Application User Guide

A step-by-step guide to mastering study creation, playback, and reporting with Oz.

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1. Introduction

Welcome to Oz

The Oz Application simulates package movement and analyzes damage across fulfillment center environments. It offers powerful insights into package handling and operational efficiency.

🖊 **Version**: Displayed on the splash screen (e.g., v1.1.0).
📧 **Support Contact**: For bugs or assistance, email **ozsupport@kinetic-vision.com**.

Pro Tip: Bookmark this guide for quick reference while working with Oz.

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2. Getting Started

Splash Screen Overview

File Menu

🎞 **Options**:

- **Exit**: Close the application.

- **Restart**: Return to the splash screen.

- **Import Studies**: Load saved study files.

Help Menu

ⓘ **Features**:

- **Documentation**: User manual, EULA, and installation guide.

- **Run Wizard**: Guided setup for new studies.

Pro Tip: Start with the **Run Wizard** to get acquainted with the application.

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3. Run Wizard

The Run Wizard simplifies study creation for new users.

Quick Start Guide

1. 🟢 **Access**: Go to Help → **Run Wizard**.

2. 📝 **Name Your Study**: Enter a unique study name.

3. 🌐 **Choose Environment**:

   o DET6 Facility (longest process path).

- o   DET6 Southwest Loop (smaller zone).

- o   KCVG Horseshoe (turnstyle).

4. 📦 **Set Parameters**:

- o   Adjust package count (1–200).

- o   Select pre-configured mixes like SAN3 or Heavy Boxes.

5. ▶️ **Run Study**: Click **Run Study** to start the simulation.

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4. Advanced Study Creation

Design custom experiments with detailed control over parameters.

Features

- **Environment Options**: Add Drop Tests for package durability studies.

- **Telemetry Data**: Enables playback features; increases file size.

- **Package Mix Editor**: Customize packaging attributes (type, weight, priority).

Quick Start Guide

1. 🛠️ **Start**: Select **Create New Study** from the splash screen.

2. 🖊️ **Customize Parameters**: Conveyor speed, package interval, generation seed.

3. 🎨 **Edit Mixes**: Modify or create package types and distributions.

4. ▶️ **Run Simulation**: Observe real-time progress during execution.

Pro Tip: Limit advanced settings for simpler studies to reduce load time.

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5. Interactive Playback

Replay simulations visually to analyze package movement, damage, and collisions.

Practical Use Cases

1. 🔄 **Identifying Choke Points**:

- o   Use Obstacle Shelf to simulate congested zones.

- o   Replay to locate recurring jams.

- o   Adjust parameters to eliminate bottlenecks.

2. 🕵️ **Forensic Damage Analysis**:
    - Follow a specific package to trace damage sources.
    - View collisions for high-impact events.

3. 📊 **Testing Package Robustness**:
    - Compare new packaging designs against high-stress environments.
    - Use collision data to fine-tune design parameters.

Quick Start Guide

1. 📂 **Load Study**: Go to **Case Studies** → Select a study → **Interactive Playback**.

2. 🕹️ **Scrubber Tool**: Move forward/backward in time.

3. 📦 **Focus on Packages**:
    - Isolate individual packages.
    - Trace paths to view their journey.

4. 🚧 **Collision View**: Visualize and analyze impact zones.

Pro Tip: Use Follow Mode for detailed insights into specific packages.

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6. Reporting with Power BI

Turn simulation data into actionable insights using Power BI.

Practical Use Cases

1. 🌡️ **Collision Hotspot Analysis**:
    - Identify high-impact zones via environment heatmaps.
    - Adjust configurations to reduce collisions.

2. 🔍 **Outlier Detection**:
    - Spot packages with unusual damage levels.
    - Investigate their paths and collision details.

3. 🛡️ **Package Type Evaluation**:
    - Compare old vs. new designs for durability.
    - Use damage by face to identify weak spots.

Quick Start Guide

1. 📈 **Open Results**: Select a study → **View Results**.

2. ⚙️ **Refresh Data**: Click **Refresh** in Power BI for the latest data.

3. 📊 **Analyze**: Use scatter plots, heatmaps, and damage-by-face reports.

4. ✏️ **Customize**: Add filters or new visuals for specific needs.

5. 💾 **Export**: Save reports for team presentations.

7. Troubleshooting and Tips

- 🛠️ **Known Issues**:

    - Performance may lag with large studies.

    - Restart the application if telemetry data fails to load.

- 📧 **Contact Support**: Email **ozsupport@kinetic-vision.com** for assistance.

Pro Tip: Reduce telemetry data for faster simulations if your system struggles.

8. Technical Specifications

- **File Size**: ~1 GB for installation.

- **Basic PC**: Supports up to 100 packages per study.

- **Advanced PC**: Recommended for large studies and detailed playback.