Transforming order to cash through rapid process improvement and task mining

BPM-D
Enabling the Next Generation Enterprise

AUTOMATION™ ANYWHERE

ORGANIZATION PROFILE

A management consultancy with 3 business units based in the UK, US and India identified a problem with their invoicing process. By utilising BPM-D's Rapid Process Improvement Approach (RPI) and FortessIQ's Process Intelligence tool, it became apparent the root cause of this was down to timesheet records.

In order to effectively analyse this level 4 process, the company successfully completed a proof-of-concept project on the Fortress IQ tool, yielding advantageous and exciting insights.

CHALLENGE

A delay in processing invoices and uncertainty around the standardised order to cash process were key initiators to kick start a rapid process improvement project. The company faced the following challenges:

- **Uncertainty on where to focus their improvement efforts within their O2C process.**

- **Inconsistent and infrequent use of CMAP (project planning and accounting software).**

- **Invoice creation took on average 15 to 20 days.**

This highlighted the need to complete a process impact and maturity assessment on their O2C process which in turn presented opportunities for task mining analysis.

SOLUTION

The RPI project was initiated by identifying the key value drivers of the organisation. We developed their process repository by collecting and structuring the As-Is process models for Order to Cash this provided the grounding necessary to utilise the BPM-D® framework to define improvement actions. Through the execution of those actions, the process improvement agenda delivers systematically on the business strategy of the organisation.

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One of the high priority improvement initiatives was to conduct a data driven investigation into the 'timesheet completion' process using task mining software. This was chosen as it offers an opportunity to give a granular assessment of the process with click-by-click detail, as opposed to the high-level overview that process mining offers. This consisted of the following key steps:

1. **Data Collection:** used the FortressIQ software to collect data from multiple observers over the course of a week. Participants filled out their timesheets as normal and information on how they performed the process was gathered.

2. **Mining run and data clean up:** the FortressIQ tool used machine learning technology to identify patterns in the data and create groups of process instances for mapping and analysis. This process data was then exported and easily uploaded to the Microsoft BI application.

3. **Process analysis:** an analyst then spent 3 to 4 days analysing the results and creating dashboards to visualise the data.

RESULTS

In just two weeks, BPM-D were able to collect sufficient data on the time sheet submission process, investigate this data in the FortressIQ application, and create insightful visualisations of this data in PowerBI. This produced conclusive outputs to optimise the timesheet submission process.

The initial analysis of the process data identified two main methods of time sheet submission:

1. Recording and saving timesheets daily to submit at the end of the week.

2. Recording timesheets weekly and then submitting.

For one office in particular, by filling out their timesheet daily, each employee can save more than 24% of their time spent on timesheet submission. Analysis of the control types used during the process showed that employees from Office 1 were often working on multiple projects simultaneously, making recalling and recording timesheets weekly a more time-consuming method.

Additionally, the results showed that those who submitted their timesheets weekly often ended up submitting 2-3 weeks' worth of timesheets in one go, indicating that infrequent submissions and the absence of a standard approach to submitting their timesheets led to late submissions.

By identifying and visually demonstrating the most efficient way to fill out their time sheets, we were able to drive behavioral change to ensure that timesheets were filled out on time. Creating a regular and consistent routine of filling out timesheets daily ensured that invoices can be processed as soon as possible, reducing the cycle time of the overall process.

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Scaling this across multiple task-level processes offers huge time & cost saving potential such as:

- **Increased process efficiency by 24%**

- **Standardised timesheet process to drive behavioral change, preventing late submissions.**

- **Enabled seamless processing of invoices.**

- **Increased accuracy of timesheet submissions.**

Office 1

Full Instance Number	Instance Duration Mins	Submission Type	Oberserver Id
8	40.50	32	283
4	39.36	10	278
6	30.09	2	280
7	25.13	27	274
9	19.31	11	276
5	17.97	19	277
11	17.55	12	291
12	10.79	34	281

Submission Type	Average Instance Duration
One	27.66
Multiple	21.35

Number of Control Types Used Per Instance
Full Instance Number ●11 ●12 ●4 ●5 ●6 ●7 ●8 ●9

Average Event Duration Per Control Type (Mins)
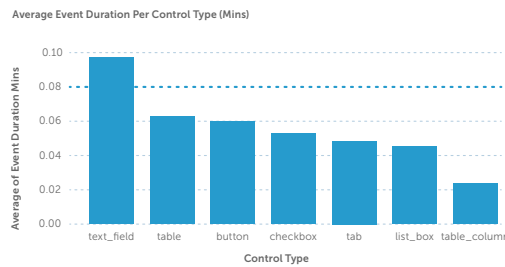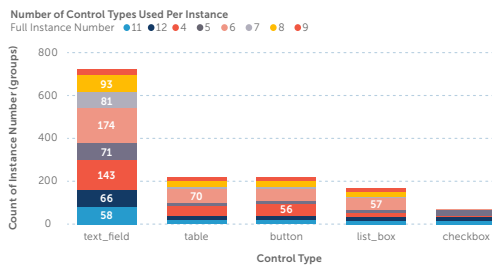
Figure 2: PowerBI dashboard showing analysis of Office 1. Table 1 (top-left) shows time taken to fill a weeks' worth of timesheets. Table 2 (top-right) shows the average time taken to fill out a weeks' worth of timesheets for; (1) weekly submissions (one); (2) daily submissions (two)
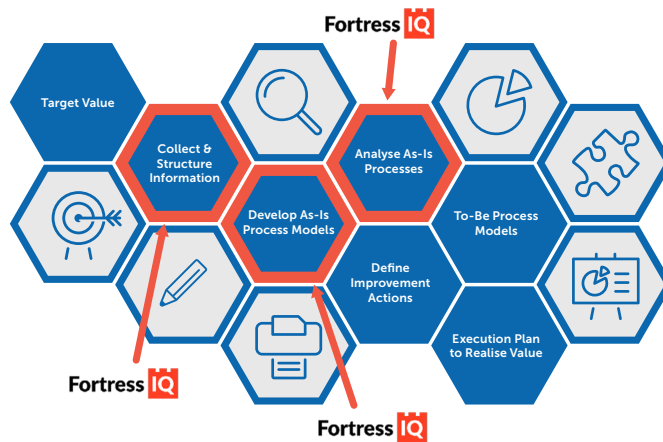

Figure 1: Rapid process improvement approach