



Digging for Value

Seven Gems of Process Mining

Digging for Value

Seven Gems of Process Mining

Salar de Atacama, the largest salt flat in Chile, is a barren landscape of salt-encrusted rocks that appears to be completely without commercial value.

But below the surface of this apparent wasteland is a supply of salt water that holds 27 percent of the world's reserve base of lithium—an essential component for the manufacture of glass, ceramics, and the batteries that power an increasing array of portable electronics. Based on the growing market for mobile device power sources, and its increasing use in transportation batteries, the silvery white metal pulled from this briny solution is, in the view of many commodities analysts, “white gold.”

The large quantities of business process data generated by all your enterprise applications may appear to be worthless, too, but the right tools can extract the complex process reality that lies below the surface.

The extraction of useful knowledge from information system event logs is known as process mining. And according to the IEEE Task Force on Process Mining, the discipline encompasses discovering, monitoring and improving real processes—not processes you imagine or assume are happening.

Manually inspecting such a vast reservoir of raw data for a few glittering bits of understanding is a slow and tedious process. Fortunately, there is now the equivalent of a self-contained mining machine that bores into the rich veins of data your systems generate and sends valuable insights out the other end: process mining software.

In fact, there are seven ways that process mining software can help you stake your claim to the cost-cutting, time-saving, customer satisfaction-boosting treasure of application event data that your business may very well be simply sitting on.

1. Improve customer satisfaction

Customer-intensive business processes can be a source of profit-building customer satisfaction, repeat business, and loyalty—or a pit of market-share-shrinking suffering and resentment.

You might suspect there are process problems, but do you have the data to act on improvements?

For example, governments can use process mining to improve service to their constituents. Many government organizations grant permits, and process mining is a valuable tool for analyzing the time spent fulfilling such requests from initial contact to completed permit. This can lead to identifying and removing barriers to a smooth transaction, addressing information technology issues, or even inspiring innovations such as lowering the fees for complete applications and raising it for incomplete ones.

By alerting you to bottlenecks and breakdowns in both people and technology, process mining enables continuous process improvement. And improvements that produce happy customers represent a competitive advantage.

2. Support process compliance

Following the rules, whether they're imposed within your organization or by external authorities, is an increasingly important part of running any business.

Process mining equips you to identify and assess threats to compliance at every level. Properly configured, such software allows you to periodically verify that your business units, departments and teams still work according to the guidelines, regulations and agreements originally set by government or management. Some products will even let you periodically visualize business processes and compare them to the automatically generated results from previous periods.

Internal audit departments often use process mining as a tool to assess risk and report efficiency issues to senior management. By visualizing the flow of all cases, not just a sampling of them, process mining allows auditors to generate faster and more meaningful results.

Process mining also helps auditors to position themselves as advisors for value-oriented improvements within the business. No longer dependent on subjective statements from those involved in the process, their conclusions and recommendations are based on objective facts and comprehensive analysis.

3. Bring transparency to daily operations

Turn raw process data into true process understanding.

Be honest: You'd like to know who the laggards in your process-driven organization are and kick them out. But the situation might not be quite as simple as you think.

Process mining can certainly put a spotlight on bottlenecks in your process, but it also helps you identify why slowdowns occur—leading to discoveries about what may be holding your apparent laggards back—insufficient information, incorrect work practices, malfunctioning information systems, or not being equipped with the right inputs or tools to do their jobs.

Everyone has an idea of what they think is going wrong, but process mining isn't based on hunches—It's based on real historic data from system logs, without human judgment or unconscious biases affecting the result.

By adding resource information to the logs that are tracked, process mining also gives you the ability to associate direct costs with specific products and services, providing a clearer picture of how much time individual activities contribute to the cost basis for a product or service.

Thanks to the transparency that process mining yields, everyone knows how well a team and its members are meeting the organization's expectations and can see where and why change is necessary. The benefit of measuring yourself against such standards is not just data but true process understanding.

4. Increase process awareness

Help process participants visualize their interactions with others.

"How does the way I work affect other people in our company's processes?" This is among the important questions that are often discussed in process "discovery" sessions aided by process mining software.

When your entire staff can see a visualization of the way things are currently done, via process mining software, each member can see where they fit in and, in cooperation with their workgroup, identify where problems are occurring.

According to companies that have successfully implemented process mining, the technology contributes unique insights to everyone in the organization. By providing personnel with the tools they need to know how their processes are executed, process mining empowers individuals in your organization to take responsibility for their work. And being confident of the accuracy of analysis based on actual process mining data will empower them to take decisive action.

But beyond just identifying and fixing problems, process mining as a standard part of the daily routine drives a change in how both management and individual process contributors think about what they do.

Long term, process mining helps everyone realize they are part of a unified system whose ultimate success depends on the cooperation and accountability of all its members. And it can help management to give process contributors the tools they need to succeed.

5. Reduce the implementation time of process improvement projects

Shorten the time from process improvement need to fulfillment.

Process discovery and improvement used to be a complicated affair involving lengthy interviews, group meetings, mountains of paperwork, and wall-sized whiteboards covered with notes.

By contrast, process mining software can readily display how users interact with their information system tasks, each other, and the system itself. Such visualization can assist in follow-up discussions that capture information about manual or semi-manual activities and help the process participants put the process mining results in context.

Furthermore, effective process mining turns business process discovery and improvement from an occasional, sporadic effort into a standard and almost invisible part of an organization's daily operation.

The net result is faster time to getting the process improvement you need, plus ongoing monitoring to ensure you stay on the right track as time goes by.

6. Balance your staff resources

Learn how people really work together.

Are expensive, experienced people doing work that lower-scale employees could be doing?

Are particular groups of individuals working together across departments, roles, or geographies in ways we hadn't noticed before?

Is team A performing better than team B in handling the same types of cases?

What's likely to happen if we transfer a person with particular skills to another team?

People are the most valuable resource in your organization, but it's essential to deploy them in ways that make sense in both economic and human terms.

Process mining helps you see behind the titles, division names, office layouts, policies, and predefined workflows that you think determine how things get done. Its visualization tools can challenge your assumptions about how people efficient arrangements that take human nature and other real-world factors into consideration.

7. Validate the results of organizational changes

Proof beats speculation. Identify which changes are worth it—and which are not.

Your business—with its unique routines, personnel, objectives, legal requirements, technology, and competitive landscape—is constantly changing.

Process mining software can help you determine the impact that changes to any of those factors make on your organization's productivity.

For example, are changes to document-handling policies impacting throughput? Is the new data integration program paying off? Has training affected the total volume of completed cases?

With historic baseline measurements to go by, you can readily compare post-change statistics in a verifiable visual way that helps you determine which changes help—or hurt—your processes

From worthless data to valuable insights

Improved customer service, cost reductions, and time savings—these are the bright facets of all the gems that process mining software uncovers and puts in your hand.

In the end, such gains translate into greater profitability and enhance your organization's ability to adapt and thrive over the long term.

Lexmark is a leader in process mining software. Learn more about Perceptive Process Mining, the innovative process mining product that helps you visualize your processes with animation, at www.lexmark.com/processmining.