



ARSENAL CONSULTING

— ARM YOURSELF —

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2010/283

Preliminary Microsoft Office Behavior Report

February 7, 2013



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I. Introduction

Arsenal Consulting (“Arsenal”) has been asked by Attorney Hüseyin Ersöz to explain certain aspects of Microsoft Office (“Office”) behavior, particularly behavior related to newer versions of Word opening documents created in older versions of Word.

II. Microsoft Office Behavior

Arsenal has been advised that an issue in this case has arisen related to whether Office 2010 or 2007 could save changes to a Word document without the Windows file system and Word metadata attributes of that file being modified.

Office 2010 or 2007 cannot save changes to a Word document without the Windows file system and Word metadata attributes of that file being modified. Office 2010 or 2007 do not save changes to a Word document without user consent¹.

Unique remnants of Office 2010 or 2007 only exist in Word documents if those documents have been modified at some point by Office 2010 or 2007. Modification of Word documents by Office 2010 or 2007 cannot be performed without metadata related to when they were last modified² being changed. Consequently, it is not possible for a Word document’s last modified (a/k/a last saved) metadata to reflect 2003 and contain unique remnants of Office 2010 or 2007 (such as references to the Calibri font) unless the document has been tampered with.

III. BALYOZ HAREKAT PLANI.doc

A Word document named “BALYOZ HAREKAT PLANI.doc”, which contains a reference to the Calibri font (see Figure 1), has been found on CDs known as CD 11 and CD 17 in this case. This document was purportedly last saved on December 2, 2002 at 4:14:05PM according to the CD file systems and on December 2, 2002 at 4:14:00PM according to Word metadata. According to CD metadata, CD 11 was purportedly created on March 5, 2003 at 11:50:42PM and CD 17 was purportedly created on March 4, 2003 at 11:52:02PM. As the Calibri font was not introduced until Office 2007, and given the Word behavior explained above, Arsenal has concluded that these dates are forged. Additional details regarding the two copies of this document are included in Figures 2 and 3.

¹ Arsenal has tested the behavior of Office 2010 and 2007 extensively. Testing included monitoring the status of file system and embedded metadata as well as unique remnants of Office 2010 and 2007.

² File system and embedded document metadata



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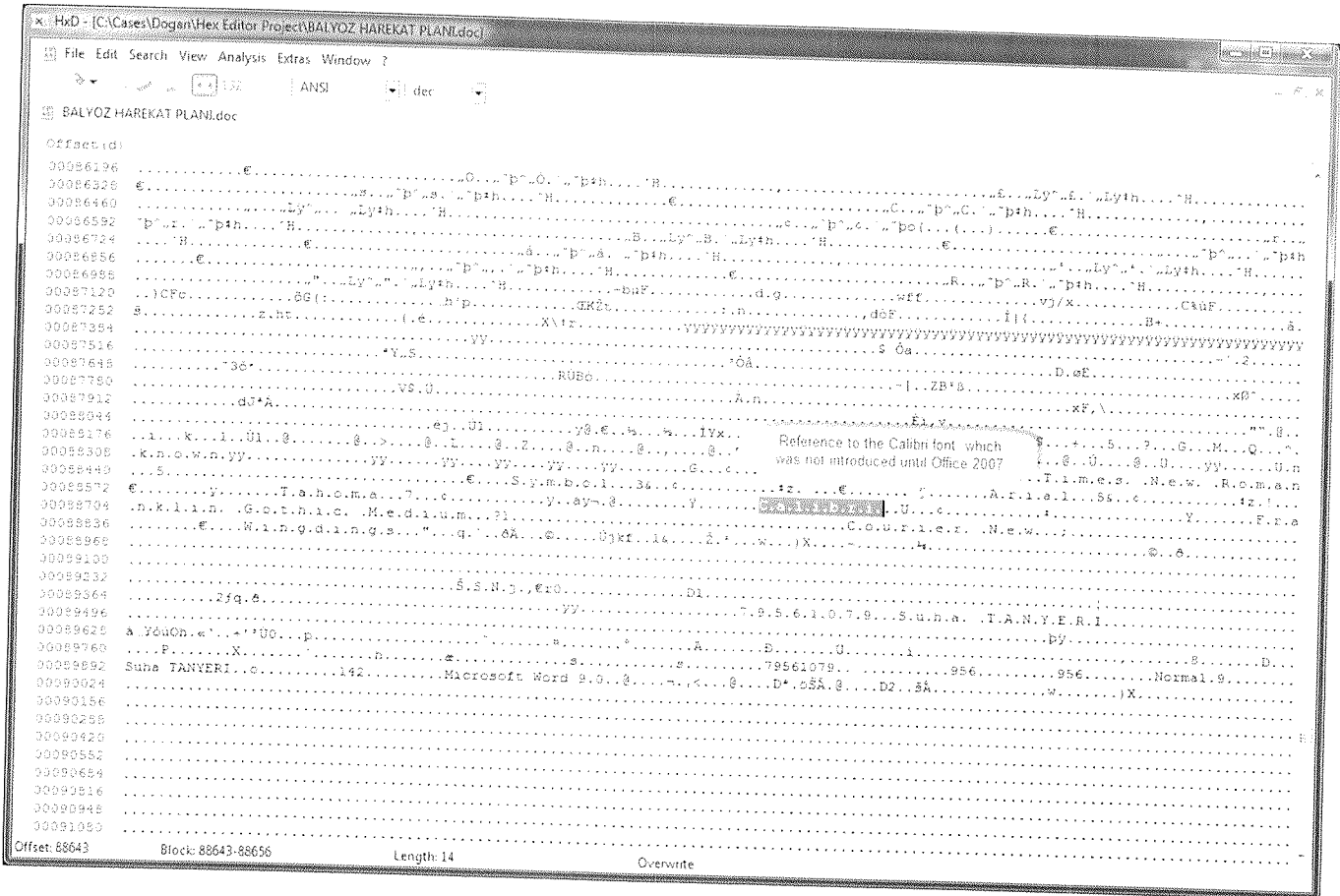


Figure 1

Filename	BALYOZ HAREKAT PLANI.doc
Full Path	CD_11\1) 030305_2350\2002-2003\1 NCİ ORDU\BALYOZ GÜVENLİK HAREKAT PLANI\BALYOZ HAREKAT PLANI.doc
Hash Value	f7877051edcd5546c6e5b719f6b5c8fe
CD Created	03/05/03 11:50:42PM
File Created	12/02/02 04:14:05PM
File Last Saved	12/02/02 04:14:05PM
Word Created	11/13/02 11:26:00AM
Word Last Saved	12/02/02 04:14:00PM
Calibri Reference	Offset 88643

Figure 2



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Filename	BALYOZ HAREKAT PLANI.doc
Full Path	CD_17\1) 030304_2351\BALYOZ GÜVENLİK HAREKAT PLANI \BALYOZ HAREKAT PLANI.doc
Hash Value	f7877051edcd5546c6e5b719f6b5c8fe
CD Created	03/04/03 11:52:02PM
File Created	12/02/02 04:14:05PM
File Last Saved	12/02/02 04:14:05PM
Word Created	11/13/02 11:26:00AM
Word Last Saved	12/02/02 04:14:00PM
Calibri Reference	Offset 88643

Figure 3

Printed Name

Mark Spencer

Signature

M. Spencer

Title

President