

# “Bongo” - Bangla Optical Character Recognition Software Manual

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**Prepared for**  
ICT Division  
Government of the People’s Republic of Bangladesh



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# 1. Introduction

“Bongo”-Bangla Optical Character Recognition (Bangla OCR) is a desktop software developed for automatic conversion of images of printed Bangla text (Typed text/computerized text (Not handwritten text)) into machine-encoded Bangla text.

## 1.1 Purpose

The purpose of this documentation is to familiarize the users with the interface, functionality and usage guide of Bangla OCR software.

## 1.2 System Requirements

The minimum system requirements for running Bongo OCR :

- Operating Systems: Windows 7, Windows 8, Windows 8.1, Windows 10
- Hardware requirements: Intel or AMD Processors (more the cores and speed of processor faster the character recognition), minimum 250 MB of free hard-disk space, minimum 128 MB of RAM. The more powerful system will give you more faster OCR processing.
- For Save as .doc/.docx file minimum Microsoft office 2010 required.
- If you don't have “Nikosh” or “Solaimanlipi” font on your pc, please make sure you install it from “fonts” folder of your Bongo installation directory. You can also download it from online

## 1.3 Note to Remember

- Bongo OCR only works for Bangla language.
- Typed text/computerized text are only readable not handwritten text
- Supported input file format: BMP, JPEG, PNG, PDF
- Supported output file format: Docx, Doc, Txt, PDF
- Minimum Image quality **must be 300 dpi**
- Bongo OCR capable of OCR multiple file as a batch.
- The character recognition rate of Bongo OCR between 80% to 95%
- This is the primary document analysis. Please do not expect the proper formatting. For plain Bangla text (Without table & image Bongo may give more than 90% accuracy)
- Table recognition is not part of Bongo OCR, but we give basic table detection.



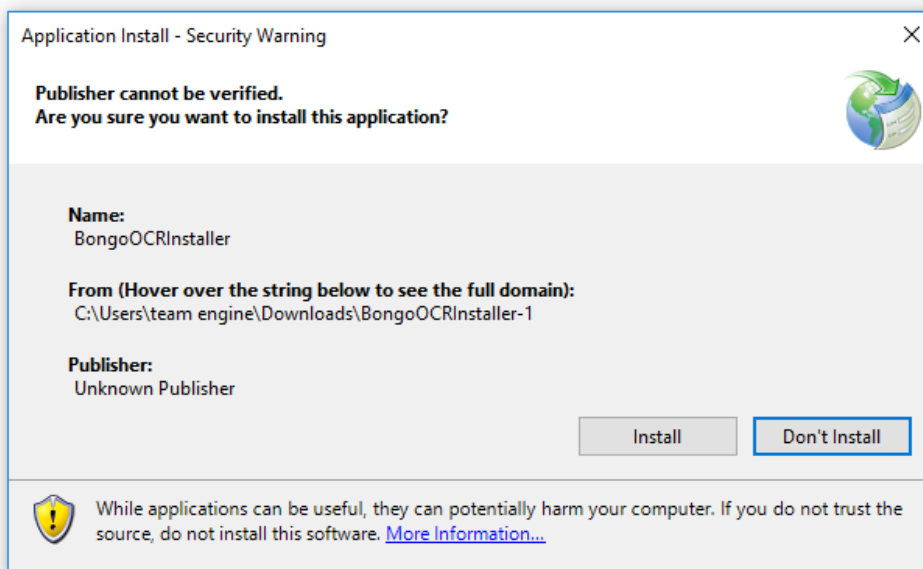
## 1.4 Installation

**Step 1:** Unzip *BongoOCRInstaller.zip* file.

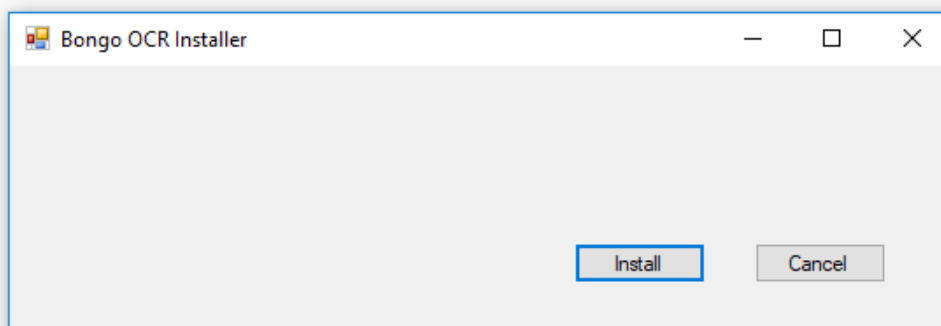
**Step 2:** Run *setup.exe* file.

**Step 3:** Windows will ask your permission to run the installer. Click ‘Yes’

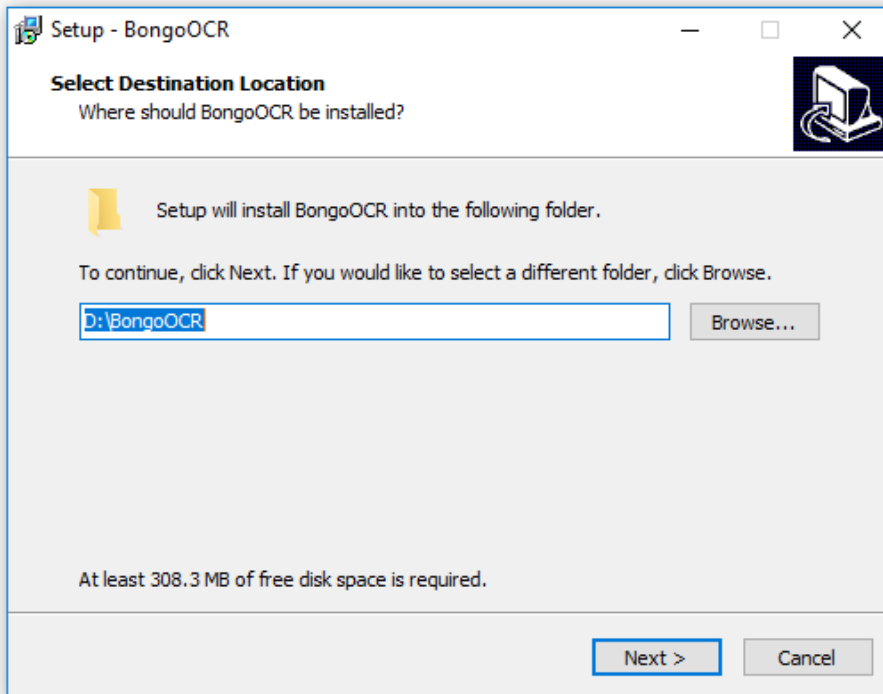
**Step 4:** Click ‘Install’



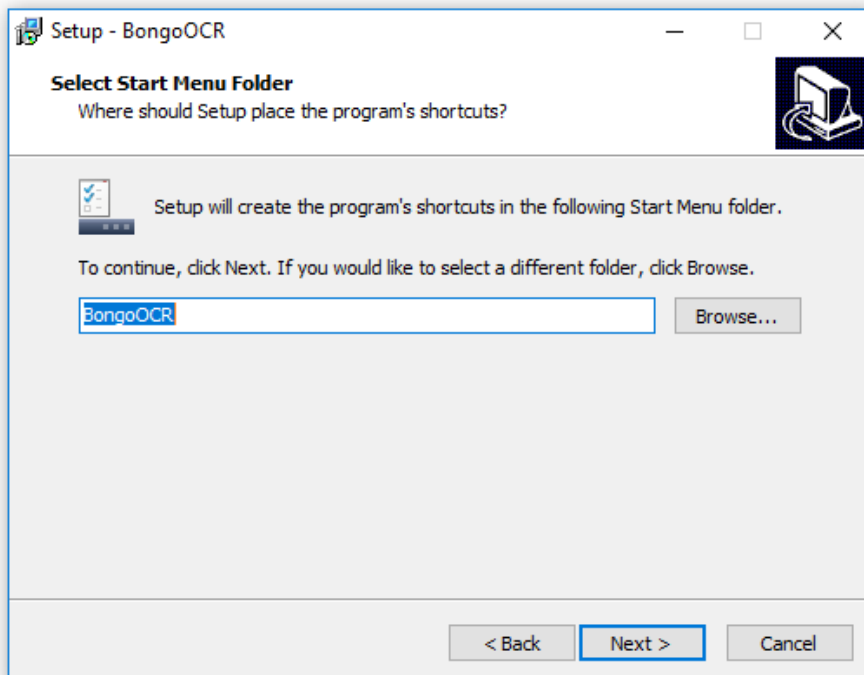
**Step 5:** Again click “Install”



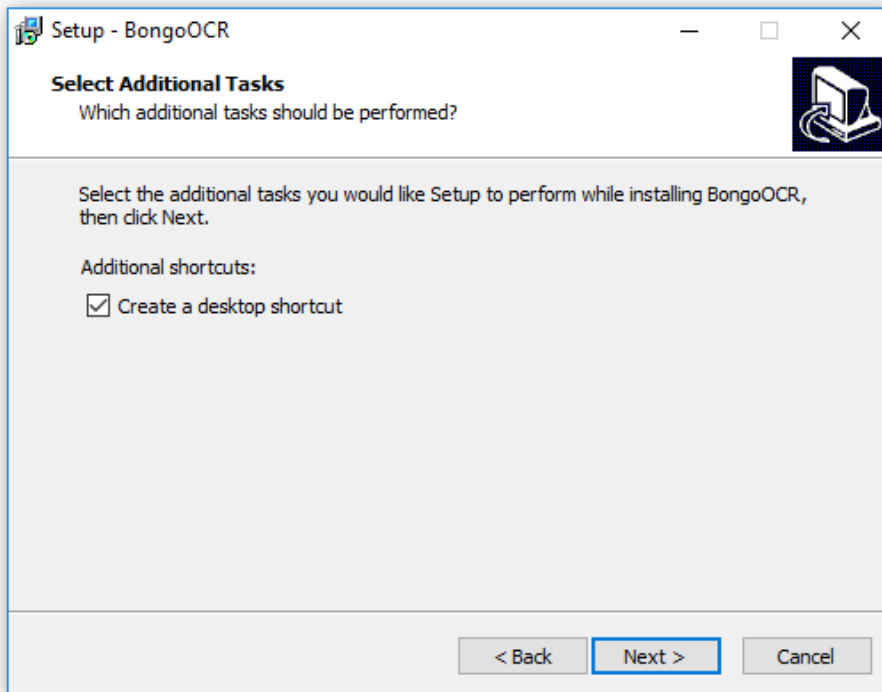
**Step 6:** After download select the folder where you want to install the OCR then click ‘Next’. (Do not install in C drive)



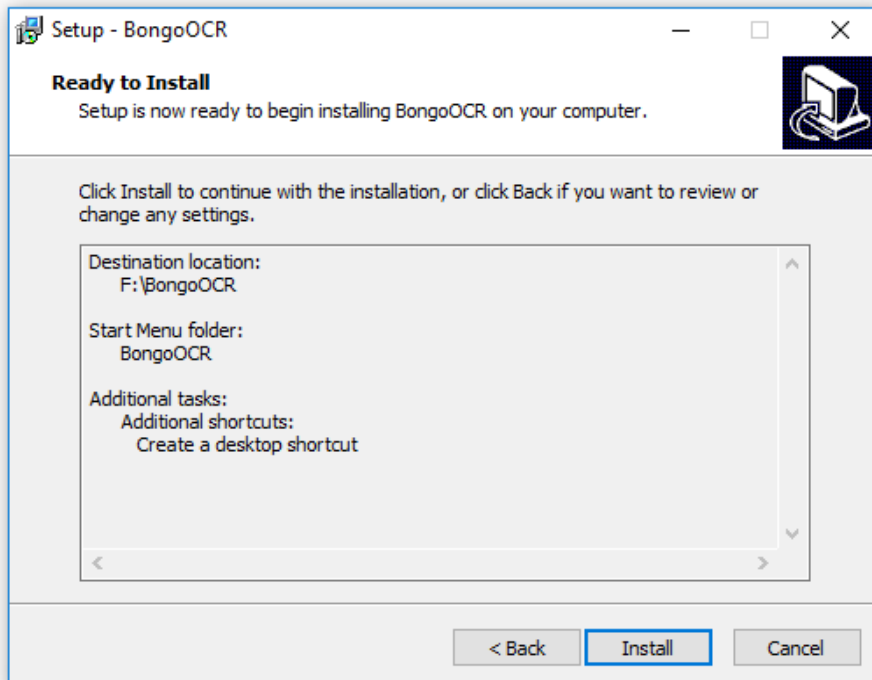
**Step 7:** Click ‘Next’



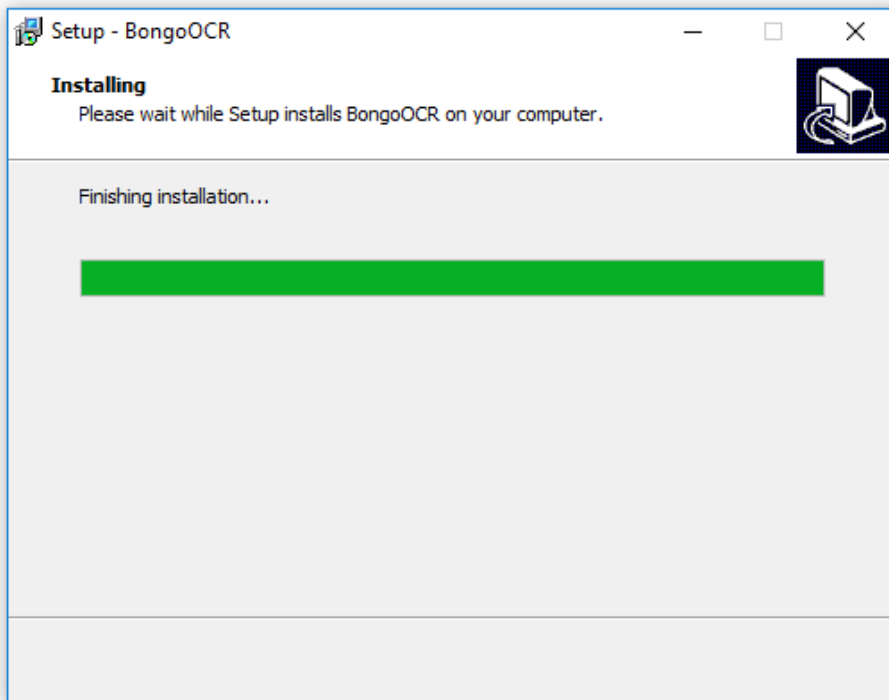
## Step 8: Click 'Next'



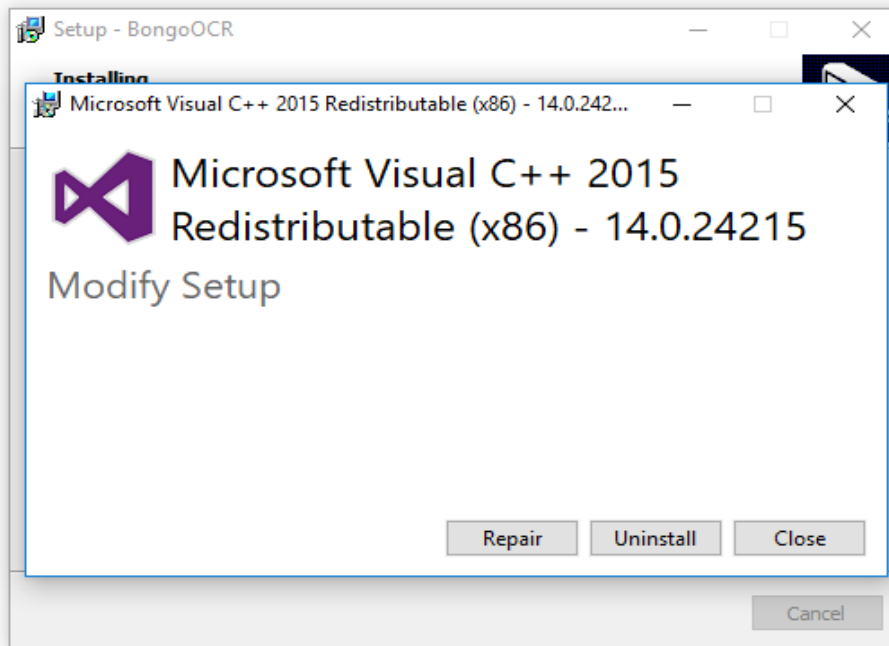
## Step 9: Click 'Install'



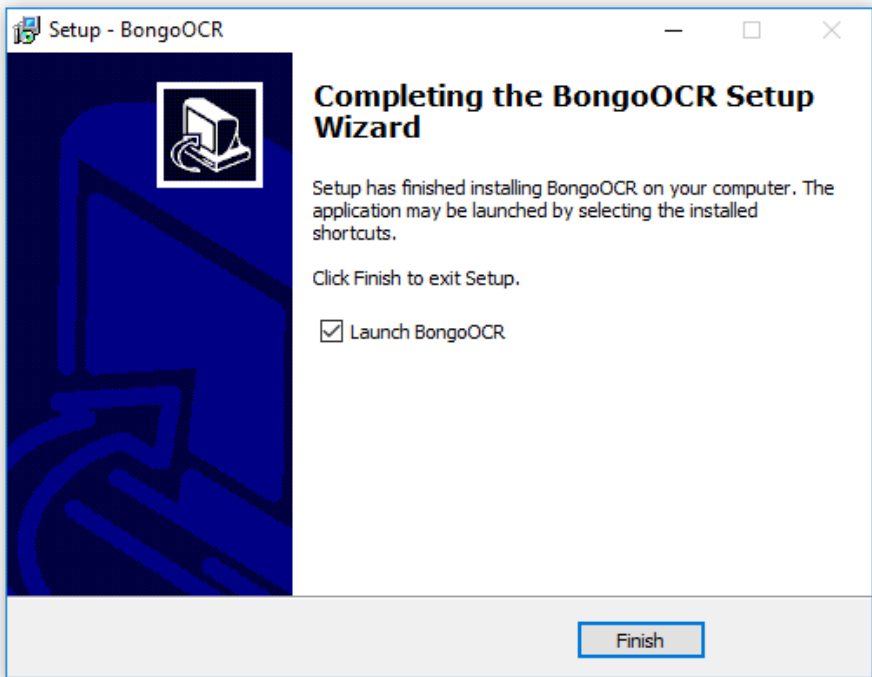
**Step 10:** OCR will start installing



**Step 11:** After the installation is finished a new window will pop-up if “Microsoft Visual C++ 2015 redistributable” is not installed. Click “Install” or “Close”.



Finally after the installation is finished a new window will pop-up and Click 'Finish'



Now OCR is ready to use.

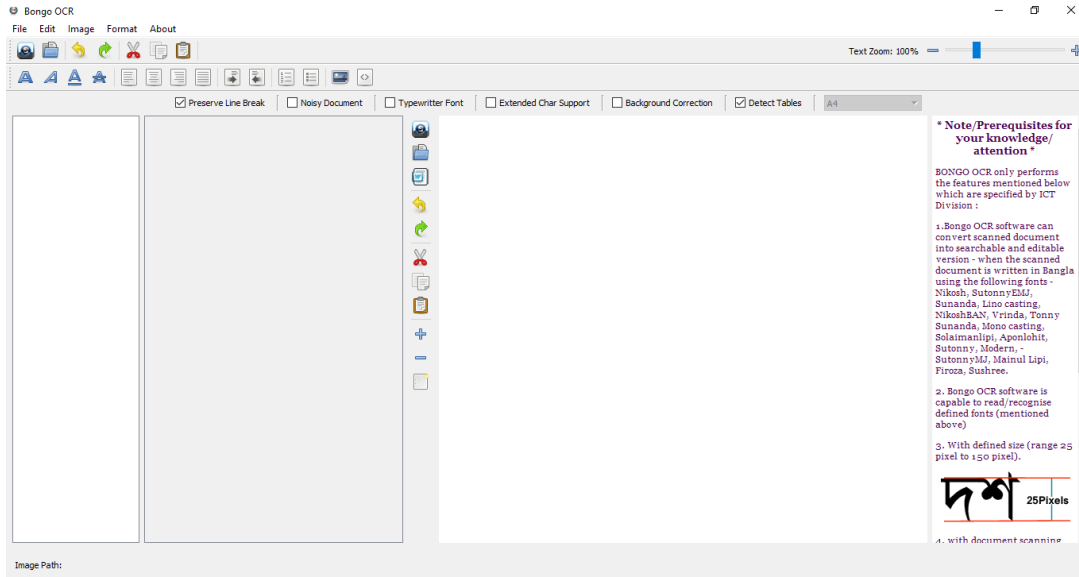
Tips – Always run Bongo OCR with administrator mode.



## 2. User Interface and Functions

This section describes the software graphical UI interface, tool buttons and their functionality.

### 2.1 GUI



#### 1. Menu Bar :

OCR User Interface has a standard Menu Bar which contains all the functions of the OCR. Below is the list of Menus, sub-menus and their corresponding usage.

#### File Menu

Open – *open an image file*

Do OCR – *after opening an image this command does the ocr of the image, use it when image contains only text and only one column*

Do OCR with Document Analysis – *use this command when document image contains more than one column and image*

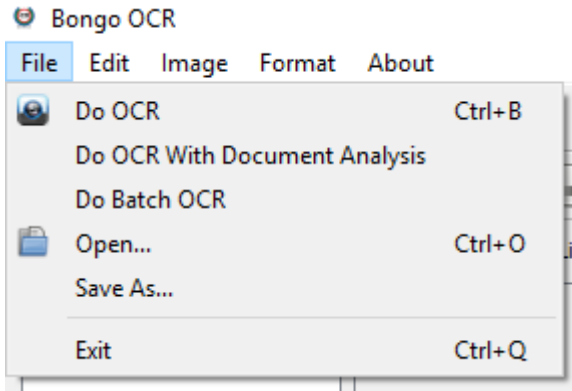
Batch OCR – *use this command when user need to ocr multiple document as batch.*

Save – *to save the output text in an external file*

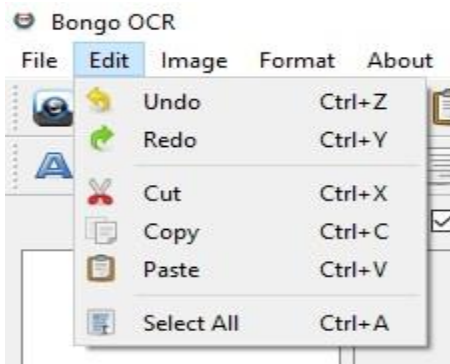
Save as – *same as save*





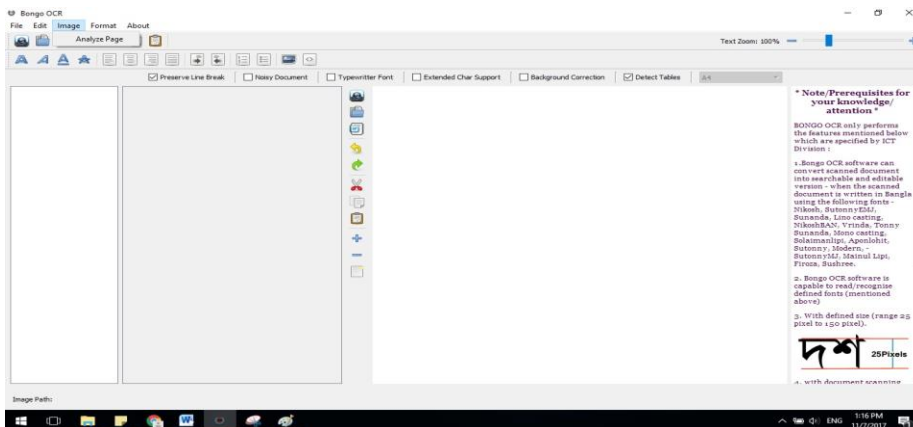


2. Edit Menu – this menu contains standard edit-menu commands like undo, redo, cut, copy, paste, Select All



### 3. Image Menu

Analyze Page – use this command to detect image and text blocks. Image block is masked as red color and text block as green color. If you want to detect tables then check ‘detects tables’ from options bar.



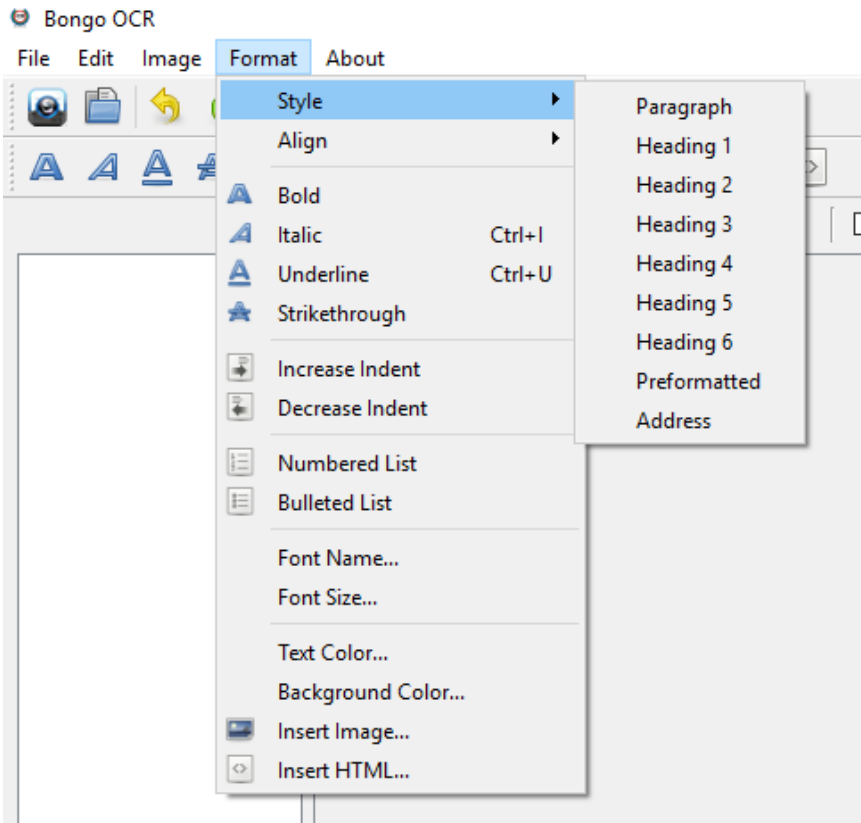
*You can double click on any text block to ocr that part only.*

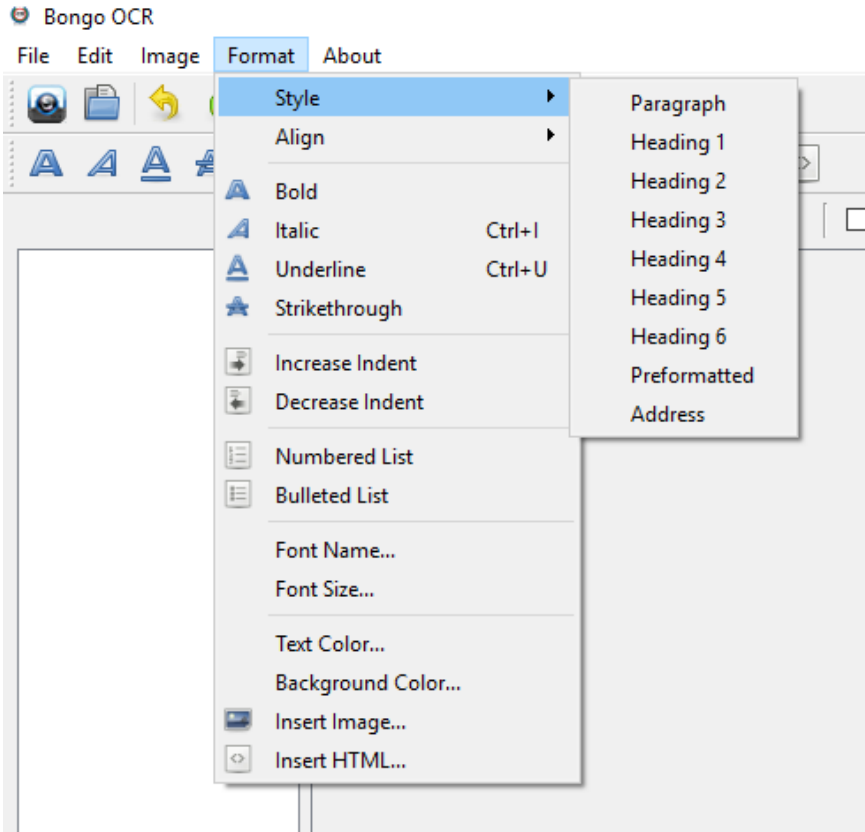
আজ প্রয়োজন হইলে জীবন বিসর্জন দিব যাহাতে আমাদের  
ভবিষ্যত বংশধরদের একটি কলোনিতে বাস করিতে না হয়  
যাহাতে তাহারা একটি স্বাধীন দেশের স্বাধীন নাগরিক  
হিসাবে সম্মানের সহিত মুক্ত জীবন যাপন করিতে পারে,  
সেই প্রচেষ্টা আমরা চালাইব ।  
আমাদের আদর্শ পরিষ্কার । এই পরিষ্কার আদর্শের  
ভিত্তিতেই বাংলাদেশ স্বাধীন হয়েছে । এই আদর্শের  
ভিত্তিতে এই দেশ চলছে । জাতীয়তাবাদ বাঙালী

জাতীয়তাবাদ চলবে বাংলাদেশে । বাংলার কৃষ্টি, বাংলার

আজ প্রয়োজন হইলে জীবন বিসর্জন দিব যাহাতে আমাদের  
ভবিষ্যত বংশধরদের একটি কলোনিতে বাস করিতে না হয়  
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ভিত্তিতে এই দেশ চলছে । জাতীয়তাবাদ বাঙালী

4. Format Menu – *this menu contains standard text formatting commands. Command names are self-descriptive.*

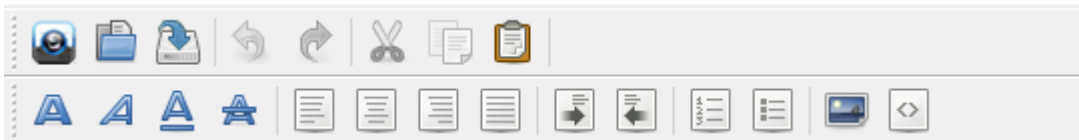




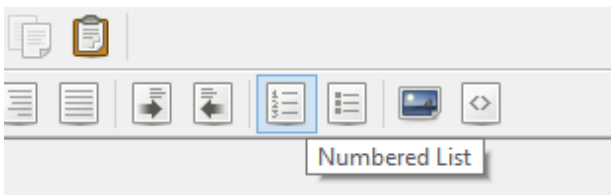
## 5. Tool Bar

### 5.1 Menu Toolbar

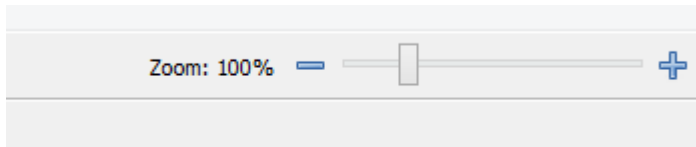
*OCR Interface contains a toolbar, these commands are actually frequently used commands clustered together in a visual form, and all of these commands exist in the menu bar.*



*Hover over any tool icon and a tool-tip will appear which describes its corresponding function.*



On top-right side there's a zoom bar, you can use this to zoom in or zoom out text in the text editor.

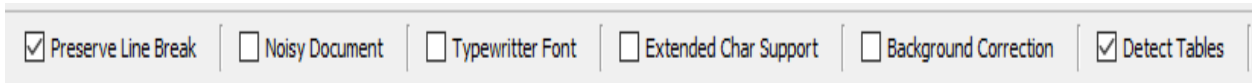


### 5.2 Checkbox

There is another checkbox bar to enable and disable some extra feature.

**Preserve Line Break** – If user checks this option the OCR software preserve line break as document have.

**Detect Table** – To detect table user must be check “Detect Table” checkbox and click “Do OCR with Document Analysis” button from menu bar. Table recognition is not part of Bongo OCR, but we give basic table detection.



### 5.3 Frequent Used Tollbar

On middle there is an extra Tool bar where every frequent commands are together in visual form. There is also visual command for word file opener where output texts represent in word file without formatting.

