**📦 LogiBot AI Copilot - User Manual**

**Quick Start Guide**

**🚀 Getting Started (2 Minutes)**

1. **Visit the app:** Open LogiBot AI Copilot in your browser
2. **Get sample data:** Click any **📥 Download** button in the Sample Data section
3. **Upload file:** Use the sidebar **📁 Upload Manifest** to upload your downloaded CSV
4. **Explore tabs:** Navigate through the 9 feature tabs to analyze your data

**📂 Sample Data Files**

**🚚 Basic Manifest**

* **Purpose:** Test core AI features
* **Contains:** 13 shipments with standard logistics columns
* **Best for:** AI Summary, Q&A, Dashboard, Compliance checking

**🌍 Enhanced Manifest**

* **Purpose:** Test mapping and route features
* **Contains:** 10 shipments with coordinates and dates
* **Best for:** Route Optimization, Timeline, Advanced analytics

**⚠️ Problem Manifest**

* **Purpose:** Test error handling and compliance alerts
* **Contains:** 10 shipments with compliance issues
* **Best for:** Carrier validation, Alert system testing

**🔧 Core Features by Tab**

**📊 Dashboard Tab**

**What it does:** Provides instant KPI overview of your manifest

* View total shipments, costs, and carrier distribution
* See status breakdown (Delivered, In Transit, Delayed)
* Analyze trends with automatic charts
* **Best with:** Any sample file

**🤖 AI Insights Tab**

**What it does:** Natural language Q&A about your logistics data

* Ask questions like: *"How many shipments are delayed?"*
* Get AI-powered analysis: *"Which carrier has the most shipments?"*
* Query costs: *"What's the total shipping cost?"*
* **Best with:** Basic or Enhanced sample

**📋 Data Mapping Tab**

**What it does:** Column analysis and geographic coordinate generation

* **Column Analysis:** See how your data maps to standard logistics fields
* **Geocoding:** Convert city names to latitude/longitude coordinates
* **Download Enhanced Data:** Get your file with coordinates for mapping
* **Best with:** Basic sample (to generate coordinates)

**✅ Carrier Check Tab**

**What it does:** Validates carriers against approved company list

* See approved vs. unapproved carriers
* Get compliance alerts for unauthorized carriers
* Manage approved carrier list
* **Best with:** Problem sample (to see alerts in action)

**🚚 Route Optimization Tab**

**What it does:** Interactive maps and route analysis

* **⚠️ Requires:** Enhanced data with coordinates
* View shipment locations on interactive maps
* Analyze routes and distances
* Optimize delivery paths
* **Best with:** Enhanced sample only

**📥 Reports Tab**

**What it does:** Export comprehensive reports

* Generate Excel files with multiple sheets
* Include AI summaries and compliance notes
* Export column mappings and raw data
* **Best with:** Any sample file

**🚨 Shipment Alerts Tab**

**What it does:** Real-time alerts for logistics issues

* Delayed shipment notifications
* Missing tracking ID alerts
* Cost anomaly detection
* **Best with:** Problem sample

**📚 AI Documentation Tab**

**What it does:** Technical documentation and AI insights

* View LangChain implementation details
* Understand AI decision-making process
* See prompt engineering examples
* **Best with:** No file needed

**⏳ Timeline Tab**

**What it does:** Shipment timeline visualization

* Track departure and arrival dates
* Visualize delivery schedules
* Identify scheduling conflicts
* **Best with:** Enhanced sample

**🛠️ How-To Guides**

**Generate Geographic Coordinates**

1. Upload **Basic Sample** file
2. Go to **📋 Data Mapping** tab
3. Scroll to "🌍 Geographic Data Generation"
4. Click **🌍 Generate Geographic Coordinates**
5. Wait for geocoding to complete (may take a few minutes)
6. Click **📥 Download Data with Coordinates**
7. Re-upload the enhanced file for mapping features

**Test Compliance Alerts**

1. Download **⚠️ Problem Sample**
2. Upload the file
3. Go to **✅ Carrier Check** tab
4. See red alerts for "UnauthorizedCarrier", "SketchyLogistics", etc.
5. View missing tracking ID warnings

**Ask AI Questions**

1. Upload any sample file
2. Go to **🤖 AI Insights** tab
3. Try these example questions:
   * *"How many shipments are delayed?"*
   * *"Which carrier handles the most shipments?"*
   * *"What's the average shipping cost?"*
   * *"List all shipments going to Glasgow"*

**Export Excel Report**

1. Upload any sample file
2. Go to **📥 Reports** tab
3. Select report options (AI Summary, Compliance, etc.)
4. Click **Generate Excel Report**
5. Download the comprehensive report

**⚡ Pro Tips**

**For First-Time Users**

* Start with **🚚 Basic Sample** to understand core features
* Try asking AI questions - the system gives accurate answers
* Check the **Dashboard** first for quick data overview

**For Route Mapping**

* Use **🌍 Enhanced Sample** for immediate map visualization
* Or generate coordinates from basic data via **Data Mapping** tab
* Route optimization requires coordinate data to function

**For Compliance Testing**

* **⚠️ Problem Sample** demonstrates real-world compliance issues
* Add carriers to approved list via **Carrier Check** tab
* System is case-insensitive for carrier matching

**For AI Questions**

* Ask specific questions for best results
* Use natural language - no special syntax needed
* The AI can count, calculate, and analyze your data accurately

**🔍 Troubleshooting**

**"No data found" / Empty tabs**

* **Solution:** Upload a manifest file first using the sidebar uploader

**Route Optimization shows "No coordinate data"**

* **Solution:** Use Enhanced Sample or generate coordinates via Data Mapping

**AI gives wrong answers**

* **Solution:** The AI uses direct data analysis for accuracy. If issues persist, check your data format

**Download buttons not working**

* **Solution:** Try different browser or disable popup blockers

**Geocoding takes too long**

* **Solution:** Large datasets may take several minutes. The system shows progress bars.

**📞 Support**

**Technical Questions**

* Check the **📚 AI Documentation** tab for implementation details
* Review the source code on GitHub for deeper understanding

**Sample Data Issues**

* All sample files are embedded in the app - no external dependencies
* Files are generated fresh each time you click download

**Performance**

* App optimized for datasets up to 1000+ rows
* Geocoding limited by free API (1 request per second)
* All processing happens in real-time

**🎯 Best Practices**

**Data Format**

* CSV files work best with standard column headers
* Include: Shipment ID, Carrier, Status, Origin, Destination
* Optional: Cost, Tracking Ref, Dates, Priority

**Feature Testing Order**

1. **Dashboard** → Get data overview
2. **AI Insights** → Ask questions about your data
3. **Carrier Check** → Validate compliance
4. **Data Mapping** → Generate coordinates if needed
5. **Route Optimization** → View maps (enhanced data only)
6. **Reports** → Export comprehensive analysis

**For Demonstrations**

* Use **Problem Sample** to show compliance alerts
* Use **Enhanced Sample** to demonstrate mapping
* Ask varied AI questions to show intelligent responses

*📦 LogiBot AI Copilot - Making logistics smarter with AI*