FeedBack (ROI Calculation)

Automatic Forklift Unidentified Operational Downtime Recording

Example:

- **Fleet size:** 12 forklifts
- **Shifts:** 2 shifts/day
- **Hours per shift:** 8
- **Total hours/day per forklift:** 16
- **Working days/year:** 250
- **Fully loaded cost/hour (labor + truck):** $42
- **Current operational downtime:** 32%
- **Expected improvement with FeedBack:** 18% reduction in operational idle time

"Unidentified forklift operational idling is one of the largest hidden costs in material handling, and what isn't measured cannot be improved."

Measuring unidentified operational idling in forklift operations it's one of the most important levers for improving cost, productivity, and operational control in any material handling operations.

Step 1: Total Annual Operating Hours

Per forklift:

- 16 hrs/day × 250 = 4,000 hrs/year

Fleet total:

- 4,000 × 12 = 48,000 hrs/year

Step 2: Current Downtime Cost

- 32% of 48,000 hrs = 15,360 hrs wasted

Cost of wasted time:

- 15,360 × $42 = $645,120/year

Step 4: Additional Savings

Maintenance Reduction (~5%)

- Assume maintenance cost: $6/hr
- 48,000 hrs × $6 = $288,000/year
- 5% reduction = $14,400/year

Energy/Fuel Savings (~8% idle reduction impact)

- Estimated: $8,000–$15,000/year
  Let's use use midpoint: $11,500/year

Fleet Optimization (Conservative)

- Productivity gain may eliminate need for **1 forklift**
- Avoided cost (lease/depreciation): **$30,000/year**

Total Annual Benefit

Source	Value
Productivity recovery	$116,121
Maintenance savings	$14,400
Energy savings	$11,500
Fleet reduction	$30,000
TOTAL	**$172,021/year**

Step 5: System Cost Estimate

Typical:

- FeedBack system + install per forklift: $3,000
- 12 forklifts → $36,000 total investment

Step 6: ROI Metrics

✅ Payback Period

- $36,000 ÷ $172,021 ≈ **2.5 months**

✅ ROI (Year 1)

- ROI = (172,021 − 36,000) ÷ 36,000
- ROI ≈ **378%**

✅ 3-Year Net Benefit

- 3 × 172,021 = $516,063
- Minus initial cost:

  👉 **$480,000+ net gain**

Key Insight

The biggest driver is NOT fuel or maintenance.

It's recovering hidden time **(unidentified downtime)**

Even small improvements (10–20%) create **massive financial impact** because:

- Labor is the dominant cost
- Operational downtime / Idle time in majority of fleets is under reported
- (The FeedBack system automatically record all unidentified and all justified operational downtimes.

This model is based on:

- Average industry utilization ranges (25–40% downtime typical)
- Conservative improvement (15–20%)
- Fully loaded cost (not just wages)