# CAML – CONVERSATIONAL AGENT MARKUP LANGUAGE

Version 0.1

Working Draft

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## Introduction

CAML is an extension of the Artificial Intelligence Markup Language (AIML). For that reason it hopes to always be interoperable and supports all the new versions and updates.

The reasons for a new language and not just a proposal for a newer AIML are the new key concepts that are added to support more business oriented scenarios.

Every agent/bot on CAML will be able to serve a specific goal, but will also support parallel scenarios and use cases (topics).

It also adds semantic understanding of the conversation, building new AIML knowledge. To succeed on that it adopts the semantic web technologies.

In general CAML is just an ML with its own compilers, rules, but own its bases and its simpler form is just AIML.

## Overview

## CAML Syntax

CAML inherits all the syntax from AIML, thus any arbitrary number of AIML files can be loaded in CAML.

### <semiotics> tag

Here we will have the sparql queries.

Example:

<category > <pattern>WHOISHE \*</pattern>

<semiotics>

<set name=”forum\_name”>?forum\_name.

<set name=”post”>?post.

<set name=”mbox”>?mbox.

<sparql>

prefix sioc:  <http://rdfs.org/sioc/ns#>  
prefix sioct: <http://rdfs.org/sioc/types#>  
prefix foaf:  <http://xmlns.com/foaf/0.1/>  
select ?forum\_name, ?post, ?mbox  
from <http://demo.openlinksw.com/dataspace>  
where  
   {  
     ?forum a sioct:MessageBoard .  
     ?forum sioc:id ?forum\_name.  
     ?forum sioc:container\_of ?post.  
     optional{ ?post  foaf:maker ?maker } .  
     optional{ ?maker foaf:mbox  ?mbox  } .  
   }  
limit 10

</sparql>

</semiotics>

< template>The forum name is <get name=”forum\_name”> and

<get name=”post”> and

<get name=”mbox”>

</template> </category >

### <nar> tag

The narration tag is the underlying concept of the agent.

In general this is also declared as a bot predicate, but some patterns are going to be focused on that. It is really similar to the <topic>, but it is like an environmental variable**. In the version 0.1 it is also considered as a constant**, but in later releases will be allowed to change dynamically.

Thus, a bot will be allowed to serve a specific purpose throughout the interaction and deliver a goal.

For example, a virtual seller that will be able to communicate through a variety of different paths and always be able to conclude in specific leaves.

In the current AIML approach, the botmaster should analyze and write down all the different conversations and paths that will conclude.

In our proposal, the agent will “know” its goal and no matter how many different <topic> paths it runs unto, will always return to its original.

When <nar> is declared, it will also produce a variety of <semiotics> tags that will be enfolded.

<nar><semiotics>…</semiotics></nar>

## Summary

This draft document is mainly focused on supporting and explaining in detail the new approach proposed with the whole CAML framework.

It also describes exactly what is the logic behind the accompanied open software agent “”, which is provided as a proof of concept.