

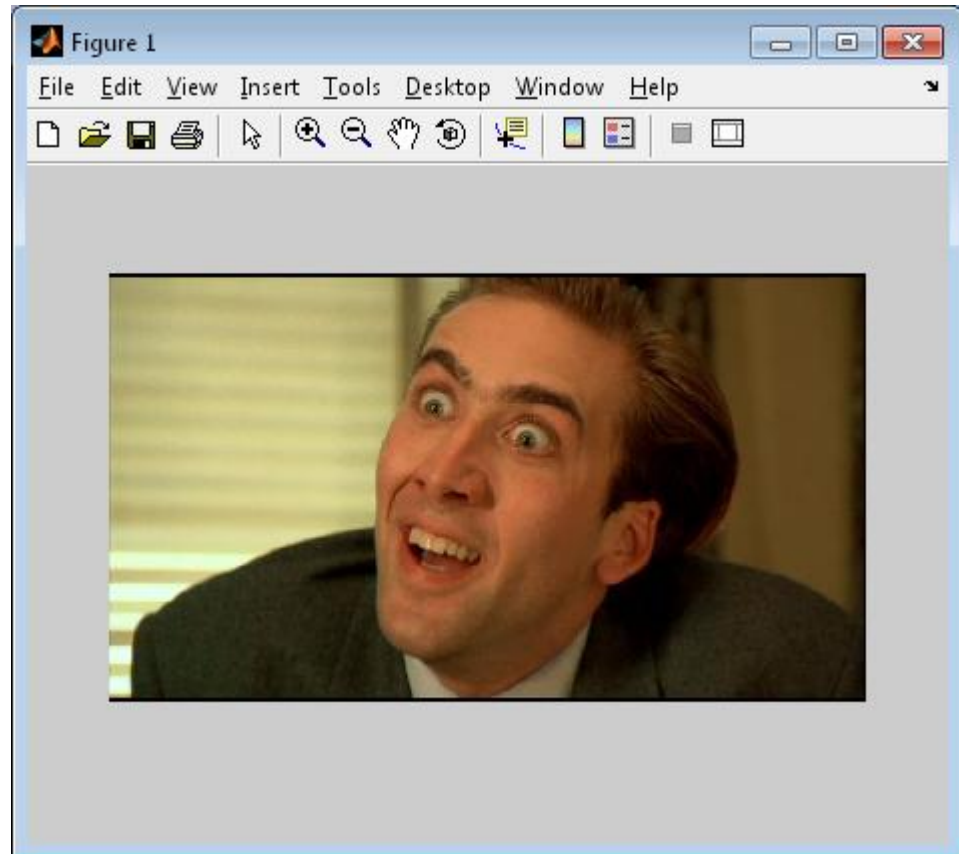
IRA Gyakorlat 4.

<http://mobil.nik.uni-obuda.hu/tantargyak/ira/segedanyagok/>

2012. ősz

Képek kezelése

```
img=imread('YouDontSay.jpg');  
imshow(img);
```



```
info=imfinfo('YouDontSay.jpg')
info =
    Filename: 'YouDontSay.jpg'
    FileModDate: '20-nov.-2012 13:49:12'
    FileSize: 27702
    Format: 'jpg'
    FormatVersion: ''
    Width: 758
    Height: 429
    BitDepth: 24
    ColorType: 'truecolor'
    FormatSignature: ''
    NumberOfSamples: 3
    CodingMethod: 'Huffman'
    CodingProcess: 'Sequential'
    Comment: {}
```

Tömörítési arány

Tömörítési arány

```
>> maxsize=(info.Width*info.Height*info.BitDepth)/8
```

```
maxsize =
```

```
975546
```

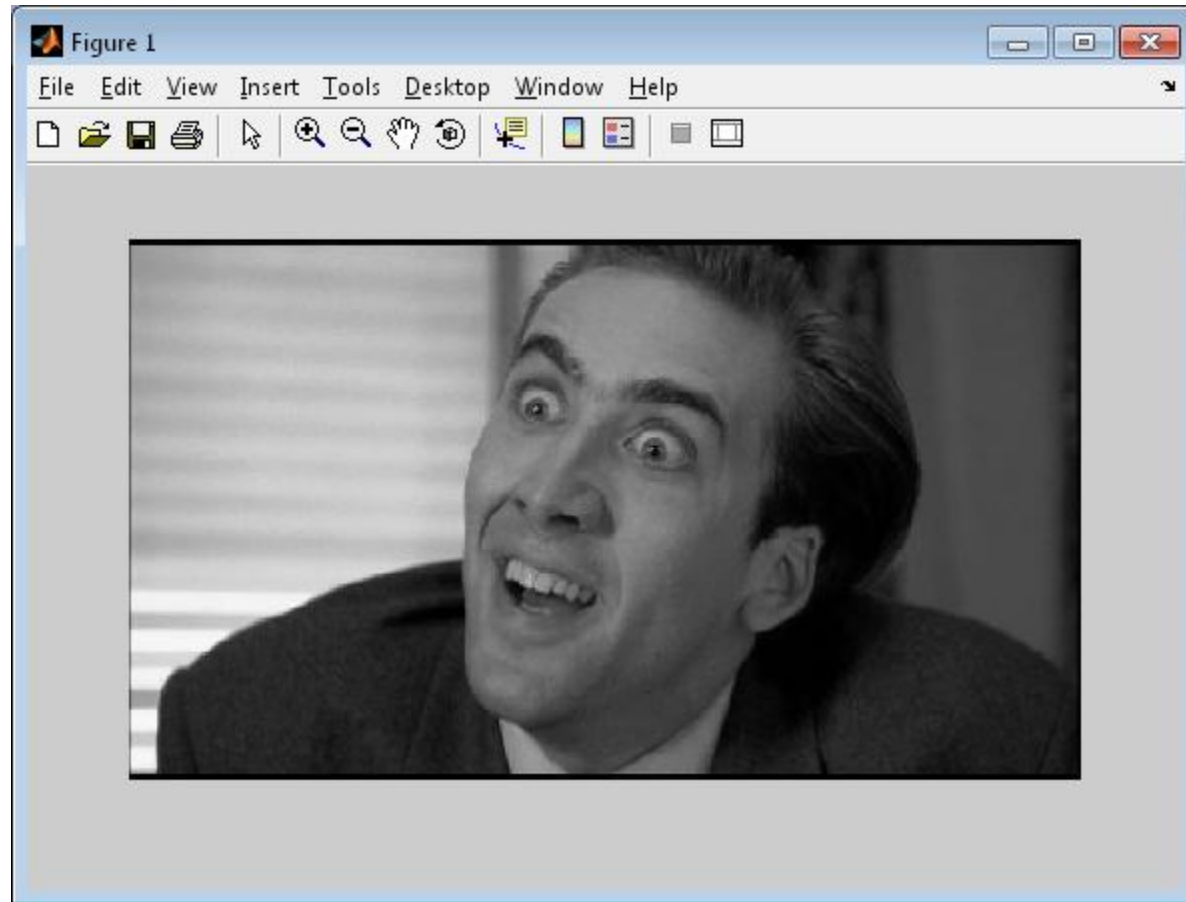
```
>> info.FileSize/maxsize
```

```
ans =
```

```
0.028396405705113
```

Szürkeárnyaltos kép

```
imshow (rgb2gray (img) ) ;
```

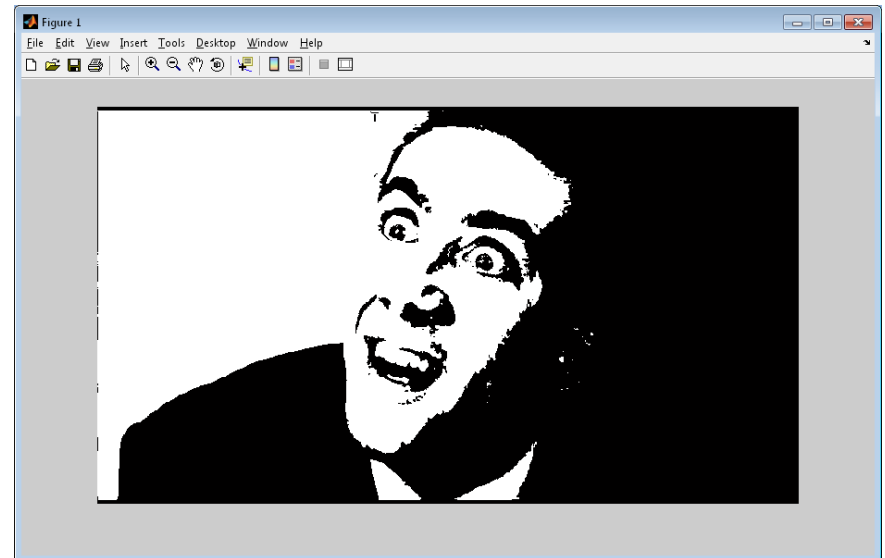


Fekete-fehér kép

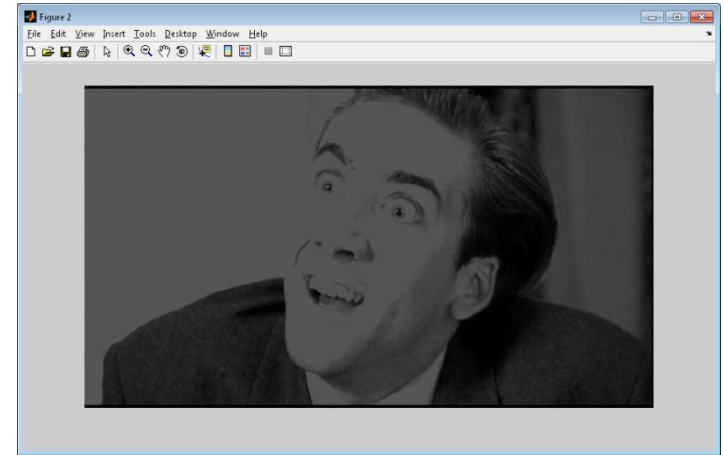
```
imshow(im2bw(img,  
0.35));
```

```
BW = IM2BW(RGB, LEVEL)  
converts the RGB  
image RGB to black  
and white
```

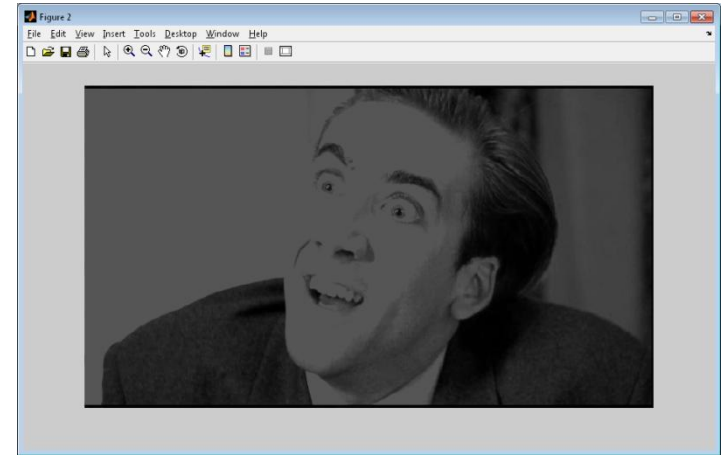
```
Note that you specify  
LEVEL in the range  
[0,1],  
regardless of the  
class of the input  
image.
```



Szürkeárnyalat II.

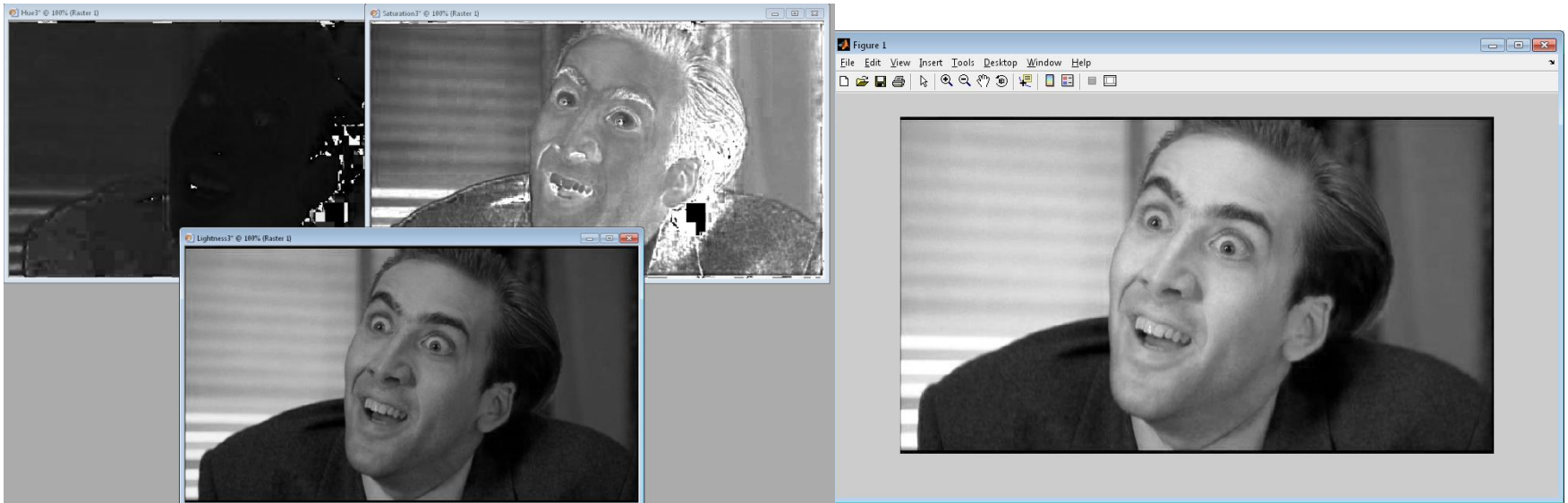


Szürkeárnyalat II.



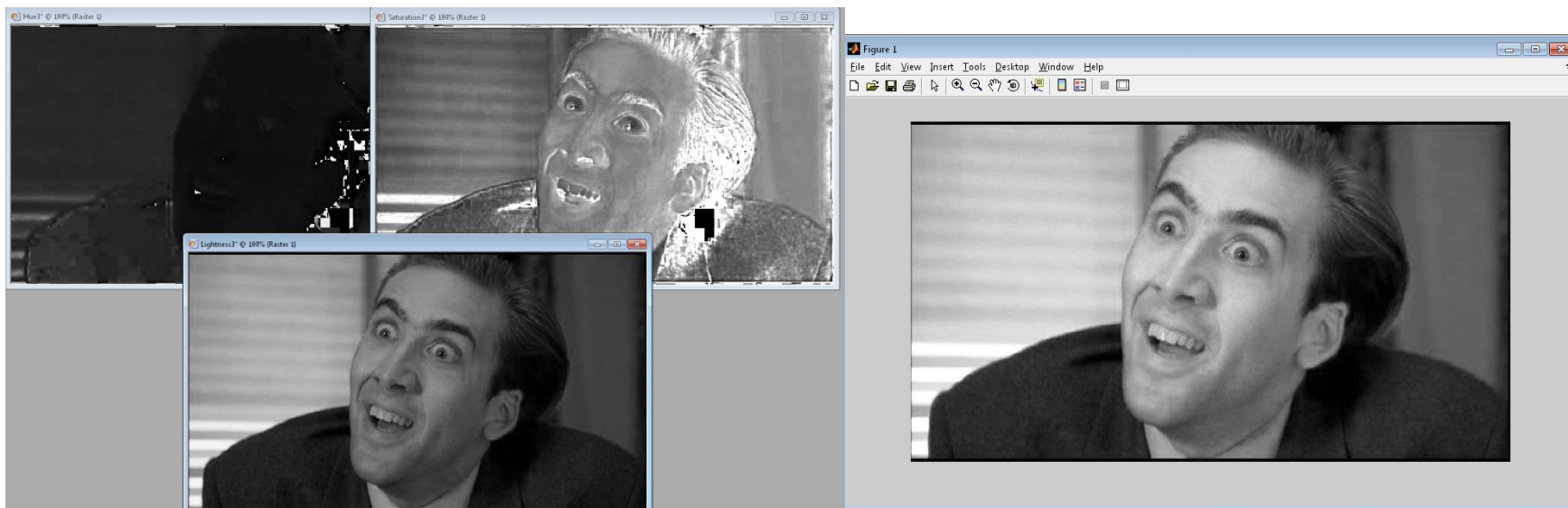
```
img_gray=(img(:, :, 1)+img(:, :, 2)+img  
    (:, :, 3))/3;  
figure  
imshow(img_gray);
```

Szürkeárnyalat III.



% (HSV = szín, telítettség, érték)

Szürkeárnyalat III.



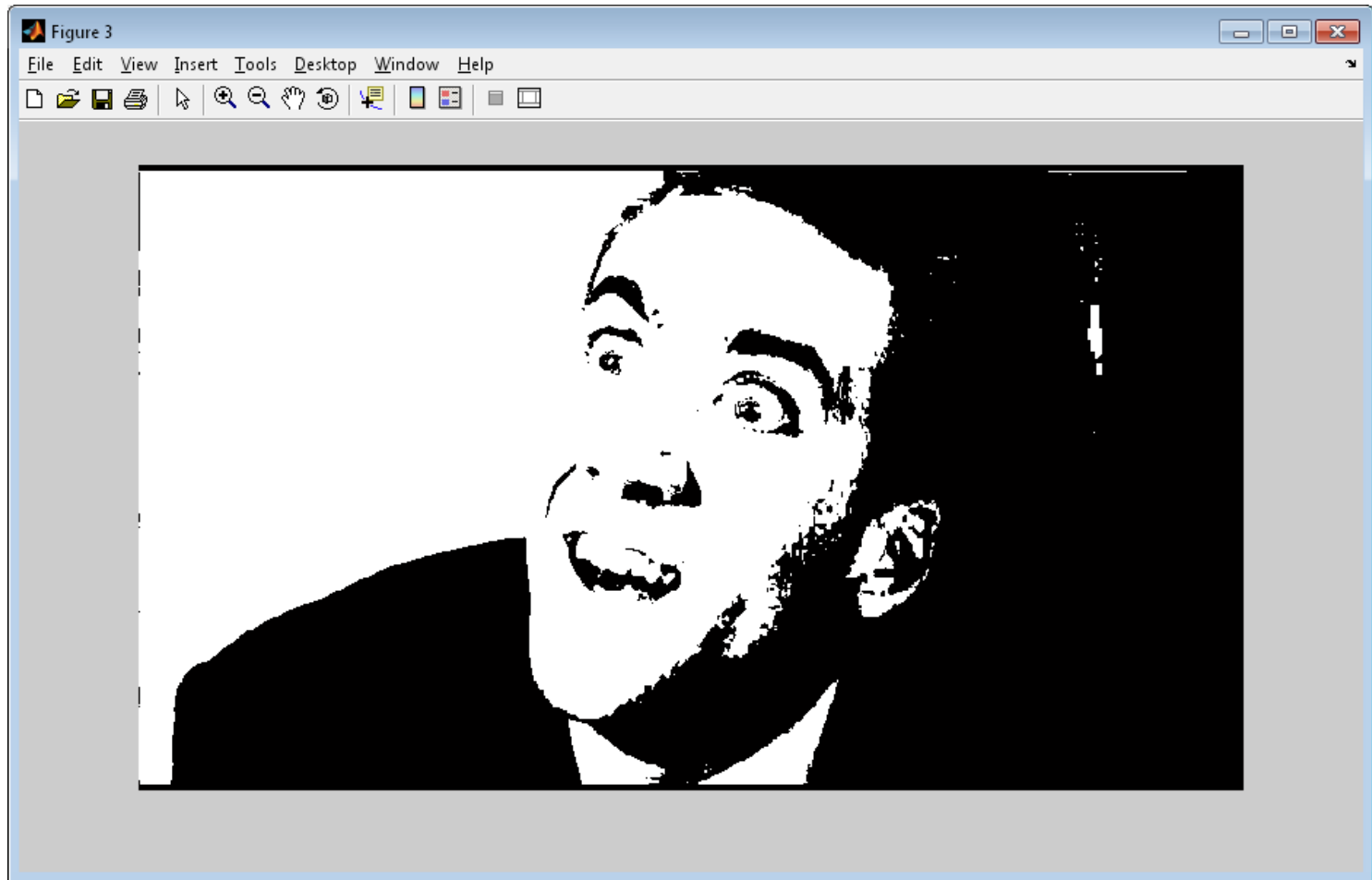
`% (HSV = szín, telítettség, érték)`

```
hsv=rgb2hsv(img);
```

```
img_gray=hsv(:, :, 3);
```

```
imshow(img_gray);
```

Fekete fehér II.



```
img_bw=img_gray;  
treshold_level=70;  
for i=1:height(img_gray)  
    for j=1:width(img_gray)  
        if img_gray(i,j) > treshold_level  
            img_bw(i,j)=1;  
        else  
            img_bw(i,j)=0;  
        end  
    end  
end  
figure  
imshow(img_bw);
```



```
img_bw=img_gray;
treshold_level=70;
for i=1:info.Height
    for j=1:info.Width
        if (img_gray(i,j)>treshold_level)
            img_bw(i,j)=255;
        else
            img_bw(i,j)=0;
        end
    end
end
figure
imshow(img_bw);
```