** K600,000

💻 Multi-Currency Items

Add Item in USD

```
POST /api/requisitions/:id/items
{
  "item_name": "Laptop",
  "quantity": 5,
  "unit_price": 1500,
  "currency": "USD",
  "vendor_id": 1
}
```

Add Item in EUR

```
POST /api/requisitions/:id/items
{
  "item_name": "Printer",
  "quantity": 3,
  "unit_price": 800,
  "currency": "EUR",
  "vendor_id": 2
}
```

Add Item in ZMW

```
POST /api/requisitions/:id/items
{
  "item_name": "Office Chair",
  "quantity": 10,
  "unit_price": 1200,
  "currency": "ZMW",
  "vendor_id": 3
}
```

Supported Currencies: USD, EUR, ZMW

Reports Quick Reference

Excel Reports

```
# Requisitions
GET /api/reports/requisitions/excel?dateFrom=2025-01-01&dateTo=2025-12-31

# Budgets
GET /api/reports/budgets/excel?fiscal_year=2025

# FX Rates
GET /api/reports/fx-rates/excel
```

PDF Reports

```
# Requisitions
GET /api/reports/requisitions/pdf?dateFrom=2025-01-01

# Budgets
GET /api/reports/budgets/pdf?fiscal_year=2025

# Department Spending
GET /api/reports/department/IT/pdf?fiscal_year=2025
```

Role Access Matrix

Feature	Finance	MD	Procurement	Admin
Manage FX Rates	☒	✗	☒	
Manage Budgets	☒	☒	☒	
Approve Budget	☒	✗	☒	
Select Currency	✗	✗	☒	
Generate Reports	☒	☒	☒	

Complete Workflow

1. Initiator creates requisition
2. HOD approves/rejects
3. Finance Manager checks budget → Commits funds
4. Procurement adds items (multi-currency)
5. System auto-converts to ZMW
6. Procurement completes purchase
7. Generate PDF/Excel reports

Common Tasks

Check Budget Before Creating Requisition

```
GET /api/budgets/department/IT?fiscal_year=2025
```

Create Multi-Currency Requisition

1. Create requisition: POST /api/requisitions
2. Add USD items: POST /api/requisitions/:id/items (currency: "USD")
3. Add EUR items: POST /api/requisitions/:id/items (currency: "EUR")
4. Add ZMW items: POST /api/requisitions/:id/items (currency: "ZMW")
5. Submit: PUT /api/requisitions/:id/submit

Monthly FX Rate Update

1. Login as Finance Manager
2. Update USD: POST /api/fx-rates (currency_code: "USD")
3. Update EUR: POST /api/fx-rates (currency_code: "EUR")
4. Verify: GET /api/fx-rates

Generate Monthly Reports

```
# Requisitions for the month
GET /api/reports/requisitions/excel?dateFrom=2025-10-01&dateTo=2025-10-31

# Budget status
GET /api/reports/budgets/pdf?fiscal_year=2025

# All departments
GET /api/reports/department/IT/pdf
GET /api/reports/department/Finance/pdf
GET /api/reports/department/HR/pdf
```

Troubleshooting

Problem: FX Rate Not Found

Solution: Run migration: node scripts/addCurrencyAndFXSupport.js

Problem: Budget Table Missing

Solution: Run migration: node scripts/addBudgetsTable.js

Problem: Currency Not Accepted

Solution: Use only USD, EUR, or ZMW (case-sensitive)

Problem: Budget Rejection

Solution: Check available budget with GET /api/budgets/department/:dept

Documentation Files

- **BUDGET_FX_AND_REPORTING_GUIDE.md** - Complete guide (40+ pages)
- **IMPLEMENTATION_SUMMARY_V3.0.md** - Implementation details
- **QUICK_REFERENCE_V3.0.md** - This file
- **WORKFLOW_GUIDE.md** - Workflow documentation
- **API_TESTING.md** - API testing examples

Key Points

1. All amounts stored in ZMW - Original currency preserved
2. FX rate tracked per item - Audit trail maintained
3. Budget auto-commits - When Finance Manager approves
4. 3 currencies supported - USD, EUR, ZMW
5. 2 report formats - PDF (presentation) & Excel (analysis)

Version: 3.0.0 | Status: Production Ready