



**OptoFidelity**

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# **OCR Bechmarking Results**

OptoFidelity Oy

14.5.2013

# Contents

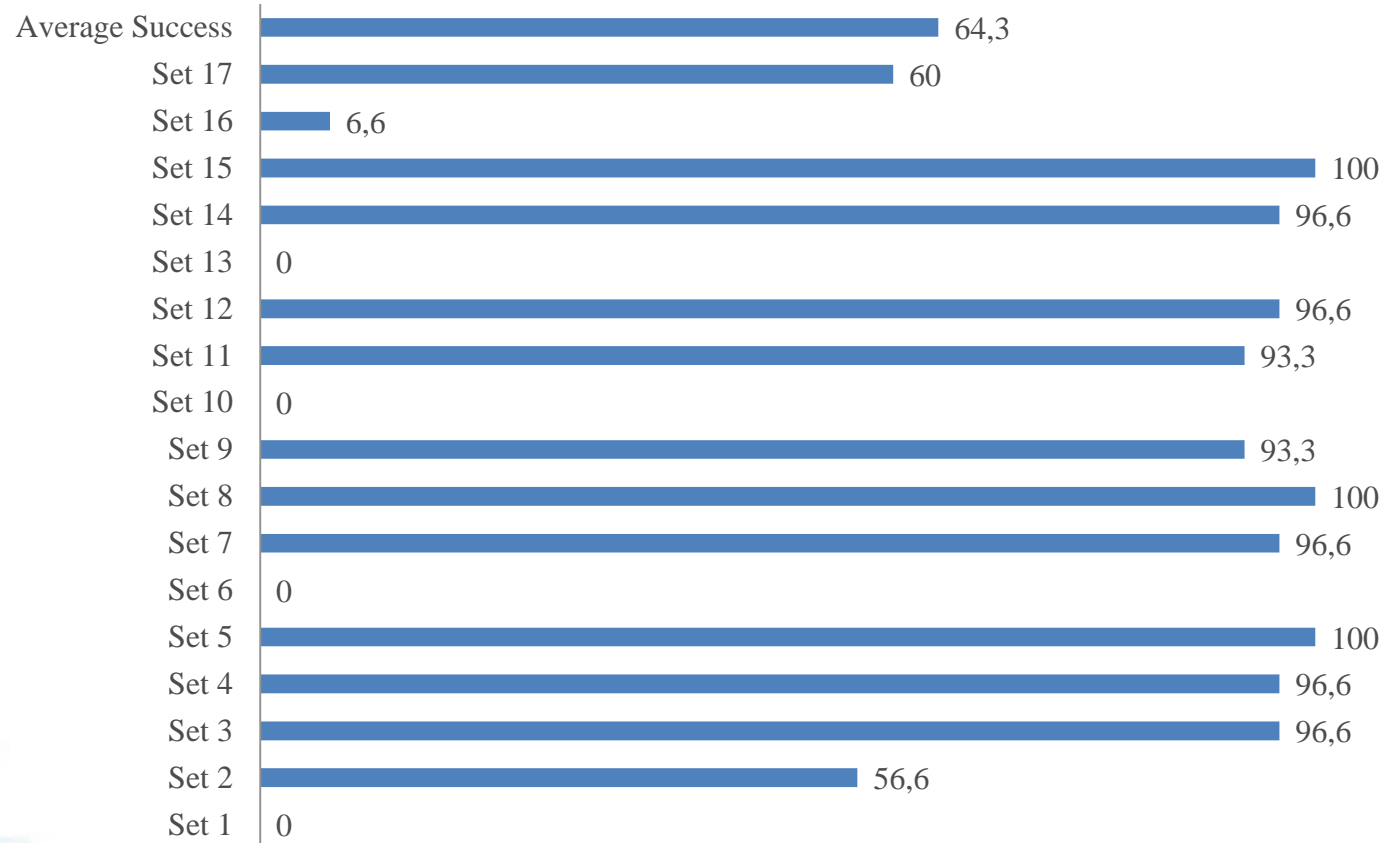
- Following slides present the OCR performance benchmarking results
- Performance is presented prior and after the OptoFidelity performance tuning
- Benchmark required no teaching of characters

# OCR versus OCV

- OCR (Optical Character Recognition) differs from OCV in a way that while OCV (Optical Character Verification) has always the a priori information about the text characters to be detected, OCR attempts to read the actual text
- This is why the OCV performance is always better than OCR
- This report only includes the results for OCR

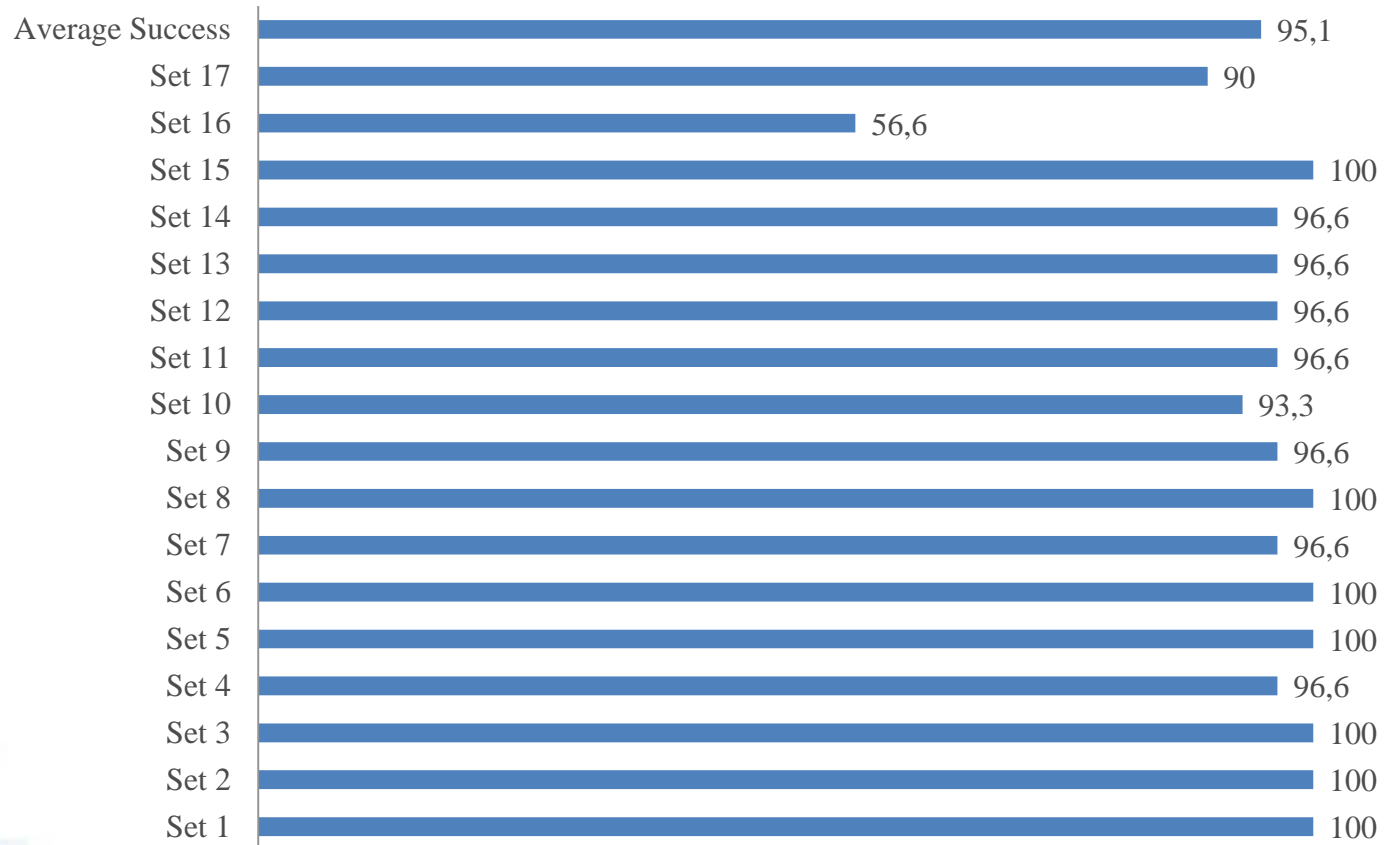
# OCR performance without tuning

Success ratio (%)



# OCR performance with OptoFidelity tuning

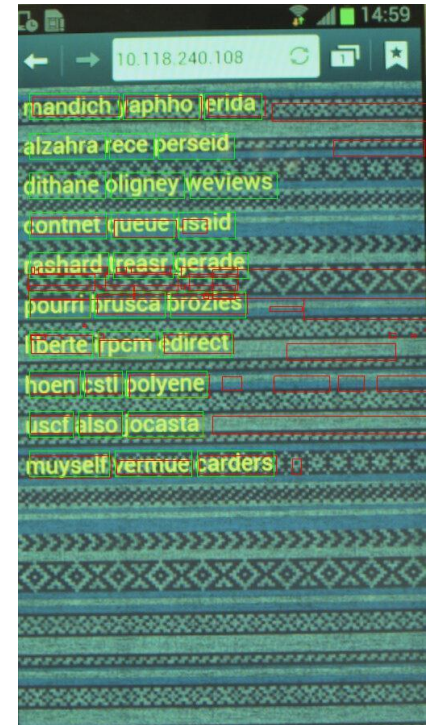
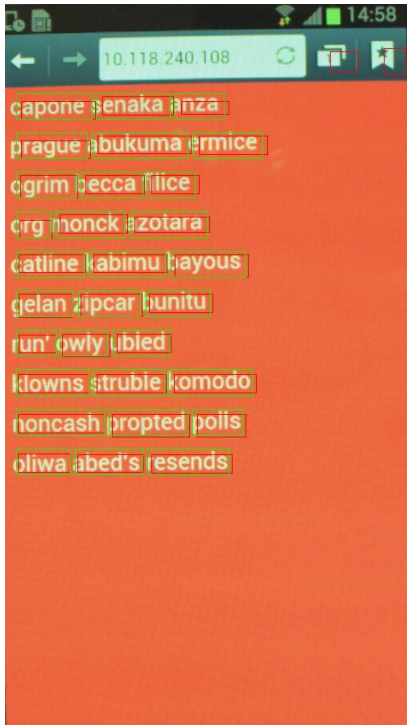
Success ratio (%)



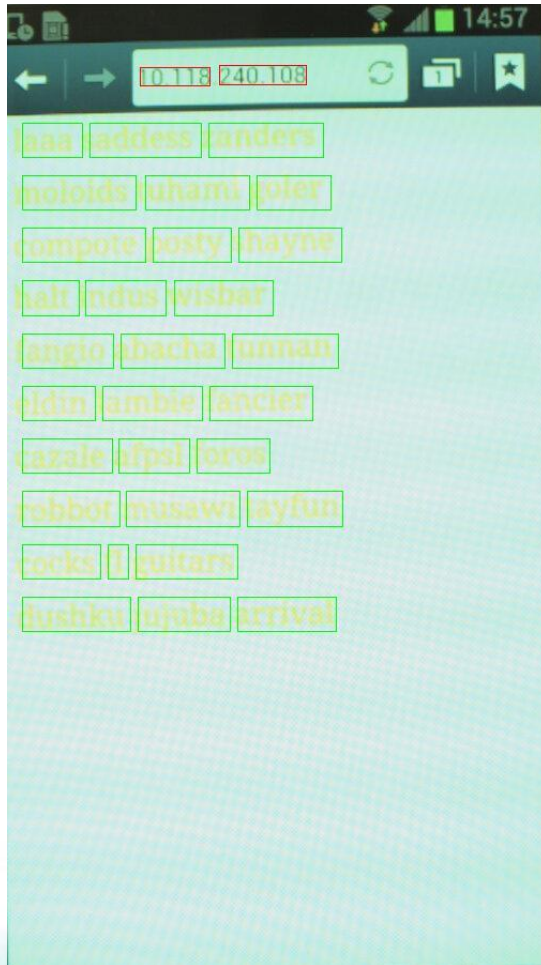
# Test material used in the benchmark

- Test material was a collection of web pages with random dictionary words, and with different text and background colors / images
- Images were captured with a OptoFidelity Touch and Test robot, using Nokia Lumia 820 as a test device

# Sample captures from test material



# In-depth results; low-contrast image



Standard Approach  
0%

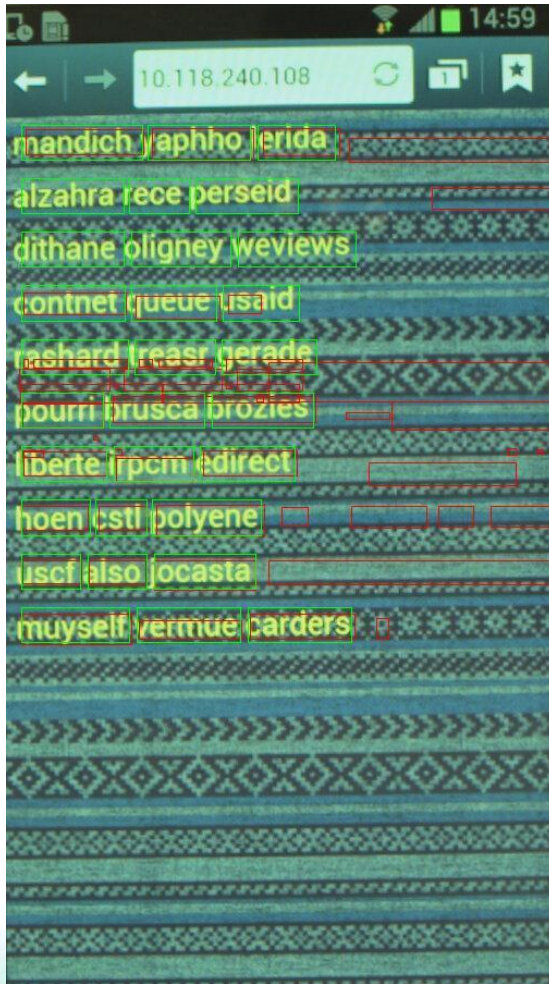
<none>

OptoFidelity Approach  
100%

laaa, saddess, zanders, moloids, tuhami, goler, compote, posty, shayne, halt, indus wisbar, fangio, abacha, tunnan, eldin, lambie, fancier, cazale, afpsl, foros, robbot musawi, tayfun, cocks, fl, guitars, dushku, jujuba, arrival



# In-depth results; texture background



Standard  
Approach

60%

mandich, yaphho, lerida, liberte,  
irpcm, edirect, hoen, cstl, polyene,  
uscf, also  
jocasta, muysel, vermue, carders

OptoFidelity  
Approach

90%

mandich, yaphho, lerida, alzahra,  
rece, perseid, dithane, oligney,  
weviews, contnet,  
queue, usaid, rashard, treasr, gerade,  
pourri, brusca, brozies, liberte,  
irpcm, edirect, hoen, cstl, polyene,  
uscf, also, iocasta, muysel, vermue,  
carders