



OPX

OPERATIONAL PERFORMANCE EXCELLENCE (OP^x)

ISL Analytics Performance Accelerator Product Suite

SPEED | ACCESS | INSIGHT | SAVINGS

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SMART TOOLS FOR SMART COMPANIES: OPERATIONAL PERFORMANCE EXCELLENCE (OP^x)

Operational Performance Excellence (OP^x) is a powerful analytic workforce and asset performance management application. OP^x gives utilities the ability to uncover productivity and efficiency improvement opportunities, driving unneeded costs out of their organizations. It provides timely, consistent, and transparent access to critical decision-making and planning information. Our lightweight, low-cost Product Accelerator Solutions deliver operational and predictive analytics of big data, focusing on SPEED, ACCESS, INSIGHT, & SAVINGS.



INCREASE IN
PRODUCTIVITY

15-20%



O&M
SAVINGS

10%



REDUCED
OVERTIME

5%

O&M cost containment and regulatory pressures are continually driving utility management to improve the productivity of its workforce and eliminate unnecessary expense. To achieve these objectives, better, timely insight into operations is needed. ISL Analytics' OP^x application enables management to measure, manage and improve staff productivity and spend on individual assets, identify best internal crews and practices, and provide a common operational view across the organization. Essentially delivering "Analysis at the Speed of Thought", it enables timely, consistent decision-making due to its integration and automation of multi-system information and lightweight, yet robust analytical platform.

WHY DO YOU NEED IT?

SPEED

EXPEDITE REPORTING & DECISION MAKING



- Reduce time extracting data, analyzing it and producing reports – stay a step ahead rather than behind
- Focus on key data to drive positive change; eliminate wasted time reviewing “indigestible, data overloaded” reports that provide little to no value
- Answer questions in minutes instead of hours, rapidly driving positive change

AUTOMATE REPORTING & ALERTS



- Automatically disseminate important / relevant information sooner and more frequently
- Easily create and schedule custom weekly, monthly and annual automated reporting
- Eliminate risk of manual errors in reports
- Enable reassignment of analysts to performance analysis / interpretation tasks
- Alert relevant audiences via email when certain thresholds have been breached or conditions met for faster response times and compliance risk mitigation

ACCESS

LEVERAGE DISCRETE DATA THROUGH INTEGRATION



- Integrate data contained within separate and disparate systems into a single repository for cost, productivity, schedule, and performance analyses. Create a “one-stop data shop.”
- Create and export new data (i.e. risk factors, schedule adherence, predictive outcomes, priorities, etc.) for use in other systems

“ There is a ‘treasure trove’ of data deep within these systems. OP^x allows us to see and act upon items we could never see before. ”

INCREASE & DEMOCRATIZE ACCESS TO INFORMATION



- Easily and quickly drill down into results to discover issues, patterns, trends and opportunities
- Democratize the data for users across various organizational levels
- Improve scheduling and estimating with more accurate information and access to historical trends

IMPROVE DATA QUALITY & AWARENESS



- Measure and report on data quality, reinforcing the necessity for accurate data collection and record keeping within the company
- Drive a “virtuous cycle,” measurement leading to focus and to data accuracy, and therefore better measurement and sustainable data quality
- Predict work backlog, employing more accurate estimates
- Quickly ascertain and correct data issues through a robust validation process

SET TIGHTER TARGETS



- Set more granular targets by isolating cost and performance by asset age, manufacturer, voltage, location, etc.
- Avoid “one size fits all” overtime targets with the ability to see specific workload and ratios of staffing levels to assets or other factors
- Define local staffing levels and O&M budgets in a more fact based way using historical data; monitor and adjust throughout the year

IMPROVE PERFORMANCE



- Facilitate “deep-dive” analyses, thus streamlining and reducing the time from problem identification to well-targeted interventions
- Empower teams by helping supervisors and managers develop a proactive stance with respect to owning performance in their areas
- Reduce compliance risk via predictive analytics for completion vs. due dates

REDUCE COSTS



- Understand what is costing you the most money and why. This will allow you to isolate costly assets and determine whether to repair or replace.
- Transfer spend from O&M to Capital by rapidly identifying poor performing assets
- Reduce labor costs and improve workforce productivity by finding and leveraging best practices by work category across the organization
- Reduce labor costs by increasing transparency on overtime and non-productive time
- Justify the initial expenditure to implement OP^x with improvements in field productivity - payback is typically 3 - 6 months

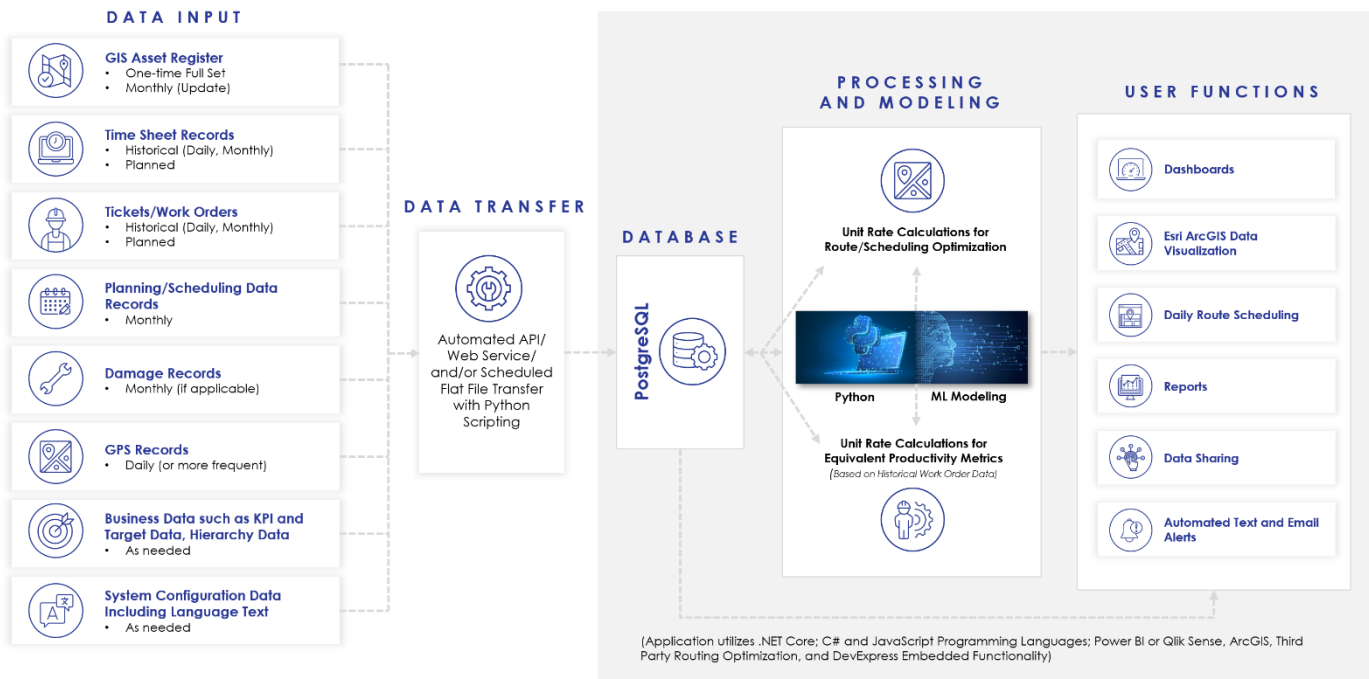
OP^x APPLICATION OVERVIEW

OP^x APPLICATION ARCHITECTURE

OP^x seamlessly integrates and validates source system data, from work order management, asset management and time tracking systems, into a robust data analysis and reporting application that provides deep visibility into operations and enables managers to make better decisions.

Our powerful business intelligence engine allows for instantaneous processing of hundreds of thousands of records delivering data quality management, expedited results reporting, visualization & analysis, and alerts & notifications on key operational indicators:

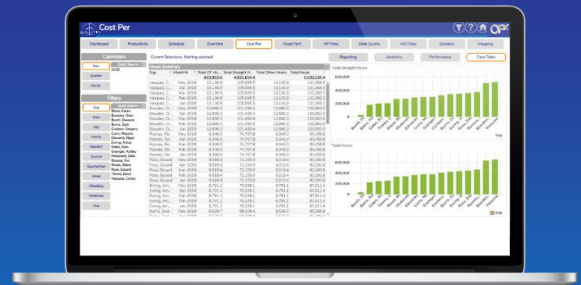
- Productivity and 'Cost Per' Analysis
- Work Bundling & Outage Management
- Scheduling Effectiveness
- Overtime Management
- Equipment Performance & Troubled Assets



OP^x APPLICATION DYNAMIC ANALYSES

OP^x enables dynamic analysis, filtering and drill downs across attributes and dimensions including geography, work types, and asset demographics under various operational domains such as:

- Cost Per
- Productivity
- Plan Completion
- Schedule Effectiveness
- Overtime
- "Bad Actor" Assets
- Data Quality



Dynamic analyses and quick filtering with tabular and graphical output displays.

OP^x APPLICATION REPORT SCREENS

Navigation throughout the application is simple and intuitive. After a navigation tab is clicked a report screen is displayed. Within a given reporting screen are various combinations of charts and tables designed to visualize the data loaded in the tool. Alongside these objects, functionalities such as interactive chart buttons and filter lists help users to refine their data exploration and analysis process.

REPORT SCREEN EXAMPLES

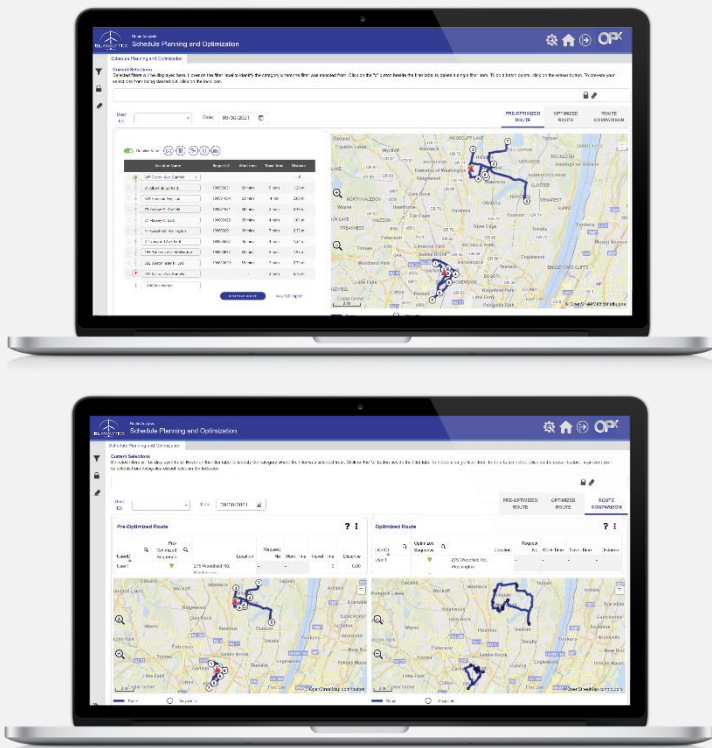


DAILY WORK ORDER SCHEDULING / ROUTE OPTIMIZATION

The **Daily Work Order Scheduling / Route Optimization** module utilizes Routing Optimization and other external functional APIs, Mapping Third Party Extensions (ESRI ArcGIS), and python modeling to enable sustainable savings to the business through reduced overtime, higher production, and lower schedule compliance risk.

The OP^x application will prepare and electronically deliver schedules to inspectors prior to the start of each day. The routing application will consider the travel time (by time of day) and the estimated time for a job (see Unit Rates section below) to create an optimized sequence of locations the tech should visit.

Beyond creating the initial daily route, the module provides automated re-routing and re-balancing of jobs. Routes are monitored in near-real-time for 'planned versus actual' daily performance, and will account for disruptions due to emergency jobs, other unscheduled work, personal issues, and unexpected delays, and will be automatically re-allocated and re-sequenced as needed throughout the day, in order to maintain productivity, minimize overtime and reduce cost. Re-balancing will help to efficiently move jobs: From one inspector to other inspectors within the district, across adjacent districts, across due dates, etc.



OP^x DEPLOYMENT & ROI

DEPLOYMENT APPROACH

Installing OP^x is quick and easy. Our proven methodology enables you to deploy OP^x in a few manageable steps over a 2-3 month period.



WHAT ABOUT ROI?

Improvements in field productivity more than justify the initial expenditures required to fully implement the OP^x solution. Payback is often in 3 to 6 months. Additional benefits of deriving best practices, replacing problem assets and reducing the time-to-actionable-decisions adds further to any ROI calculation.

10x
In 5 years



OP^x PRODUCTIVITY ANALYSIS EXAMPLE

A core functional domain of OP^x is productivity analysis. By isolation of good/poor performers, from both a work type and geographic perspective, internal best practice sharing opportunities often arise.

Productivity Drilldown Discovery Process in Action:

- 1

If a district or regional manager is interested in analyzing team performance, he/she might start by comparing productivity percentage (target/actual hours) by Region.
- 2

A user can drill in from there, isolating South, and further into the Southern district of Chula Vista.



- 3

From there, it is quick to flip to of a view of Chula Vista's productivity by type of work. Chula Vista has recently been having issues with their Light Maintenance performance.
- 4

Isolating that work type and then switching to a view of that work type's productivity across all Districts indicates an opportunity to learn from others, especially Seattle, the current best performing utility District.

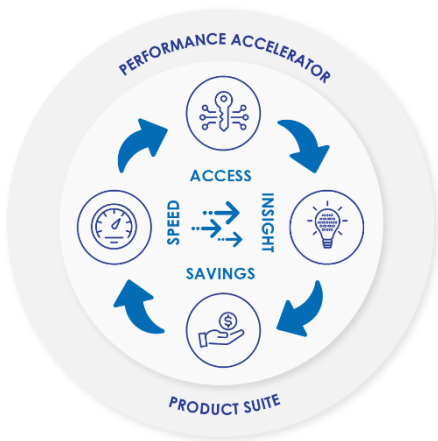


Upon further discovery and open dialogue between the district managers, it turns out that Seattle performs a significant amount of light maintenance and over the years has developed fantastic work practices, which it was able to share with the rest of the districts to improve performance across the board.

PHILOSOPHY BEHIND ISL ANALYTICS' PERFORMANCE ACCELERATOR PRODUCT SUITE

Digitalization => Powerful 'Mega Trend'

Clients recognize that improved asset condition, risk, reliability, and operational cost & productivity information is the next frontier for better asset management decisions, greater stakeholder transparency and trust, and ultimately strengthened regulatory proposals. Data Governance is key to effectiveness of collecting, accessing, analyzing and interpreting this information.



Companies are not just being asked to accept digitalization, but to EMBRACE it. This means companies must:

- Drive toward greater data access (democratization of data), data accuracy, and usefulness.
- Leverage the IoT, pilot and practice with low cost and lightweight BI solutions that can provide most of the insights of large scale applications, but much faster and at dramatically lower costs.
- Capture benefit of new insights and culture & behavior change, without the ponderously slow and frightfully expensive overheads of large enterprise systems. This means FLEXIBLE technology solutions!

ISL Analytics' Performance Accelerator Product Suite has been specifically designed to help asset intensive companies drive and embrace digitalization. Our lightweight, low cost Product Accelerator Solutions deliver operational and predictive analytics of big data, focusing on SPEED, ACCESS, INSIGHT, & SAVINGS. We help strengthen situational awareness, enable real time asset management, optimize reliability, quality, productivity and costs, and leverage artificial intelligence and machine learning (our new frontier). **IT'S A NO REGRETS MOVE!**

ISL ANALYTICS' INNOVATION LAB: SMART TOOLS FOR SMART COMPANIES

ISL Analytics develops software solutions and tools to help solve challenges, complementing our consulting services. Our broad industry experience and expertise, combined with in-house developers, results in solutions that are practical and meet real industry needs. These solutions are designed to be "right-sized" for you – configured to meet your current needs and budget, and then grow with your process and data availability over time. We also continually evolve our offerings based on market feedback and observations from our product and consulting staff.



ISL ANALYTICS' CLIENT INDUSTRIES

ISL Analytics provides breakthrough consulting services and cutting-edge tools to utilities and other asset intensive industries.



ELECTRICITY

DISTRIBUTION,
TRANSMISSION,
GENERATION



GAS

DISTRIBUTION,
TRANSMISSION,
STORAGE



WATER

STEAM/CHILLED,
WASTE-WATER,
PRODUCTION/
DISTRIBUTION



TRANSPORT

AIRPORTS,
RAIL,
METRO

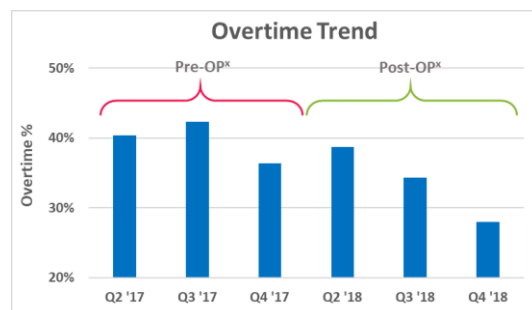
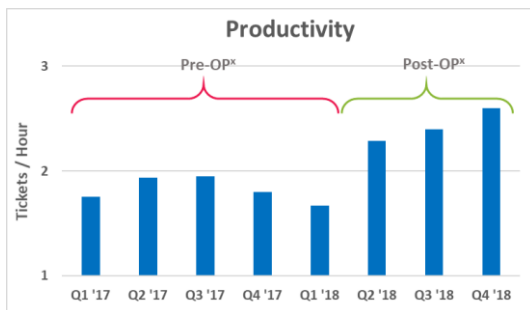
VALUE CASE EXAMPLE: USING ANALYTICS AND EXCEPTION REPORTING TO IMPROVE PRODUCTIVITY AND REDUCE COSTS

"This is the first time I can really see and analyze our 'non-productive labor category'. We will reduce it by 10%, saving about 3,000 hours (1.5 FTE) using OP^x to manage the results."

"With OP^x, we identified several breakers where we were spending \$60,000 per year on corrective maintenance on assets that could be replaced for \$45,000."

THE PROBLEM: A common issue seen across the industry - O&M cost reduction pressure. There was a need to reduce cost while work volume was increasing 20% each year. While the work was ultimately "getting done" (albeit late at times), achieving these goals meant utilizing extraordinary amounts of overtime, which hovered around 40%. It was clear that there was a need for better oversight of how much, and how well, work was getting accomplished.

THE SOLUTION: The solution required insight into what the work force was doing throughout the day, as well as the ability track progress over time. The management pool was thin, and supervisors needed a method of quickly seeing how their teams were performing in order to manage by exception. The OP^x platform provided a mechanism to harness the power of underutilized data to discover problem areas in the organization and ultimately increase productivity and reduce costs.



The results: From the productivity perspective (tickets per hour), the year-over-year increase (post OP^x implementation) was ~30%. In terms of raw savings, ~20% more work was accomplished with a reduction of roughly 35,000 hours. Overtime was also reduced 5% compared to the same time period the previous year. This equates to savings of ~\$3M.

SAVINGS



Tickets/Hr Increased

30%



Hours Reduced

35,000



Overall Savings

\$3M



“Wow! I spent six hours last week solving a problem that just took three minutes with OPx.”

“OPx enabled us to quantify the impact of late schedule changes and identify the causes behind excessive overtime.”

Contact us for more information or a demonstration

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