# Midlands Partnership NHS Foundation Trust's document scanning automation reduces process time by 75%

Significant time saving from 4 minutes down to 1 minute per document

Backlog of 40,000 documents cleared

Improved real-time data quality

Reduced clinical risk

**NHS**
**Midlands Partnership**
**NHS Foundation Trust**
*A Keele University Teaching Trust*

## What challenge was Midlands Partnership NHS Foundation Trust facing?

Midlands Partnership NHS Foundation Trust (MPFT) was formed following the merger of Staffordshire and Stoke-on-Trent Healthcare NHS Foundation Trust and South Staffordshire and Shropshire Healthcare NHS Foundation Trust. Serving a large part of the West Midlands, the newly formed MPFT is now the second largest community and mental health Trust in the country.

The merger increased the number of staff in the Trust from approximately 2,000 to 8,500. With the size of the Trust now significantly larger, the volume of work within the Health Records team also increased. The team soon found itself with a backlog of 40,000 documents for scanning and adding to the correct patient file – each taking around 3-4 minutes when processed manually. It would have taken one person over 170 days working at a consistent pace to clear the backlog, while new files continued to come in. Because of the backlog, it could often take weeks for some clinical records to appear on the system, which carried a certain level of risk.

At this point, the Trust realised that it had two options – either invest in more staff to cover the work or look at Robotic Process Automation (RPA). Given that there were already two full-time workers processing these documents, an opportunity was identified to free up capacity within the team so it could focus on other business critical processes.

## What was its solution?

MPFT was already working with NDL on a data migration project with SX, NDL's RPA toolkit, and realised the value in how it could aid its Health Records team. The Trust's Director of Information Management and Technology created a list of requirements, including an emphasis on a timelier process for updating clinical data.

Within two weeks of briefing NDL, a proof of concept was live using the same system as the Trust's migration project. The solution takes a PDF file produced from the scanned document and navigates the Electronic Patient Record (EPR) system before attaching the document to the correct patient file. The Trust then worked with NDL's technical teams for an additional four weeks to scale the solution to a team of around 40 robots. At present each bot is working on a separate laptop, securely housed in what the Trust call its 'NDL Room'. Individual laptops are required due to the Trust's use of 'Smart Cards' – a security measure that requires a card to be inserted in the machine for each user, meaning the bots are unable to replicate users with login credentials. The robots are split between different tasks including the Trust's data migration project, as well as document scanning.

The robots replicate the same behaviour that the Health Records team exhibit when processing the scanned documents, ensuring a strict business logic dictates the robot's actions. The team conduct ad hoc audits on the records to ensure the integrity of the process.

While the previous process took between 3-4 minutes to complete for each file, the new automated process can be completed in a minute – a time saving of 75%.

## What benefits has it seen?

While there was initial resistance from some areas within the organisation, a concerted effort was made to educate staff and introduce them to the concept via internal communications. This included a personification of the robot workforce in the form of NDL's robot mascot – Jobot. Other benefits the Trust achieved include:

- A significant time saving - from 3-4 minutes down to a single minute, with very little human involvement

- The daunting backlog of 40,000 documents was cleared using RPA

- Now the backlog is cleared, the robots process between 200-300 files per day, ensuring no backlog is created, improving real-time data quality and reducing risk

- Staff members are now able to redirect their time towards tasks more beneficial to the Trust, such as Freedom of Information requests

- The successful introduction of RPA has allowed the Trust to identify processes and practices that can help with future projects, such as the Single Instance data migration project

## What's next?

Midlands Partnership NHS Foundation Trust will continue to use RPA to aid the Health Records team. The Single Instance data migration project, focussing on bringing the merged Trust's data into a single system, will carry on into 2020 as the Trust continues to outline its processes. Elsewhere, MPFT is also looking into utilising SX to link its Electronic Staff Record system and library systems, as well as adding employee finance forms to an Electronic Document Management system.

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