A Guide to MM7 Modding
Part Three
Quest Guide

by

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Introduction

This guide is designed to introduce the basic *requirements* for creating a new *Quest* within the Might and Magic VII gaming structure. In this final section of the Modding Guide, a new Quest will be issued by Rathbone to retrieve the *Ring of Rathbone* and return it to him in the Two Palms Tavern. The Ring will be placed in a 'locked' *crate* on Emerald Island. Rathbone will give the crate key to the party upon issuing the Quest. In order to generate this Quest, the following activities will be performed in this guide.

1. Create two new items – *Crate Key* and *Rathbone's Ring*.

2. Add *Rathbone's Ring* to crate (chest).

3. Modify *open chest e*vent to open crate only if key present (CodeSnippet3).

4. Complete *Global Quest Event* so that Rathbone will (1) issue the *Quest*, (2) give crate key, and (3) provide rewards upon quest completion (*CodeSnippet4*).

5. *Parse* and *comment CodeSnippet4* and make the necessary changes to correct several event 'bugs'.

Orientation

Quests are a combination of *local* and *global events* that constitute the primary game *instrument* used to direct, equip, and guide the party towards game completion. A quest may be a simple, single-task event or may consist of a complex series of activities leading towards quest completion.   Quest completion may be evaluated through the *possession* of a *Quest Item*, the *status* of a *Quest Bit*, by *triggering* a *local event* that indicates reaching a given map-area location or map feature, or similar accomplishments.

Quest Item *possession* is the most common means used to determine quest completion. The quest *task* directs the party to retrieve a given item and return to the quest-giver. The *Quest Code* must evaluate the entire party to determine if the item is present and proceed appropriately. The following code excerpt is normally used for this evaluation.

```
05xxxxxx 2305 Modify next by member 5 [evaluate entire party]

0Bxxxxxx 0E11 00yyyy00 zz  Branch to zz if item yy present
```

Quest Bit *status* may be used to determine quest completion. The quest *task* directs the party to pray at an alter, to talk with a specific NPC, to clear an area of *hostiles*, or similar tasks. The task 'activity' is 'coded' to set a specific QBit which is evaluated by the quest-giver to determine quest completion.

Quest Bits, or QBits, may be *silent* or *announced*. An *announced* QBit makes a Quest Log entry; a *silent* QBit does not. *Silent Qbits* are used to keep track of *game progress*.

Local Event *triggering* may be used to indicate quest completion. The party may be directed to locate a given local 'feature' such as a pedestal, map coordinate, or other local sprite/graphic. When the party reaches the destination or selects the 'feature', the quest-giver 'mysteriously' appears and grants quest completion.
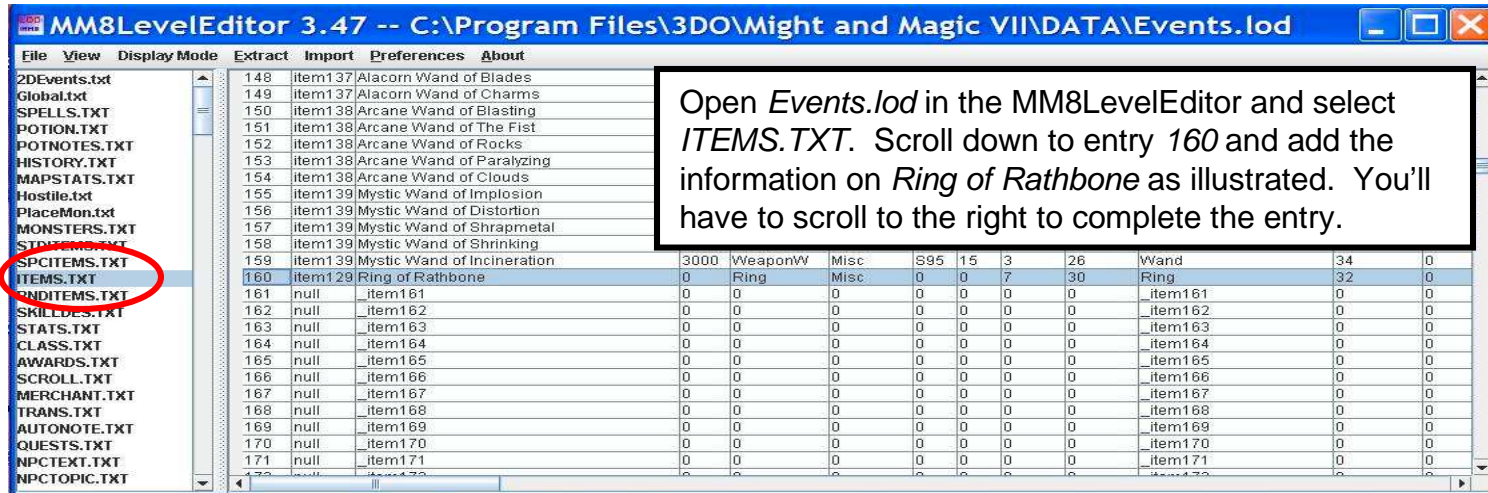
Orientation (concluded)

A Quest consists of at least one *global event* and may include one-or-more *local events* and/or quest items. The global event(s) must, as a minimum, accomplish the following goals.

    (1) Set an *announced QBit* for Quest Log entry.

    (2) Add or set all *quest enablers* such as a chest key, an item of entry (Ring of Unwarding), setting a *silent Qbit* and the-like, as appropriate.

    (3) A means to determine quest completion (normally a conditional *Branch evaluation*).

    (4) Delete all *quest enablers* and/or *quest items* upon quest completion, as appropriate.

    (5) Delete the *announced QBit* (Quest Log entry) upon quest completion.

    (6) Set a Quest Complete *announcement* to party *Awards*.

    (7) Add party *Rewards* for quest completion

    (8) Delete the *Quest Topic* from the quest-giver.
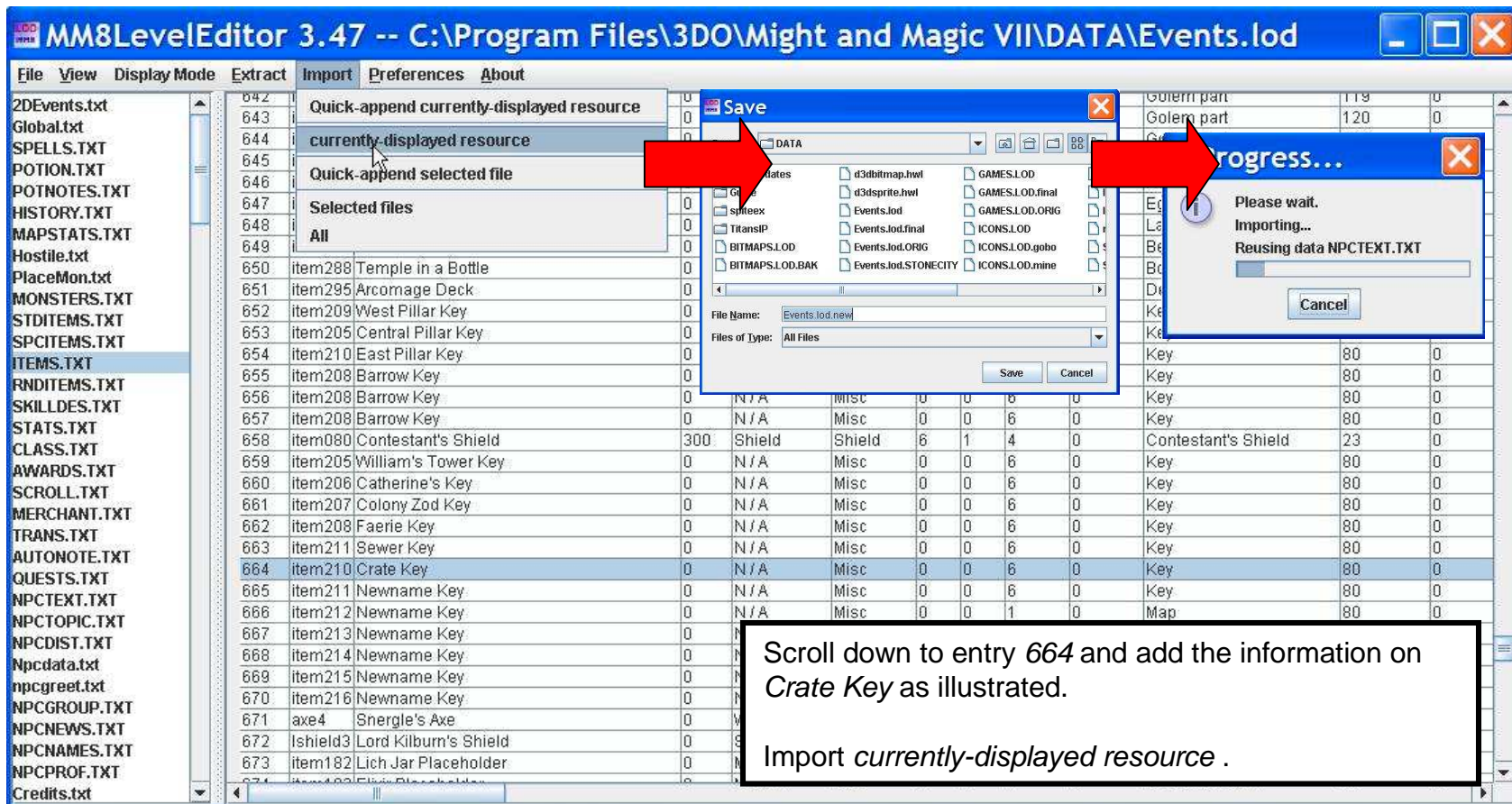
    (9) Change the quest-giver *Greeting*, as appropriate.

Activity 1

Create Quest Items.

Open *Events.lod* in the MM8LevelEditor and select *ITEMS.TXT*. Scroll down to entry *160* and add the information on *Ring of Rathbone* as illustrated. You'll have to scroll to the right to complete the entry.

Activity 1 (continued)

Create Quest Items (concluded).

Scroll down to entry *664* and add the information on *Crate Key* as illustrated.

Import *currently-displayed resource* .

Activity 1 (concluded)

Clean up files.

1. Exit the MM8LevelEditor.

2. Delete the files *Events.lod.*

3. Rename file *Events.lod.new* to *Events.lod.*

4. Proceed to Activity 2.

Activity 2
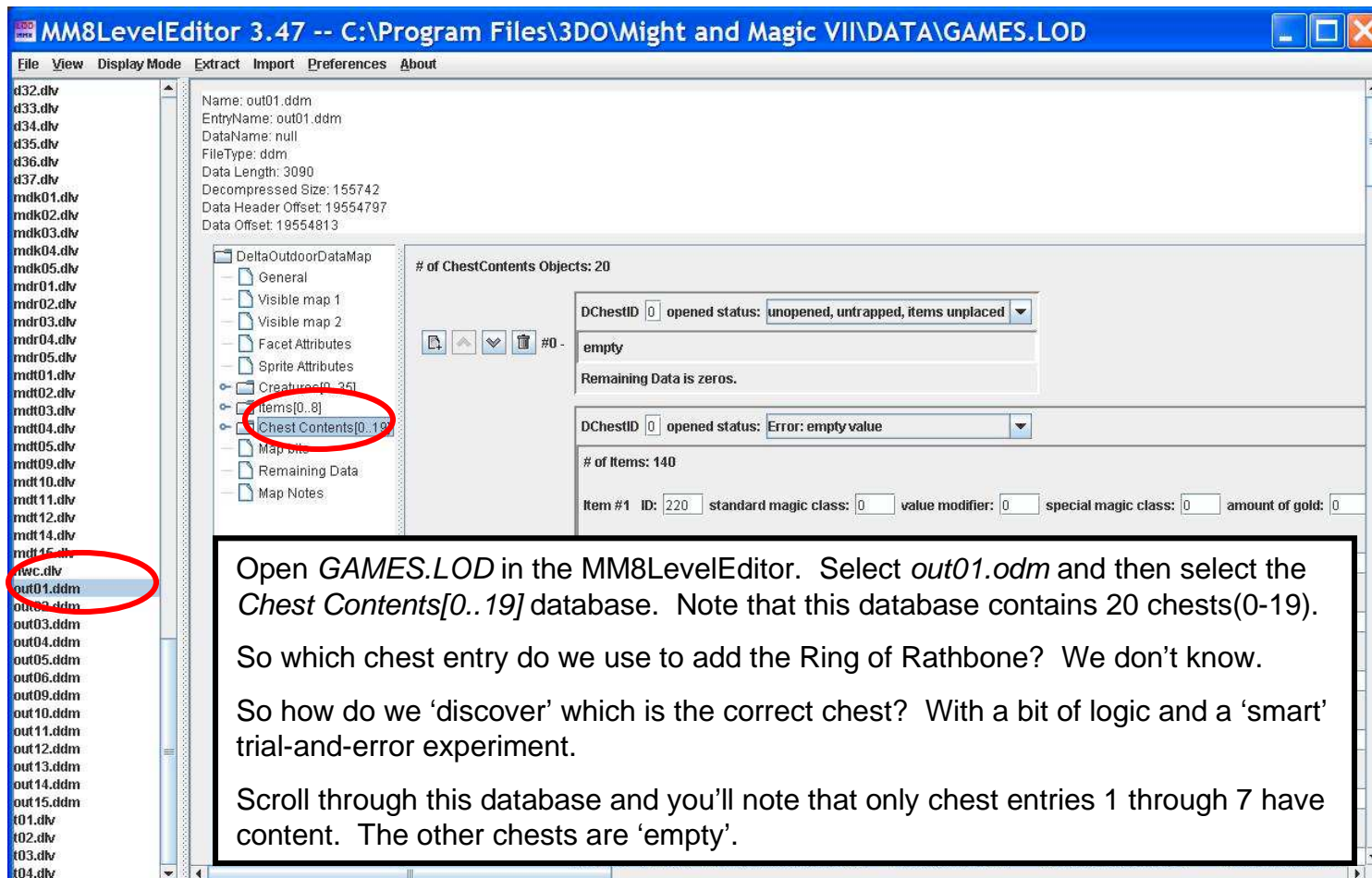
Add Ring to Crate (chest).

It's now time to locate the *crate*.

1. Launch MM7 and Start a New Game.

2. Move your party down off the dock, turn left and follow the seashore until you reach the crate (coordinates 8611, 5495).

3. It is this crate that will contain the Ring of Rathbone.

4. Exit the game and proceed to the next page.

Activity 2 (continued)

Locate *Chest Contents*.
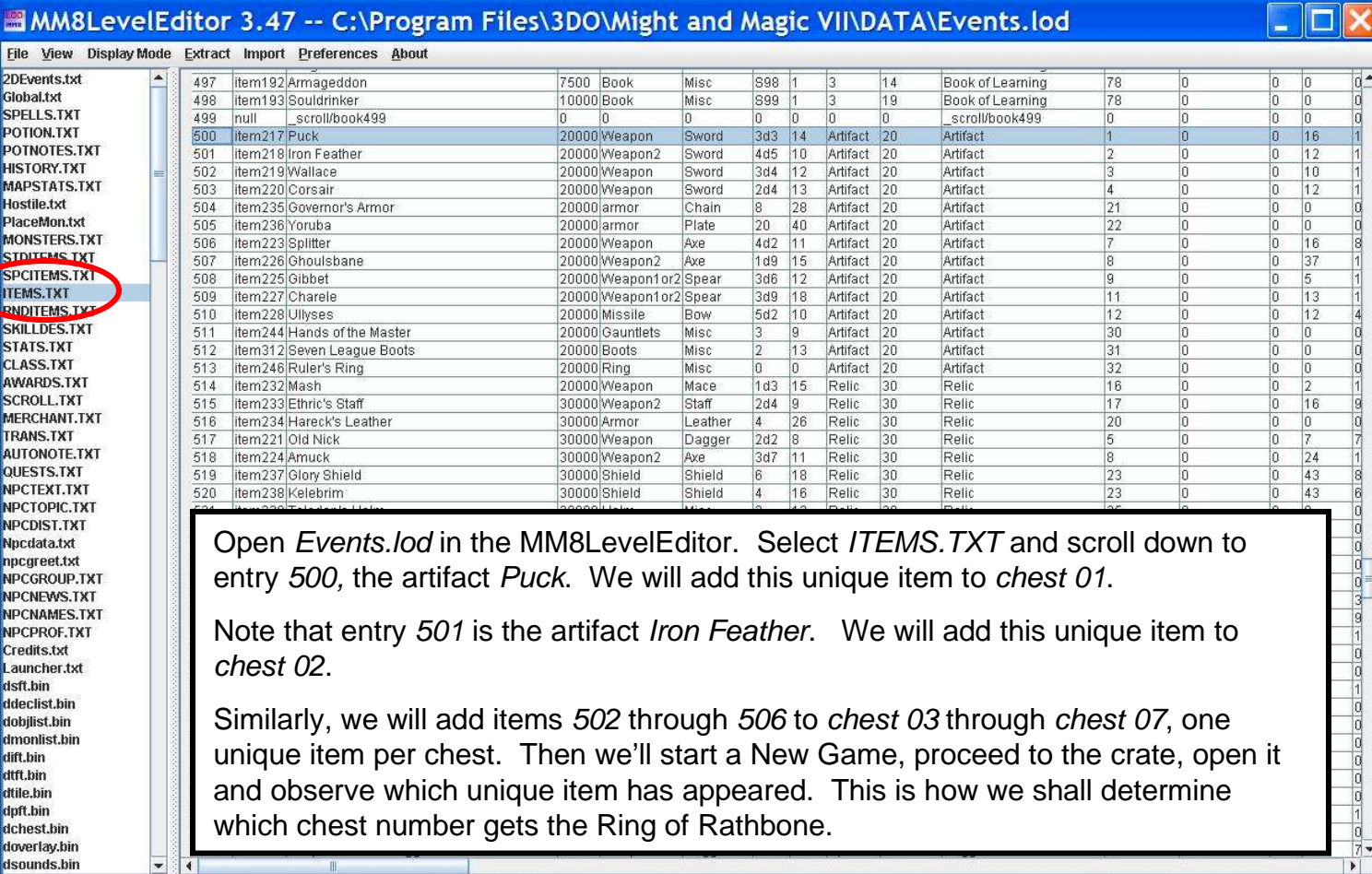
MM8LevelEditor 3.47 -- C:\Program Files\3DO\Might and Magic VII\DATA\GAMES.LOD

File View Display Mode Extract Import Preferences About

Name: out01.ddm
EntryName: out01.ddm
DataName: null
FileType: ddm
Data Length: 3090
Decompressed Size: 155742
Data Header Offset: 19554797
Data Offset: 19554813

DeltaOutdoorDataMap
  General
  Visible map 1
  Visible map 2
  Facet Attributes
  Sprite Attributes
  Creatures[0..35]
  Items[0..8]
  Chest Contents[0..19]
  Map bits
  Remaining Data
  Map Notes

# of ChestContents Objects: 20

DChestID [0] opened status: unopened, untrapped, items unplaced ▼
#0 -
empty
Remaining Data is zeros.

DChestID [0] opened status: Error: empty value ▼
# of Items: 140
Item #1 ID: 220 standard magic class: 0 value modifier: 0 special magic class: 0 amount of gold: 0

Open *GAMES.LOD* in the MM8LevelEditor. Select *out01.odm* and then select the *Chest Contents[0..19]* database. Note that this database contains 20 chests(0-19).

So which chest entry do we use to add the Ring of Rathbone? We don't know.

So how do we 'discover' which is the correct chest? With a bit of logic and a 'smart' trial-and-error experiment.

Scroll through this database and you'll note that only chest entries 1 through 7 have content. The other chests are 'empty'.

Activity 2 (continued)

Determine unique items.

497	item192	Armageddon		7500	Book	Misc	S98	1	3	14	Book of Learning	78	0	0	0
498	item193	Souldrinker		10000	Book	Misc	S99	1	3	19	Book of Learning	78	0	0	0
499	null	_scroll/book499		0	0		0	0	0	0	_scroll/book499	0	0	0	0
500	item217	Puck		20000	Weapon	Sword	3d3	14	Artifact	20	Artifact	1	0	0	16
501	item218	Iron Feather		20000	Weapon2	Sword	4d5	10	Artifact	20	Artifact	2	0	0	12
502	item219	Wallace		20000	Weapon	Sword	3d4	12	Artifact	20	Artifact	3	0	0	10
503	item220	Corsair		20000	Weapon	Sword	2d4	13	Artifact	20	Artifact	4	0	0	12
504	item235	Governor's Armor		20000	armor	Chain	8	28	Artifact	20	Artifact	21	0	0	0
505	item236	Yoruba		20000	armor	Plate	20	40	Artifact	20	Artifact	22	0	0	0
506	item223	Splitter		20000	Weapon	Axe	4d2	11	Artifact	20	Artifact	7	0	0	16
507	item226	Ghoulsbane		20000	Weapon2	Axe	1d9	15	Artifact	20	Artifact	8	0	0	37
508	item225	Gibbet		20000	Weapon1or2	Spear	3d6	12	Artifact	20	Artifact	9	0	0	5
509	item227	Charele		20000	Weapon1or2	Spear	3d9	18	Artifact	20	Artifact	11	0	0	13
510	item228	Ullyses		20000	Missile	Bow	5d2	10	Artifact	20	Artifact	12	0	0	12
511	item244	Hands of the Master		20000	Gauntlets	Misc	3	9	Artifact	20	Artifact	30	0	0	0
512	item312	Seven League Boots		20000	Boots	Misc	2	13	Artifact	20	Artifact	31	0	0	0
513	item246	Ruler's Ring		20000	Ring	Misc	0	0	Artifact	20	Artifact	32	0	0	0
514	item232	Mash		20000	Weapon	Mace	1d3	15	Relic	30	Relic	16	0	0	2
515	item233	Ethric's Staff		30000	Weapon2	Staff	2d4	9	Relic	30	Relic	17	0	0	16
516	item234	Hareck's Leather		30000	Armor	Leather	4	26	Relic	30	Relic	20	0	0	0
517	item221	Old Nick		30000	Weapon	Dagger	2d2	8	Relic	30	Relic	5	0	0	7
518	item224	Amuck		30000	Weapon2	Axe	3d7	11	Relic	30	Relic	8	0	0	24
519	item237	Glory Shield		30000	Shield	Shield	6	18	Relic	30	Relic	23	0	0	43
520	item238	Kelebrim		30000	Shield	Shield	4	16	Relic	30	Relic	23	0	0	43

Open *Events.lod* in the MM8LevelEditor. Select *ITEMS.TXT* and scroll down to entry *500,* the artifact *Puck*. We will add this unique item to *chest 01*.

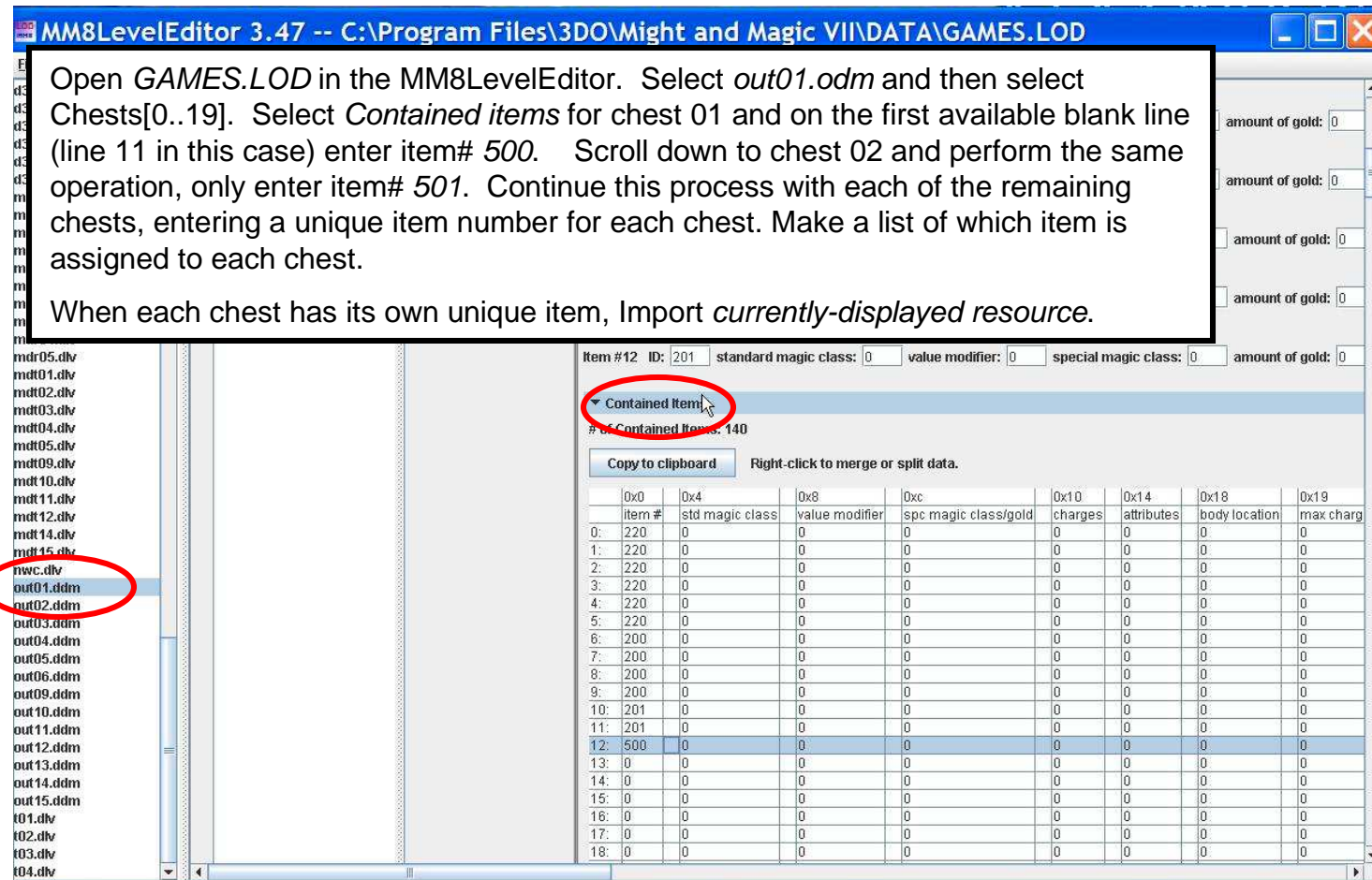Note that entry *501* is the artifact *Iron Feather*. We will add this unique item to *chest 02*.

Similarly, we will add items *502* through *506* to *chest 03* through *chest 07*, one unique item per chest. Then we'll start a New Game, proceed to the crate, open it and observe which unique item has appeared. This is how we shall determine which chest number gets the Ring of Rathbone.

Activity 2 (continued)

Add a unique item to each chest.

Open *GAMES.LOD* in the MM8LevelEditor. Select *out01.odm* and then select Chests[0..19]. Select *Contained items* for chest 01 and on the first available blank line (line 11 in this case) enter item# *500*. Scroll down to chest 02 and perform the same operation, only enter item# *501*. Continue this process with each of the remaining chests, entering a unique item number for each chest. Make a list of which item is assigned to each chest.

When each chest has its own unique item, Import *currently-displayed resource*.

Activity 2 (continued)

Locate the chest number of the 'crate'.

It's now time to determine the crate *chest number*.

1. Exit the MM8LevelEditor.

2. Delete the current *GAMES.LOD* and *Events.lod* files.

3. Rename the *GAMES.LOD.new* file to *GAMES.LOD*.

4. Rename the *Events.lod.new* file to *Events.lod*.

5. Launch MM7 and Start a New Game.

6. Move your party to the crate and open it. Note which unique item is in the chest and check the item against your list, You now know the crate *chest number*.

7. Exit the game and proceed to the next page.

Activity 2 (concluded)

Add the *Ring of Rathbone* and verify changes.

Open *GAMES.LOD* in the MM8LevelEditor. Select *out01.odm* and then select Chests[0..19]. Scroll down to the chest number discovered on the preceding page. Select *Contained items* for this chest and replace the artifact item# with *160*, the item number for the *Ring of Rathbone*.
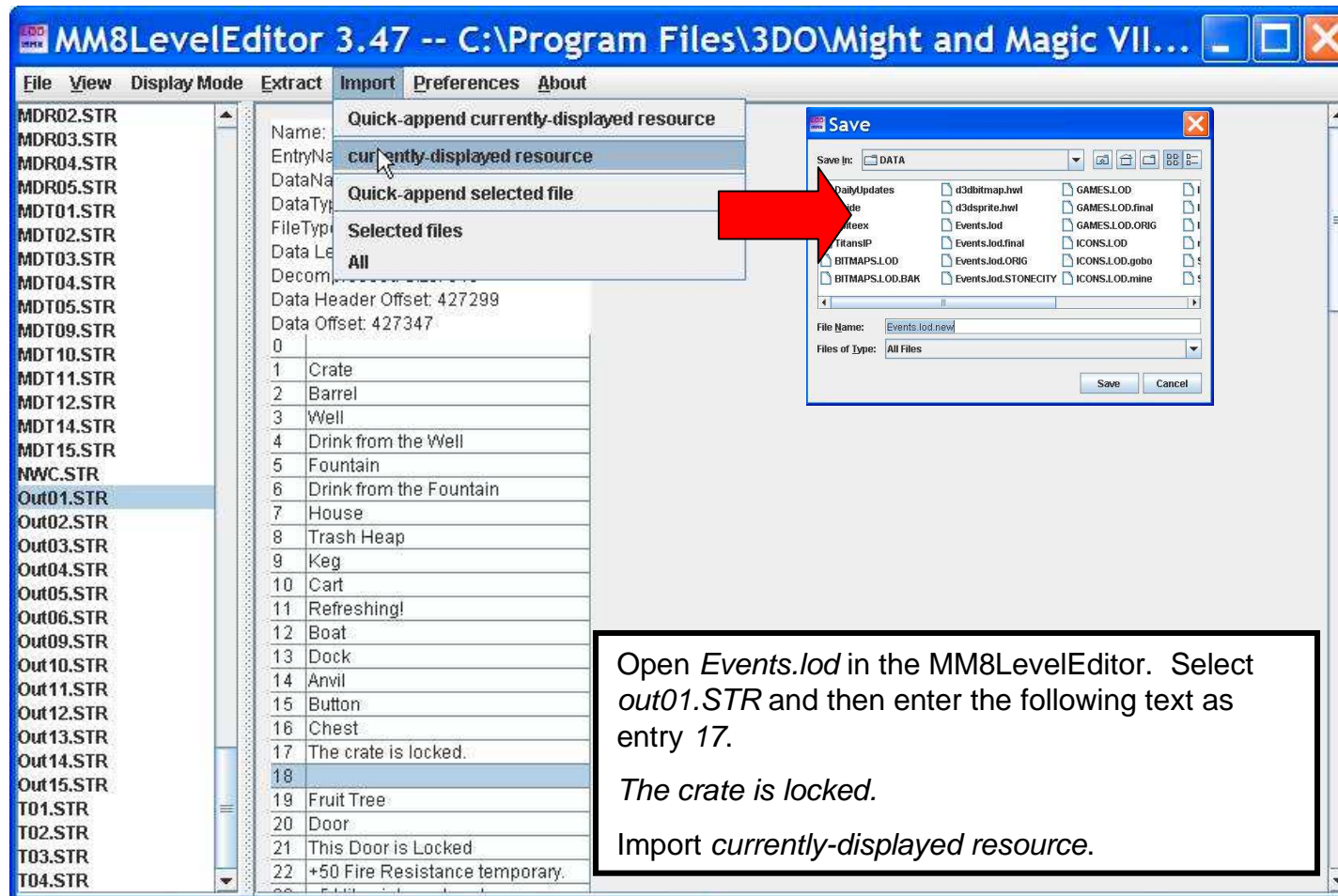
Delete the added artifact numbers for the other six chests and then Import *currently-displayed resource*.

It's now time to verify the file changes.

1. Exit the MM8LevelEditor.

2. Delete the current *GAMES.LOD* file.

3. Rename the *GAMES.LOD.new* file to *GAMES.LOD*.

4. Launch MM7 and Start a New Game.

5. Move your party to the crate and open it. Visually verify that the crate contains the *Ring of Rathbone*.

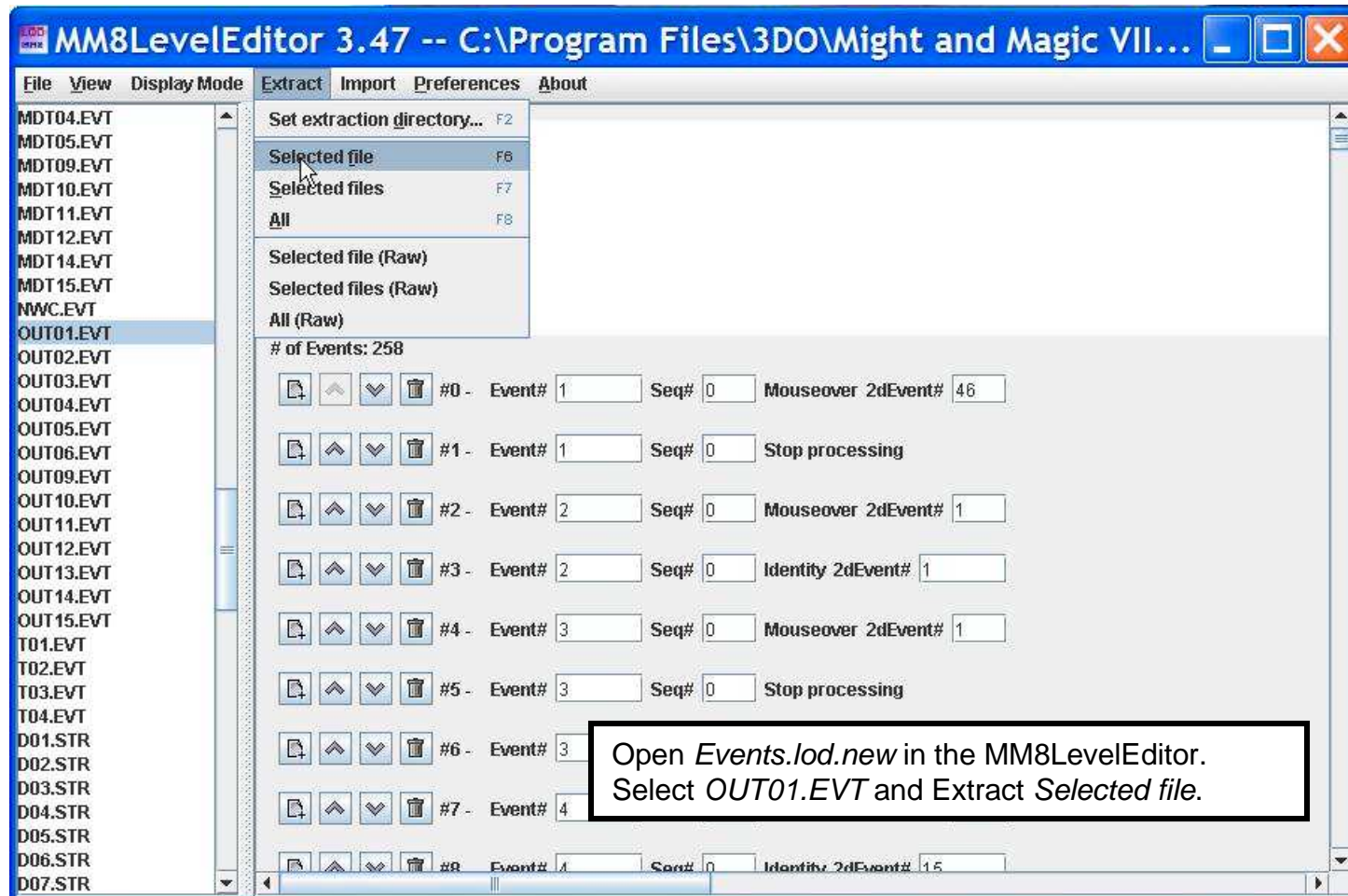6. Exit the game and proceed to Activity 3.
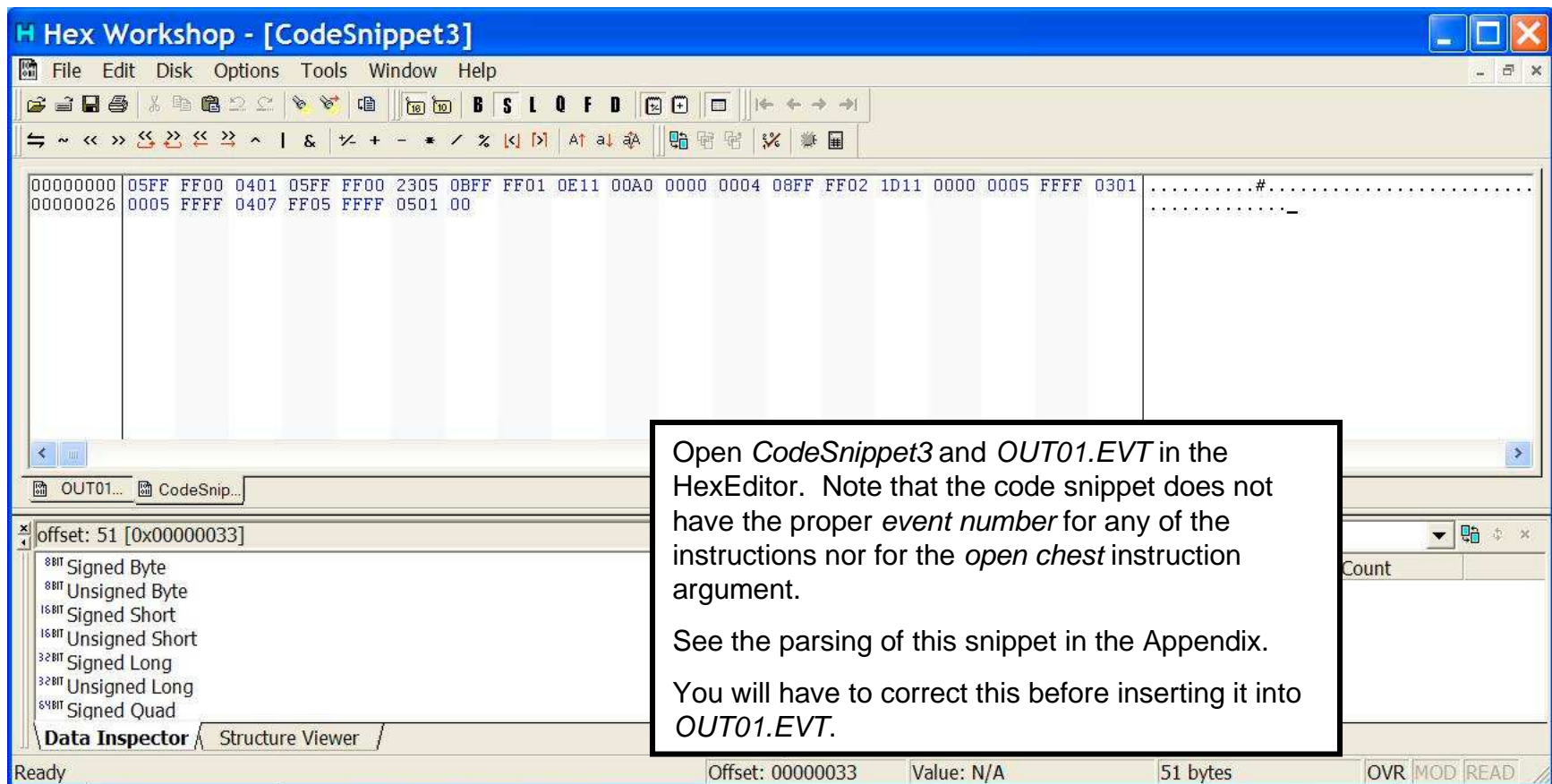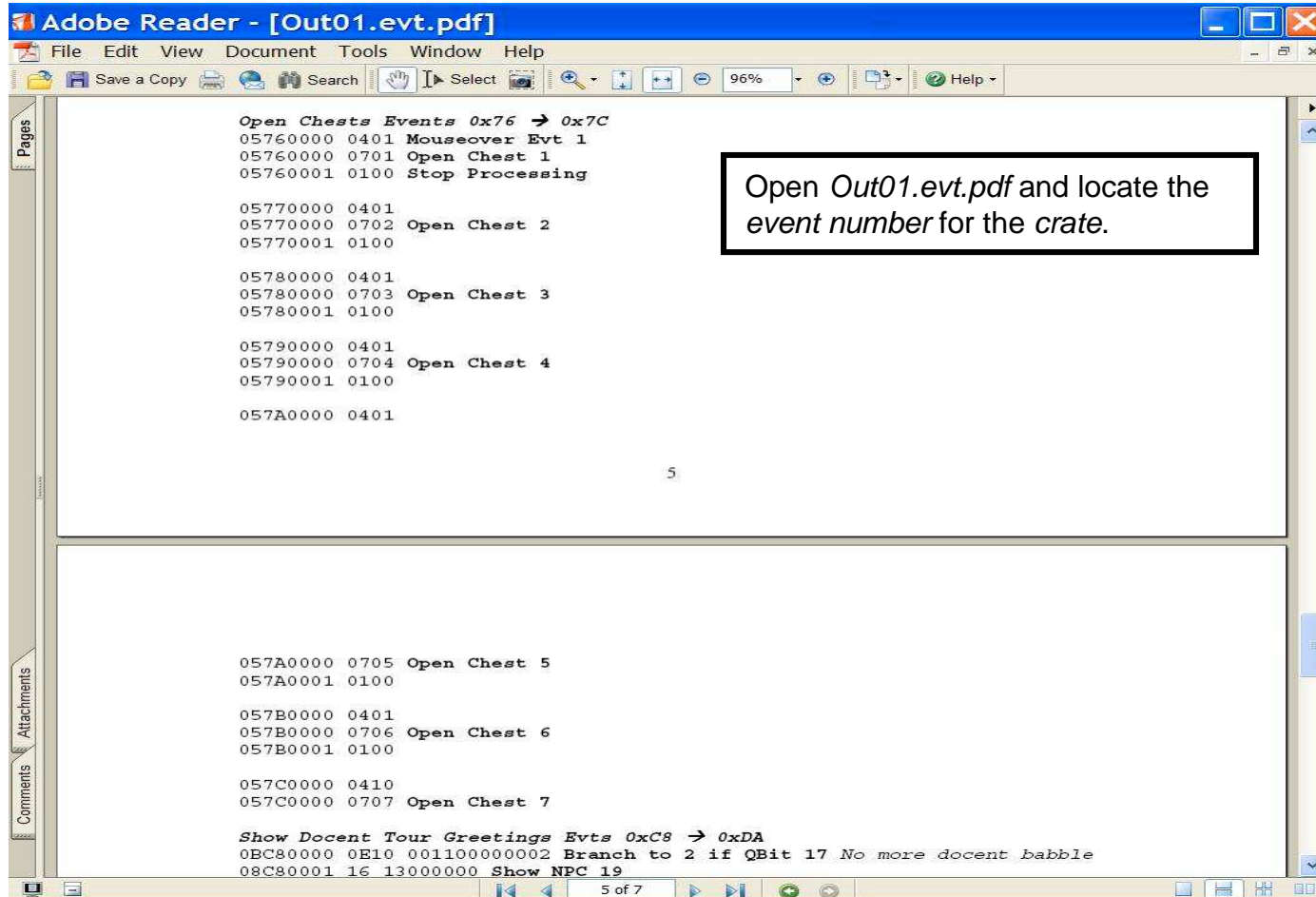
Activity 3

Lock the Crate.

Open *Events.lod* in the MM8LevelEditor. Select *out01.STR* and then enter the following text as entry *17*.

The crate is locked.

Import *currently-displayed resource*.

Activity 3 (continued)

Export file.

Open *Events.lod.new* in the MM8LevelEditor. Select *OUT01.EVT* and Extract *Selected file*.

Activity 3 (continued)

Load files in Hex Editor.

Open *CodeSnippet3* and *OUT01.EVT* in the HexEditor. Note that the code snippet does not have the proper *event number* for any of the instructions nor for the *open chest* instruction argument.

See the parsing of this snippet in the Appendix.

You will have to correct this before inserting it into *OUT01.EVT*.

Activity 3 (continued)

Locate the proper *Event Number*.

Inside the Adobe Reader window [Out01.evt.pdf]:

```
Open Chests Events 0x76 → 0x7C
05760000 0401 Mouseover Evt 1
05760000 0701 Open Chest 1
05760001 0100 Stop Processing

05770000 0401
05770000 0702 Open Chest 2
05770001 0100

05780000 0401
05780000 0703 Open Chest 3
05780001 0100

05790000 0401
05790000 0704 Open Chest 4
05790001 0100

057A0000 0401
```

```
057A0000 0705 Open Chest 5
057A0001 0100

057B0000 0401
057B0000 0706 Open Chest 6
057B0001 0100

057C0000 0410
057C0000 0707 Open Chest 7

Show Docent Tour Greetings Evts 0xC8 → 0xDA
0BC80000 0E10 001100000002 Branch to 2 if QBit 17 No more docent babble
08C80001 16 13000000 Show NPC 19
```

Callout: Open *Out01.evt.pdf* and locate the *event number* for the *crate*.

Activity 3 (continued)

Change *OUT01.EVT*.

Using the Hex Editor, change the code in *CodeSnippet3* to reflect the correct *event number* and correct the *open chest* number,

Using the Hex Editor, replace the original *open chest* code in *OUT01.EVT* with the corrected *CodeSnippet1* code and SAVE the files. See MM7 Modding Guide Part 2, pages 11-15, for an example of this process.

Activity 3 (continued)

Import *OUT01.EVT*.

Open *Events.lod.new* in the MM8LevelEditor and Import *OUT01.EVT*.
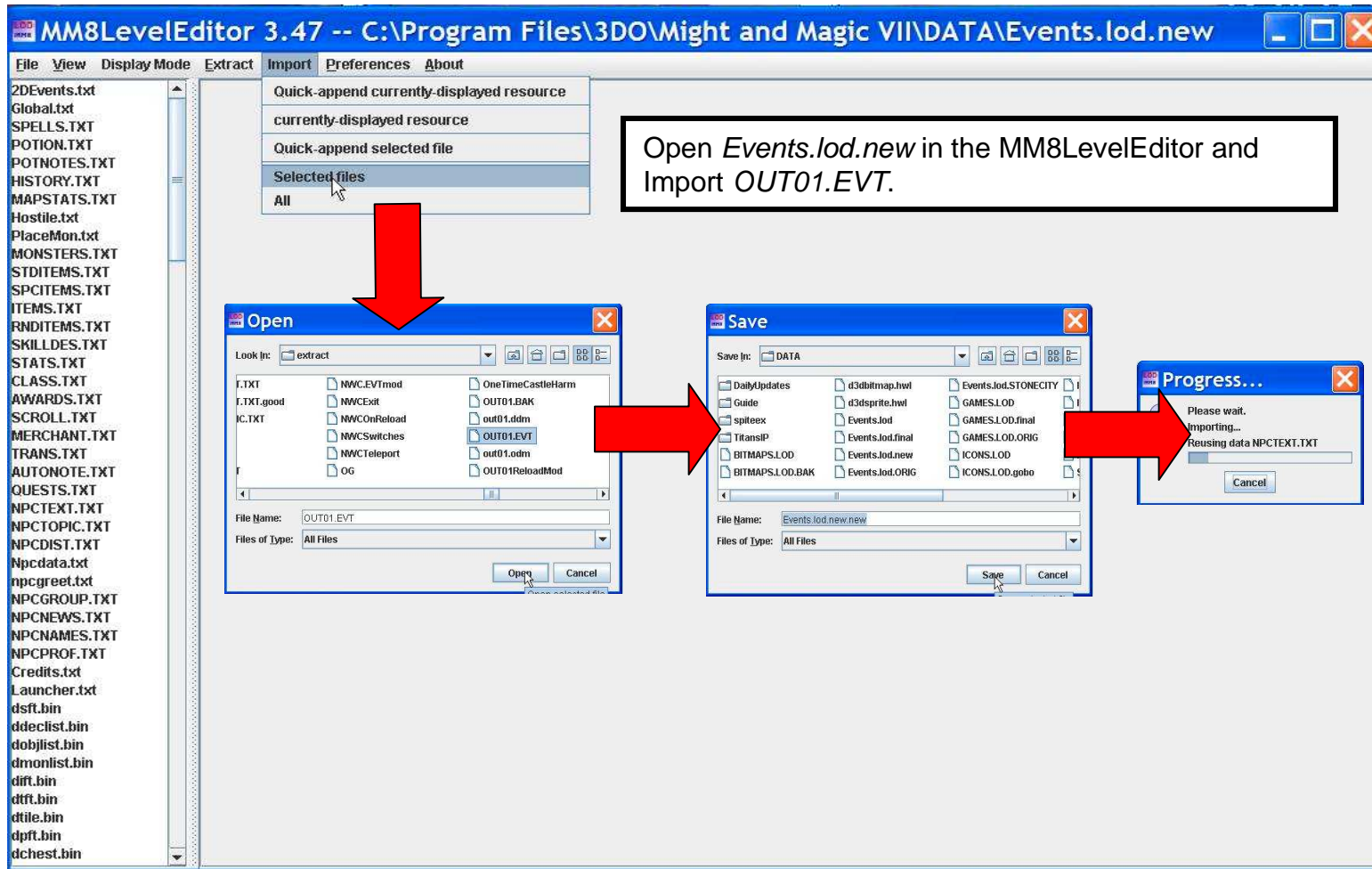
Activity 3 (concluded)

Verify changes.

It's now time to verify the file changes.

1. Exit the MM8LevelEditor.

2. Delete the current *Events.lod* and *Events.lod.new* files.

3. Rename the *Events.lod.new.new* file to *Events.lod* .

4. Launch MM7 and Start a New Game.

5. Move your party to the crate and attempt open it. Verify that you cannot open the crate and that the text *The crate is locked.* appears.

6. Exit the game and proceed to Activity 4.

Activity 4

Extract .TXT files.
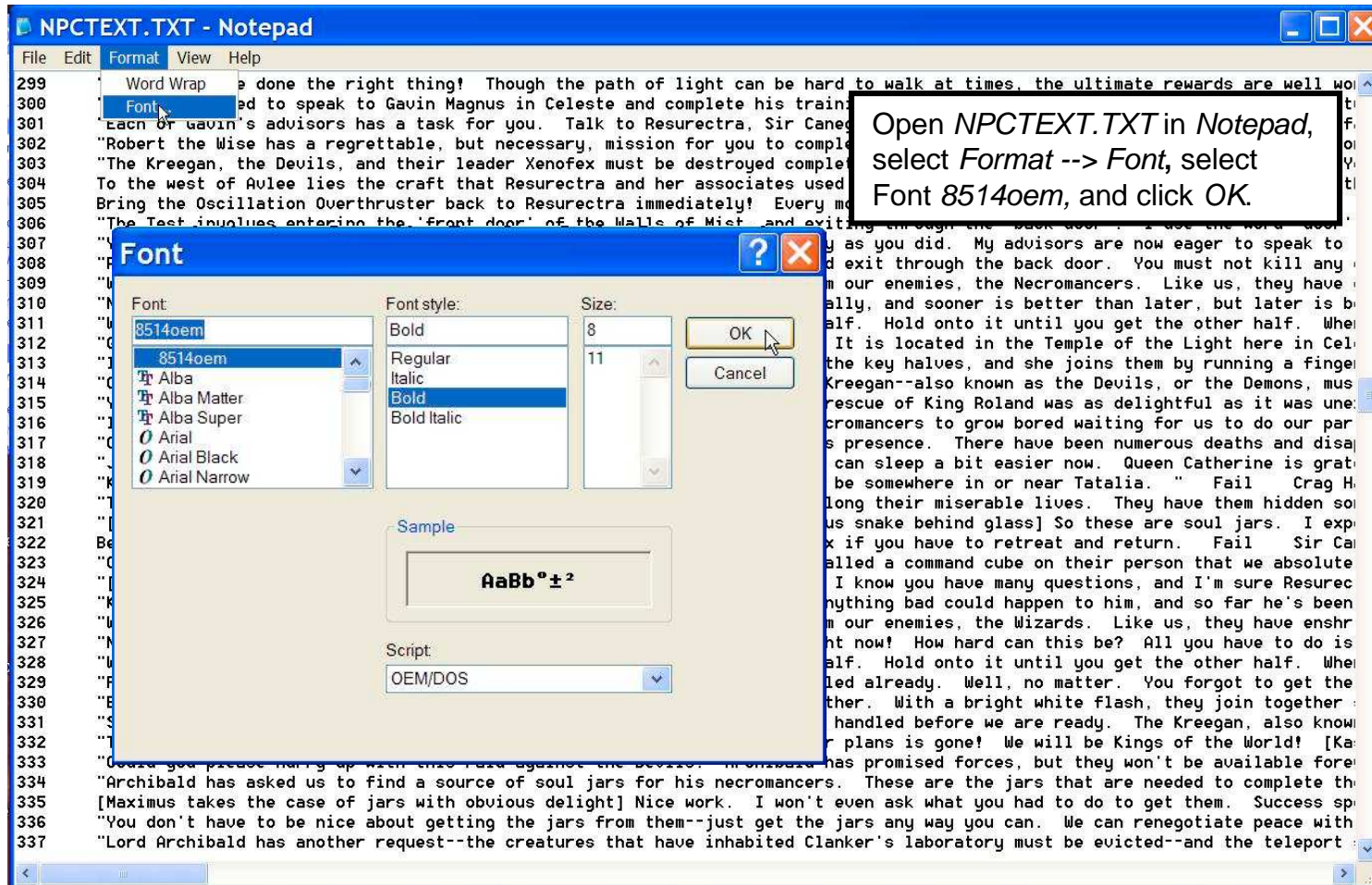
Open *Events.lod* in the MM8LevelEditor and Extract *Selected files AWARDS.TXT*, *QUESTS.TXT*, and *NPCTEXT.TXT*.
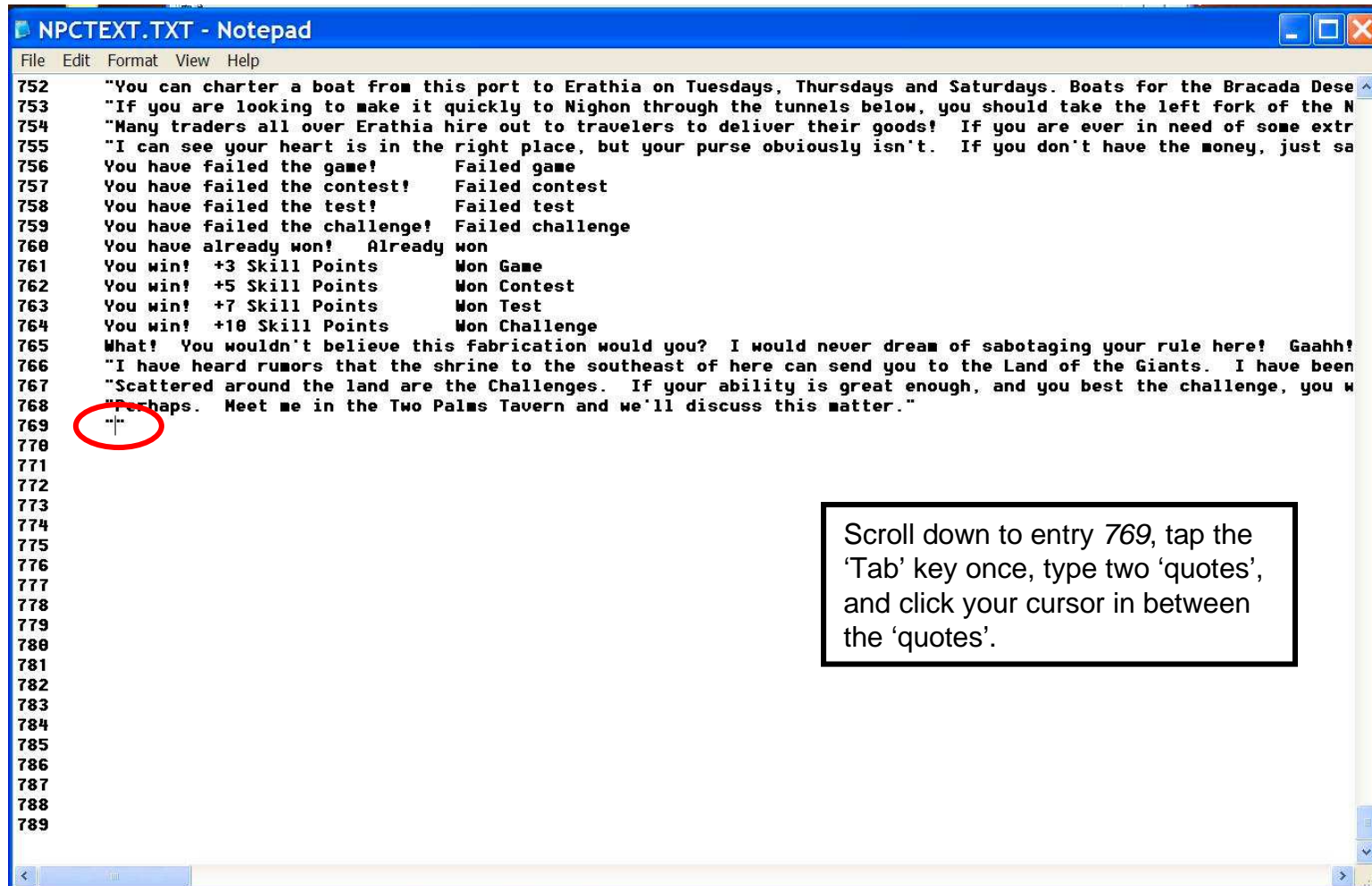
Activity 4 (continued)

NPCTEXT **entries.**

Activity 4 (continued)

NPCTEXT entries (continued).

```
NPCTEXT.TXT - Notepad
File  Edit  Format  View  Help
752    "You can charter a boat from this port to Erathia on Tuesdays, Thursdays and Saturdays. Boats for the Bracada Dese
753    "If you are looking to make it quickly to Nighon through the tunnels below, you should take the left fork of the N
754    "Many traders all over Erathia hire out to travelers to deliver their goods!  If you are ever in need of some extr
755    "I can see your heart is in the right place, but your purse obviously isn't.  If you don't have the money, just sa
756    You have failed the game!       Failed game
757    You have failed the contest!    Failed contest
758    You have failed the test!       Failed test
759    You have failed the challenge!  Failed challenge
760    You have already won!   Already won
761    You win!  +3 Skill Points        Won Game
762    You win!  +5 Skill Points        Won Contest
763    You win!  +7 Skill Points        Won Test
764    You win!  +10 Skill Points       Won Challenge
765    What!  You wouldn't believe this fabrication would you?  I would never dream of sabotaging your rule here!  Gaahh!
766    "I have heard rumors that the shrine to the southeast of here can send you to the Land of the Giants.  I have been
767    "Scattered around the land are the Challenges.  If your ability is great enough, and you best the challenge, you w
768    "Perhaps.  Meet me in the Two Palms Tavern and we'll discuss this matter."
769    ""
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```

> Scroll down to entry *769*, tap the 'Tab' key once, type two 'quotes', and click your cursor in between the 'quotes'.
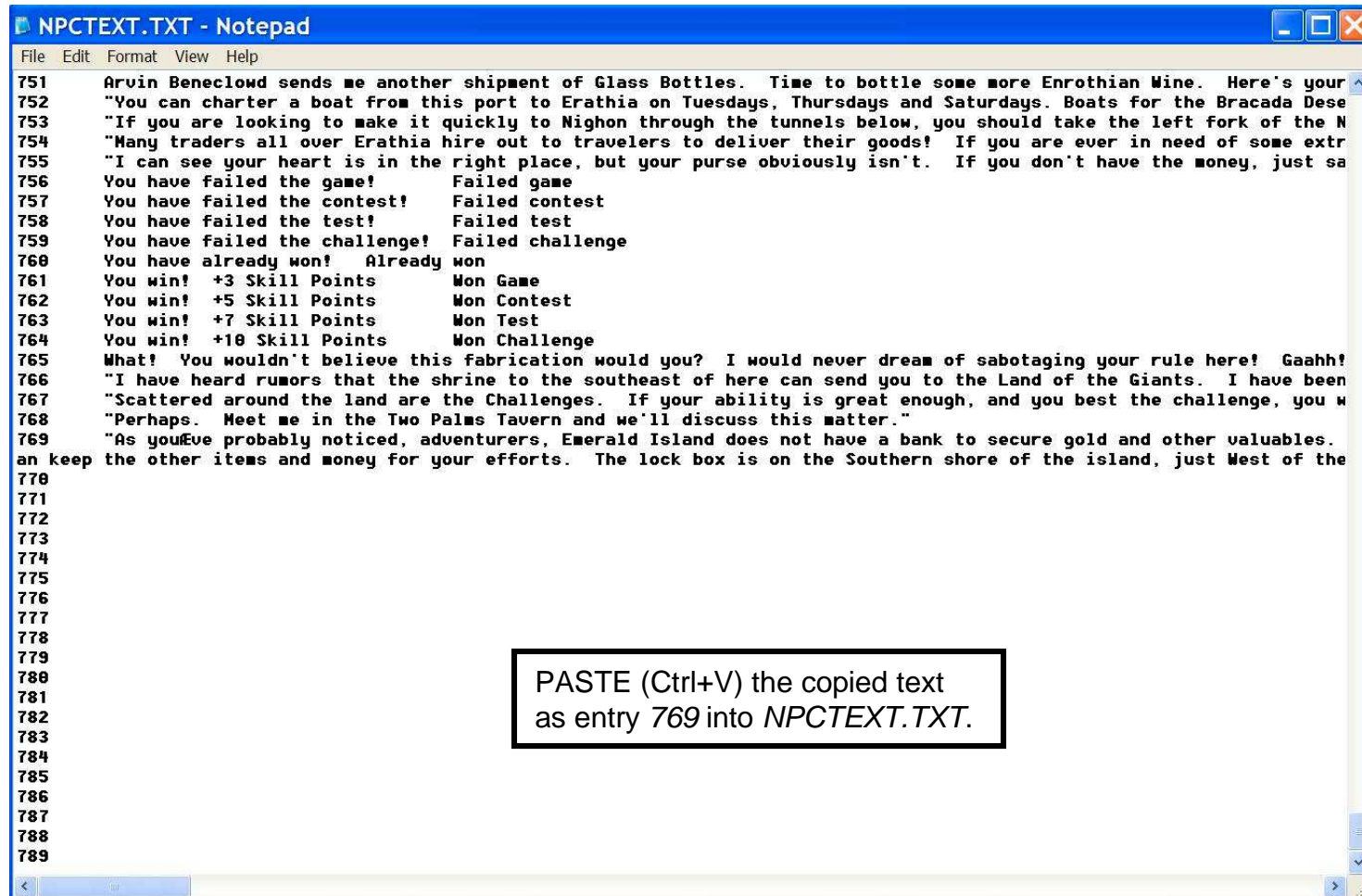
Activity 4 (continued)

NPCTEXT entries (continued).

Open *RingText.doc* and COPY (Ctrl+C) Text 769 as illustrated.

Text 769
As you've probably noticed, adventurers, Emerald Island does not have a bank to secure gold and other valuables. The island is too small to attract big businesses like this. So Lord Markham, out of the kindness of his heart, hired the famous craftsman and locksmith, Johnnie B. Goode, to design and to build several 'tamper-proof' lock boxes. After months of rigorous testing, these lock boxes were approved and procured by the lord and placed at strategic locations around the island. Initially, each citizen could rent one of these lock boxes for a nominal fee of 2 gold pieces per month, payable to the Lord Markham Entertainment Fund. I have rented one of these lock boxes.Recently, Lord Markham gave notice that, due to 'goldflation', he would be increasing the rental fee to 5 gold pieces per month. This new fee is a little 'rich' for my tastes. I'd rather just hide my valuables under my mattress!What I need you to do is to retrieve the valuables from my lock box and return my family ring to me. You can keep the other items and money for your efforts. The lock box is on the Southern shore of the island, just West of the dock.Oh! You'll need this key to unlock the box.

Text 770
Please return my ring to me.

Text 771
The Ring of Rathbone! Good. Thanks for performing this errand for me. Here's a few more gold pieces as an additional reward.

Activity 4 (continued)

NPCTEXT **entries (continued).**

```
NPCTEXT.TXT - Notepad
File  Edit  Format  View  Help
751      Arvin Beneclowd sends me another shipment of Glass Bottles.  Time to bottle some more Enrothian Wine.  Here's your
752      "You can charter a boat from this port to Erathia on Tuesdays, Thursdays and Saturdays. Boats for the Bracada Dese
753      "If you are looking to make it quickly to Nighon through the tunnels below, you should take the left fork of the N
754      "Many traders all over Erathia hire out to travelers to deliver their goods!  If you are ever in need of some extr
755      "I can see your heart is in the right place, but your purse obviously isn't.  If you don't have the money, just sa
756      You have failed the game!      Failed game
757      You have failed the contest!    Failed contest
758      You have failed the test!      Failed test
759      You have failed the challenge!  Failed challenge
760      You have already won!    Already won
761      You win!  +3 Skill Points      Won Game
762      You win!  +5 Skill Points      Won Contest
763      You win!  +7 Skill Points      Won Test
764      You win!  +10 Skill Points     Won Challenge
765      What!  You wouldn't believe this fabrication would you?  I would never dream of sabotaging your rule here!  Gaahh!
766      "I have heard rumors that the shrine to the southeast of here can send you to the Land of the Giants.  I have been
767      "Scattered around the land are the Challenges.  If your ability is great enough, and you best the challenge, you w
768      "Perhaps.  Meet me in the Two Palms Tavern and we'll discuss this matter."
769      "As you£ve probably noticed, adventurers, Emerald Island does not have a bank to secure gold and other valuables.
an keep the other items and money for your efforts.  The lock box is on the Southern shore of the island, just West of the
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PASTE (Ctrl+V) the copied text
as entry *769* into *NPCTEXT.TXT*.

Activity 4 (continued)

NPCTEXT entries (continued).

Scroll up to entry *735* and scroll to-the-right until you locate the *new line* control character. Highlight and Copy this control character.

Activity 4 (continued)

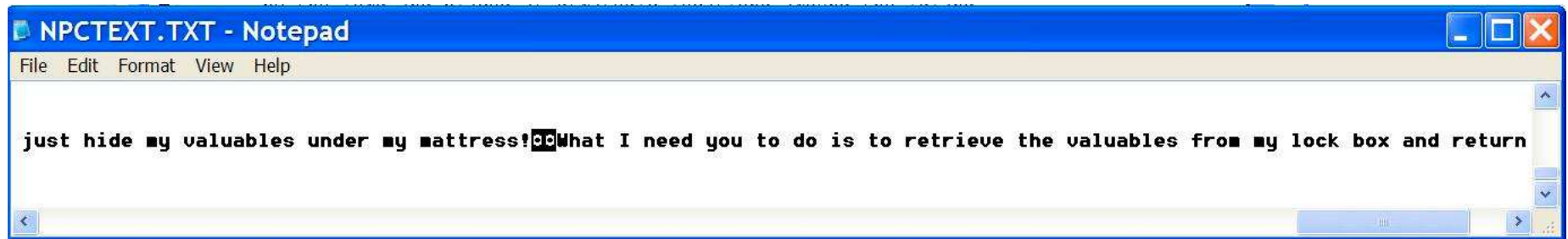**NPCTEXT entries (continued).**

Scroll down to entry *769* and PASTE (Ctrl+V) the control character at the text locations indicated below.

NPCTEXT.TXT - Notepad
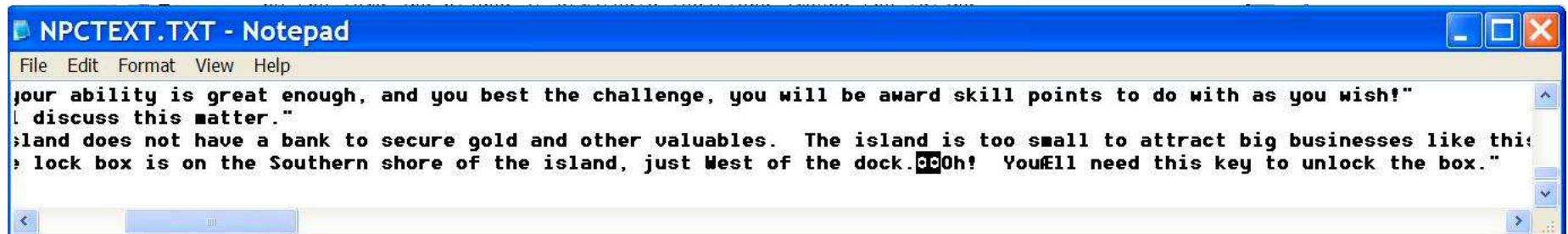
File   Edit   Format   View   Help

ainment Fund.   I have rented one of these lock boxes.██Recently, Lord Markham gave notice that, due to ægoldflationÆ, he w

NPCTEXT.TXT - Notepad

File   Edit   Format   View   Help

just hide my valuables under my mattress!██What I need you to do is to retrieve the valuables from my lock box and return
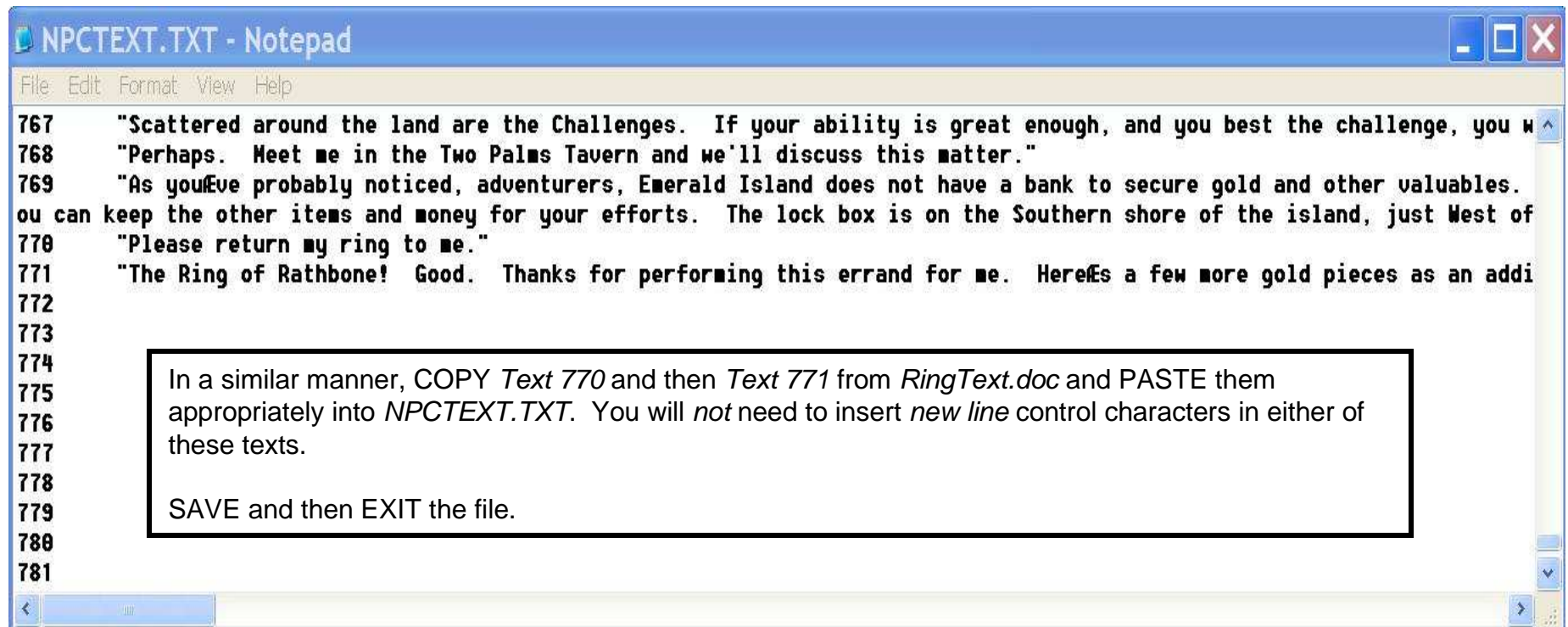
NPCTEXT.TXT - Notepad

File   Edit   Format   View   Help

your ability is great enough, and you best the challenge, you will be award skill points to do with as you wish!"
l discuss this matter."
sland does not have a bank to secure gold and other valuables.   The island is too small to attract big businesses like thi:
: lock box is on the Southern shore of the island, just West of the dock.██Oh!   YouÆll need this key to unlock the box."

Activity 4 (continued)

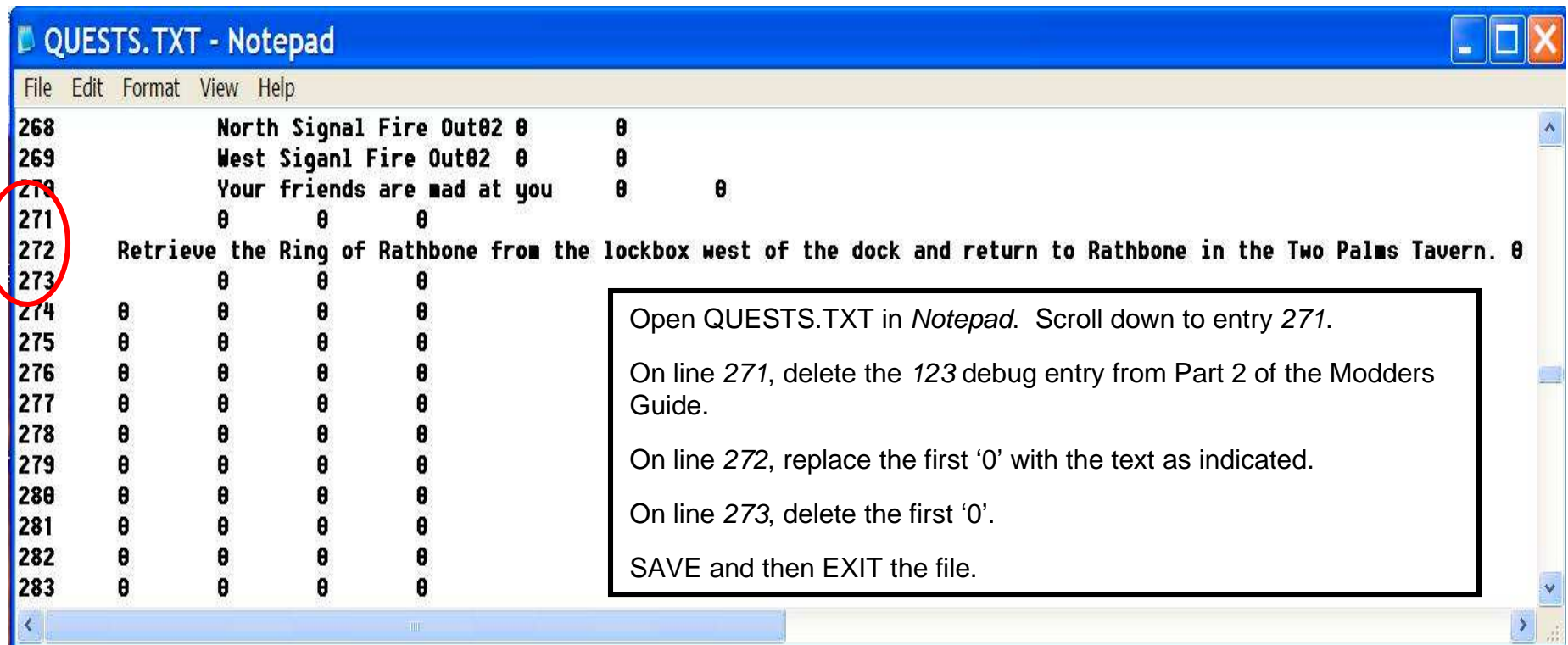**NPCTEXT** entries (concluded).

```
NPCTEXT.TXT - Notepad

File  Edit  Format  View  Help

767     "Scattered around the land are the Challenges.  If your ability is great enough, and you best the challenge, you w
768     "Perhaps.  Meet me in the Two Palms Tavern and we'll discuss this matter."
769     "As you£ve probably noticed, adventurers, Emerald Island does not have a bank to secure gold and other valuables.
ou can keep the other items and money for your efforts.  The lock box is on the Southern shore of the island, just West of
770     "Please return my ring to me."
771     "The Ring of Rathbone!  Good.  Thanks for performing this errand for me.  Here£s a few more gold pieces as an addi
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In a similar manner, COPY *Text 770* and then *Text 771* from *RingText.doc* and PASTE them appropriately into *NPCTEXT.TXT*. You will *not* need to insert *new line* control characters in either of these texts.

SAVE and then EXIT the file.

Activity 4 (continued)

QUESTS entries.


```
QUESTS.TXT - Notepad
File  Edit  Format  View  Help
268          North Signal Fire Out02 0        0
269          West Siganl Fire Out02  0        0
270          Your friends are mad at you      0        0
271          0        0        0
272  Retrieve the Ring of Rathbone from the lockbox west of the dock and return to Rathbone in the Two Palms Tavern. 0
273          0        0        0
274  0       0        0        0
275  0       0        0        0
276  0       0        0        0
277  0       0        0        0
278  0       0        0        0
279  0       0        0        0
280  0       0        0        0
281  0       0        0        0
282  0       0        0        0
283  0       0        0        0
```

Open QUESTS.TXT in *Notepad*. Scroll down to entry *271*.

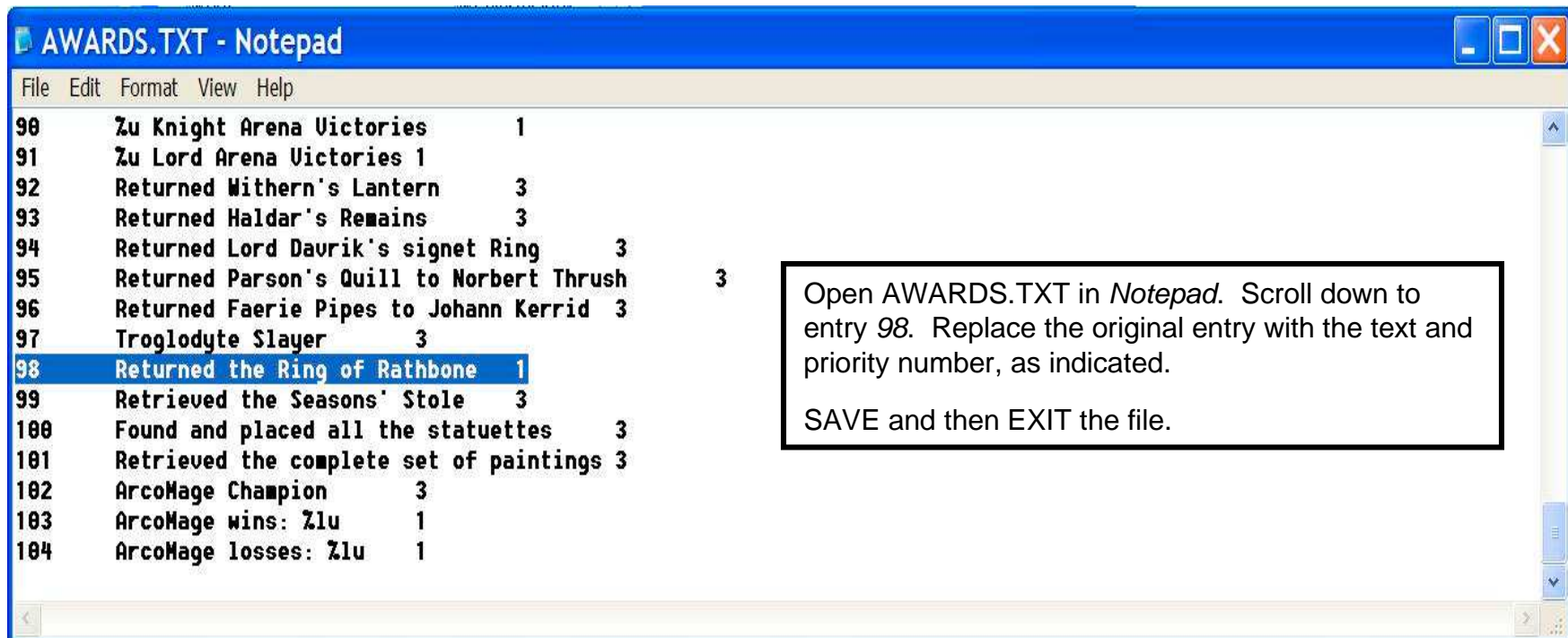On line *271*, delete the *123* debug entry from Part 2 of the Modders Guide.

On line *272*, replace the first '0' with the text as indicated.

On line *273*, delete the first '0'.

SAVE and then EXIT the file.

Activity 4 (continued)

AWARDS entry.

Open AWARDS.TXT in *Notepad*. Scroll down to entry *98*. Replace the original entry with the text and priority number, as indicated.
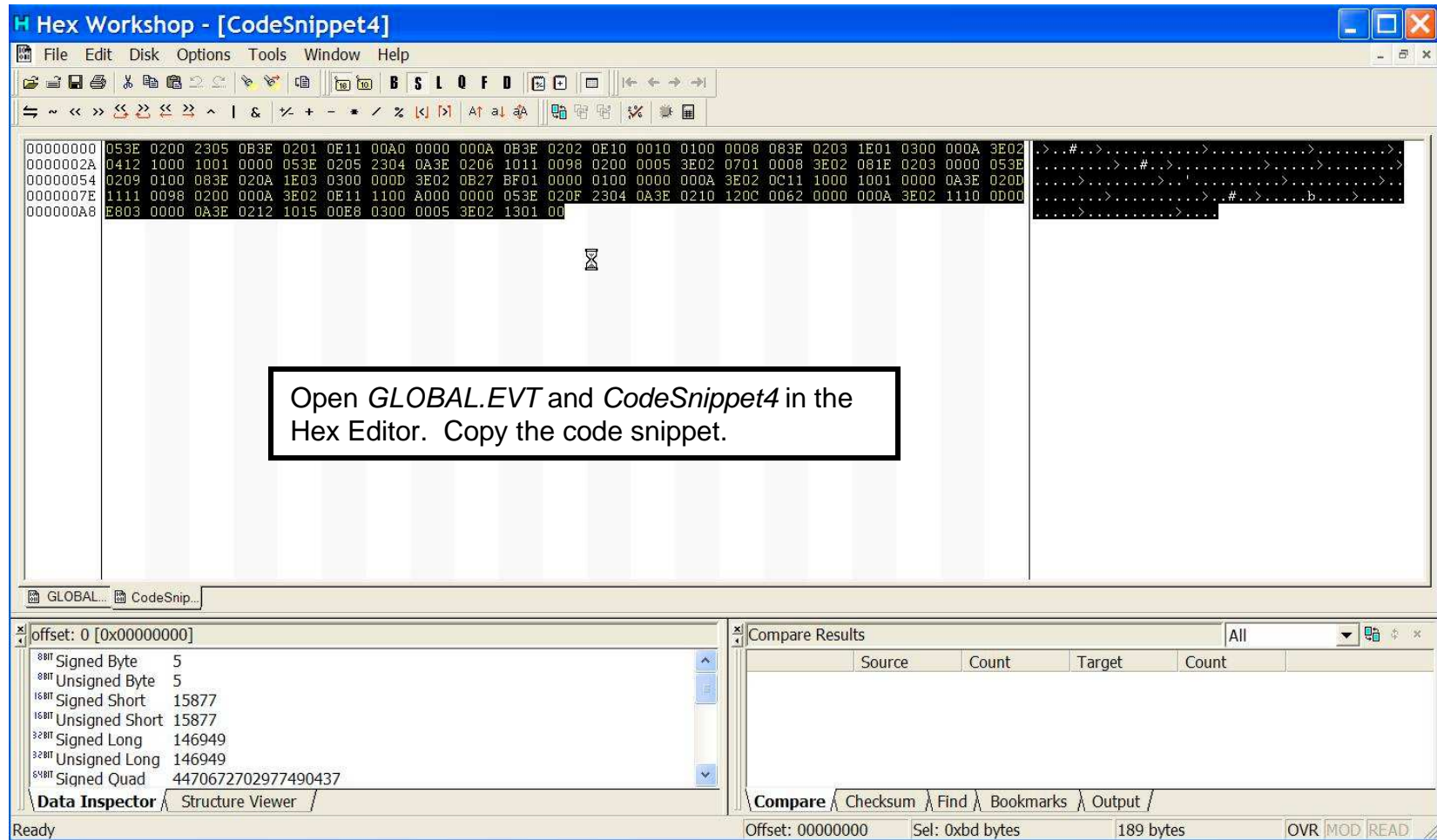
SAVE and then EXIT the file.

Activity 4 (continued)

Import files.

Return to the MM8LevelEditor and Import *Selected files AWARDS.TXT, QUESTS.TXT*, and *NPCTEXT.TXT*.

SAVE and then EXIT the file.

Activity 4 (continued)

Insert *CodeSnippet4.*

Open *GLOBAL.EVT* and *CodeSnippet4* in the Hex Editor. Copy the code snippet.
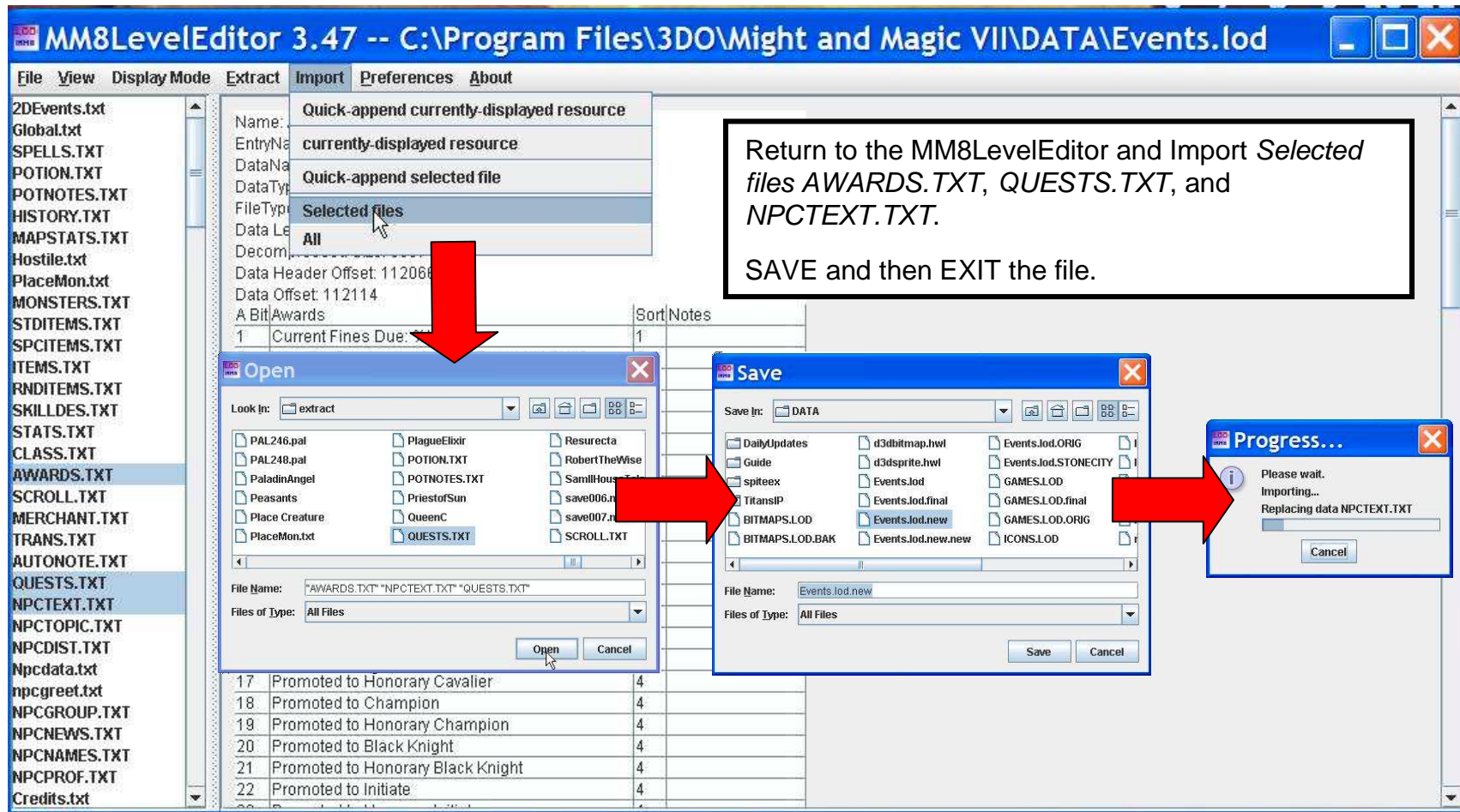
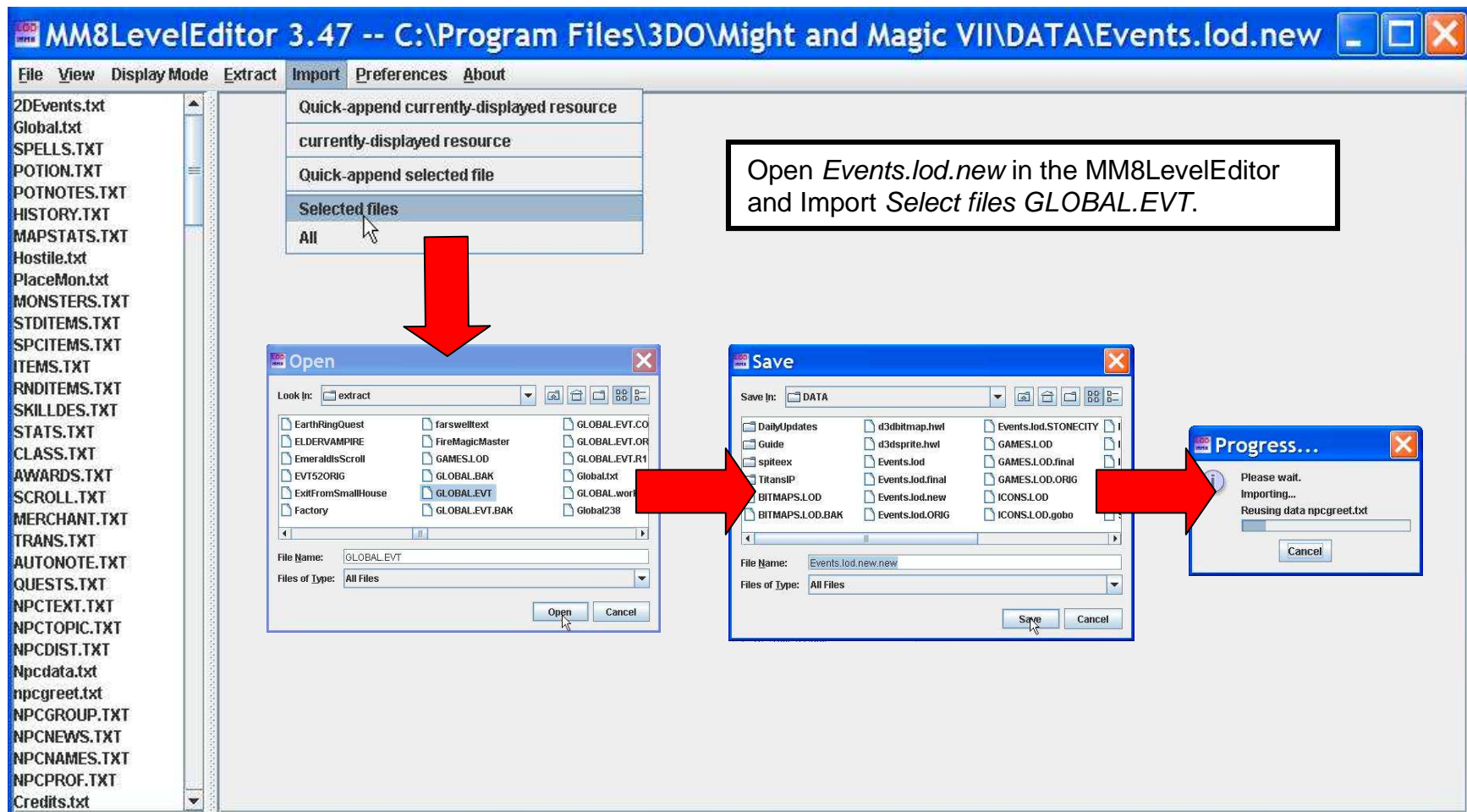# Activity 4 (continued)

Insert *CodeSnippet4* (concluded).

Select *GLOBAL.EVT,* scroll down to the end of the file, click your cursor after the last entry, and PASTE the code snippet.

SAVE the file.

Activity 4 (continued)

Import **file.**

Open *Events.lod.new* in the MM8LevelEditor and Import *Select files GLOBAL.EVT*.

Activity 4 (concluded)

Cleanup files.

1. Delete the current *Events.lod* and *Events.lod.new* files.

2. Rename the *Events.lod.new.new* file to *Events.lod* .

3. Proceed to Activity 5.

Activity 5

Observe the changes.

It's now time to start the game and observe the resultant changes.

1. Launch MM7 and Start a New Game.

2. Perform all party activities required to complete the Quest sequence.

3. Visually observe the results of each party action and make a written record that details each action and its result(s).

4. Although your changes will 'execute' without 'crashing' the game, you should discover several 'bugs' as you perform this quest.

5. *Most* of the 'bugs' are caused by poorly written code in *CodeSnippet4*. You will have to *parse* and *comment* this code snippet in order to discover the 'bug' causes and correct them. These Modders Guides have provided you with sufficient *background* to complete this task. You'll have to develop your own *process* to accomplish this.

6. If you are unable to complete this task, then you should probably give up any aspirations of serious game 'modding' involving the *Event Language*.

Good Luck and Happy Modding! BDJ

Epilog

This concludes the three-part Modders Guide series. The author realizes that the information in this guide is basic, at best, and that much detail has been omitted in presenting these topics. The detail omissions were a conscious decision made by the author who believes that game modification involves a challenging and rewarding *Process of Discovery*, a Right of Passage *journey* that can ultimately reward the modder with his own unique MM game mod. For the bright, intelligent, curious, and motivated modder *wannabe*, this 'journey' is what modding is all about.

Good Luck on your Journey! BDJ

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Appendix
CodeSnippets

```
CodeSnippet3
05FFFF00 0401 Mouseover Evt 01
05FFFF00 2305 Modify next by member 5
0BFFFF01 0E11 009802000004 Branch to 4 if item 664
08FFFF02 1D 11000000 Show local text The crate is locked.
05FFFF03 0100 Stop Processing
05FFFF04 07FF Open Chest FF
05FFFF05 0100 Stop Processing
```

Note. Replace the *FF* fields with the proper number.

```
CodeSnippet4
053E020023050B3E02010E1100A00000000A0B3E02020E10001001000008083E02031E01
0300000A3E0204121000100100000053E020523040A3E020610110098020000053E020701
00083E02081E02030000053E02090100083E020A1E030300000D3E020B27BF0100000100
0000000A3E020C111000100100000A3E020D1111009800200000A3E020E111100A0000000
053E020F23040A3E0210120C00620000000A3E0211100D00E80300000A3E0212101500E8
030000053E02130100
```

Note. Parse and comment this code, find the 'bugs', and correct them.