EMFoS User Manual

Environmental Monitoring Fieldwork Operating System

Version: 1.0.0 MVP
Last Updated: January 15, 2026
For: Environmental & Project Managers

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Getting Started

Logging In

1. Navigate to your EMFoS application URL
2. You will be automatically logged in with your assigned role
3. Your dashboard will load with your personalized view

Understanding Your Role

PROJECT_MANAGER

- Full access to create, edit, and manage all activities and tasks
- Can update task status and upload evidence
- Access to all reports and settings

VIEWER

- Read-only access to all dashboards and reports
- Can view task schedules and completion evidence
- Cannot create or modify any data

Dashboard Overview

Main Dashboard Components

1. Header Section

- **Title**: "Environmental Monitoring Fieldwork operating System"
- **New Activity Button**: Click to create a new monitoring activity
- **Subtitle**: "Complete fieldwork management and oversight"

2. Statistics Cards (4 cards showing key metrics)

Total Tasks

- Shows the total number of active monitoring tasks
- Includes all tasks regardless of status
- Updated in real-time

Completed

- Number of tasks marked as "Completed"
- Shows completion percentage
- Helps track progress toward goals

Regulatory Critical

- Count of regulatory-required monitoring tasks
- Shows number of overdue tasks
- Requires immediate attention if overdue

Deferred

- Tasks that have been postponed
- Shows tasks requiring review
- Indicates potential compliance issues

3. Upcoming Monitoring Tasks Table

Displays all scheduled tasks with:

- **Activity**: Name of the monitoring activity
- **Location**: Where the monitoring will occur
- **Due Date**: When the task is scheduled
- **Status**: Current state (Planned, Scheduled, Completed, Deferred, Cancelled)
- **Priority**: Regulatory or Routine
- **Actions**: Details button to view/edit task

Core Features

1. Dashboard

Purpose: Get a quick overview of all monitoring activities and their status

What You Can Do:

- View real-time statistics
- See upcoming tasks
- Identify overdue or critical tasks
- Create new activities

How to Use:

1. Log in to access the dashboard
2. Review the 4 stat cards for quick metrics
3. Scroll down to see the task table
4. Click "Details" on any task for more information

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2. Schedule (Calendar View)

Purpose: Visualize fieldwork tasks on a monthly calendar

What You Can Do:

- See tasks organized by date
- Identify busy periods
- Plan resource allocation
- Track monthly workload

How to Use:

1. Click "Schedule" in the sidebar
2. View the current month's calendar
3. Tasks appear as colored boxes on their due dates
4. Green = Routine tasks, Red = Regulatory tasks
5. Use navigation arrows to view other months

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3. Task Management

Purpose: Manage and track individual monitoring tasks

What You Can Do:

- View all tasks with advanced filtering
- Update task status
- Add completion evidence
- Track task history

How to Use:

1. Click "Tasks" in the sidebar
2. Use filters to find specific tasks:
   - **Status Filter**: Planned, Scheduled, Completed, Deferred
   - **Priority Filter**: Regulatory Critical, Routine
3. Click "Details" on any task to:
   - Update contractor information
   - Add logistics notes (access, safety, equipment)
   - Upload evidence (photos, documents)
   - View completion history

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4. Locations Management

Purpose: Manage monitoring sites and stations

What You Can Do:

- Add new monitoring locations
- View all locations
- See how many activities are linked to each location
- Organize by site

How to Use:

1. Click "Locations" in the sidebar
2. View all monitoring sites as cards
3. Each card shows:
    - Location name/ID
    - Number of linked activities
4. Click "Add Location" to create a new site:
    - Enter location name (e.g., "MW-01" or "East Perimeter")
    - Click "Add Location"

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5. Activity Management

Purpose: Define and manage monitoring activities

What You Can Do:

- Create new monitoring activities
- Set frequency (Weekly, Monthly, Quarterly, Annual)
- Mark as regulatory or routine
- Link to locations
- Auto-generate tasks

How to Use:

1. Click "New Activity" button on dashboard
2. Fill in the form:
    - **Activity Name**: e.g., "Groundwater Sampling"
    - **Type**: Sampling, Monitoring, Inspection
    - **Location**: Select from dropdown
    - **Frequency**: How often to repeat
    - **First Due Date**: When to start
    - **Regulatory Critical**: Toggle if required by regulations
3. Click "Create Activity"
4. First task will be auto-generated

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6. Task Status Management

Purpose: Track task progress and completion

Task Statuses:

- **PLANNED**: Activity scheduled but not yet assigned
- **SCHEDULED**: Task assigned and ready to execute
- **COMPLETED**: Work finished and evidence uploaded
- **DEFERRED**: Postponed with documented reason
- **CANCELLED**: No longer needed with documented reason

How to Update Status:

1. Click on the status badge in the task table
2. Select new status from dropdown
3. If completing task:
   - Enter "Completed By" name
   - Toggle "Completed as planned?"
   - Add completion notes
4. If deferring/cancelling:
   - **Mandatory**: Provide reason for change
5. Click "Update Status"

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7. Completion Evidence

Purpose: Document that work was completed

What You Can Do:

- Upload photos from fieldwork
- Attach field sheets (PDF)
- Store contractor deliverables
- Track completion details

How to Use:

1. Click "Details" on a completed task
2. Go to "Evidence" tab
3. View completion information:
   - Who completed it
   - Completion date
   - Whether it was completed as planned
   - Completion notes

4. Go to "Comms" tab to upload files:
   - Click "Upload Evidence / Document"
   - Select file (photo, PDF, etc.)
   - File will be stored with task

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8. Reporting & Analytics

Purpose: Analyze fieldwork performance and compliance

What You Can See:

- **Monthly Workload Chart**: Tasks scheduled vs. completed
- **Status Distribution Pie Chart**: Breakdown of task statuses
- **Missed Monitoring Table**: All deferred/cancelled tasks with reasons

How to Use:

1. Click "Reports" in the sidebar
2. Review charts for trends
3. Scroll down to see missed monitoring details
4. Click "Export PDF" or "Export CSV" to download reports

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9. Settings

Purpose: Configure application and manage users

What You Can Do (PROJECT_MANAGER only):

- View team members and their roles
- Manage user access
- Configure application settings
- Trigger manual alert checks

How to Use:

1. Click "Settings" in the sidebar
2. **General Configuration**:
   - View app name and timezone
3. **User Management**:
   - See all team members
   - View their roles (Project Manager or Viewer)

4. **Notifications**:
    - Click "Trigger Manual Alert Check" to test email alerts
    - Verify alerts are being sent

User Roles & Permissions

PROJECT_MANAGER Permissions

Feature	Permission
Create Activities	Yes
Edit Activities	Yes
Create Tasks	Yes
Update Task Status	Yes
Upload Evidence	Yes
Add Locations	Yes
View Reports	Yes
Access Settings	Yes
Manage Users	Yes

VIEWER Permissions

Feature	Permission
Create Activities	No
Edit Activities	No
Create Tasks	No
Update Task Status	No
Upload Evidence	No

Feature	Permission
Add Locations	□ No
View Reports	□ Yes
Access Settings	□ No
Manage Users	□ No

Step-by-Step Guides

Guide 1: Creating a New Monitoring Activity

Scenario: You need to set up monthly groundwater sampling at a new location.

Steps:

1. Click "New Activity" button on dashboard
2. Enter activity details:
   - **Name**: "Groundwater Sampling - Q1 2026"
   - **Type**: "Sampling"
   - **Location**: Select "MW-01" from dropdown
   - **Frequency**: "Monthly"
   - **First Due Date**: "2026-02-01"
   - **Regulatory Critical**: Toggle ON (required by EPA)
3. Click "Create Activity"
4. First task will be automatically generated for Feb 1, 2026

Result: Activity is created, first task scheduled, and visible on dashboard.

Guide 2: Completing a Task with Evidence

Scenario: Fieldwork is complete and you need to mark the task as done.

Steps:

1. Go to "Tasks" page
2. Find the task you completed
3. Click "Details" button
4. Click on the "Evidence" tab

5. Upload completion evidence:
   - Click "Upload Evidence / Document"
   - Select photo or PDF file
   - File will be attached to task
6. Go back to "Coordination" tab
7. Click on the Status badge
8. Select "COMPLETED"
9. Enter:
   - **Completed By**: "John Smith"
   - **Completed as planned?**: Toggle Yes/No
   - **Completion Notes**: "All samples collected successfully"
10. Click "Update Status"

Result: Task marked complete with evidence attached and documented.

Guide 3: Deferring a Task with Reason

Scenario: Weather prevented fieldwork, need to reschedule.

Steps:

1. Go to "Tasks" page
2. Find the task to defer
3. Click on the Status badge
4. Select "DEFERRED"
5. **Mandatory**: Enter reason:
   - "Heavy rain prevented safe access to site. Rescheduled for next week."
6. Click "Update Status"

Result: Task deferred with documented reason for audit trail.

Guide 4: Adding a New Location

Scenario: New monitoring site needs to be added to the system.

Steps:

1. Click "Locations" in sidebar
2. Click "Add Location" button
3. Enter location name:

    - "MW-05" or "North Perimeter Station"
4. Click "Add Location"
5. Location appears in the list
6. Now available when creating activities

Result: New location ready for use in monitoring activities.

Guide 5: Viewing and Exporting Reports

Scenario: Manager needs monthly compliance report.

Steps:

1. Click "Reports" in sidebar
2. Review charts:
    - **Monthly Workload**: See tasks scheduled vs. completed
    - **Status Distribution**: See breakdown of task statuses
3. Scroll to "Missed Monitoring Summary"
4. Review any deferred/cancelled tasks
5. Click "Export PDF" or "Export CSV"
6. Save file to your computer
7. Share with stakeholders

Result: Professional report documenting fieldwork status and compliance.

Troubleshooting

Issue: I can't create a new activity

Possible Causes:

- You have VIEWER role (read-only access)
- Required fields are missing

Solutions:

1. Check your role in Settings
2. If VIEWER, contact your PROJECT_MANAGER
3. If PROJECT_MANAGER, ensure all fields are filled:
    - Activity name

  - Type
  - Location
  - Frequency
  - First due date

Issue: Task status won't update

Possible Causes:

- Missing mandatory information
- Browser cache issue
- Network connectivity

Solutions:

1. If deferring/cancelling, ensure you entered a reason
2. Refresh the page (Ctrl+F5)
3. Check internet connection
4. Try again in a different browser

Issue: I can't see the "New Activity" button

Possible Causes:

- You have VIEWER role
- Button is off-screen (scroll right)

Solutions:

1. Check your role in Settings
2. If VIEWER, you cannot create activities
3. Contact your PROJECT_MANAGER to create activities

Issue: Email alerts not being received

Possible Causes:

- Email address not configured
- Alerts disabled
- Email in spam folder

Solutions:

1. Check Settings → Notifications
2. Click "Trigger Manual Alert Check" to test
3. Check spam/junk folder
4. Contact administrator if still not working

FAQ

Q: How often are email alerts sent?

A: Automated alerts run daily at 9:00 AM UTC. You'll receive maximum one alert per overdue task per 24 hours to avoid spam.

Q: Can I edit a completed task?

A: No, completed tasks are locked for audit purposes. If you need to make changes, contact your PROJECT_MANAGER.

Q: What happens if I defer a task?

A: The task status changes to "DEFERRED" and a reason is recorded. You can reschedule it later by updating the status back to "PLANNED" or "SCHEDULED".

Q: How do I know if a task is overdue?

A: Check the "Regulatory Critical" stat card on the dashboard. It shows the number of overdue tasks. Overdue tasks appear in red in the task table.

Q: Can I delete a task?

A: No, tasks cannot be deleted. Instead, mark them as "CANCELLED" with a documented reason. This maintains an audit trail.

Q: How do I export data?

A: Go to Reports page and click "Export PDF" or "Export CSV" to download reports.

Q: What's the difference between "Planned" and "Scheduled"?

A:

- **PLANNED**: Task exists but hasn't been assigned to anyone yet
- **SCHEDULED**: Task is assigned and ready for execution

Q: Can VIEWER users upload evidence?

A: No, only PROJECT_MANAGER users can upload evidence. VIEWER users can only view evidence that has been uploaded.

Q: How do I add a contractor to a task?

A: Click "Details" on the task, go to "Coordination" tab, and enter:

- Contractor company name
- Contact details (name, phone, email)

Q: What if I need to change a task's due date?

A: Click "Details" on the task. Due dates cannot be directly edited, but you can defer the task and create a new one with the correct date.

Support & Resources

Need Help?

- Check this manual first
- Contact your PROJECT_MANAGER
- Email: support@emfos.app

System Status:

- Check application dashboard for any alerts
- Review Reports page for compliance status

Best Practices:

1. Update task status immediately after fieldwork
2. Upload evidence photos on the same day
3. Document reasons for any deferred tasks
4. Review reports monthly for compliance
5. Keep location information current

Thank you for using EMFoS!

For questions or feedback, please contact your system administrator.

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