\<TQF Master\>

User Manual

Version X.X
MM/DD/YYYY

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1.   Introduction

This User Manual provides the information necessary for users and faculty administrators to effectively use the TQF Master software.

System Name: TQF Master

Version/Release: Release x.x (month 2025)

Institution: Bachelor of Engineering Program, Assumption University

The purpose of this document is to guide end users in using program named TQF Master to extract data from TQF both Docx and PDF file type, save data in CSV file type, and generate study plan.

Intended Audience:

- Curriculum administrators.
- Academic quality assurance officers.

This document will evolve with future updates to the platform, and an updated PDF version will be available online.

1.1   Overview

TQF Master is a desktop application designed to assist faculty members, administrators, and academic staff in extracting, analyzing, and visualizing course information from TQF (Thailand Qualifications Framework) documents. The software supports both PDF and DOCX formats, providing users with an efficient way to extract course data, view it on screen, export it in multiple formats, and generate study plan flowcharts.

Key Features:

- import TQF files in PDF or DOCX formats.
- Automatic extraction of course details (course code, title, credits, prerequisites, etc.).
- Display extracted courses on an organized table.
- Export extracted data as CSV.
- Generate a study plan flowchart from the extracted data as PDF.

System Architecture (non-technical terms):

- Windows-based desktop software, distributed as an executable file (TQFMaster.exe).
- GUI (Graphical User Interface) for ease of use.

User Access:

- Through a graphical user interface for users.

System Environment:

- Do not require an internet connection after installation program.
- Accessible from modern computer (PC, laptop).

2.   Getting Started

2.1   Cautions & Warnings

- Only download the installer from the <mark>official TQF Master website</mark> to avoid corrupted or malicious files.
- Ensure Microsoft Windows (10 or later) is installed on your computer.
- Do not modify extracted data directly within program files; always use the provided export functions.

2.2   Set-up Considerations

System Requirements:

- OS: Windows 10 or higher
- RAM: 1 GB minimum
- Disk Space: 2 GB free
- Input Devices: Keyboard & Mouse
- Output Devices: Monitor

2.3   User Access Considerations

- No login is required.
- All users have the same access rights.
- Data is processed locally, no internet access is required after installation.

2.4   Accessing the System

Installation Steps:
1. Download the installer (TQFMaster.rar) from the official website.
2. Extract the archive file.
3. Run TQFMaster.exe.
4. Follow the on-screen installation instructions.
5. After installation, launch the program from the desktop shortcut.

2.5   System Organization & Navigation

When opening the application, the main dashboard appears with the following options:

- Browse TQF File – Import a PDF or DOCX TQF file.
- Extract Courses – Process and display the course data.
- Save/Export – Save extracted data as CSV.
- Generate Flowchart – Create a study plan flowchart and save as PDF.

2.6 Exiting the System

- Click the Exit button on the top-right corner of the window.
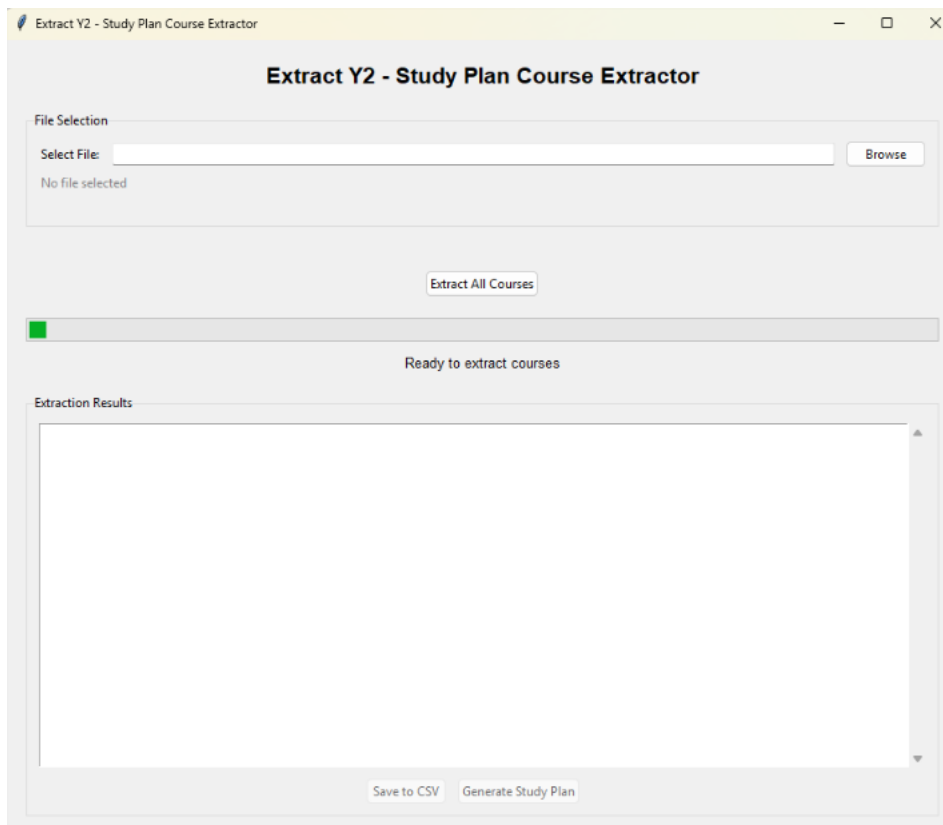- Or select File > Exit from the menu bar.

3. Using the System

3.1 Importing a TQF File

Procedure:

1. Click Browse TQF File.

2. Select a PDF or DOCX TQF file from your computer.

3. Click Open.

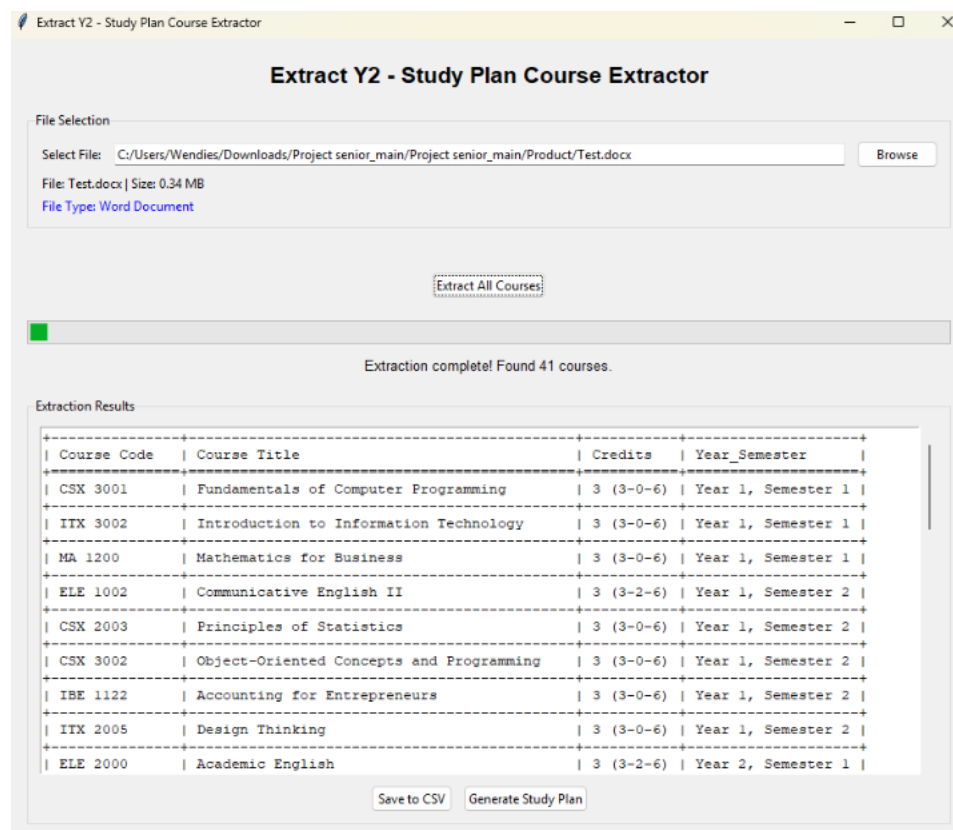**Output:** The file is loaded and ready for extraction.

3.2 Extracting Course Data

Procedure:

1. After browsing a file, click Extract All Courses.

2. The system automatically parses the TQF file.

3. Extracted courses are displayed in a structured table (course code, name, credits, prerequisites).

Output: Course data displayed on screen.

3.3   Saving and Exporting Data

Users can save the extracted data in CSV formats:

- Save as CSV – exports extracted data in spreadsheet format.

Procedure:

1. Click Save/Export.
2. Select output folder and filename.
3. Click Save.

3.4   Generating Study Plan Flowchart

The system can automatically generate a visual study plan flowchart of courses based on prerequisites and semester distribution.

Procedure:

1. After extracting data, click Generate Study Plan.
2. The system processes course dependencies.
3. A flowchart is displayed, showing course progression.

Output:

- A flowchart image (viewable in-app).
- Option to export flowcharts as PDF.

Year 1, Semester 1	Year 1, Semester 2	Year 2, Semester 1	Year 2, Semester 2	Year 3, Semester 1	Year 3, Semester 2	Year 4, Semester 1	Year 4, Semester 2
CSX 3001 Fundamentals of Computer Programming (3 (3-0-6))	**ELE 1002** Communicative English II (3 (3-2-6))	**ELE 2000** Academic English (3 (3-2-6))	**ELE 2001** Advanced Academic English (3 (3-2-6))	**CSX 3007** Computer Architecture (3 (3-0-6))	**GE 2102** Human Heritage and Globalization (3 (3-0-6))	**GE 2202** Ethics (3 (3-0-6))	**CSX 3011** Senior Project II (3 (0-9-0))
ITX 3002 Introduction to Information Technology (3 (3-0-6))	**CSX 2003** Principles of Statistics (3 (3-0-6))	**CSX 2006** Mathematics and Statistics for Data Science (3 (3-0-6))	**GE 1302** Ecology and Sustainability (3 (3-0-6))	**CSX 3008** Operating Systems (3 (3-0-6))	**CSX 3009** Algorithm Design (3 (3-0-4))	**Major Elective Course** (3 (3-0-6))	**Major Elective Course** (3 (3-0-6))
MA 1200 Mathematics for Business (3 (3-0-6))	**CSX 3002** Object-Oriented Concepts and Programming (3 (3-0-6))	**CSX 2008** Mathematics Foundation for Computer Science (3 (3-0-6))	**CSX 2009** Cloud Computing (3 (3-0-6))	**Major Elective Course** (3 (3-0-6))	**CSX 3010** Senior Project I (3 (0-9-0))	**Major Elective Course** (3 (3-0-6))	**Major Elective Course** (3 (3-0-6))
	IBE 1122 Accounting for Entrepreneurs (3 (3-0-6))	**CSX 3003** Data Structures and Algorithms (3 (3-0-6))	**CSX 3004** Programming Languages (3 (3-0-6))	**Major Elective Course** (3 (3-0-6))	**Major Elective Course** (3 (3-0-6))	**Major Elective Course** (3 (3-0-6))	**Free Elective Course** (3 (3-0-6))
	ITX 2005 Design Thinking (3 (3-0-6))	**CSX 3005** Computer Networks (3 (3-0-6))	**CSX 3006** Database Systems (3 (3-0-6))	**Free Elective Course** (3 (3-0-6))	**Major Elective Course** (3 (3-0-6))	**Major Elective Course** (3 (3-0-6))	
		ITX 2007 Data Science (3 (3-0-6))	**Major Elective Course** (3 (3-0-6))		**Free Elective Course** (3 (3-0-6))	**Free Elective Course** (3 (3-0-6))	

Save Study Plan as PDF

Close

4. Troubleshooting & Support

4.1 Error Messages

Table 1 - Error Messages

Error Message	Possible Cause	Correct Action
Unsupported File Format	The uploaded file is not PDF or DOCX	Select a valid TQF file in PDF or DOCX format
Extraction Failed	File is corrupted or not in the correct TQF structure	Verify the TQF file and try again
Save Operation Failed	No writing permission or insufficient disk space	Choose a different folder or free up space
Flowchart Generation Error	User inactive for too long; security auto-logout triggered	Re-enter login credentials to continue
Schedule Conflict Detected	Missing prerequisite data in the TQF file	Review the input TQF file and re-import
Application Not Responding	Large file size or insufficient system resources	Close unused programs and try again

4.2 Special Considerations

- Large TQF files may take longer to extract; please wait during processing.
- Non-standard TQF templates (modified formats) may reduce extraction accuracy.
- Exported CSV files can be opened in Excel, Google Sheets, or other spreadsheet software.
- The program currently supports English TQF documents only.

4.3 Support

Instructions: Provide information on how the user can get emergency assistance and system support (e.g., help desk support, production support, etc.). Include the names of the responsible personnel and organization(s), telephone numbers, and email addresses of the staff who serve as points of contact for system support. The following table is provided as an example and may be modified as needed. Also provide instructions for how identified problems with the system are to be reported. Include instructions for security incident handling, as appropriate.

Table 2 - Support Points of Contact

Contact	Organization	Phone	Email	Role	Responsibility
<Contact Name>	*<Organization>*	*<Phone>*	*<Email>*	*<Role>*	*<Responsibility>*

Appendix A: Record of Changes

Instructions: Provide information on how the development and distribution of the User Manual will be controlled and tracked. Use the table below to provide the version number, the date of the version, the author/owner of the version, and a brief description of the reason for creating the revised version.

Table 3 - Record of Changes

Version Number	Date	Author/Owner	Description of Change
<X.X>	*<MM/DD/YYYY>*	*CMS*	*<Description of Change>*
<X.X>	*<MM/DD/YYYY>*	*CMS*	*<Description of Change>*
<X.X>	*<MM/DD/YYYY>*	*CMS*	*<Description of Change>*

Appendix B: Glossary

Table 4 – Glossary

Term	Acronym	Definition
Thailand Qualifications Framework	TQF	A standardized framework for defining course and program information in Thai higher education.
Thailand Qualifications Framework File	TQF File	A course/program specification document written in compliance with TQF. Supported formats in this software: PDF and DOCX.
TQF Master	-	The software described in this manual, used for extracting, analyzing, and visualizing data from TQF documents.
Course Extraction	UART	A hardware communication protocol used for serial communication between devices, transmitting data one bit at a time asynchronously
Flowchart	-	An open-source backend platform that provides database, authentication, and API services
Comma-Separated Values	CSV	A text-based file format used for storing tabular data that can be opened in Excel or Google Sheets.
Portable Document Format	PDF	A widely used electronic document format that preserves layout, fonts, and graphics. Used both as input (TQF files) and output (reports).
DOCX	-	Microsoft Word Open XML format, commonly used for word-processed documents.
Prerequisite	-	A course that must be completed before a student can enroll in another course. Displayed in the flowchart.

Appendix C: Referenced Documents

Instructions: Summarize the relationship of this document to other relevant documents. Provide identifying information for all documents used to arrive at and/or referenced within this document (e.g., related and/or companion documents, prerequisite documents, relevant technical documentation, etc.).

Table 5 - Referenced Documents

Document Name	Document Location and/or URL	Issuance Date
<Document Name>	*<Document Location and/or URL>*	*<MM/DD/YYYY>*
<Document Name>	*<Document Location and/or URL>*	*<MM/DD/YYYY>*
<Document Name>	*<Document Location and/or URL>*	*<MM/DD/YYYY>*