

# OCR (OPTICAL CHARACTER RECOGNITION)

• This is the goal...

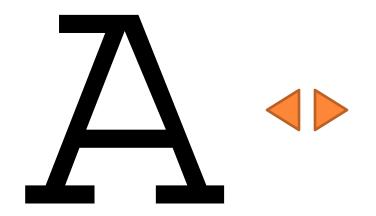
```
/* HelloWorld.c: our first C program
/* author: Rainer Doemer
 /* modifications:
/* 09/28/04 RD initial version
 #include <stdio.h>
  /* main function */
                                                                                      HelloWorld.c
  int main(void)
       printf("Hello World!\n");
       return 0;
    /* EOF */
```

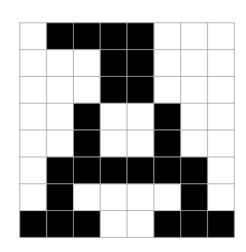
## OCR (OPTICAL CHARACTER RECOGNITION)

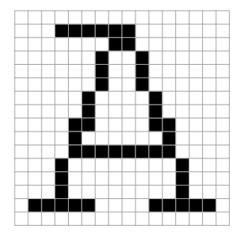
- Desirable Features
  - Multiple Formats Supported
  - Multiple Fonts/Sizes Supported
  - Image Rotation
  - Stain Filtering
  - Wrinkle Filtering
  - GUI (highly recommended !!)
  - Handwritten Document Supported
  - Keyword Dictionary Supported

## My Naïve OCR Procedure

Character Matching

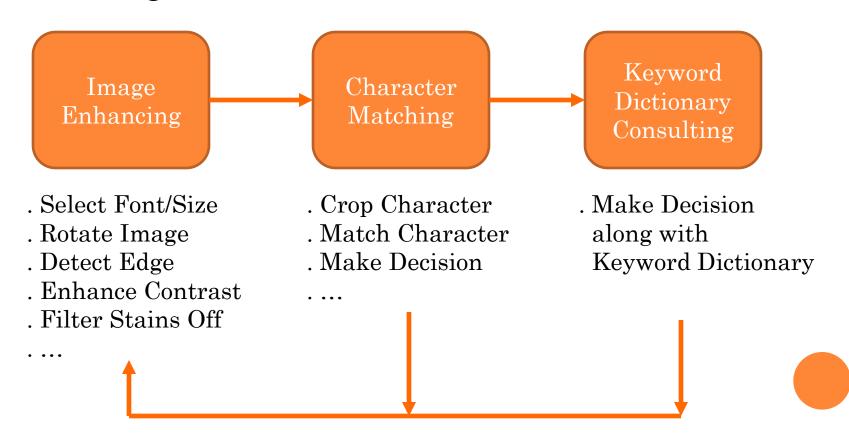






## My Naïve OCR Procedure

• If considering the process of OCR as image matching...



#### OBJECTS FOR TODAY

- Consensus about what features you want to cover in the OCR programs
- Initial idea about your software architecture
- Working CVS repository for every team

### Sample Code – JPEG Displayer

- JPEG Displayer
  - Read a JPEG file into an array.
  - Display (part of) the image with GTK.
- Needed Libraries
  - libjpeg
  - GTK
- References
  - libjpeg <a href="http://www.cim.mcgill.ca/~junaed/libjpeg.php">http://www.cim.mcgill.ca/~junaed/libjpeg.php</a>
  - GTK <a href="http://www.cs.dartmouth.edu/~xy/cs23/gtk.html">http://www.cs.dartmouth.edu/~xy/cs23/gtk.html</a>