

# Pi Hediye Vardı, Verdim, Gitti #3 :)

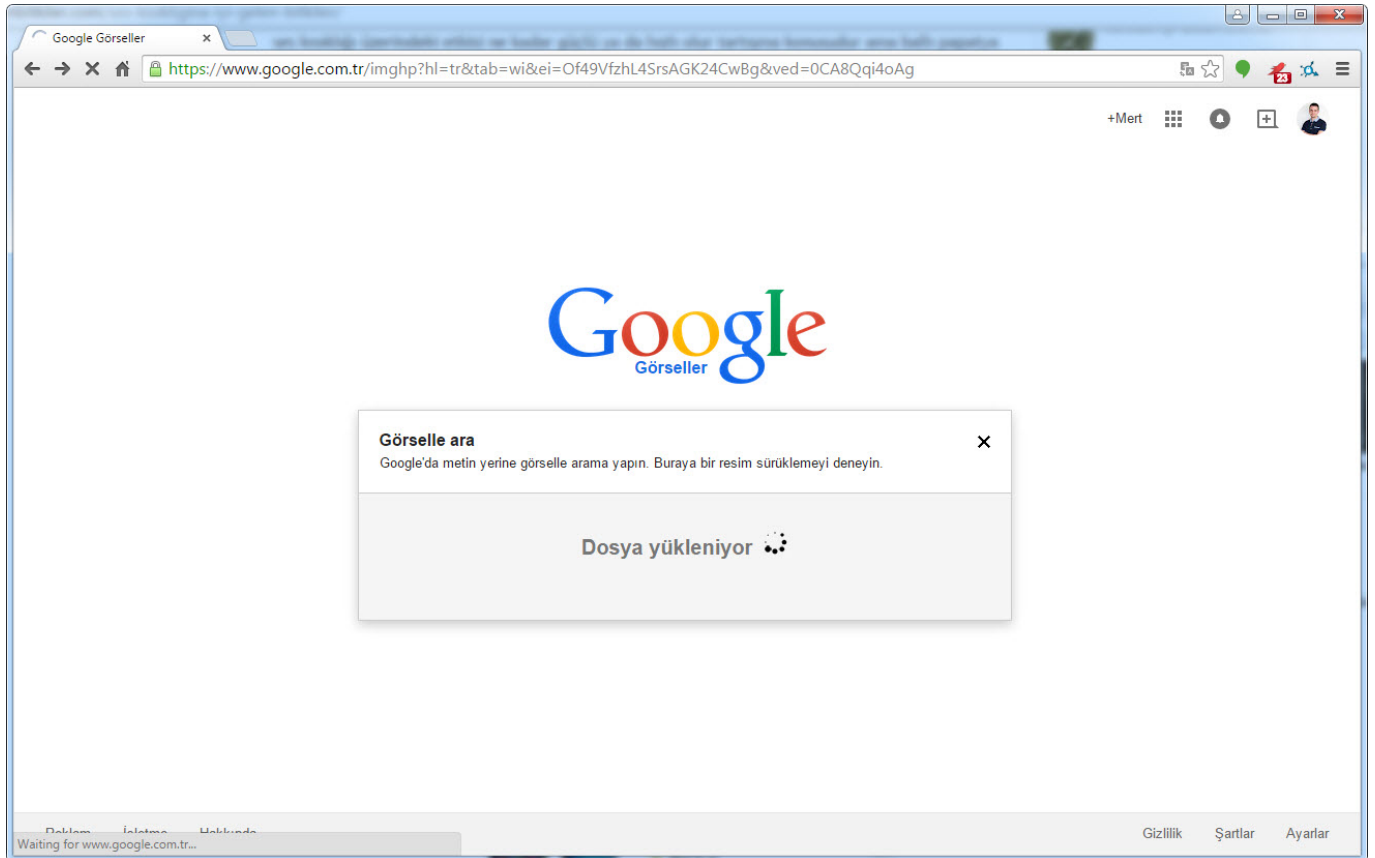
written by Mert SARICA | 5 May 2015

1 Mayıs 2015 tarihinde üçüncü düzenlenen Pi Hediye Var oyununun çözüm yolu ve Raspberry Pi 2 kazanan talihli karşınızda!

## ÇÖZÜM YOLU:


Dahi ile deli arasında ince bir çizgi olduğu söylenir.

Aşağıdaki resimde gördüğünüz bir dahi ise, yine bu resimde olan ama göremediğiniz deli kimdir ? sorusu bize aslında bu resim içinde başka bir resmin gizli olabileceğine yani steganografi kullanıldığına dair ipucu veriyordu. Bu ipucundan yola çıkarak Einstein'ın resmini (pihaber6.png) Google görseller üzerinde aratarak resmin orjinalına kısa bir sürede ulaşabilirdik.



Google'da Ara

https://www.google.com.tr/search?tbs=sbi:AMhZzitZvp857uVh9TVUa-XgOWUMH0hJw4kHM9II4s6KosP6fARuEQ



Eşleşen görselleri içeren sayfalar

**İş - "Einstein Sizin İçin Çalışsaydı..." - Başlangıcın biraz ilerisi...**  
kmuratsimsek.blogspot.com/.../is-einstein-sizin-icin-calssayd-...  
620 x 747 - 26 Nis 2014 - Muhteşem olurdu değil mi? Düşünsenize tarihin gelmiş geçmiş en büyük zekalarından birisi sizin için çalışıyor. Hangi departmanda olursa ...

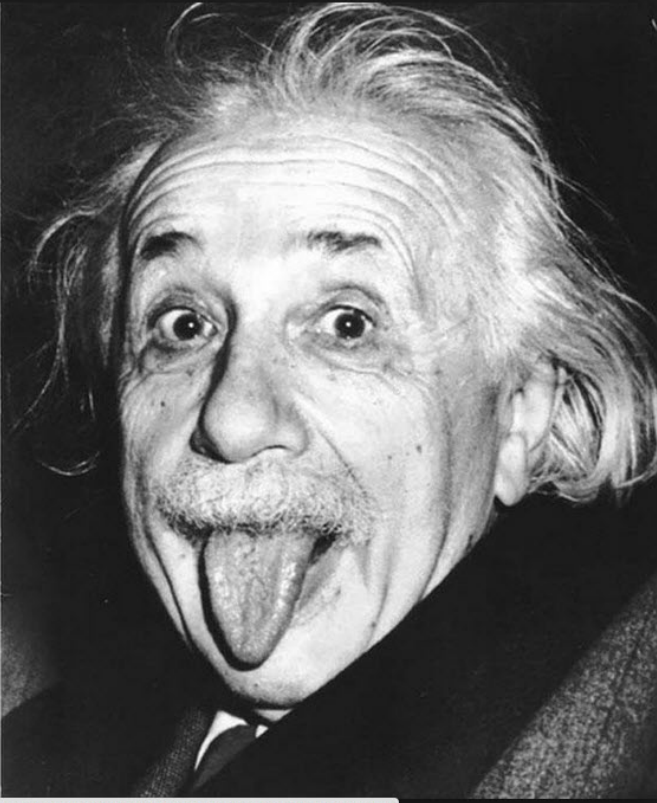
**Poster APPLE Think Different Albert Einstein - 50X70 ...**  
https://www.pinterest.com/.../11603... - Bu sayfanın çevirisini yap  
357 x 500 - Poster APPLE Think Different Albert Einstein - 50X70 !! | See more about albert einstein and posters.

**Think different on Pinterest | Jane Goodall, Pablo Picasso ...**  
https://tr.pinterest.com/ericchan2017/think-different/  
357 x 500 - Explore eric chan's board "Think different" on Pinterest, a visual bookmarking tool ... Apple •Think Different• ad campaign 1997 poster > Jane GOODALL (brit ...

**Poster Apple Think Different Albert Einstein 50x70 | eBay**  
www.ebay.com/...-/250764766418 - Bu sayfanın çevirisini yap  
€21,90 - Stokta Var  
357 x 500 - Poster APPLE Think Different Albert Einstein - 50X70 !! in Computers/Tablets & Networking, Vintage Computing, Vintage Computers & Mainframes | eBay.

http://mentalfloss.com/sit

www.google.com.tr/imgres?imgurl=http://mentalfloss.com/sites/default/files/styles/insert\_main\_wide\_image/pub

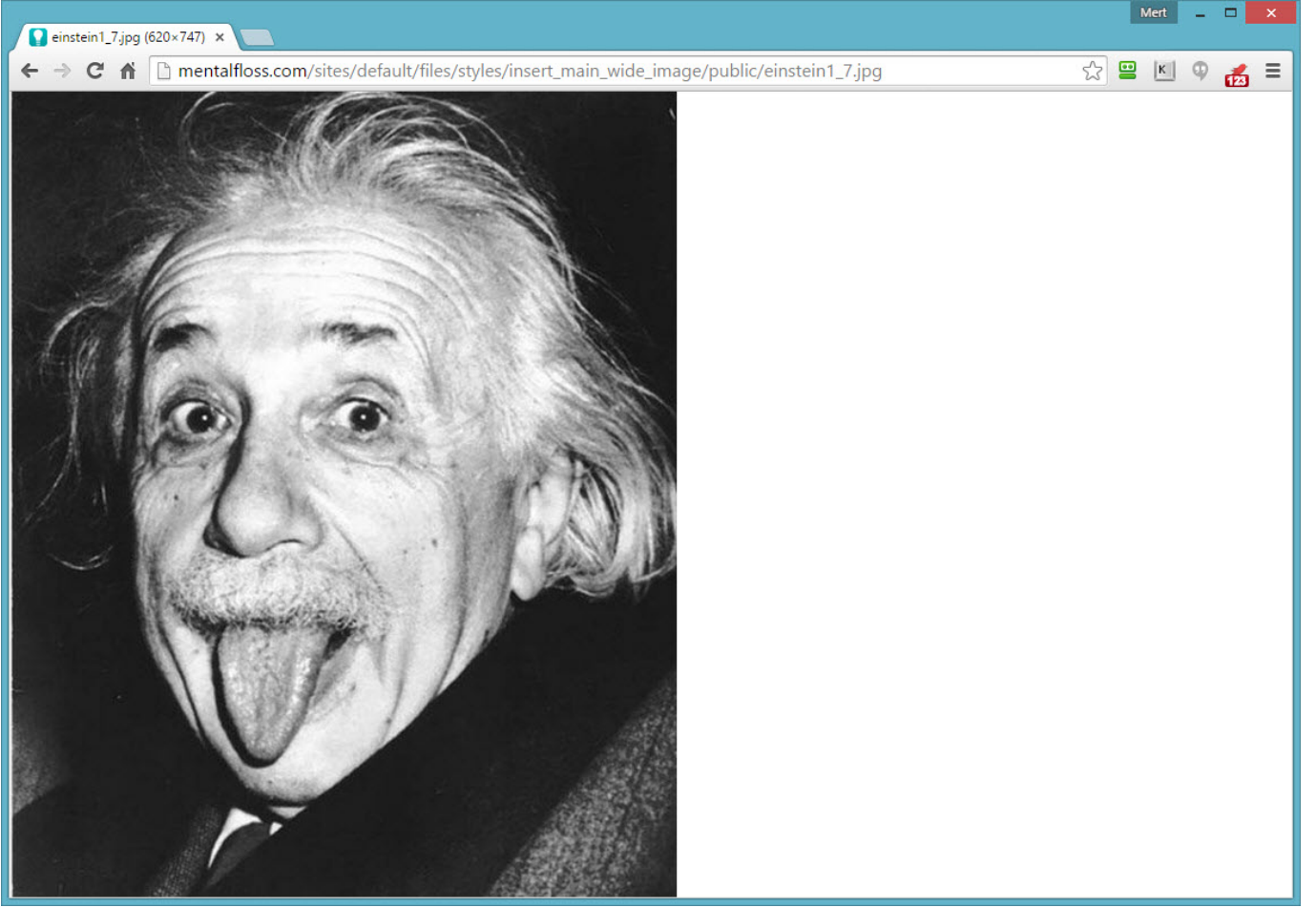


**İş - "Einstein Sizin İçin Çalışsaydı..." ...**  
kmuratsimsek.blogspot.com - 620 x 747 - Görselle ara  
Muhteşem olurdu değil mi? Düşünsenize tarihin gelmiş geçmiş en büyük zekalarından birisi sizin için çalışıyor. Hangi departmanda olursa olsun harikalar ...

Sayfayı ziyaret et Resmi görüntüle

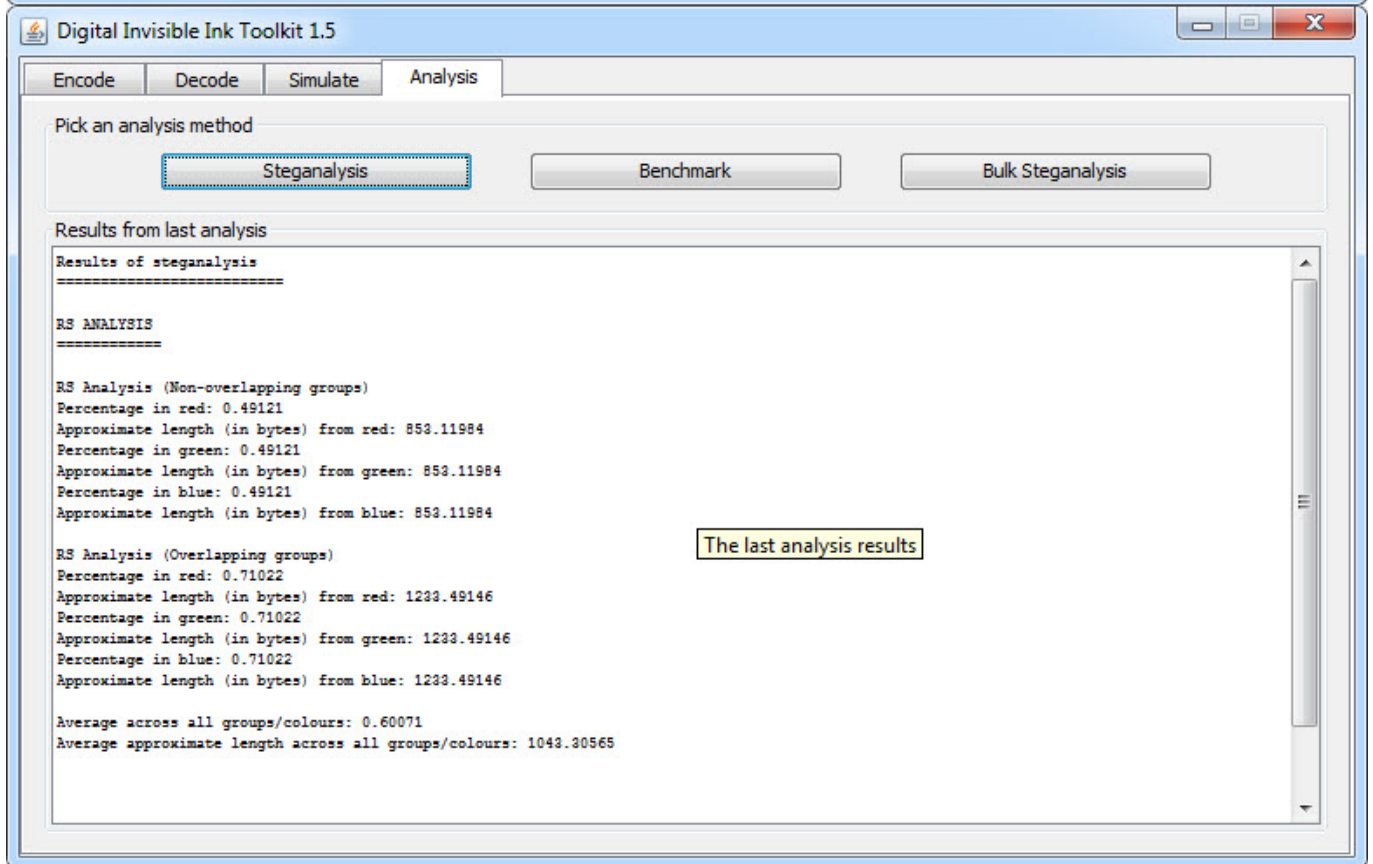
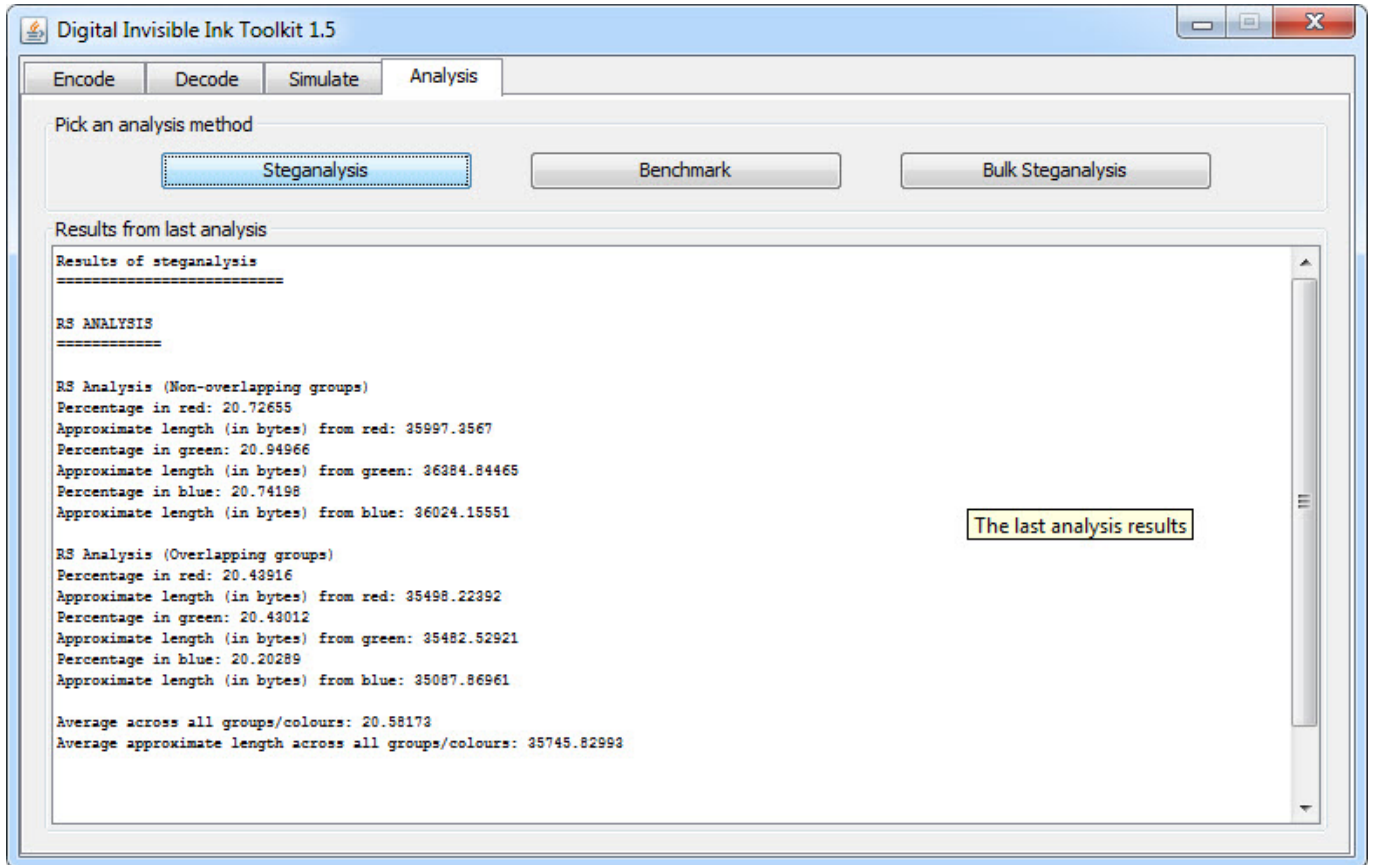
Görseller telif hakkına tabi olabilir. - Geri bildirim gönder

kmuratsimsek.blogspot.com/2014/04/is-einstein-sizin-icin-calssayd-yazs.html



Steganografi kullanıldığından şüphe ederek resim üzerinde Digital Invisible Ink Toolkit aracı ile RS LSB steganalizi yaptığımızda Red, Green ve Blue renk grubunun değerlerinin orjinaline kıyasla yüksek çıktığını görebilirdik. Bu durum da bize LSB yöntemi ile resim üzerinde bir verinin gizlendiği bilgisini verirdi.

Stegsolve aracı ile



Stegsolve aracı ile Red, Green ve Blue Bitplane değerleri için sıfır seçtiğimizde karşımıza sayısal görüntü kodlama biçimi olan JPEG başlık bilgisi çıkıyordu. JPEG dosyasının başlangıç (0xFFD8) ve bitiş değeri (0xFFD9) arasındaki veriyi kopyalayıp çalıştırdığımızda ise Einstein'in resmine gizlenmiş bir deli resmi ortaya çıkıyor ve oyunu başarıyla tamamlamış

oluyorduk :) )

The screenshot shows the StegSolve 1.3 by Caesum application window. The main window displays a black and white image of Albert Einstein sticking his tongue out. The title bar reads "StegSolve 1.3 by Caesum". The menu bar includes "File", "Analyse", and "Help". The main window content is labeled "Normal Image".

Overlaid on the right side is the "Extract Preview" dialog box. It contains a hex dump of the image data with corresponding ASCII text. The hex dump shows the following data:

```
fed00000ffd8ffe0 00104a4649460001 ..... ..JFIF..
0001009600960000 fffe001f4c454144 ..... ..LEAD
20546563686e6f6c 6f6769657320496e Technol ogies In
632e2056312e3031 00ffdb0084000505 c. V1.01 .....
050805080c07070c 0c0909090c0d0c0c .....
0c0c0d0d0d0d0d0d 0d0d0d0d0d0d0d0d .....
0d0d0d0d0d0d0d0d 0d0d0d0d0d0d0d0d .....
0d0d0d0d0d0d0d0d 0d0d0d0d0d0d0105 .....
08080a070a0c0707 0c0d0c0a0c0d0d0d .....
0d0d0d0d0d0d0d0d 0d0d0d0d0d0d0d0d .....
```

The dialog box also includes the following settings:

- Bit Planes:** Alpha [7] [6] [5] [4] [3] [2] [1] [0], Red [7] [6] [5] [4] [3] [2] [1] [0] (checkbox 0 checked), Green [7] [6] [5] [4] [3] [2] [1] [0] (checkbox 0 checked), Blue [7] [6] [5] [4] [3] [2] [1] [0] (checkbox 0 checked).
- Order settings:** Extract By  Row  Column, Bit Order  MSB First  LSB First, Bit Plane Order  RGB  GRB,  RBG  BRG,  GBR  BGR.
- Preview Settings:** Include Hex Dump In Preview .

Buttons at the bottom of the dialog box are "Preview", "Save Text", "Save Bin", and "Cancel".



Hex Workshop - [C:\Users\Mert\Desktop\stega\deli-ext.jpg]

File Edit Disk Options Tools Plug-Ins Window Help

Legacy ASCII

	0	1	2	3	4	5	6	7	8	9	A	B	0123456789AB
00000000	FE	D0	00	00	FF	D8	FF	E0	00	10	4A	46	.....JF
0000000C	49	46	00	01	00	01	00	96	00	96	00	00	IF.....
00000018	FF	FE	00	1F	4C	45	41	44	20	54	65	63	.....LEAD Tec
00000024	68	6E	6F	6C	6F	67	69	65	73	20	49	6E	hnologies In
00000030	63	2E	20	56	31	2E	30	31	00	FF	DB	00	c. V1.01....
0000003C	84	00	05	05	05	08	05	08	0C	07	07	0C	.....
00000048	0C	09	09	09	0C	0D	0C	0C	0C	0D	0D	0D	.....
00000054	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	.....
00000060	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	.....
0000006C	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	.....
00000078	0D	0D	0D	0D	0D	0D	01	05	08	08	0A	07	.....
00000084	0A	0C	07	07	0C	0D	0C	0A	0C	0D	0D	0D	.....
00000090	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	.....
0000009C	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	.....
000000A8	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	.....
000000B4	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	FF	.....

deli-ext.jpg

Data Inspector

Data at offset 0x00000004:

- int8 -1
- uint8 255
- int16 -9985
- uint16 55551
- int32 -520103681
- uint32 3774863615
- int64
- uint64

Expression Calc

Signed 32 bit

Eval

Compare Results

Type	Source	Count	Count	Target	Count	Count

Compare Checksum Find Bookmarks Output

Structure Viewer

Ready Cursor: 00000044 Caret: 00000004 Sel: 00000004 OVR MOD READ

Hex Workshop - [C:\Users\Mert\Desktop\stega\deli-ext.jpg]

File Edit Disk Options Tools Plug-Ins Window Help

Legacy ASCII

	0	1	2	3	4	5	6	7	8	9	A	B	0	1	2	3	4	5	6	7	8	9	A	B
0000D0F8	50	03	BB	52	28	05	30	3F	FF	D9	0F	F8	P	.	.	R	(	.	0	?	.	.	.	.
0000D104	1C	0F	C0	E3	8F	F8	E3	8F	F8	03	80	3F	.	.	.	.	.	.	.	.	.	.	.	.
0000D110	E3	80	07	00	7E	3F	1C	7F	C0	03	F1	FF	.	.	.	~	?	.	.	.	.	.	.	.
0000D11C	FF	8F	F8	FF	F0	3F	00	0E	38	03	FE	3F	.	.	.	?	.	.	8	.	?	.	.	.
0000D128	FF	FF	FF	E0	70	07	03	8F	F8	00	01	C0	.	.	.	p	.	.	.	.	.	.	.	.
0000D134	1C	7F	F8	FF	81	C7	03	FE	38	00	7E	3F	.	.	.	.	.	.	8	.	~	?	.	.
0000D140	E3	F0	00	FC	01	F8	FC	0F	C0	1F	8E	38	.	.	.	.	.	.	.	.	.	.	.	.
0000D14C	E3	FE	00	1C	7F	F8	FC	7E	38	1F	80	00	.	.	.	.	.	.	.	~	8	.	.	.
0000D158	03	8F	FF	00	0F	C0	FC	01	F8	E3	81	C7	.	.	.	.	.	.	.	.	.	.	.	.
0000D164	03	8F	C7	FF	FE	00	00	7F	F8	E0	00	00	.	.	.	.	.	.	.	.	.	.	.	.
0000D170	E3	81	C7	1C	71	C0	FC	71	C7	1C	0E	38	.	.	.	q	.	.	q	.	.	.	.	8
0000D17C	FF	F1	FF	FF	F0	07	1F	8F	F8	E3	80	3F	.	.	.	.	.	.	.	.	.	.	.	.
0000D188	1C	0E	00	E3	80	00	FF	81	FF	FC	01	C7	.	.	.	.	.	.	.	.	.	.	.	.
0000D194	E3	80	3F	E0	00	07	1F	FF	FF	FF	FF	FF	.	.	.	?	.	.	.	.	.	.	.	.
0000D1A0	1C	01	FF	03	F0	07	1C	00	00	1F	8E	3F	.	.	.	.	.	.	.	.	.	.	.	.
0000D1AC	FC	7E	3F	E0	7E	3F	E0	7F	FF	1C	7E	00	.	.	~	?	.	~	?	.	.	.	.	.

deli-ext.jpg

Data Inspector

Data at offset 0x0000D102:

int8	15
uint8	15
int16	-2033
uint16	63503
int32	253556751
uint32	253556751
int64	-535959416607...
uint64	1791078465710...

Expression Calc

Signed 32 bit

Eval

1 instances of 'FFD9' found in C:\Users\Mert\Desktop\stega\deli-ext.jpg

Address	Length	Length
0000D100	2	02

Compare Checksum Find Bookmarks Output

Structure Viewer

Find All Complete. Cursor: 0000D11A Caret: 0000D102 173678 bytes OVR MOD READ

Hex Workshop - [C:\Users\Mert\Desktop\stega\deli-ext.jpg]

File Edit Disk Options Tools Plug-Ins Window Help

Legacy ASCII

Data Visualizer

	0	1	2	3	4	5	6	7	8	9	A	B	0	1	2	3	4	5	6	7	8	9	A	B	
00000000	FE	D0	00	00	FF	D8	FF	E0	00	10	4A	46	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	JF
0000000C	49	46	00	01	00	01	00	96	00	96	00	00	IF.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	IF.....
00000018	FF	FE	00	1F	4C	45	41	44	20	54	65	63	....LEAD	Tec	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	hnologies
00000024	68	6E	6F	6C	6F	67	69	65	73	20	49	6E	hnologies	In	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	c. V1.01....
00000030	63	2E	20	56	31	2E	30	31	00	FF	DB	00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
0000003C	84	00	05	05	05	08	05	08	0C	07	07	0C	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
00000048	0C	09	09	0C	0D	0C	0C	0C	0C	0C	0D	0D	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
00000054	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
00000060	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
0000006C	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
00000078	0D	0D	0D	0D	0D	0D	01	05	08	08	0A	07	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
00000084	0A	0C	07	07	0C	0D	0C	0A	0C	0D	0D	0D	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
00000090	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
0000009C	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
000000A8	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
000000B4	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	0D	FF	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

deli-ext.jpg

Data Inspector

Data at offset 0x00000004:

int8	-1
uint8	255
int16	-9985
uint16	55551
int32	-520103681
uint32	3774863615
int64	5064878326892...
uint64	5064878326892...

Expression Calc

Signed 32 bit

Eval

1 instances of 'FFD9' found in C:\Users\Mert\Desktop\stega\deli-ext.jpg

Address	Length	Length
0000D100	2	02

Compare Checksum Find Bookmarks Output

Structure Viewer

Ready Cursor: 0000002B Caret: 0000D102 Sel: -0000D0FE OVR MOD READ

deli.jpg - Windows Photo Viewer

deli.jpg Properties

General Security Details

deli.jpg

Type of file: JPEG image (jpg)

Opens with: Windows Photo Viewer

Location: C:\Users\Mert\Desktop\stega

Size: 52.2 KB (53,502 bytes)

Size on disk: 56.0 KB (57,344 bytes)

Created: 27 Nisan 2015 Yesterday, 17:44:18

Modified: 27 Nisan 2015 Yesterday, 13:17:04

Accessed: 27 Nisan 2015 Yesterday, 17:44:18

Attributes:  Read-only  Hidden

OK Cancel Apply



deli.jpg Properties

General Security Details

deli.jpg

Type of file: JPEG image (jpg)

Opens with: Windows Photo Viewer

Location: C:\Users\Mert\Desktop

Size: 52.2 KB (53,502 bytes)

Size on disk: 56.0 KB (57,344 bytes)

Created: 28 Nisan 2015 Today, 1 minute ago

Modified: 28 Nisan 2015 Today, 1 minute ago

Accessed: 28 Nisan 2015 Today, 1 minute ago

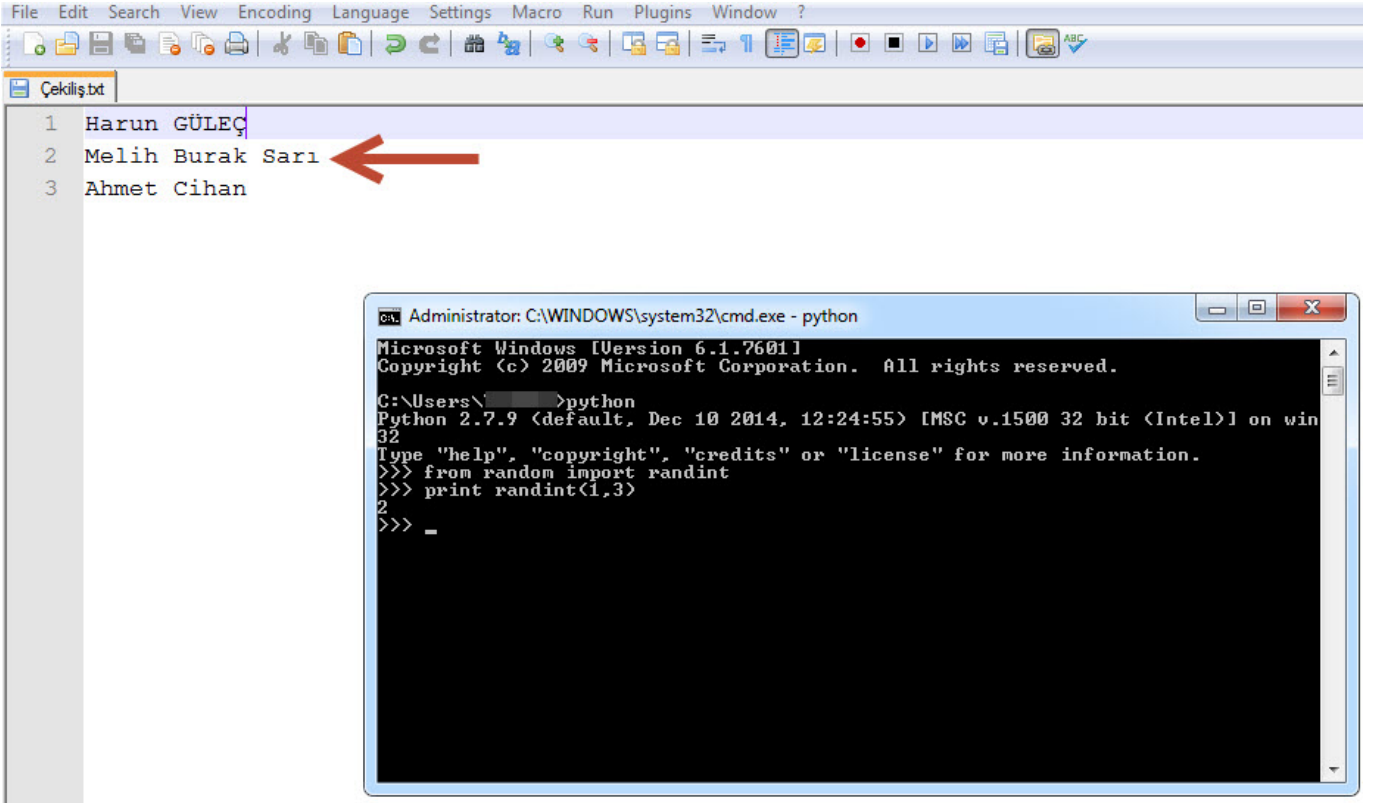
Attributes:  Read-only  Hidden

OK Cancel Apply

OYUNU BAŞARIYLA TAMAMLAYANLAR: Harun GÜLEÇ, Melih Burak Sarı, Ahmet Cihan

ÇEKİLİŞ ve KAZANAN TALİHLİ: Melih Burak Sarı





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