

# Process mining

a silver bullet for Audit and Compliance



**Audit and control-related activities** account for **19%** of the most common areas where executives see opportunities to use process mining<sup>1</sup>

Process mining provides a quick and easy approach to taking any process and understanding how it operates at the technology layer. It enables unbiased and fact-based process compliance checking to verify that internal controls work as intended. It makes process compliance checking **quicker** and **on demand**.

By discovering and visualizing the actual process and related details, companies gain full transparency of how their processes are carried out and can use those insights to **predict non-compliance** by identifying process deviation in advance.

## One way to use process mining technology: compliance

Process mining technology can play a critical role in transforming the internal audit function - to deliver more value.



**56%**

of Internal Audit leaders believe technology adoption **impacts** Internal Audit's **value** to the organization<sup>2</sup>



### Importance of internal audit

- Provides reliable data
- Helps prevent fraud
- Promotes operational excellence



### Ways to use process mining for auditing and compliance:

- > Documenting actual processes and providing evidence of process execution
  - > Supporting automation of audits
  - > Enabling deeper testing of monitoring and controls
- > Simplifying detection of process non-compliance and taking immediate action
- > Supporting risk management with real-time information such as leading indicators

## Using process mining at different stages of the internal audit



### WALKTHROUGHS

Reduce time-consuming interviews and meetings with clients to understand their processes. Walkthroughs without technology are not efficient for gaining a comprehensive picture of how processes are actually executed. Using process mining, this step can be shortened and the quality of walkthroughs can be drastically improved.

### BASIS FOR SAMPLING

See the full population of transactions so that you have a complete and objective view, as opposed to a small sample that is typical of a walkthrough.



### COMPLIANCE CHECKING

Assess process compliance by detecting deviations from a desired process path or a compliance rule. The entire population of historic data can be checked instead of limited analysis done on sample data.

### TESTING CONTROLS

Under the Canadian Bill 198, also known as C-SOX, and section 404 of the *Sarbanes-Oxley Act of 2002*, it is critical for auditors to evaluate a company's internal control system and identify what can go wrong. Process mining allows auditors to do a detailed walkthrough of the transaction cycles. Auditors can replace manual audit procedures, such as reperforming transaction flows or testing controls using sampling, thereby enhancing audit effectiveness and efficiency.



## Typical approach to internal audit



**Planning**  
1 to 4 weeks



**Walkthroughs**  
2 to 4 weeks



**Testing**  
2 to 4 weeks



**Reporting**  
1 to 4 weeks

When you inject process mining, efficiencies happen - **50% reduction in time spent**

1 to 2 weeks

1 week

2 to 3 weeks

1 to 2 weeks

How many employees are involved in the business process?

How can I control a process better?

How many activities are in the company's business process and are they all necessary to the business and compliance objectives?

What are the root causes of process deviation?

How and why do people deviate?

How can we increase compliance?

Which activity occurs most frequently in the business process?



## benefits

- cheaper, faster auditing
- quicker reaction to non-compliance processes
- reduce organizational risk
- improved performance management
- data-driven decision-making

## Knowing how to take advantage of process mining in your internal audit function is important.

**We can help.**

- Operate to your fullest potential by enhancing process conformance.
- Rock-solid processes and data-driven decisions will help get you there.
- Find out how you can create a more valuable internal audit function.

[Learn more about how EY can help you](#)

<sup>1</sup> "Process Mining: All you need to know to get started with Process Mining", QPR Software Plc. n.d. Web.  
<sup>2</sup> Rosik, Michal. "Process Mining is Changing Internal Audit Services.", *minit.io*. 04 Jul. 2018. Web.