

## Use cases

- OpenFile
- CloseFile
- QuitProgram
- ChoosePattern
- RecognizeImage
- SaveStatistics

### OpenFile

#### BASIC COURSE:

User clicks on the File button. The system drops down the Menu with options. User clicks the Open option. The system closes the open menu and displays “Open File” window. User chooses the image file in PNG format from the directory tree. The system checks that the file is in PNG format and opens the file in the window [File\_Name.png].

#### ALTERNATE COURSES:

User opens the wrong file: When user opens non-PNG file or PNG file with wrong name the system displays the window with the warning message. User clicks “OK” button.

### CloseFile

#### BASIC COURSES:

User clicks on the File button. The system drops down the Menu with options. User clicks the Close option OR User clicks the cross button “Close Window” on the upper right corner. The system closes the current window with open file.

#### ALTERNATE COURSES:

File is not open: The system displays the warning message with buttons “Close” and “Cancel”. If the User clicks “Close” button the system closes the program otherwise if the User clicks “Cancel” the system closes the warning message and returns to previous state.

### QuitProgram

#### BASIC COURSE:

User clicks on the File button. The system drops down the Menu with options. User clicks the Quit option. The system closes the open menu, checks if the file is open and displays the confirmation message. User can click the button “OK” if she wants to close the program. The system closes the program. The user can click the “Cancel” button. The system closes the confirmation message and returns to the previous state.

#### ALTERNATE COURSES:

File is open: If the file is open the system displays the warning message asking whether the User wants to close the file with the program. User can click the button “OK” if she wants to close the program with the file. The system closes the program with the file. The user can click the “Cancel” button. Then the system closes the warning message and returns to the previous state.

## **ChoosePattern**

### **BASIC COURSE:**

User clicks the button Patterns. The system drops down the Menu with pattern options. The User clicks one of the options “Circle”, “Square” or “Triangle”. The system set mark in front of the chosen option and closes the open menu. If the User clicks the option when the mark has been already set the system resets the mark in front of the option that the User has clicked and closes the open menu.

### **ALTERNATE COURSES:**

Pattern is changed during the recognition process: The system blocks the Pattern change when the recognition process takes place.

## **RecognizeImage**

### **BASIC COURSE:**

User clicks the button “Recognize”. System checks that the file is open and displays the windows Processing Status that shows the status of the recognition process. After completion of the recognition process the system shows the graph that displays the Statistics of the recognized image if the object that matches the pattern OR notification Message if the image does not have object that matches the Pattern.

### **ALTERNATE COURSES:**

User cancels the recognition process: When the User clicks the button “Cancel” on the window Processing Status the system cancels the recognition process.

User clicks other buttons: The system continues to process the image unless User invokes CloseFile or QuitProgram use cases.

## **SaveStatistics**

### **BASIC COURSE:**

On the page “Statistics” the User clicks the button “Save”. The system displays the window “Save Statistics”. User can choose two formats to save the statistics: graphic (PNG) and text (SVG) formats and click the button “Save”. The system saves the statistics in the chosen format. User can click the button “Cancel”. The system then closes the window “Save Statistics” and returns to the window “Statistics”.

ALTERNATE COURSES:

Errors when writing to disk: The system displays the error window with the message that the statistics cannot be saved. User clicks the button "OK". The system returns to the window "Statistics".