

## AIML(Program #) for Unity 3D – tutorial for mobile and web

### How the AIML works?

You can find the answers here:

<http://www.alicebot.org/aiml.html>

<http://www.alicebot.org/documentation/aiml-reference.html>

### How the C # interprets the AIML files?

You can find the answers here:

<http://aimlbot.sourceforge.net/>

## How the Program # - AIMLbot.dll was implemented in Unity3D?

You must be wondering why you are not finding the "AIMLbot.dll" file. Well, that's because if you want to change something in a class, you need not open the original project and re-build of the DLL.

Now, answering the question, the class "**ChatbotMobileWeb.cs**" has two functions:

- `public void loadAIMLFromXML(XmlDocument[] aiml, string[] aimlFileName)`

```
31 1 reference
32 public void loadAIMLFromXML(XmlDocument[] aiml, string[] aimlFileName)
33 {
34     AimlBot.isAcceptingUserInput = false;
35     for (int i = 0; i <= aiml.Length - 1; i++)
36     {
37         AimlBot.loadAIMLFromXML(aiml[i], aimlFileName[i]);
38     }
39     AimlBot.isAcceptingUserInput = true;
40 }
41
42
```

This function is called the class "**ChatWindowExampleMobileWeb.cs**" it load all *AIML*. files.

**IMPORTANT:** Rename all AIML files to XML and put it on the [Resources](#) folder

First all *XML* are loaded as text and then transformed into "*XmlDocument*".

```
1 reference
104 void TextAssetToXmlDocumentAIMLFiles()
105 {
106     aimlFiles = Resources.LoadAll<TextAsset>("aiml");
107     foreach (TextAsset aimlFile in aimlFiles)
108     {
109         XmlDocument xmlDoc = new XmlDocument();
110         xmlDoc.LoadXml(aimlFile.text);
111         aimlXmlDocumentListFileName.Add(aimlFile.name);
112         aimlXmlDocumentList.Add(xmlDoc);
113     }
114 }
115
```

After *AIML* is loaded into the "**Start ()**" the "**ChatWindowExampleMobileWeb.cs**" class.

```
0 references
28 void Start()
29 {
30     bot = new ChatbotMobileWeb();
31     LoadFilesFromConfigFolder();
32     bot.LoadSettings(GlobalSettings.text, GenderSubstitutions.text, Person2Substitutions.text, PersonSubstitutions.text,
33     TextAssetToXmlDocumentAIMLFiles();
34     bot.loadAIMLFromXML(aimlXmlDocumentList.ToArray(), aimlXmlDocumentListFileName.ToArray());
35     bot.LoadBrain();
36 }
37
```

- *public void **LoadSettings**(string GlobalSettings, string GenderSubstitutions, string Person2Substitutions, string PersonSubstitutions, string Substitutions, string DefaultPredicates, string Splitters)*

This function loads the bot settings such as name, interests and etc ...

First all *XML* are loaded as text and then transformed into "*XmlDocument*".

You can find this example in class "**ChatbotMobileWeb.cs**".

```
1 reference
44 public void LoadSettings(string GlobalSettings, string GenderSubstitutions, string Person2Substitutions, string PersonSubstitutions, string Substitutions, string DefaultPredicates, string Splitters)
45 {
46     XmlDocument a = new XmlDocument();
47     a.LoadXml(GlobalSettings);
48     AimlBot.GlobalSettings.loadSettings(a);
49     //
50     XmlDocument b = new XmlDocument();
51     b.LoadXml(GenderSubstitutions);
52     AimlBot.GenderSubstitutions.loadSettings(b);
53     //
54     XmlDocument c = new XmlDocument();
55     c.LoadXml(Person2Substitutions);
56     AimlBot.Person2Substitutions.loadSettings(c);
57     //
58     XmlDocument d = new XmlDocument();
59     d.LoadXml(PersonSubstitutions);
60     AimlBot.PersonSubstitutions.loadSettings(d);
61     //
62     XmlDocument e = new XmlDocument();
63     e.LoadXml(Substitutions);
64     AimlBot.Substitutions.loadSettings(e);
65     //
66     XmlDocument f = new XmlDocument();
67     f.LoadXml(DefaultPredicates);

```

Here the files are loaded from the **Resources** folder as text and passed on to the function.

*You can find this example in class "ChatWindowExampleMobileWeb.cs".*

```
28 void Start()
29 {
30     bot = new ChatbotMobileWeb();
31     LoadFilesFromConfigFolder();
32     bot.LoadSettings(GlobalSettings.text, GenderSubstitutions.text, Person2Substitutions.text, PersonSubstitutions.text, Substitutions.text, TextAssetToXmlDocumentAIMLFiles());
33     bot.loadAIMLFromXML(aimlXmlDocumentList.ToArray(), aimlXmlDocumentListFileName.ToArray());
34     bot.LoadBrain();
35 }
36
37
38
39 // Update is called once per frame
```

*You can find this example in class "ChatWindowExampleMobileWeb.cs".*

```
93 void LoadFilesFromConfigFolder()
94 {
95     GlobalSettings = Resources.Load<TextAsset>("config/Settings");
96     GenderSubstitutions = Resources.Load<TextAsset>("config/GenderSubstitutions");
97     Person2Substitutions = Resources.Load<TextAsset>("config/Person2Substitutions");
98     PersonSubstitutions = Resources.Load<TextAsset>("config/PersonSubstitutions");
99     Substitutions = Resources.Load<TextAsset>("config/Substitutions");
100     DefaultPredicates = Resources.Load<TextAsset>("config/DefaultPredicates");
101     Splitters = Resources.Load<TextAsset>("config/Splitters");
102 }
103
```

## Save and Load

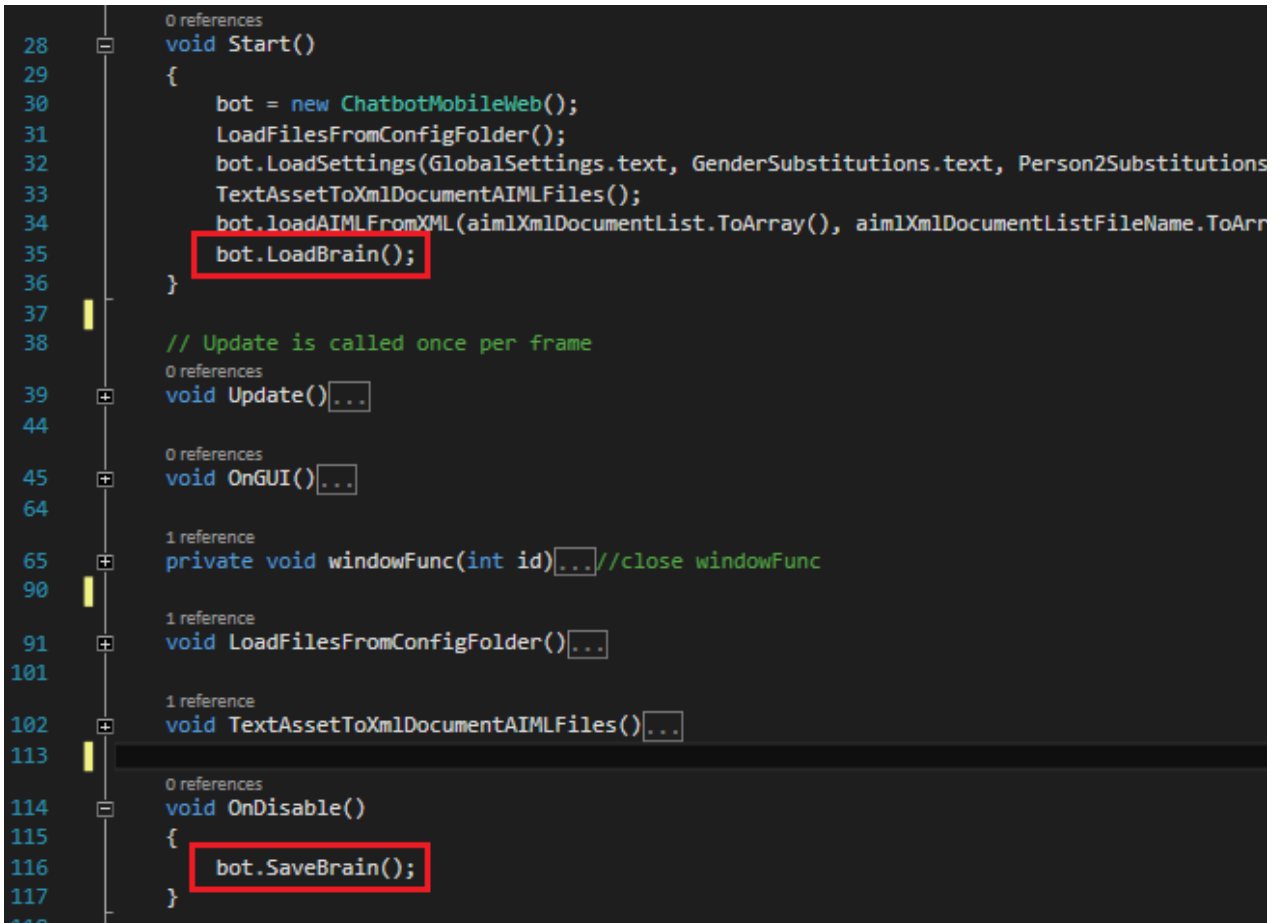
*You can find this example in class "ChatbotMobileWeb.cs".*

```
85 public void SaveBrain()
86 {
87     //Get XML as string
88     string XMLAsString = myUser.Predicates.DictionaryAsXML.OuterXml;
89     PlayerPrefs.SetString(keyUserSettings, XMLAsString);
90     Debug.Log("Brain saved");
91 }
92
93
94
95 public void LoadBrain()
96 {
97     try
98     {
99         XmlDocument doc = new XmlDocument();
100         string XMLAsString = PlayerPrefs.GetString(keyUserSettings);
101         doc.LoadXml(XMLAsString);
102         myUser.Predicates.loadSettings(doc);
103         Debug.Log("Brain loaded");
104     }
105     catch (Exception e)
106     {
107         Debug.Log("Brain not loaded");
108         Debug.Log(e);
109     }
110 }
111
112
```

An XML is created for the bot remember (saved with [PlayerPrefs](#)) all the information that the user entered during the conversation, such as name, age, country, etc...

This XML is loaded ([PlayerPrefs](#)) when you start the conversation with the bot and saved when the scene is closed.

*You can find this example in class "ChatWindowExampleMobileWeb.cs".*



```
28 0 references
29 void Start()
30 {
31     bot = new ChatbotMobileWeb();
32     LoadFilesFromConfigFolder();
33     bot.LoadSettings(GlobalSettings.text, GenderSubstitutions.text, Person2Substitutions
34     TextAssetToXmlDocumentAIMLFiles();
35     bot.loadAIMLFromXML(aimlXmlDocumentList.ToArray(), aimlXmlDocumentListFileName.ToArr
36     bot.LoadBrain();
37 }
38 // Update is called once per frame
39 0 references
40 void Update()...
41
42 0 references
43 void OnGUI()...
44
45 1 reference
46 private void windowFunc(int id)...)//close windowFunc
47
48 1 reference
49 void LoadFilesFromConfigFolder()...
50
51 1 reference
52 void TextAssetToXmlDocumentAIMLFiles()...
53
54 0 references
55 void OnDisable()
56 {
57     bot.SaveBrain();
58 }
```

This solution was based on this response:

<http://stackoverflow.com/questions/11184984/aimlbot-c-sharp-save-brain>

You can now open the **ChatbotMobileWeb.cs** class for more information. In class **ChatWindowExampleMobileWeb.cs** You can find an example of how to create a bot in your project.

If you are interested in the development of PC / Desktop, you can use this tutorial or go to the tutorial:

AIML(Program #) for Unity 3D – tutorial for PC

Maybe you might like to see this:

<https://xinyustudio.wordpress.com/2014/03/08/get-started-with-aiml-c-programming-i-just-say-hello-to-the-robot/>

<https://mattg19.wordpress.com/2011/03/07/using-aiml-in-c-a-program-tutorial/>