**

**Reading Guide**

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Fontys Hogescholen

ICT & Software Engineering

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#### Version

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# Information

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# Glossary

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| RPA | Robotic Process automation. |
| AS400 | A computer system developed in the late 1980s for companies to run applications and perform data processing. |
| Dagaansluiting | Daily process for the financial department of Sligro. |
| MoSCoW method | Method used to prioritize which requirements are most important. |
| DOT Framework | Research framework for ICT with research methods. |

# Introduction

This document has been prepared as a reading guide for the internship conducted at Sligro. It describes the nature of the assignment and outlines the activities undertaken during the internship period. Throughout this internship, various documents were created to properly execute the assignment. For this reason, there will be references in this reading guide to different documents within the portfolio. By examining the complete portfolio, it is hoped that the successful execution of all competencies will be demonstrated. Certain terms mentioned in this document may be further explained in the glossary provided above this introduction.

I would like to express my gratitude to Tentive for providing me with the opportunity to connect with Sligro and arrange this internship. Additionally, I extend my thanks to Sligro for providing me with an engaging assignment and the opportunity to intern at their organization.

I would also like to thank my company supervisor, Dennis van Eijsden, for his time and support throughout the internship period. Undoubtedly, I had many questions during the six months, and I greatly appreciate the willingness to provide answers and assistance.

Lastly, I would like to express my appreciation to my mentor from school, Geert Jan van Ouwendorp, for his guidance and feedback throughout the internship.

# Project assignment

In this chapter, the motive behind the assignment and the specific details of the project are outlined. For more comprehensive information, please refer to the [Project Plan](https://tentive-my.sharepoint.com/personal/marc_den_hollander_tentive_nl/Documents/Bureaublad/Portfolio%20Marc%20den%20Hollander/1.%20Analysis/Projectplan%20RPA%20Marc%20den%20Hollander.docx).

# The reason for initiating the project

Wholesale Sligro, a client of the consultancy company Tentive, is automating several processes using Robotic Process Automation (RPA). RPA is a technique where scripts and/or applications are executed on a computer or server to perform repetitive manual tasks that employees no longer need to do themselves. It saves employees time, allowing them to focus on other tasks, and ultimately reduces errors by minimizing human input. A robot (or script) follows predefined rules and instructions, minimizing the potential for mistakes.

Sligro has implemented several robots that perform tasks on their AS400 system, which is similar to how SAP works for other companies. However, these robots do not always function optimally. Sometimes, the robots halt during the execution of their process or fail to provide clear error messages when something goes wrong. These inconveniences prompted the opportunity for this project assignment that will be explained in the next section.

# The assignment

The assignment involves assessing whether it is possible to improve the current RPA technique or potentially phase it out by implementing another technique. The focus of the investigation is on a process called "Dagaansluiting," which aims to automate a financial process for Sligro's finance department. To effectively carry out this assignment, the current RPA technique had to be analyzed, and proposals for improvements were developed to achieve the desired situation.

For Sligro, the desired situation is a technique that is simple to use, requires minimal manual work, and consequently saves time and maintenance efforts. This could mean that future research may conclude that it is more advisable to transition to a different technique.

The research questions associated with this assignment are as follows:

* Which techniques are used by the company regarding automation?
* What are the advantages and disadvantages of these used techniques?
* What are the key processes and activities that need to be decomposed and analysed prior to implementing a new RPA technique?
* What steps can be taken to increase the effectiveness of RPA in optimizing the current process and improving efficiency?
* What is the most efficient and sustainable way to use automation within the company?

This will eventually give an answer to the main research question which is:

* How does the implementation of a new robotic process automation technique ensure that automation is available as efficiently as possible?

# Process & results

This chapter provides further insights into the process of this project, including how it unfolded and the resulting outcomes. Additionally, it reflects on the project, highlighting specific challenges encountered and the lessons learned from them.

TODO

# Structure of the portfolio

This chapter explains the structure of the portfolio, clearly indicating the specific locations where the different components can be found.

The portfolio is organized into various folders, each containing its own set of documents and any additional materials related to the topic of the folder. All topics can be found below:

# Analysis

Graduation Proposal

The [Graduation Proposal](https://tentive-my.sharepoint.com/personal/marc_den_hollander_tentive_nl/Documents/Bureaublad/Portfolio%20Marc%20den%20Hollander/1.%20Analysis/Graduation%20Proposal-3.pdf) is a document prepared prior to the internship to obtain approval from the school to proceed with the internship in the following semester. It outlines the proposal for the initial assignment, research questions, and personal development goals.

Project Plan

During the first phase of the internship, a [Project Plan](https://tentive-my.sharepoint.com/personal/marc_den_hollander_tentive_nl/Documents/Bureaublad/Portfolio%20Marc%20den%20Hollander/1.%20Analysis/Projectplan%20RPA%20Marc%20den%20Hollander.docx) is developed to provide a more detailed description of the assignment, establish a strategy, and formulate research questions. It also includes information about the organization, test approach, and risks involved.

Analysis Document

Once the foundation of the Project Plan is established and research is started, an [Analysis Document](https://tentive-my.sharepoint.com/personal/marc_den_hollander_tentive_nl/Documents/Bureaublad/Portfolio%20Marc%20den%20Hollander/1.%20Analysis/Analysis%20document.docx) is created to document the company's requirements. These requirements are then translated into specific project requirements, and together with the company, they are prioritized using the MoSCoW method. This prioritization technique helps to assign priority to the most important requirements. Lastly, use cases are developed based on these requirements.

# Research

During the graduation internship, thorough research was conducted, which is documented in the [Research Document](https://tentive-my.sharepoint.com/personal/marc_den_hollander_tentive_nl/Documents/Bureaublad/Portfolio%20Marc%20den%20Hollander/2.%20Research/Research%20document.docx). This document contains all the research questions mentioned in the chapter about the assignment. The DOT Framework was utilized to address the research questions in a professional manner, ensuring a systematic approach to answering them.

# Design

During the design phase of this project, various diagrams were created to illustrate the overall structure of the project and its components. These diagrams can be found in the "Diagrams" folder, providing a clear visual representation. For detailed explanations of the diagrams, please refer to the [Design Document](https://tentive-my.sharepoint.com/personal/marc_den_hollander_tentive_nl/Documents/Bureaublad/Portfolio%20Marc%20den%20Hollander/3.%20Design/Design%20document.docx).

# Implementation

In this section, the [Implementation Document](https://tentive-my.sharepoint.com/personal/marc_den_hollander_tentive_nl/Documents/Bureaublad/Portfolio%20Marc%20den%20Hollander/4.%20Implementation/Implementation%20document.docx) provides a detailed account of the implementation process. It outlines the various phases involved in the implementation, identifies any challenges or complications encountered along the way, and presents the achieved outcomes of the implementation.

# Testing

A [Test Document](https://tentive-my.sharepoint.com/personal/marc_den_hollander_tentive_nl/Documents/Bureaublad/Portfolio%20Marc%20den%20Hollander/5.%20Testing/Test%20document.docx) has been prepared to outline the testing approach applied to this project.

# Advice

An [Advice Document](https://tentive-my.sharepoint.com/personal/marc_den_hollander_tentive_nl/Documents/Bureaublad/Portfolio%20Marc%20den%20Hollander/6.%20Advice/Advice%20document.docx) has been prepared for the company, addressing both functional and technical improvements. This report provides a step-by-step recommendation outlining the proposed actions, their potential benefits, the expected timeframe for implementation, the required resources, and any associated advantages or disadvantages. The advice aims to guide the company in making informed decisions regarding enhancements, considering the potential impact on processes, efficiency, and overall performance.

# Other

Midterm review

This folder contains the reflections of both the student and the company mentor on the learning outcomes halfway through the semester. It provides an assessment of the progress made in achieving the specified learning outcomes and offers insights into the individual development and growth experienced by the student during this period. Next to this, the company mentor's perspective is shared, highlighting the student's performance and the alignment with the desired learning outcomes.

Retrospectives

This folder contains all the retrospectives conducted until the deadline for submitting the documentation. These retrospectives were based on a set of questions that needed to be addressed:

* What went well?
* What could be better?
* What went badly?
* Focus for the next period

Logbook

This final document is a logbook covering the entire period of the internship. It consists of weekly updates detailing the activities and progress made during each week. The purpose of this logbook is to provide a chronological record of the internship experience.

# Reflecting on learning outcomes

This final chapter is a reflection on the learning outcomes set by Fontys. Through these learning outcomes, it is demonstrated that this internship has been successfully completed.