

7 Referência

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Anexo A

A.1 DTD do ANote

```
<!ELEMENT anote.plugin.model (goalDiagram,  
                                organizationDiagram,  
                                scenarioDiagram,  
                                ontologyDiagram)>  
  
<!ELEMENT goalDiagram (goals*,goalGeneralizations*)>  
<!ATTLIST goalDiagram id CDATA #REQUIRED  
                        name CDATA #REQUIRED>  
  
<!ATTLIST goals id CDATA #REQUIRED  
                name CDATA #REQUIRED  
                x CDATA #IMPLIED  
                y CDATA #IMPLIED  
                width CDATA #IMPLIED  
                height CDATA #IMPLIED  
                sourceGeneralization CDATA #IMPLIED  
                targetGeneralizations CDATA #IMPLIED>  
  
<!ATTLIST goalGeneralizations id CDATA #REQUIRED  
                                target CDATA #REQUIRED  
                                source CDATA #REQUIRED>  
  
<!ELEMENT organizationDiagram (organizations*,  
                                organizationDependencies*)>  
<!ATTLIST organizationDiagram id CDATA #REQUIRED  
                                name CDATA #REQUIRED>
```

```
<!ELEMENT organizations (agentDiagram)>
<!ATTLIST organizations id CDATA #REQUIRED
    name CDATA #REQUIRED
    x CDATA #IMPLIED
    y CDATA #IMPLIED
    width CDATA #IMPLIED
    height CDATA #IMPLIED
    sourceDependencies CDATA #IMPLIED
    targetDependencies CDATA #IMPLIED>
```

```
<!ATTLIST organizationDependencies id CDATA #REQUIRED
    target CDATA #REQUIRED
    source CDATA #REQUIRED>
```

```
<!ELEMENT agentDiagram (agents*,agentAssociations*)>
<!ATTLIST agentDiagram id CDATA #REQUIRED
    name CDATA #REQUIRED>
```

```
<!ATTLIST agents id CDATA #REQUIRED
    name CDATA #REQUIRED
    x CDATA #IMPLIED
    y CDATA #IMPLIED
    width CDATA #IMPLIED
    height CDATA #IMPLIED
    sourceAssociations CDATA #IMPLIED
    targetAssociations CDATA #IMPLIED>
```

```
<!ATTLIST agentAssociations id CDATA #REQUIRED
    target CDATA #REQUIRED
    source CDATA #REQUIRED>
```

```
<!ELEMENT scenarioDiagram (scenarios)>
<!ATTLIST scenarioDiagram id CDATA #REQUIRED
```

name CDATA #REQUIRED>

<!ELEMENT scenarios (planningDiagram,interactionDiagram)>

<!ATTLIST scenarios id CDATA #REQUIRED

name CDATA #REQUIRED

x CDATA #IMPLIED

y CDATA #IMPLIED

width CDATA #IMPLIED

height CDATA #IMPLIED

leadAgent CDATA #IMPLIED

interactions CDATA #IMPLIED>

<!ELEMENT planningDiagram (states*,transitions*)>

<!ATTLIST planningDiagram id CDATA #REQUIRED

name CDATA #REQUIRED>

<!ATTLIST states id CDATA #REQUIRED

name CDATA #REQUIRED

x CDATA #IMPLIED

y CDATA #IMPLIED

width CDATA #IMPLIED

height CDATA #IMPLIED

sourceTransitions CDATA #IMPLIED

targetTransitions CDATA #IMPLIED>

<!ATTLIST transitions id CDATA #REQUIRED

adaptation CDATA #REQUIRED

target CDATA #REQUIRED

source CDATA #REQUIRED>

<!ELEMENT interactionDiagram (interactionAgents*,messages*)>

<!ATTLIST interactionDiagram id CDATA #REQUIRED

name CDATA #REQUIRED>

```

<!ATTLIST interactionAgents id CDATA #REQUIRED
    name CDATA #REQUIRED
    x CDATA #IMPLIED
    y CDATA #IMPLIED
    width CDATA #IMPLIED
    height CDATA #IMPLIED
    senderMessages CDATA #IMPLIED
    receiverMessages CDATA #IMPLIED>

```

```

<!ATTLIST messages id CDATA #REQUIRED
    name CDATA #REQUIRED
    entities CDATA #REQUIRED
    sender CDATA #REQUIRED
    receiver CDATA #REQUIRED>

```

```

<!ELEMENT ontologyDiagram (entities*,
    entityGeneralizations*,
    entityAggregations*,
    entityDependencies*,
    entityAssociations*)>

```

```

<!ATTLIST ontologyDiagram id CDATA #REQUIRED
    name CDATA #REQUIRED>

```

```

<!ATTLIST entities id CDATA #REQUIRED
    name CDATA #REQUIRED
    x CDATA #IMPLIED
    y CDATA #IMPLIED
    width CDATA #IMPLIED
    height CDATA #IMPLIED
    sourceRelationships CDATA #IMPLIED
    targetRelationships CDATA #IMPLIED>

```

```

<!ATTLIST entityGeneralizations id CDATA #REQUIRED
    source CDATA #REQUIRED

```

target CDATA #REQUIRED>

```
<!ATTLIST entityAggregations id CDATA #REQUIRED
    source CDATA #REQUIRED
    target CDATA #REQUIRED>
```

```
<!ATTLIST entityDependencies id CDATA #REQUIRED
    source CDATA #REQUIRED
    target CDATA #REQUIRED>
```

```
<!ATTLIST entityAssociations id CDATA #REQUIRED
    source CDATA #REQUIRED
    target CDATA #REQUIRED>
```

A.2 DTD do Transform

```
<!ELEMENT transform.plugin.model (transformModels*)>
<!ATTLIST transformModels id CDATA #REQUIRED
    name CDATA #REQUIRED>
```

```
<!ELEMENT transformModels (modelA,modelB)>
<!ELEMENT modelA (elements*)>
<!ELEMENT modelB (elements*)>
```

```
<!ELEMENT elements (nodes*,atributes*)*>
<!ATTLIST elements id CDATA #REQUIRED
    name CDATA #REQUIRED
    elements CDATA #REQUIRED
    references CDATA #IMPLIED>
```

```
<!ELEMENT nodes (nodes*,atributes*)*>
<!ATTLIST nodes id CDATA #REQUIRED
    name CDATA #REQUIRED>
```



```
<!ATTLIST attributes id CDATA #REQUIRED
      name CDATA #REQUIRED
      value CDATA #IMPLIED>
```

A.3 DTD do Generator

```
<!ELEMENT generator.plugin.model (packages*)>
<!ELEMENT packages (classes*)>
<!ATTLIST packages id CDATA #REQUIRED
      name CDATA #REQUIRED>
```

```
<!ELEMENT classes (attributes*,methods*)*>
<!ATTLIST classes id CDATA #REQUIRED
      name CDATA #REQUIRED
      extends CDATA #IMPLIED
      implements CDATA #IMPLIED
      actor CDATA #IMPLIED
      date CDATA #IMPLIED>
```

```
<!ATTLIST attributes id CDATA #REQUIRED
      name CDATA #REQUIRED
      type CDATA #REQUIRED
      value CDATA #IMPLIED>
```

```
<!ATTLIST methods id CDATA #REQUIRED
      name CDATA #REQUIRED
      type CDATA #REQUIRED
      parameter CDATA #IMPLIED>
```

A.4 Template do Generator

```
<%@ jet package="albatroz.generator.plugin.translated"
      class="GenCode"
      imports="generator.plugin.model.* java.util.*
albatroz.generator.plugin.codegen.*"
%>
```

```

<% GeClasse geClass = (GeClasse)argument;%>

package <%=geClass.getPackage().toLowerCase()%>;

<%
    if (geClass.getActor() != null
        && geClass.getDate() != null){
%>
/**
 *
 * @author <%=geClass.getActor()%>
 * @date <%=geClass.getDate()%>
 **/
<%
    }
%>

<%
    Iterator itImport = geClass.getImports().iterator();
    while (itImport.hasNext()){
        GeImport geImport = (GeImport)itImport.next();
%>
import <%=geImport.getName()%>;
<%
    }
%>

public class <%=geClass.getName()%>
<%
    String geExtends = geClass.getExtends();
    if (geExtends != null && !geExtends.equals("")){
%>
    extends <%=geExtends%>
<%
    }
    String geImplements = geClass.getImplements();
    if (geImplements != null && !geImplements.equals("")){
        geImplements = geImplements.replaceAll(" ",",");
%>
    implements <%=geImplements%>
<%
    }
%>
{

<%
    if (!geClass.getAttributes().isEmpty()) {
%>
    //Attributes

<%
    Iterator itAttribute = geClass.getAttributes().iterator();
    while (itAttribute.hasNext()){
        GeAttribute attribute =
(GeAttribute)itAttribute.next();
        String value = attribute.getValue();
        if (attribute.getType().equalsIgnoreCase("String")){
            if (value != null && !value.equals("")){

                if (value.indexOf("null") != -1 ||
                    value.indexOf("\\"") == -1){

```

```

        value = "\"" + value + "\"";
    }
    } else {
        value = "\\\"";
    }
}
if (!value.equals("")){
    value = " = " + value;
}

%>
    private <%=attribute.getType() %>
<%=attribute.getName().toLowerCase() %> <%=value%>;
<%
    }
}
%>

// Construtor
public <%=geClass.getName() %> ()
{
    //TODO
}

<%
if (!geClass.getMethods().isEmpty()){
%>
    // Methods
<%
    Iterator itMethod = geClass.getMethods().iterator();
    while (itMethod.hasNext()){
        GeMethod method = (GeMethod) itMethod.next();
%>
        public <%=method.getType() %> <%=method.getName() %>
(<%=method.getParameter() %>){
            // TODO : <%=method.getName() %>
<%
            if (method.getCmdInitials() != null){

                CommandStruct cs =
GeneratorUtil.parseCommand(method);

                if (cs.getPrecondition() != null &&
!cs.getPrecondition().equals("")){
%>
                    if (<%=cs.getPrecondition() %>){
<%
                        }
                        if (cs.getMainPlan() != null &&
cs.getMainPlan().size() > 0){
                            Iterator itCmd =
cs.getMainPlan().iterator();
                            while (itCmd.hasNext()){
                                String cmd = (String) itCmd.next();
%>
                                <%=cmd%>
<%
                            }
                        }
                    }
                }
            }
        }
    }
}

```

```

        if (cs.getPrecondition() != null &&
!cs.getPrecondition().equals("")){
%>
            }
<%
        }
        } else if (method.getCommands() != null &&
method.getCommands().size() > 0){
            Iterator itCommands =
method.getCommands().iterator();
            while (itCommands.hasNext()){
                GeCommand gc =
(GeCommand)itCommands.next();
%>
                <%=gc.getName() %>
<%
            }
        }
        if (!method.getType().equals("void")){
%>
            return null;
<%
        }
%>
    }
<%
    } // while
    } // if
%>
<%
    if (!geClass.getAttributes().isEmpty()){
%>
        // Get and Set Attributes
<%
        Iterator itGetSet = geClass.getAttributes().iterator();
        while (itGetSet.hasNext()){
            GeAttribute attribute = (GeAttribute)itGetSet.next();

            String name = attribute.getName();
            String first = ""+name.charAt(0);
            name =
first.toUpperCase()+name.substring(1,name.length());

%>
            public <%=attribute.getType() %> get<%=name%> (){
                return <%=attribute.getName().toLowerCase() %>;
            }

            public void set<%=name%> (<%=attribute.getType() %>
<%=attribute.getName().toLowerCase() %>){
                this.<%=attribute.getName().toLowerCase() %> =
<%=attribute.getName().toLowerCase() %>;
            }
<%
        }
    }
%>
    }
}

```

A.5 Template do GeneratorIDL

```

<%@ jet package="albatroz.generator.idl.plugin.translated"
class="GenCode"
imports="generator.plugin.model.* java.util.*"
%>
<% GeIDL geIDL = (GeIDL)argument;%>
package <%=geIDL.getPackage().toLowerCase()%>;

<%
if (geIDL != null &&
    geIDL.getInterfaces() != null) {
    Iterator itInterface =
        geIDL.getInterfaces().iterator();
    while (itInterface.hasNext()) {
        GeInterface geInterface =
            (GeInterface) itInterface.next();
    %>
interface <%=geInterface.getName()%> {
<%
        // Attributes
        if(geInterface.getAttributes()
            != null){
            Iterator itAttributes =
                geInterface.getAttributes().iterator();
            while (itAttributes.hasNext()) {
                GeAttribute geAttribute =
                    (GeAttribute) itAttributes.next();
                String att = "";
                if (geAttribute.isReadOnly()){
                    att = att + "readonly ";
                }
                att = att +

```

```

        geAttribute.getPreType()
        + " " +
        geAttribute.getType()
        + " " +
        geAttribute.getName();
    if (geAttribute.getValue() != null &&
        !geAttribute.getValue().equals("")){
        att = att +
            " = " +
            geAttribute.getValue();
    }
%>
    <%=att%>;
<%
    }
    }
    // Methods
    if (geInterface.getMethods() != null){
        Iterator itMethods =
            geInterface.getMethods().iterator();
        while (itMethods.hasNext()) {
            GeMethod geMethod =
                (GeMethod) itMethods.next();
            String met = "";
            met = geMethod.getType() + " " +
                geMethod.getName() + " (" +
                geMethod.getParameter() + ")";
%>
        <%=met%>;
<%
    }
    }
%>
}

```

```

<%
}
}
if (geIDL != null &&
    geIDL.getModules() != null){
    Iterator itModules = geIDL.getModules().iterator();
    while (itModules.hasNext()) {
        GeModule geModule = (GeModule) itModules.next();
    }
%>

```

```

module <%=geModule.getName()%>{
<%
    // Attributes
    if(geModule.getAttributes() != null){
        Iterator itAttributes =
            geModule.getAttributes().iterator();
        while (itAttributes.hasNext()) {
            GeAttribute geAttribute =
                (GeAttribute) itAttributes.next();
            String att = "";
            if (geAttribute.isReadOnly()){
                att = att + "readonly ";
            }
            att = att +
                geAttribute.getPreType()
                + " " +
                geAttribute.getType() + " " +
                geAttribute.getName();
            if (geAttribute.getValue() != null
                &&
                !geAttribute.getValue()
                    .equals("")){
                att = att +

```

```

                " = " +
                geAttribute.getValue();
            }
        }
    }
    <%=att%>;
<%
        }
    }
    // Methods
    if (geModule.getMethods() != null){
        Iterator itMethods =
            geModule.getMethods().iterator();
        while (itMethods.hasNext()) {
            GeMethod geMethod =
                (GeMethod) itMethods.next();
            String met = "";
            met = geMethod.getType() + " " +
                geMethod.getName() + " (" +
                geMethod.getParameter() + ")";
        }
    }
    <%=met%>;
<%
        }
    }
    // Interface
    if (geModule.getInterfaces() != null){
        Iterator itInterface =
            geModule.getInterfaces().iterator();
        while (itInterface.hasNext()) {
            GeInterface geInterface =
                (GeInterface) itInterface.next();
        }
    }
    <%=geInterface.getName()%> {
<%

```



```

// Attributes
if(geInterface.getAttributes() != null){
    Iterator itAttributes =
        geInterface.getAttributes().iterator();
    while (itAttributes.hasNext()) {
        GeAttribute geAttribute =
            (GeAttribute) itAttributes.next();
        String att = "";
        if (geAttribute.isReadOnly()){
            att = att + "readonly ";
        }
        att = att +
            geAttribute.getPreType() +
            " " +
            geAttribute.getType() +
            " " +
            geAttribute.getName();
        if (geAttribute.getValue() != null
            &&
            !geAttribute.getValue()
                .equals("")){
            att = att +
                " = " +
                geAttribute.getValue();
        }
    }
}
%>
<%=att%>;
<%
}
}
// Methods
if (geInterface.getMethods() != null){
    Iterator itMethods =

```

```

        geInterface.getMethods().iterator());
while (itMethods.hasNext()) {
    GeMethod geMethod =
        (GeMethod) itMethods.next();
    String met = "";
    met = geMethod.getType() + " " +
        geMethod.getName() + " (" +
        geMethod.getParameter() + ")";
%>
    <%=met%>;
<%
        }
    }
%>
}
<%
    }
}
%>
}
<%
}
}
%>

```

A.6 Classes geradas no exemplo do capítulo 4.4

```

package packagea;
/**
 *
 * @author Richard
 * @date 05 JAN 2005
 **/
public class MyClass1
{
    //Attributes
    private int num1 = 123;

```

```
// Construtor
public MyClass1 ()
{
    //TODO
}

// Methods
public String upperCase (String s){
    // TODO :
    return null;
}

// Get and Set Attributes
public int getNum1 (){
    return num1;
}

public void setNum1 (int num1){
    this.num1 = num1;
}
}
```

```
package pakagea;
```

```
/**
 *
 * @author rrrr
 * @date 12 DEZ 2000
 */

public class MyClass1IP
{
    // Construtor
    public MyClass1IP ()
    {
        //TODO
    }
}
```

Anexo B

B.1

Estrutura intermediária gerada pelo ANote para o Estudo de Caso

```
<?xml version="1.0" encoding="UTF-8" ?>
```

```
- <anote.plugin.model:ANotePluginModel xmi:version="2.0"
  xmlns:xmi="http://www.omg.org/XMI"
  xmlns:anote.plugin.model="http://anote/plugin/model.ecore">
- <goalDiagram id="a200502160810200" name="GoalDiagram">
  <goals id="a200502160811034" name="Adquirir Pacotes de Viagem para
  os Clientes" x="8" y="6" width="264" height="40"
  targetGeneralizations="a2005021608153714 a2005021608154818" />
  <goals id="a200502160811155" name="Construir Base de Conhecimento"
  x="41" y="82" width="203" height="40"
  targetGeneralizations="a2005021608154919 a2005021608155120
  a2005021608155221 a2005021608155522"
  sourceGeneralization="a2005021608154818" />
  <goals id="a200502160811356" name="Negociar Pacotes de Viagem"
  x="355" y="12" width="177" height="40"
  targetGeneralizations="a2005021608154015 a2005021608154216
  a2005021608154317" sourceGeneralization="a2005021608153714" />
  <goals id="a200502160811527" name="Monitorar Mercado de
  Informação" x="7" y="173" width="206" height="40"
  sourceGeneralization="a2005021608154919" />
  <goals id="a200502160812008" name="Classificar as Preferências do
  Cliente" x="9" y="225" width="224" height="40"
  sourceGeneralization="a2005021608155120" />
  <goals id="a200502160812149" name="Predizer Próximo Preço dos
  Leilões" x="240" y="228" width="218" height="40"
  sourceGeneralization="a2005021608155221" />
  <goals id="a2005021608123110" name="Calcular Melhores Alocações"
  x="232" y="180" width="180" height="40"
  sourceGeneralization="a2005021608155522" />
  <goals id="a2005021608125211" name="Classificar Melhores Alocações"
  x="250" y="69" width="188" height="40"
  sourceGeneralization="a2005021608154015" />
  <goals id="a2005021608130312" name="Criar Ordens de Ofertas"
  x="262" y="123" width="158" height="40"
  sourceGeneralization="a2005021608154216" />
  <goals id="a2005021608131613" name="Enviar Ofertas nos Leilões"
  x="434" y="124" width="169" height="40"
  sourceGeneralization="a2005021608154317" />
  <goalGeneralizations id="a2005021608153714"
  target="a200502160811034" source="a200502160811356" />
  <goalGeneralizations id="a2005021608154015"
  target="a200502160811356" source="a2005021608125211" />
```

```

<goalGeneralizations id="a2005021608154216"
  target="a200502160811356" source="a2005021608130312" />
<goalGeneralizations id="a2005021608154317"
  target="a200502160811356" source="a2005021608131613" />
<goalGeneralizations id="a2005021608154818"
  target="a200502160811034" source="a200502160811155" />
<goalGeneralizations id="a2005021608154919"
  target="a200502160811155" source="a200502160811527" />
<goalGeneralizations id="a2005021608155120"
  target="a200502160811155" source="a200502160812008" />
<goalGeneralizations id="a2005021608155221"
  target="a200502160811155" source="a200502160812149" />
<goalGeneralizations id="a2005021608155522"
  target="a200502160811155" source="a2005021608123110" />
</goalDiagram>
- <organizationDiagram id="a200502160810201"
  name="OrganizationDiagram">
- <organizations id="a2005021608293861" name="agencia" x="29" y="22"
  width="60" height="60">
- <agentDiagram id="a2005021608293862" name="ADagencia">
<agents id="a2005021608312963" name="Sensor de Hotel" x="321"
  y="18" width="117" height="40"
  sourceAssociations="a200505061045560"
  targetAssociations="a200505061045561" />
<agents id="a2005021608313764" name="Sensor de Voo" x="169" y="18"
  width="111" height="40" sourceAssociations="a2005021608353876"
  targetAssociations="a2005021608353877" />
<agents id="a2005021608314665" name="Sensor de Bilhetes" x="17"
  y="13" width="125" height="40"
  sourceAssociations="a2005021608353978"
  targetAssociations="a2005021608353979" />
<agents id="a2005021608320966" name="Negociador de Hotel" x="11"
  y="218" width="125" height="40"
  sourceAssociations="a2005021608354280"
  targetAssociations="a2005021608354281" />
<agents id="a2005021608322067" name="Negociador de Voo" x="164"
  y="225" width="117" height="40"
  sourceAssociations="a2005021608354382"
  targetAssociations="a2005021608354383" />
<agents id="a2005021608322868" name="Negociador de Bilhetes"
  x="315" y="213" width="137" height="40"
  sourceAssociations="a2005021608354484"
  targetAssociations="a2005021608354485" />
<agents id="a2005021608335769" name="Predizer Preco" x="22" y="90"
  width="108" height="40" sourceAssociations="a2005021608354886"
  targetAssociations="a2005021608354887" />
<agents id="a2005021608341070" name="Alocador Master" x="170"
  y="90" width="109" height="40"
  sourceAssociations="a2005021608353877 a2005021608353979
  a2005021608354887 a2005021608355592 a20050216084436115
  a200505061045561" targetAssociations="a2005021608353876
  a2005021608353978 a2005021608354886 a2005021608355593
  a20050216084436114 a200505061045560" />
<agents id="a2005021608343872" name="Ordenador" x="160" y="152"
  width="128" height="40" sourceAssociations="a2005021608354281
  a2005021608354383 a2005021608354485 a20050216084436114"

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    targetAssociations="a2005021608354280 a2005021608354382
    a2005021608354484 a20050216084436115" />
<agents id="a2005021608351573" name="Alocator Escravo" x="341"
  y="90" width="108" height="40"
  sourceAssociations="a2005021608355593"
  targetAssociations="a2005021608355592" />
<agentAssociations id="a2005021608353876"
  source="a2005021608313764" target="a2005021608341070" />
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  source="a2005021608341070" target="a2005021608313764" />
<agentAssociations id="a2005021608353978"
  source="a2005021608314665" target="a2005021608341070" />
<agentAssociations id="a2005021608353979"
  source="a2005021608341070" target="a2005021608314665" />
<agentAssociations id="a2005021608354280"
  source="a2005021608320966" target="a2005021608343872" />
<agentAssociations id="a2005021608354281"
  source="a2005021608343872" target="a2005021608320966" />
<agentAssociations id="a2005021608354382"
  source="a2005021608322067" target="a2005021608343872" />
<agentAssociations id="a2005021608354383"
  source="a2005021608343872" target="a2005021608322067" />
<agentAssociations id="a2005021608354484"
  source="a2005021608322868" target="a2005021608343872" />
<agentAssociations id="a2005021608354485"
  source="a2005021608343872" target="a2005021608322868" />
<agentAssociations id="a2005021608354886"
  source="a2005021608335769" target="a2005021608341070" />
<agentAssociations id="a2005021608354887"
  source="a2005021608341070" target="a2005021608335769" />
<agentAssociations id="a2005021608355592"
  source="a2005021608341070" target="a2005021608351573" />
<agentAssociations id="a2005021608355593"
  source="a2005021608351573" target="a2005021608341070" />
<agentAssociations id="a20050216084436114"
  source="a2005021608343872" target="a2005021608341070" />
<agentAssociations id="a20050216084436115"
  source="a2005021608341070" target="a2005021608343872" />
<agentAssociations id="a200505061045560"
  source="a2005021608312963" target="a2005021608341070" />
<agentAssociations id="a200505061045561"
  source="a2005021608341070" target="a2005021608312963" />
</agentDiagram>
</organizations>
</organizationDiagram>
- <scenarioDiagram id="a200502160810203" name="ScenarioDiagram">
- <scenarios id="a200505061057463" name="Predizer Precos" x="34"
  y="23" width="236" height="221" leadAgent="a2005021608335769"
  interactions="a2005021608341070">
- <planningDiagram id="a200505061057464" name="SDPredizer Precos">
<transitions id="a200505060155205" target="a200505061058089"
  source="a200505061058028" />
<transitions id="a200505060211221" target="a2005050602034910"
  source="a200505061058089" />

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<transitions id="a200505060211252" target="a2005050610581210"
  source="a2005050602034910" />
<transitions id="a200505060211363" name="true"
  target="a200505061058028" source="a2005050610581210" />
<transitions id="a200505060211394" target="a200505061057466"
  source="a2005050610581210" />
<transitions id="a200505060216390" name="Mensagem para os agentes
  Sensores" target="a200505061058028" source="a200505061057465"
  />
<stateFinals id="a200505061057466" name="FINAL" x="10" y="80"
  width="12" height="12" targetTransitions="a200505060211394" />
<stateInitials id="a200505061057465" name="INITIAL" x="10" y="10"
  width="14" height="14" sourceTransitions="a200505060216390" />
<stateActions id="a200505061058028" name="Colotar o preço corrente
  em CKB" x="224" y="39" width="200" height="40"
  targetTransitions="a200505060211363 a200505060216390"
  sourceTransitions="a200505060155205" />
<stateActions id="a200505061058089" name="Predizer preço do leilão"
  x="305" y="119" width="156" height="40"
  targetTransitions="a200505060155205"
  sourceTransitions="a200505060211221" />
<stateActions id="a2005050610581210" name="Enviar mensagem para o
  agente Alocador Master" x="11" y="116" width="287" height="40"
  targetTransitions="a200505060211252"
  sourceTransitions="a200505060211363 a200505060211394" />
<stateActions id="a2005050602034910" name="Atualizar CKB" x="250"
  y="183" width="90" height="40" targetTransitions="a200505060211221"
  sourceTransitions="a200505060211252" />
</planningDiagram>
- <interactionDiagram id="a200505061057467" name="SDPredizer Precos">
<interactionAgents id="a200505060220361" name="Predizer Preco" x="10"
  y="10" width="97" height="40" senderMessages="a200505060222533"
  agent="a2005021608335769" />
<interactionAgents id="a200505060220432" name="Alocador Master"
  x="190" y="10" width="104" height="40"
  receiverMessages="a200505060222533" agent="a2005021608341070"
  />
<messageInitiations id="a200505060222533" name="Predizer preco
  disponivel" index="1" sender="a200505060220361"
  receiver="a200505060220432" />
</interactionDiagram>
</scenarios>
- <scenarios id="a200505060224364" name="Monitorar as Informações do
  Mercado para Hotel" x="288" y="24" width="155" height="184"
  leadAgent="a2005021608312963" interactions="a2005021608341070">
- <planningDiagram id="a200505060224365" name="SDMonitorar as
  Informações do Mercado para Hotel">
<stateFinals id="a200505060224367" name="FINAL" x="10" y="80"
  width="12" height="12" />
<stateInitials id="a200505060224366" name="INITIAL" x="10" y="10"
  width="14" height="14" />
</planningDiagram>
- <interactionDiagram id="a200505060224368" name="SDMonitorar as
  Informações do Mercado para Hotel">

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<interactionAgents id="a200505060225139" name="Sensor de Hotel"
  x="10" y="10" width="80" height="40" agent="a2005021608312963" />
<interactionAgents id="a2005050602253310" name="Alocador Master"
  x="190" y="10" width="80" height="40" agent="a2005021608341070"
  />
</interactionDiagram>
</scenarios>
</scenarioDiagram>
- <ontologyDiagram id="a200502160810202" name="OntologyDiagram">
<entities id="a2005021608201323" name="TabelaDemanda" x="78"
  y="221" width="105" height="30"
  targetRelationships="a2005022209595610"
  sourceRelationships="a2005022209595611" />
<entities id="a2005021608202924" name="InformacaoVoo" x="402"
  y="136" width="90" height="30"
  targetRelationships="a200502220959396"
  sourceRelationships="a2005021608271750 a200502220959397" />
<entities id="a2005021608204025" name="PredizerInformacaoVoo"
  x="144" y="294" width="165" height="30"
  targetRelationships="a2005022210000514"
  sourceRelationships="a2005022210000515" />
<entities id="a2005021608204926" name="InformacaoHotel" x="349"
  y="85" width="113" height="30"
  targetRelationships="a200502220959324"
  sourceRelationships="a2005021608271851 a200502220959325" />
<entities id="a2005021608210527" name="PredizerInformacaoHotel"
  x="251" y="248" width="154" height="30"
  targetRelationships="a2005022209595712"
  sourceRelationships="a2005022209595713" />
<entities id="a2005021608212828" name="InformacaoBilhetes" x="255"
  y="21" width="141" height="30"
  targetRelationships="a200502220142449"
  sourceRelationships="a2005021608271952 a2005022201424410" />
<entities id="a2005021608213629" name="PredizerInformacaoBilhetes"
  x="361" y="207" width="181" height="30"
  targetRelationships="a200502220959478"
  sourceRelationships="a200502220959479" />
- <entities id="a2005021608214430" name="SolucionadorResultados"
  x="10" y="66" width="149" height="44"
  targetRelationships="a200502220959171 a2005022210002318
  a2005022210002421" sourceRelationships="a200502220959170
  a2005022210002319 a2005022210002420">
<attributes id="a200502170311050" name="leiloes" type="Collection"
  value="" />
<methods id="a200502170312131" name="sortLeilao" typeReturn="void"
  parameter="" />
</entities>
<entities id="a2005021608215431" name="SolucionadorResultado"
  x="14" y="18" width="142" height="30"
  targetRelationships="a2005022210002319"
  sourceRelationships="a2005022210002318" />
<entities id="a2005021608220832" name="Leilao" x="39" y="136"
  width="90" height="30" targetRelationships="a2005022210002420"
  sourceRelationships="a2005022210002421" />
<entities id="a2005021608252933" name="MapaDinamico" x="185"
  y="148" width="90" height="30"

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targetRelationships="a200502220959170 a200502220959325
a200502220959397 a200502220959479 a2005022209595611
a2005022209595713 a2005022210000515 a2005022201424410
a200503060119230" sourceRelationships="a200502220959171
a200502220959324 a200502220959396 a200502220959478
a2005022209595610 a2005022209595712 a2005022210000514
a200502220142449 a200503060119230" />
<entities id="a2005021608254934" name="InformacaoTabela" x="486"
y="25" width="117" height="30"
targetRelationships="a2005022210001417"
sourceRelationships="a2005022210001416" />
<entities id="a2005021608260535" name="Informacao" x="500" y="82"
width="90" height="30" targetRelationships="a2005021608271750
a2005021608271851 a2005021608271952 a2005022210001416"
sourceRelationships="a2005022210001417" />
<entityAssociations id="a200502220959170"
target="a2005021608252933" source="a2005021608214430"
itself="true" />
<entityAssociations id="a200502220959171"
target="a2005021608214430" source="a2005021608252933" />
<entityAssociations id="a200502220959324"
target="a2005021608204926" source="a2005021608252933"
itself="true" />
<entityAssociations id="a200502220959325"
target="a2005021608252933" source="a2005021608204926" />
<entityAssociations id="a200502220959396"
target="a2005021608202924" source="a2005021608252933"
itself="true" />
<entityAssociations id="a200502220959397"
target="a2005021608252933" source="a2005021608202924" />
<entityAssociations id="a200502220959478"
target="a2005021608213629" source="a2005021608252933"
itself="true" />
<entityAssociations id="a200502220959479"
target="a2005021608252933" source="a2005021608213629" />
<entityAssociations id="a2005022209595610"
target="a2005021608201323" source="a2005021608252933"
itself="true" />
<entityAssociations id="a2005022209595611"
target="a2005021608252933" source="a2005021608201323" />
<entityAssociations id="a2005022209595712"
target="a2005021608210527" source="a2005021608252933"
itself="true" />
<entityAssociations id="a2005022209595713"
target="a2005021608252933" source="a2005021608210527" />
<entityAssociations id="a2005022210000514"
target="a2005021608204025" source="a2005021608252933"
itself="true" />
<entityAssociations id="a2005022210000515"
target="a2005021608252933" source="a2005021608204025" />
<entityAssociations id="a2005022210001416"
target="a2005021608260535" source="a2005021608254934"
itself="true" />
<entityAssociations id="a2005022210001417"
target="a2005021608254934" source="a2005021608260535" />

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<entityAssociations id="a2005022210002318"
  target="a2005021608214430" source="a2005021608215431"
  itself="true" />
<entityAssociations id="a2005022210002319"
  target="a2005021608215431" source="a2005021608214430" />
<entityAssociations id="a2005022210002420"
  target="a2005021608220832" source="a2005021608214430"
  itself="true" />
<entityAssociations id="a2005022210002421"
  target="a2005021608214430" source="a2005021608220832" />
<entityAssociations id="a200502220142449"
  target="a2005021608212828" source="a2005021608252933"
  itself="true" />
<entityAssociations id="a2005022201424410"
  target="a2005021608252933" source="a2005021608212828" />
<entityAssociations id="a200503060119230"
  target="a2005021608252933" source="a2005021608252933"
  itself="true" />
<entityGeneralizations id="a2005021608271750"
  target="a2005021608260535" source="a2005021608202924" />
<entityGeneralizations id="a2005021608271851"
  target="a2005021608260535" source="a2005021608204926" />
<entityGeneralizations id="a2005021608271952"
  target="a2005021608260535" source="a2005021608212828" />
</ontologyDiagram>
</anote.plugin.model:ANotePluginModel>

```

B.2

Estrutura intermediária gerada pelo Transform para o Estudo de Caso

```

<?xml version="1.0" encoding="UTF-8" ?>
- <generator.plugin.model:GeneratorPluginModel xmi:version="2.0"
  xmlns:xmi="http://www.omg.org/XMI"
  xmlns:generator.plugin.model="http://generator/plugin/model.ecore"
  >
- <packages id="a2005021608293861" name="agencia.SensordeHotel">
- <classes name="SensordeHotel" extends="Agent"
  implements="AgentInterface" actor="Richard Werneck" date="05 JAN
  1978" id="t200505060235513110">
<attributes type="boolean" name="stopped" value="false"
  id="t200505060235513111" />
<attributes type="boolean" name="waitMsg" value="false"
  id="t200505060235513112" />
<attributes type="boolean" name="broadcastRegistered" value="false"
  id="t200505060235513113" />
<attributes type="SensordeHotelIP" name="oSensordeHotelIP"
  value="null" id="t200505060235513114" />
<methods type="void" name="inicialize" parameter=""
  id="t200505060235513115" />
<methods type="void" name="run" parameter=""
  id="t200505060235513116" />
<methods type="void" name="terminate" parameter=""
  id="t200505060235513117" />

```

```

<methods type="void" name="trace" parameter="String msg"
  id="t200505060235513118" />
</classes>
- <classes name="SensordeHotelIP" extends=""
  implements="InteractionProtocol" actor="Richard Werneck" date="05
  JAN 1978" id="t200505060235513119">
<attributes type="SensordeHotel" name="oSensordeHotel" value="null"
  id="t200505060235513120" />
<attributes type="AgentCommunication" name="agCommLayer"
  value="null" id="t200505060235513121" />
<methods type="void" name="requestRegistration" parameter=""
  id="t200505060235513122" />
<methods type="void" name="sendMsgSensordeHotel" parameter=""
  id="t200505060235513123" />
<methods type="void" name="processMsg" parameter="AgentMessage
  msg" id="t200505060235513124" />
<imports name="ontology.*" id="t200505060235513125" />
</classes>
</packages>
- <packages id="a2005021608293861" name="agencia.SensordeVoo">
- <classes name="SensordeVoo" extends="Agent"
  implements="AgentInterface" actor="Richard Werneck" date="05 JAN
  1978" id="t200505060235513126">
<attributes type="boolean" name="stopped" value="false"
  id="t200505060235513127" />
<attributes type="boolean" name="waitMsg" value="false"
  id="t200505060235513128" />
<attributes type="boolean" name="broadcastRegistered" value="false"
  id="t200505060235513129" />
<attributes type="SensordeVooIP" name="oSensordeVooIP" value="null"
  id="t200505060235513130" />
<methods type="void" name="inicialize" parameter=""
  id="t200505060235513131" />
<methods type="void" name="run" parameter=""
  id="t200505060235513132" />
<methods type="void" name="terminate" parameter=""
  id="t200505060235513133" />
<methods type="void" name="trace" parameter="String msg"
  id="t200505060235513134" />
</classes>
- <classes name="SensordeVooIP" extends=""
  implements="InteractionProtocol" actor="Richard Werneck" date="05
  JAN 1978" id="t200505060235513135">
<attributes type="SensordeVoo" name="oSensordeVoo" value="null"
  id="t200505060235513136" />
<attributes type="AgentCommunication" name="agCommLayer"
  value="null" id="t200505060235513137" />
<methods type="void" name="requestRegistration" parameter=""
  id="t200505060235513138" />
<methods type="void" name="sendMsgSensordeVoo" parameter=""
  id="t200505060235513139" />
<methods type="void" name="processMsg" parameter="AgentMessage
  msg" id="t200505060235513140" />
<imports name="ontology.*" id="t200505060235513141" />
</classes>

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</packages>
- <packages id="a2005021608293861" name="agencia.SensordeBilhetes">
- <classes name="SensordeBilhetes" extends="Agent"
  implements="AgentInterface" actor="Richard Werneck" date="05 JAN
  1978" id="t200505060235513142">
  <attributes type="boolean" name="stopped" value="false"
    id="t200505060235513143" />
  <attributes type="boolean" name="waitMsg" value="false"
    id="t200505060235513144" />
  <attributes type="boolean" name="broadcastRegistered" value="false"
    id="t200505060235513145" />
  <attributes type="SensordeBilhetesIP" name="oSensordeBilhetesIP"
    value="null" id="t200505060235513146" />
  <methods type="void" name="inicialize" parameter=""
    id="t200505060235513147" />
  <methods type="void" name="run" parameter=""
    id="t200505060235513148" />
  <methods type="void" name="terminate" parameter=""
    id="t200505060235513149" />
  <methods type="void" name="trace" parameter="String msg"
    id="t200505060235513150" />
</classes>
- <classes name="SensordeBilhetesIP" extends=""
  implements="InteractionProtocol" actor="Richard Werneck" date="05
  JAN 1978" id="t200505060235513151">
  <attributes type="SensordeBilhetes" name="oSensordeBilhetes"
    value="null" id="t200505060235513152" />
  <attributes type="AgentCommunication" name="agCommLayer"
    value="null" id="t200505060235513153" />
  <methods type="void" name="requestRegistration" parameter=""
    id="t200505060235513154" />
  <methods type="void" name="sendMsgSensordeBilhetes" parameter=""
    id="t200505060235513155" />
  <methods type="void" name="processMsg" parameter="AgentMessage
  msg" id="t200505060235513156" />
  <imports name="ontology.*" id="t200505060235513157" />
</classes>
</packages>
- <packages id="a2005021608293861"
  name="agencia.NegociadordeHotel">
- <classes name="NegociadordeHotel" extends="Agent"
  implements="AgentInterface" actor="Richard Werneck" date="05 JAN
  1978" id="t200505060235513158">
  <attributes type="boolean" name="stopped" value="false"
    id="t200505060235513159" />
  <attributes type="boolean" name="waitMsg" value="false"
    id="t200505060235513160" />
  <attributes type="boolean" name="broadcastRegistered" value="false"
    id="t200505060235513161" />
  <attributes type="NegociadordeHotelIP" name="oNegociadordeHotelIP"
    value="null" id="t200505060235513162" />
  <methods type="void" name="inicialize" parameter=""
    id="t200505060235513163" />
  <methods type="void" name="run" parameter=""
    id="t200505060235513164" />

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<methods type="void" name="terminate" parameter=""
  id="t200505060235513165" />
<methods type="void" name="trace" parameter="String msg"
  id="t200505060235513166" />
</classes>
- <classes name="NegociadordeHotelIP" extends=""
  implements="InteractionProtocol" actor="Richard Werneck" date="05
  JAN 1978" id="t200505060235513167">
<attributes type="NegociadordeHotel" name="oNegociadordeHotel"
  value="null" id="t200505060235513168" />
<attributes type="AgentCommunication" name="agCommLayer"
  value="null" id="t200505060235513169" />
<methods type="void" name="requestRegistration" parameter=""
  id="t200505060235513170" />
<methods type="void" name="sendMsgNegociadordeHotel" parameter=""
  id="t200505060235513171" />
<methods type="void" name="processMsg" parameter="AgentMessage
  msg" id="t200505060235513172" />
<imports name="ontology.*" id="t200505060235513173" />
</classes>
</packages>
- <packages id="a2005021608293861" name="agencia.NegociadordeVoo">
- <classes name="NegociadordeVoo" extends="Agent"
  implements="AgentInterface" actor="Richard Werneck" date="05 JAN
  1978" id="t200505060235513174">
<attributes type="boolean" name="stopped" value="false"
  id="t200505060235513175" />
<attributes type="boolean" name="waitMsg" value="false"
  id="t200505060235513176" />
<attributes type="boolean" name="broadcastRegistered" value="false"
  id="t200505060235513177" />
<attributes type="NegociadordeVooIP" name="oNegociadordeVooIP"
  value="null" id="t200505060235513178" />
<methods type="void" name="inicialize" parameter=""
  id="t200505060235513179" />
<methods type="void" name="run" parameter=""
  id="t200505060235513180" />
<methods type="void" name="terminate" parameter=""
  id="t200505060235513181" />
<methods type="void" name="trace" parameter="String msg"
  id="t200505060235513182" />
</classes>
- <classes name="NegociadordeVooIP" extends=""
  implements="InteractionProtocol" actor="Richard Werneck" date="05
  JAN 1978" id="t200505060235513183">
<attributes type="NegociadordeVoo" name="oNegociadordeVoo"
  value="null" id="t200505060235513184" />
<attributes type="AgentCommunication" name="agCommLayer"
  value="null" id="t200505060235513185" />
<methods type="void" name="requestRegistration" parameter=""
  id="t200505060235513186" />
<methods type="void" name="sendMsgNegociadordeVoo" parameter=""
  id="t200505060235513187" />
<methods type="void" name="processMsg" parameter="AgentMessage
  msg" id="t200505060235513188" />

```

```

<imports name="ontology.*" id="t200505060235513189" />
</classes>
</packages>
- <packages id="a2005021608293861"
  name="agencia.NegociadordeBilhetes">
- <classes name="NegociadordeBilhetes" extends="Agent"
  implements="AgentInterface" actor="Richard Werneck" date="05 JAN
  1978" id="t200505060235513190">
<attributes type="boolean" name="stopped" value="false"
  id="t200505060235513191" />
<attributes type="boolean" name="waitMsg" value="false"
  id="t200505060235513192" />
<attributes type="boolean" name="broadcastRegistered" value="false"
  id="t200505060235513193" />
<attributes type="NegociadordeBilhetesIP"
  name="oNegociadordeBilhetesIP" value="null"
  id="t200505060235513194" />
<methods type="void" name="inicialize" parameter=""
  id="t200505060235513195" />
<methods type="void" name="run" parameter=""
  id="t200505060235513196" />
<methods type="void" name="terminate" parameter=""
  id="t200505060235513197" />
<methods type="void" name="trace" parameter="String msg"
  id="t200505060235513198" />
</classes>
- <classes name="NegociadordeBilhetesIP" extends=""
  implements="InteractionProtocol" actor="Richard Werneck" date="05
  JAN 1978" id="t200505060235513199">
<attributes type="NegociadordeBilhetes" name="oNegociadordeBilhetes"
  value="null" id="t200505060235513200" />
<attributes type="AgentCommunication" name="agCommLayer"
  value="null" id="t200505060235513201" />
<methods type="void" name="requestRegistration" parameter=""
  id="t200505060235513202" />
<methods type="void" name="sendMsgNegociadordeBilhetes"
  parameter="" id="t200505060235513203" />
<methods type="void" name="processMsg" parameter="AgentMessage
  msg" id="t200505060235513204" />
<imports name="ontology.*" id="t200505060235513205" />
</classes>
</packages>
- <packages id="a2005021608293861" name="agencia.PredizerPreco">
- <classes name="PredizerPreco" extends="Agent"
  implements="AgentInterface" actor="Richard Werneck" date="05 JAN
  1978" id="t200505060235513206">
<attributes type="boolean" name="stopped" value="false"
  id="t200505060235513207" />
<attributes type="boolean" name="waitMsg" value="false"
  id="t200505060235513208" />
<attributes type="boolean" name="broadcastRegistered" value="false"
  id="t200505060235513209" />
<attributes type="PredizerPrecoIP" name="oPredizerPrecoIP" value="null"
  id="t200505060235513210" />

```



```

<methods type="void" name="inicialize" parameter=""
  id="t200505060235513211" />
- <methods type="void" name="run" parameter=""
  id="t200505060235513212">
<commands name="PredizerPrecos();" id="t200505060235513213" />
</methods>
<methods type="void" name="terminate" parameter=""
  id="t200505060235513214" />
<methods type="void" name="trace" parameter="String msg"
  id="t200505060235513215" />
- <methods type="void" name="PredizerPrecos" parameter=""
  id="t200505060235513216">
<transitions id="a200505060155205" name=""
  target="a200505061058089" source="a200505061058028" />
<transitions id="a200505060211221" name=""
  target="a2005050602034910" source="a200505061058089" />
<transitions id="a200505060211252" name=""
  target="a2005050610581210" source="a2005050602034910" />
<transitions id="a200505060211363" name="true"
  target="a200505061058028" source="a2005050610581210" />
<transitions id="a200505060211394" name=""
  target="a200505061057466" source="a2005050610581210" />
<transitions id="a200505060216390"
  name="MensagemparaosagentesSensores"
  target="a200505061058028" source="a200505061057465" />
<cmdFinals id="a200505061057466" name="FINAL"
  targetTransitions="a200505060211394" />
<cmdInitials id="a200505061057465" name="INITIAL"
  sourceTransitions="a200505060216390" />
<commands id="a200505061058028"
  name="ColotarpreçocorrenteemCKB();"
  targetTransitions="a200505060211363 a200505060216390"
  sourceTransitions="a200505060155205" />
<commands id="a200505061058089" name="Predizerpreçodoleilão();"
  targetTransitions="a200505060155205"
  sourceTransitions="a200505060211221" />
<commands id="a2005050610581210"
  name="EnviarmensagemparaoagenteAlocadorMaster();"
  targetTransitions="a200505060211252"
  sourceTransitions="a200505060211363 a200505060211394" />
<commands id="a2005050602034910" name="AtualizarCKB();"
  targetTransitions="a200505060211221"
  sourceTransitions="a200505060211252" />
</methods>
<methods type="void" name="ColotarpreçocorrenteemCKB" parameter=""
  id="t200505060235513217" />
<methods type="void" name="Predizerpreçodoleilão" parameter=""
  id="t200505060235513218" />
<methods type="void"
  name="EnviarmensagemparaoagenteAlocadorMaster" parameter=""
  id="t200505060235513219" />
<methods type="void" name="AtualizarCKB" parameter=""
  id="t200505060235513220" />
</classes>

```

```

- <classes name="PredizerPrecoIP" extends=""
  implements="InteractionProtocol" actor="Richard Werneck" date="05
  JAN 1978" id="t200505060235513221">
  <attributes type="PredizerPreco" name="oPredizerPreco" value="null"
    id="t200505060235513222" />
  <attributes type="AgentCommunication" name="agCommLayer"
    value="null" id="t200505060235513223" />
  <methods type="void" name="requestRegistration" parameter=""
    id="t200505060235513224" />
  <methods type="void" name="sendMsgPredizerPreco" parameter=""
    id="t200505060235513225" />
  <methods type="void" name="processMsg" parameter="AgentMessage
  msg" id="t200505060235513226" />
  <imports name="ontology.*" id="t200505060235513227" />
  <methods type="void" name="Predizerprecodisponivel" parameter=""
    id="t200505060235513228" />
  </classes>
</packages>
- <packages id="a2005021608293861" name="agencia.AlocadorMaster">
- <classes name="AlocadorMaster" extends="Agent"
  implements="AgentInterface" actor="Richard Werneck" date="05 JAN
  1978" id="t200505060235513229">
  <attributes type="boolean" name="stopped" value="false"
    id="t200505060235513230" />
  <attributes type="boolean" name="waitMsg" value="false"
    id="t200505060235513231" />
  <attributes type="boolean" name="broadcastRegistered" value="false"
    id="t200505060235513232" />
  <attributes type="AlocadorMasterIP" name="oAlocadorMasterIP"
    value="null" id="t200505060235513233" />
  <methods type="void" name="inicialize" parameter=""
    id="t200505060235513234" />
  <methods type="void" name="run" parameter=""
    id="t200505060235513235" />
  <methods type="void" name="terminate" parameter=""
    id="t200505060235513236" />
  <methods type="void" name="trace" parameter="String msg"
    id="t200505060235513237" />
  </classes>
- <classes name="AlocadorMasterIP" extends=""
  implements="InteractionProtocol" actor="Richard Werneck" date="05
  JAN 1978" id="t200505060235513238">
  <attributes type="AlocadorMaster" name="oAlocadorMaster" value="null"
    id="t200505060235513239" />
  <attributes type="AgentCommunication" name="agCommLayer"
    value="null" id="t200505060235513240" />
  <methods type="void" name="requestRegistration" parameter=""
    id="t200505060235513241" />
  <methods type="void" name="sendMsgAlocadorMaster" parameter=""
    id="t200505060235513242" />
  <methods type="void" name="processMsg" parameter="AgentMessage
  msg" id="t200505060235513243" />
  <imports name="ontology.*" id="t200505060235513244" />
  </classes>
</packages>

```



```

- <packages id="a2005021608293861" name="agencia.Ordenador">
- <classes name="Ordenador" extends="Agent" implements="AgentInterface"
  actor="Richard Werneck" date="05 JAN 1978"
  id="t200505060235513245">
  <attributes type="boolean" name="stopped" value="false"
    id="t200505060235513246" />
  <attributes type="boolean" name="waitMsg" value="false"
    id="t200505060235513247" />
  <attributes type="boolean" name="broadcastRegistered" value="false"
    id="t200505060235513248" />
  <attributes type="OrdenadorIP" name="oOrdenadorIP" value="null"
    id="t200505060235513249" />
  <methods type="void" name="inicialize" parameter=""
    id="t200505060235513250" />
  <methods type="void" name="run" parameter=""
    id="t200505060235513251" />
  <methods type="void" name="terminate" parameter=""
    id="t200505060235513252" />
  <methods type="void" name="trace" parameter="String msg"
    id="t200505060235513253" />
  </classes>
- <classes name="OrdenadorIP" extends=""
  implements="InteractionProtocol" actor="Richard Werneck" date="05
  JAN 1978" id="t200505060235513254">
  <attributes type="Ordenador" name="oOrdenador" value="null"
    id="t200505060235513255" />
  <attributes type="AgentCommunication" name="agCommLayer"
    value="null" id="t200505060235513256" />
  <methods type="void" name="requestRegistration" parameter=""
    id="t200505060235513257" />
  <methods type="void" name="sendMsgOrdenador" parameter=""
    id="t200505060235513258" />
  <methods type="void" name="processMsg" parameter="AgentMessage
  msg" id="t200505060235513259" />
  <imports name="ontology.*" id="t200505060235513260" />
  </classes>
</packages>
- <packages id="a2005021608293861" name="agencia.AlocadorEscravo">
- <classes name="AlocadorEscravo" extends="Agent"
  implements="AgentInterface" actor="Richard Werneck" date="05 JAN
  1978" id="t200505060235513261">
  <attributes type="boolean" name="stopped" value="false"
    id="t200505060235513262" />
  <attributes type="boolean" name="waitMsg" value="false"
    id="t200505060235513263" />
  <attributes type="boolean" name="broadcastRegistered" value="false"
    id="t200505060235513264" />
  <attributes type="AlocadorEscravoIP" name="oAlocadorEscravoIP"
    value="null" id="t200505060235513265" />
  <methods type="void" name="inicialize" parameter=""
    id="t200505060235513266" />
  <methods type="void" name="run" parameter=""
    id="t200505060235513267" />
  <methods type="void" name="terminate" parameter=""
    id="t200505060235513268" />

```

```

<methods type="void" name="trace" parameter="String msg"
  id="t200505060235513269" />
</classes>
- <classes name="AlocadorEscravoIP" extends=""
  implements="InteractionProtocol" actor="Richard Werneck" date="05
  JAN 1978" id="t200505060235513270">
<attributes type="AlocadorEscravo" name="oAlocadorEscravo" value="null"
  id="t200505060235513271" />
<attributes type="AgentCommunication" name="agCommLayer"
  value="null" id="t200505060235513272" />
<methods type="void" name="requestRegistration" parameter=""
  id="t200505060235513273" />
<methods type="void" name="sendMsgAlocadorEscravo" parameter=""
  id="t200505060235513274" />
<methods type="void" name="processMsg" parameter="AgentMessage
  msg" id="t200505060235513275" />
<imports name="ontology.*" id="t200505060235513276" />
</classes>
</packages>
- <packages id="a200502160810202" name="ontology">
<classes id="a2005021608201323" name="TabelaDemanda" extends=""
  implements="" actor="Richard Werneck" date="05 JAN 1978" />
<classes id="a2005021608202924" name="InformacaoVoo"
  extends="Informacao" implements="" actor="Richard Werneck" date="05
  JAN 1978" />
<classes id="a2005021608204025" name="PredizerInformacaoVoo"
  extends="" implements="" actor="Richard Werneck" date="05 JAN 1978"
  />
<classes id="a2005021608204926" name="InformacaoHotel"
  extends="Informacao" implements="" actor="Richard Werneck" date="05
  JAN 1978" />
<classes id="a2005021608210527" name="PredizerInformacaoHotel"
  extends="" implements="" actor="Richard Werneck" date="05 JAN 1978"
  />
<classes id="a2005021608212828" name="InformacaoBilhetes"
  extends="Informacao" implements="" actor="Richard Werneck" date="05
  JAN 1978" />
<classes id="a2005021608213629" name="PredizerInformacaoBilhetes"
  extends="" implements="" actor="Richard Werneck" date="05 JAN 1978"
  />
- <classes id="a2005021608214430" name="SolucionadorResultados"
  extends="" implements="" actor="Richard Werneck" date="05 JAN
  1978">
<attributes type="Collection" name="leiloes" value=""
  id="t200505060235513277" />
<methods type="void" name="sortLeilao" parameter=""
  id="t200505060235513278" />
</classes>
<classes id="a2005021608215431" name="SolucionadorResultado"
  extends="" implements="" actor="Richard Werneck" date="05 JAN 1978"
  />
<classes id="a2005021608220832" name="Leilao" extends=""
  implements="" actor="Richard Werneck" date="05 JAN 1978" />
<classes id="a2005021608252933" name="MapaDinamico" extends=""
  implements="" actor="Richard Werneck" date="05 JAN 1978" />

```

```
<classes id="a2005021608254934" name="InformacaoTabela" extends=""  
  implements="" actor="Richard Werneck" date="05 JAN 1978" />  
<classes id="a2005021608260535" name="Informacao" extends=""  
  implements="" actor="Richard Werneck" date="05 JAN 1978" />  
</packages>  
</generator.plugin.model:GeneratorPluginModel>
```

Anexo C

C.1

Código gerado pelo Generator para o Estudo de Caso

```
package agencia.alocadormaster;

import async.Agent;
import async.AgentInterface;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 */

public class AlocadorMaster
    extends Agent
    implements AgentInterface
{

    //Attributes
    private boolean stopped = false;
    private boolean waitmsg = false;
    private boolean broadcastregistered = false;
    private AlocadorMasterIP oalocadormasterip = null;

    // Construtor
    public AlocadorMaster ()
    {
        //TODO
    }

    // Methods
    public void inicialize (){
        // TODO : inicialize
    }
    public void run (){
        // TODO : run
    }
    public void terminate (){
        // TODO : terminate
    }
    public void trace (String msg){
        // TODO : trace
    }

    // Get and Set Attributes
    public boolean getStopped (){
```

```

        return stopped;
    }

    public void setStopped (boolean stopped){
        this.stopped = stopped;
    }
    public boolean getWaitMsg (){
        return waitmsg;
    }

    public void setWaitMsg (boolean waitmsg){
        this.waitmsg = waitmsg;
    }
    public boolean getBroadcastRegistered (){
        return broadcastregistered;
    }

    public void setBroadcastRegistered (boolean
broadcastregistered){
        this.broadcastregistered = broadcastregistered;
    }
    public AlocadorMasterIP getOAlocadorMasterIP (){
        return oalocadormasterip;
    }

    public void setOAlocadorMasterIP (AlocadorMasterIP
oalocadormasterip){
        this.oalocadormasterip = oalocadormasterip;
    }
}

package agencia.alocadormaster;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 */

import async.AgentCommunication;
import async.AgentMessage;
import async.InteractionProtocol;

public class AlocadorMasterIP
implements InteractionProtocol
{

    //Attributes
    private AlocadorMaster oalocadormaster = null;
    private AgentCommunication agcommmlayer = null;

    // Construtor
    public AlocadorMasterIP ()
    {
        //TODO
    }

    // Methods
    public void requestRegistration (){

```

```

        // TODO : requestRegistration
    }
    public void sendMsgAlocadorMaster () {
        // TODO : sendMsgAlocadorMaster
    }
    public void processMsg (AgentMessage msg) {
        // TODO : processMsg
    }

    // Get and Set Attributes
    public AlocadorMaster getOAlocadorMaster () {
        return oalocadormaster;
    }

    public void setOAlocadorMaster (AlocadorMaster
oalocadormaster) {
        this.oalocadormaster = oalocadormaster;
    }
    public AgentCommunication getAgCommLayer () {
        return agcommmlayer;
    }

    public void setAgCommLayer (AgentCommunication agcommmlayer) {
        this.agcommmlayer = agcommmlayer;
    }
}

package agencia.alocatorescravo;

import async.Agent;
import async.AgentInterface;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 */

public class AlocadorEscravo
    extends Agent
    implements AgentInterface
{

    //Attributes
    private boolean stopped = false;
    private boolean waitmsg = false;
    private boolean broadcastregistered = false;
    private AlocadorEscravoIP oalocatorescravoip = null;

    // Construtor
    public AlocadorEscravo ()
    {
        //TODO
    }

    // Methods
    public void inicialize () {
        // TODO : inicialize
    }
}

```

```

    }
    public void run (){
        // TODO : run
    }
    public void terminate (){
        // TODO : terminate
    }
    public void trace (String msg){
        // TODO : trace
    }

    // Get and Set Attributes
    public boolean getStopped (){
        return stopped;
    }

    public void setStopped (boolean stopped){
        this.stopped = stopped;
    }
    public boolean getWaitMsg (){
        return waitmsg;
    }

    public void setWaitMsg (boolean waitmsg){
        this.waitmsg = waitmsg;
    }
    public boolean getBroadcastRegistered (){
        return broadcastregistered;
    }

    public void setBroadcastRegistered (boolean
broadcastregistered){
        this.broadcastregistered = broadcastregistered;
    }
    public AlocatorEscravoIP getOAlocatorEscravoIP (){
        return oalocatorescravoip;
    }

    public void setOAlocatorEscravoIP (AlocatorEscravoIP
oalocatorescravoip){
        this.oalocatorescravoip = oalocatorescravoip;
    }
}

package agencia.alocatorescravo;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 */

import async.AgentCommunication;
import async.AgentMessage;
import async.InteractionProtocol;

public class AlocatorEscravoIP
implements InteractionProtocol
{

```

```

//Attributes
private AllocatorEscravo oalocatorescravo = null;
private AgentCommunication agcommmlayer = null;

// Construtor
public AllocatorEscravoIP ()
{
    //TODO
}

// Methods
public void requestRegistration (){
    // TODO : requestRegistration
}
public void sendMsgAllocatorEscravo (){
    // TODO : sendMsgAllocatorEscravo
}
public void processMsg (AgentMessage msg){
    // TODO : processMsg
}

// Get and Set Attributes
public AllocatorEscravo getOAllocatorEscravo (){
    return oalocatorescravo;
}

public void setOAllocatorEscravo (AllocatorEscravo
oalocatorescravo){
    this.oalocatorescravo = oalocatorescravo;
}
public AgentCommunication getAgCommLayer (){
    return agcommmlayer;
}

public void setAgCommLayer (AgentCommunication agcommmlayer){
    this.agcommmlayer = agcommmlayer;
}
}

package agencia.negociadordebilhetes;

import async.Agent;
import async.AgentInterface;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 */

public class NegociadordeBilhetes
    extends Agent
    implements AgentInterface
{

    //Attributes
    private boolean stopped = false;

```



```

private boolean waitmsg = false;
private boolean broadcastregistered = false;
private NegociadordeBilhetesIP onegociadordebilhetesip =
null;

// Construtor
public NegociadordeBilhetes ()
{
    //TODO
}

// Methods
public void inicialize (){
    // TODO : inicialize
}
public void run (){
    // TODO : run
}
public void terminate (){
    // TODO : terminate
}
public void trace (String msg){
    // TODO : trace
}

// Get and Set Attributes
public boolean getStopped (){
    return stopped;
}

public void setStopped (boolean stopped){
    this.stopped = stopped;
}
public boolean getWaitMsg (){
    return waitmsg;
}

public void setWaitMsg (boolean waitmsg){
    this.waitmsg = waitmsg;
}
public boolean getBroadcastRegistered (){
    return broadcastregistered;
}

public void setBroadcastRegistered (boolean
broadcastregistered){
    this.broadcastregistered = broadcastregistered;
}
public NegociadordeBilhetesIP getONegociadordeBilhetesIP (){
    return onegociadordebilhetesip;
}

public void setONegociadordeBilhetesIP
(NegociadordeBilhetesIP onegociadordebilhetesip){
    this.oneyociadordebilhetesip =
oneyociadordebilhetesip;
}
}

package agencia.negociadordebilhetes;

```

```

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 **/

import async.AgentCommunication;
import async.AgentMessage;
import async.InteractionProtocol;

public class NegociadordeBilhetesIP
    implements InteractionProtocol
{

    //Attributes
    private NegociadordeBilhetes onegociadordebilhetes = null;
    private AgentCommunication agcommmlayer = null;

    // Construtor
    public NegociadordeBilhetesIP ()
    {
        //TODO
    }

    // Methods
    public void requestRegistration (){
        // TODO : requestRegistration
    }
    public void sendMsgNegociadordeBilhetes (){
        // TODO : sendMsgNegociadordeBilhetes
    }
    public void processMsg (AgentMessage msg){
        // TODO : processMsg
    }

    // Get and Set Attributes
    public NegociadordeBilhetes getONegociadordeBilhetes (){
        return onegociadordebilhetes;
    }

    public void setONegociadordeBilhetes (NegociadordeBilhetes
    onegociadordebilhetes){
        this.onegociadordebilhetes = onegociadordebilhetes;
    }
    public AgentCommunication getAgCommLayer (){
        return agcommmlayer;
    }

    public void setAgCommLayer (AgentCommunication agcommmlayer){
        this.agcommmlayer = agcommmlayer;
    }
}

package agencia.negociadordehotel;

import async.Agent;
import async.AgentInterface;

```

```

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 **/

public class NegociadordeHotel
    extends Agent
    implements AgentInterface
{

    //Attributes
    private boolean stopped = false;
    private boolean waitmsg = false;
    private boolean broadcastregistered = false;
    private NegociadordeHotelIP onegociadordehotelip = null;

    // Construtor
    public NegociadordeHotel ()
    {
        //TODO
    }

    // Methods
    public void inicialize (){
        // TODO : inicialize
    }
    public void run (){
        // TODO : run
    }
    public void terminate (){
        // TODO : terminate
    }
    public void trace (String msg){
        // TODO : trace
    }

    // Get and Set Attributes
    public boolean getStopped (){
        return stopped;
    }

    public void setStopped (boolean stopped){
        this.stopped = stopped;
    }
    public boolean getWaitMsg (){
        return waitmsg;
    }

    public void setWaitMsg (boolean waitmsg){
        this.waitmsg = waitmsg;
    }
    public boolean getBroadcastRegistered (){
        return broadcastregistered;
    }

    public void setBroadcastRegistered (boolean
broadcastregistered){
        this.broadcastregistered = broadcastregistered;
    }
}

```

```

    }
    public NegociadordeHotelIP getONegociadordeHotelIP (){
        return onegociadordehotelip;
    }

    public void setONegociadordeHotelIP (NegociadordeHotelIP
    onegociadordehotelip){
        this.oneyociadordehotelip = onegociadordehotelip;
    }
}

```

```
package agencia.negociadordehotel;
```

```
import async.Agent;
import async.AgentInterface;
```

```
/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 **/
```

```
public class NegociadordeHotel
    extends Agent
    implements AgentInterface
{

    //Attributes
    private boolean stopped = false;
    private boolean waitmsg = false;
    private boolean broadcastregistered = false;
    private NegociadordeHotelIP onegociadordehotelip = null;

    // Construtor
    public NegociadordeHotel ()
    {
        //TODO
    }

    // Methods
    public void inicialize (){
        // TODO : inicialize
    }
    public void run (){
        // TODO : run
    }
    public void terminate (){
        // TODO : terminate
    }
    public void trace (String msg){
        // TODO : trace
    }

    // Get and Set Attributes
    public boolean getStopped (){
        return stopped;
    }
}

```

```

    public void setStopped (boolean stopped){
        this.stopped = stopped;
    }
    public boolean getWaitMsg (){
        return waitmsg;
    }

    public void setWaitMsg (boolean waitmsg){
        this.waitmsg = waitmsg;
    }
    public boolean getBroadcastRegistered (){
        return broadcastregistered;
    }

    public void setBroadcastRegistered (boolean
broadcastregistered){
        this.broadcastregistered = broadcastregistered;
    }
    public NegociadordeHotelIP getONegociadordeHotelIP (){
        return onegociadordehotelip;
    }

    public void setONegociadordeHotelIP (NegociadordeHotelIP
onegociadordehotelip){
        this.onegociadordehotelip = onegociadordehotelip;
    }
}

package agencia.negociadordevoo;

import async.Agent;
import async.AgentInterface;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 */

public class NegociadordeVoo
    extends Agent
    implements AgentInterface
{

    //Attributes
    private boolean stopped = false;
    private boolean waitmsg = false;
    private boolean broadcastregistered = false;
    private NegociadordeVooIP onegociadordevooip = null;

    // Construtor
    public NegociadordeVoo ()
    {
        //TODO
    }

    // Methods
    public void initialize (){

```

```

        // TODO : initialize
    }
    public void run (){
        // TODO : run
    }
    public void terminate (){
        // TODO : terminate
    }
    public void trace (String msg){
        // TODO : trace
    }

    // Get and Set Attributes
    public boolean getStopped (){
        return stopped;
    }

    public void setStopped (boolean stopped){
        this.stopped = stopped;
    }
    public boolean getWaitMsg (){
        return waitmsg;
    }

    public void setWaitMsg (boolean waitmsg){
        this.waitmsg = waitmsg;
    }
    public boolean getBroadcastRegistered (){
        return broadcastregistered;
    }

    public void setBroadcastRegistered (boolean
broadcastregistered){
        this.broadcastregistered = broadcastregistered;
    }
    public NegociadordeVooIP getONegociadordeVooIP (){
        return onegociadordevoaip;
    }

    public void setONegociadordeVooIP (NegociadordeVooIP
onegociadordevoaip){
        this.onegociadordevoaip = onegociadordevoaip;
    }
}

package agencia.negociadordevoo;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 */

import async.AgentCommunication;
import async.AgentMessage;
import async.InteractionProtocol;

public class NegociadordeVooIP
implements InteractionProtocol

```

```

{

    //Attributes
    private NegociadordeVoo onegociadordevoos = null;
    private AgentCommunication agcommmlayer = null;

    // Construtor
    public NegociadordeVooIP ()
    {
        //TODO
    }

    // Methods
    public void requestRegistration (){
        // TODO : requestRegistration
    }
    public void sendMsgNegociadordeVoo (){
        // TODO : sendMsgNegociadordeVoo
    }
    public void processMsg (AgentMessage msg){
        // TODO : processMsg
    }

    // Get and Set Attributes
    public NegociadordeVoo getONegociadordeVoo (){
        return onegociadordevoos;
    }

    public void setONegociadordeVoo (NegociadordeVoo
    onegociadordevoos){
        this.onegociadordevoos = onegociadordevoos;
    }
    public AgentCommunication getAgCommLayer (){
        return agcommmlayer;
    }

    public void setAgCommLayer (AgentCommunication agcommmlayer){
        this.agcommmlayer = agcommmlayer;
    }
}

package agencia.ordenador;

import async.Agent;
import async.AgentInterface;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 */

public class Ordenador
    extends Agent
    implements AgentInterface
{

    //Attributes

```

```

private boolean stopped = false;
private boolean waitmsg = false;
private boolean broadcastregistered = false;
private OrdenadorIP oordenadorip = null;

// Construtor
public Ordenador ()
{
    //TODO
}

// Methods
public void inicialize (){
    // TODO : inicialize
}
public void run (){
    // TODO : run
}
public void terminate (){
    // TODO : terminate
}
public void trace (String msg){
    // TODO : trace
}

// Get and Set Attributes
public boolean getStopped (){
    return stopped;
}

public void setStopped (boolean stopped){
    this.stopped = stopped;
}
public boolean getWaitMsg (){
    return waitmsg;
}

public void setWaitMsg (boolean waitmsg){
    this.waitmsg = waitmsg;
}
public boolean getBroadcastRegistered (){
    return broadcastregistered;
}

public void setBroadcastRegistered (boolean
broadcastregistered){
    this.broadcastregistered = broadcastregistered;
}
public OrdenadorIP getOOrdenadorIP (){
    return oordenadorip;
}

public void setOOrdenadorIP (OrdenadorIP oordenadorip){
    this.oordenadorip = oordenadorip;
}
}

package agencia.ordenador;

/**

```



```

*
* @author Richard Werneck
* @date 05 JAN 1978
**/

import async.AgentCommunication;
import async.AgentMessage;
import async.InteractionProtocol;

public class OrdenadorIP
    implements InteractionProtocol
{

    //Attributes
    private Ordenador oordenador = null;
    private AgentCommunication agcommmlayer = null;

    // Construtor
    public OrdenadorIP ()
    {
        //TODO
    }

    // Methods
    public void requestRegistration (){
        // TODO : requestRegistration
    }
    public void sendMsgOrdenador (){
        // TODO : sendMsgOrdenador
    }
    public void processMsg (AgentMessage msg){
        // TODO : processMsg
    }

    // Get and Set Attributes
    public Ordenador getOOrdenador (){
        return oordenador;
    }

    public void setOOrdenador (Ordenador oordenador){
        this.oordenador = oordenador;
    }
    public AgentCommunication getAgCommLayer (){
        return agcommmlayer;
    }

    public void setAgCommLayer (AgentCommunication agcommmlayer){
        this.agcommmlayer = agcommmlayer;
    }
}

package agencia.predizerpreco;

import async.Agent;
import async.AgentInterface;

/**
*
* @author Richard Werneck

```

```
* @date 05 JAN 1978
**/
```

```
public class PredizerPreco
  extends Agent
  implements AgentInterface
{
    //Attributes
    private boolean stopped = false;
    private boolean waitmsg = false;
    private boolean broadcastregistered = false;
    private PredizerPrecoIP opredizerprecoip = null;

    // Construtor
    public PredizerPreco ()
    {
        //TODO
    }

    // Methods
    public void initialize (){
        // TODO : initialize
    }
    public void run (){
        // TODO : run
        PredizerPrecos ();
    }
    public void terminate (){
        // TODO : terminate
    }
    public void trace (String msg){
        // TODO : trace
    }
    public void PredizerPrecos (){
        // TODO : PredizerPrecos
        if (true){//MensagemparaosagentesSensores){

            while (true) {
                ColotarpreçocorrenteemCKB ();
                Predizerpreçodoleilão ();
                AtualizarCKB ();
                EnviarmensagemparaoagenteAlocadorMaster ();

            }
        }
    }
    public void ColotarpreçocorrenteemCKB (){
        // TODO : ColotarpreçocorrenteemCKB
    }
    public void Predizerpreçodoleilão (){
        // TODO : Predizerpreçodoleilão
    }
    public void EnviarmensagemparaoagenteAlocadorMaster (){
        // TODO : EnviarmensagemparaoagenteAlocadorMaster
    }
    public void AtualizarCKB (){
        // TODO : AtualizarCKB
    }
}
```

```

// Get and Set Attributes
public boolean getStopped (){
    return stopped;
}

public void setStopped (boolean stopped){
    this.stopped = stopped;
}
public boolean getWaitMsg (){
    return waitmsg;
}

public void setWaitMsg (boolean waitmsg){
    this.waitmsg = waitmsg;
}
public boolean getBroadcastRegistered (){
    return broadcastregistered;
}

public void setBroadcastRegistered (boolean
broadcastregistered){
    this.broadcastregistered = broadcastregistered;
}
public PredizerPrecoIP getOPredizerPrecoIP (){
    return opredizerprecoip;
}

public void setOPredizerPrecoIP (PredizerPrecoIP
opredizerprecoip){
    this.opredizerprecoip = opredizerprecoip;
}
}

package agencia.predizerpreco;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 */

import async.AgentCommunication;
import async.AgentMessage;
import async.InteractionProtocol;

public class PredizerPrecoIP
implements InteractionProtocol
{

    //Attributes
    private PredizerPreco opredizerpreco = null;
    private AgentCommunication agcommmlayer = null;

    // Construtor
    public PredizerPrecoIP ()
    {
        //TODO
    }
}

```

```

// Methods
public void requestRegistration (){
    // TODO : requestRegistration
}
public void sendMsgPredizerPreco (){
    // TODO : sendMsgPredizerPreco
}
public void processMsg (AgentMessage msg){
    // TODO : processMsg
}
public void Predizerprecodisponivel (){
    // TODO : Predizerprecodisponivel
}

// Get and Set Attributes
public PredizerPreco getOPredizerPreco (){
    return opredizerpreco;
}

public void setOPredizerPreco (PredizerPreco
opredizerpreco){
    this.opredizerpreco = opredizerpreco;
}
public AgentCommunication getAgCommLayer (){
    return agcommmlayer;
}

public void setAgCommLayer (AgentCommunication agcommmlayer){
    this.agcommmlayer = agcommmlayer;
}
}

package agencia.sensordebilhetes;

import async.Agent;
import async.AgentInterface;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 */

public class SensordeBilhetes
    extends Agent
    implements AgentInterface
{

    //Attributes
    private boolean stopped = false;
    private boolean waitmsg = false;
    private boolean broadcastregistered = false;
    private SensordeBilhetesIP osensordebilhetesip = null;

    // Construtor
    public SensordeBilhetes ()
    {

```

```

        //TODO
    }

    // Methods
    public void inicialize (){
        // TODO : inicialize
    }
    public void run (){
        // TODO : run
    }
    public void terminate (){
        // TODO : terminate
    }
    public void trace (String msg){
        // TODO : trace
    }

    // Get and Set Attributes
    public boolean getStopped (){
        return stopped;
    }

    public void setStopped (boolean stopped){
        this.stopped = stopped;
    }
    public boolean getWaitMsg (){
        return waitmsg;
    }

    public void setWaitMsg (boolean waitmsg){
        this.waitmsg = waitmsg;
    }
    public boolean getBroadcastRegistered (){
        return broadcastregistered;
    }

    public void setBroadcastRegistered (boolean
broadcastregistered){
        this.broadcastregistered = broadcastregistered;
    }
    public SensordeBilhetesIP getOSensordeBilhetesIP (){
        return osensordebilhetesip;
    }

    public void setOSensordeBilhetesIP (SensordeBilhetesIP
osensordebilhetesip){
        this.osensordebilhetesip = osensordebilhetesip;
    }
}

package agencia.sensordebilhetes;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 */

import async.AgentCommunication;

```

```

import async.AgentMessage;
import async.InteractionProtocol;

public class SensordeBilhetesIP
    implements InteractionProtocol
{
    //Attributes
    private SensordeBilhetes osensordebilhetes = null;
    private AgentCommunication agcommmlayer = null;

    // Construtor
    public SensordeBilhetesIP ()
    {
        //TODO
    }

    // Methods
    public void requestRegistration (){
        // TODO : requestRegistration
    }
    public void sendMsgSensordeBilhetes (){
        // TODO : sendMsgSensordeBilhetes
    }
    public void processMsg (AgentMessage msg){
        // TODO : processMsg
    }

    // Get and Set Attributes
    public SensordeBilhetes getOSensordeBilhetes (){
        return osensordebilhetes;
    }

    public void setOSensordeBilhetes (SensordeBilhetes
osensordebilhetes){
        this.osensordebilhetes = osensordebilhetes;
    }
    public AgentCommunication getAgCommLayer (){
        return agcommmlayer;
    }

    public void setAgCommLayer (AgentCommunication agcommmlayer){
        this.agcommmlayer = agcommmlayer;
    }
}

package agencia.sensordehotel;

import async.Agent;
import async.AgentInterface;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 */

public class SensordeHotel

```

```

extends Agent
implements AgentInterface
{

    //Attributes
    private boolean stopped = false;
    private boolean waitmsg = false;
    private boolean broadcastregistered = false;
    private SensordeHotelIP osensordehotelip = null;

    // Construtor
    public SensordeHotel ()
    {
        //TODO
    }

    // Methods
    public void inicialize (){
        // TODO : inicialize
    }
    public void run (){
        // TODO : run
    }
    public void terminate (){
        // TODO : terminate
    }
    public void trace (String msg){
        // TODO : trace
    }

    // Get and Set Attributes
    public boolean getStopped (){
        return stopped;
    }

    public void setStopped (boolean stopped){
        this.stopped = stopped;
    }
    public boolean getWaitMsg (){
        return waitmsg;
    }

    public void setWaitMsg (boolean waitmsg){
        this.waitmsg = waitmsg;
    }
    public boolean getBroadcastRegistered (){
        return broadcastregistered;
    }

    public void setBroadcastRegistered (boolean
broadcastregistered){
        this.broadcastregistered = broadcastregistered;
    }
    public SensordeHotelIP getOSensordeHotelIP (){
        return osensordehotelip;
    }

    public void setOSensordeHotelIP (SensordeHotelIP
osensordehotelip){
        this.osensordehotelip = osensordehotelip;
    }
}

```

```

    }

    package agencia.sensordehotel;

    /**
     *
     * @author Richard Werneck
     * @date 05 JAN 1978
     **/

    import async.AgentCommunication;
    import async.AgentMessage;
    import async.InteractionProtocol;

    public class SensordeHotelIP
    implements InteractionProtocol
    {

        //Attributes
        private SensordeHotel osensordehotel = null;
        private AgentCommunication agcommmlayer = null;

        // Construtor
        public SensordeHotelIP ()
        {
            //TODO
        }

        // Methods
        public void requestRegistration (){
            // TODO : requestRegistration
        }
        public void sendMsgSensordeHotel (){
            // TODO : sendMsgSensordeHotel
        }
        public void processMsg (AgentMessage msg){
            // TODO : processMsg
        }

        // Get and Set Attributes
        public SensordeHotel getOSensordeHotel (){
            return osensordehotel;
        }

        public void setOSensordeHotel (SensordeHotel
osensordehotel){
            this.osensordehotel = osensordehotel;
        }
        public AgentCommunication getAgCommLayer (){
            return agcommmlayer;
        }

        public void setAgCommLayer (AgentCommunication agcommmlayer){
            this.agcommmlayer = agcommmlayer;
        }
    }

```



```

package agencia.sensordevoo;

import async.Agent;
import async.AgentInterface;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 **/

public class SensordeVoo
    extends Agent
    implements AgentInterface
{

    //Attributes
    private boolean stopped = false;
    private boolean waitmsg = false;
    private boolean broadcastregistered = false;
    private SensordeVooIP osensordevooip = null;

    // Construtor
    public SensordeVoo ()
    {
        //TODO
    }

    // Methods
    public void inicialize (){
        // TODO : inicialize
    }
    public void run (){
        // TODO : run
    }
    public void terminate (){
        // TODO : terminate
    }
    public void trace (String msg){
        // TODO : trace
    }

    // Get and Set Attributes
    public boolean getStopped (){
        return stopped;
    }

    public void setStopped (boolean stopped){
        this.stopped = stopped;
    }
    public boolean getWaitMsg (){
        return waitmsg;
    }

    public void setWaitMsg (boolean waitmsg){
        this.waitmsg = waitmsg;
    }
    public boolean getBroadcastRegistered (){
        return broadcastregistered;
    }
}

```

```

    }

    public void setBroadcastRegistered (boolean
broadcastregistered){
        this.broadcastregistered = broadcastregistered;
    }
    public SensordeVooIP getOSensordeVooIP (){
        return osensordevooop;
    }

    public void setOSensordeVooIP (SensordeVooIP
osensordevooop){
        this.osensordevooop = osensordevooop;
    }
}

package agencia.sensordevoop;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 */

import async.AgentCommunication;
import async.AgentMessage;
import async.InteractionProtocol;

public class SensordeVooIP
implements InteractionProtocol
{

    //Attributes
    private SensordeVoo osensordevoop = null;
    private AgentCommunication agcommmlayer = null;

    // Construtor
    public SensordeVooIP ()
    {
        //TODO
    }

    // Methods
    public void requestRegistration (){
        // TODO : requestRegistration
    }
    public void sendMsgSensordeVoo (){
        // TODO : sendMsgSensordeVoo
    }
    public void processMsg (AgentMessage msg){
        // TODO : processMsg
    }

    // Get and Set Attributes
    public SensordeVoo getOSensordeVoo (){
        return osensordevoop;
    }

    public void setOSensordeVoo (SensordeVoo osensordevoop){

```

```

        this.osensordevoo = osensordevoo;
    }
    public AgentCommunication getAgCommLayer () {
        return agcommmlayer;
    }

    public void setAgCommLayer (AgentCommunication agcommmlayer) {
        this.agcommmlayer = agcommmlayer;
    }
}

```

```
package ontology;
```

```
/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 **/

```

```
public class Informacao
{

    // Construtor
    public Informacao ()
    {
        //TODO
    }

}

```

```
package ontology;
```

```
/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 **/

```

```
public class InformacaoBilhetes
    extends Informacao
{

    // Construtor
    public InformacaoBilhetes ()
    {
        //TODO
    }

}

```

```
package ontology;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 **/

public class InformacaoHotel
    extends Informacao
{

    // Construtor
    public InformacaoHotel ()
    {
        //TODO
    }

}

package ontology;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 **/

public class InformacaoTabela
{

    // Construtor
    public InformacaoTabela ()
    {
        //TODO
    }

}

package ontology;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 **/

public class InformacaoVoo
    extends Informacao
{
```

```
    // Construtor
    public InformacaoVoo ()
    {
        //TODO
    }
}
```

```
package ontology;
```

```
/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 **/
```

```
public class Leilao
{
```

```
    // Construtor
    public Leilao ()
    {
        //TODO
    }
}
```

```
package ontology;
```

```
/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 **/
```

```
public class MapaDinamico
{
```

```
    // Construtor
    public MapaDinamico ()
    {
        //TODO
    }
}
```

```
package ontology;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 **/

public class PredizerInformacaoBilhetes
{

    // Construtor
    public PredizerInformacaoBilhetes ()
    {
        //TODO
    }

}
```

```
package ontology;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 **/

public class PredizerInformacaoHotel
{

    // Construtor
    public PredizerInformacaoHotel ()
    {
        //TODO
    }

}
```

```
package ontology;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 **/

public class PredizerInformacaoVoo
{
```

```

    // Construtor
    public PredizerInformacaoVoo ()
    {
        //TODO
    }
}

```

```
package ontology;
```

```

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 **/

```

```
public class SolucionadorResultado
{

```

```

    // Construtor
    public SolucionadorResultado ()
    {
        //TODO
    }
}

```

```
package ontology;
```

```
import java.util.Collection;
```

```

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 **/

```

```
public class SolucionadorResultados
{

```

```

    //Attributes
    private Collection leiloes ;

    // Construtor
    public SolucionadorResultados ()
    {
        //TODO
    }

    // Methods
    public void sortLeilao () {

```

```
        // TODO : sortLeilao
    }

    // Get and Set Attributes
    public Collection getLeiloes () {
        return leiloes;
    }

    public void setLeiloes (Collection leiloes) {
        this.leiloes = leiloes;
    }
}

package ontology;

/**
 *
 * @author Richard Werneck
 * @date 05 JAN 1978
 */

public class TabelaDemanda
{

    // Construtor
    public TabelaDemanda ()
    {
        //TODO
    }

}
}
```