ActressMAS - A .NET Multiagent Framework

ActressMas Namespace

◢ Classes

	Class	Description
	Agent	The base class for an agent that runs on a turn-based manner in its environment. You must create your own agent classes derived from this abstract class.
	AgentState	The class that stores the serializable state of the agent when it moves. It is the Memento in the Memento design pattern, while the specific Agent class whose state is saved and restored is the Originator. This class should be inherited to add all the serializable fields specific to a particular agent. For example, a concurrent agent cannot be serialized directly because MailboxProcessor is not serializable

	[Container](#)	A container contains an environment and is connected to a server. It facilitates the move of agents in a distributed system.
	[EnvironmentMas](#)	An abstract base class for the multiagent environment, where all the agents are executed.
	[Info](#)	Information about ActressMas version
	[Message](#)	A message that the agents use to communicate. In an agent-based system, the communication between the agents is exclusively performed by exchanging messages.
	[NewTextEventArgs](#)	The class that defines a message from a server or a container.
	[ObservableAgent](#)	The class that represents the observable properties of an agent. They depend on the set of Observables properties of an agent and on the PerceptionFilter function of an agent who wants to observe other agents.

	RunnableMas	An abstract class which should be derived in order to specify the multiagent system with mobile agents that will be run in the environment of a container.
	Server	A server that ensures the communication of containers, e.g. for the movement of agents, in a distributed system.

◢ Delegates

	Delegate	Description
	NewTextEventHandler	An event handler for a message from a server or a container.

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Agent Constructor

Syntax

C#   Copy

```csharp
public Agent()
```

See Also

Reference
Agent Class
ActressMas Namespace

Agent Properties

The Agent type exposes the following members.

◢ Properties

	Name	Description
🖳	Environment	The environment in which the agent runs.
🖳	Name	The name of the agent. Each agent must have a unique name in its environment. Most operations are performed using agent names rather than agent objects.
🖳	Observables	The properties of an agent which can be visible from the outside, i.e. perceivable by other agents.
🖳	UsingObservables	Whether the agent uses the observable feature. The default value is false and it must be explicitly set to true before using observables.

Top

◢ See Also

Reference

Agent Class
ActressMas Namespace

ActressMAS - A .NET Multiagent Framework

AgentEnvironment Property

The environment in which the agent runs.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#
Copy
```
public EnvironmentMas Environment { get;
set; }
```

Property Value
Type: EnvironmentMas

◢ See Also

Reference
Agent Class
ActressMas Namespace

Agent Name Property

The name of the agent. Each agent must have a unique name in its environment. Most operations are performed using agent names rather than agent objects.
Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#

Copy

```csharp
public string Name { get; set; }
```

Property Value
Type: String

◢ See Also

Reference
Agent Class
ActressMas Namespace

AgentObservables Property

The properties of an agent which can be visible from the outside, i.e. perceivable by other agents.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

Syntax

C#

Copy

```csharp
public Dictionary<string, string>
Observables { get; set; }
```

Property Value
Type: DictionaryString, String

See Also

Reference
Agent Class
ActressMas Namespace

Agent UsingObservables Property

Whether the agent uses the observable feature. The default value is false and it must be explicitly set to true before using observables.
Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#

Copy

```csharp
public bool UsingObservables { get; set; }
```

Property Value
Type: Boolean

◢ See Also

Reference
Agent Class
ActressMas Namespace

Agent Methods

The Agent type exposes the following members.

◢ Methods

	Name	Description
≡◆	Act	This is the method that is called when the agent receives a message and is activated. This is where the main logic of the agent should be placed.
≡◆	ActDefault	This is the method that is called when the agent does not receive any messages at the end of a turn.
≡◆	Broadcast(Object, Boolean, String)	Sends a message to all the agents in the environment.
≡◆	Broadcast(String, Boolean, String)	Sends a message to all the agents in the environment.
≡◆	CanMove	Tests whether the agent can move to a certain remote container.
≡◆	LoadState	Imports the state of the agent, after it has moved from another container.

≡◆	Move	The method that should be called when the agent wants to move to a different container.
≡◆	PerceptionFilter	The function that identifies which properties and conditions must be satisfied by the Observables of other agents in order to be perceived by the observing agent. It must return true for the observables that will be available to the agent.
≡◆	SaveState	Exports the state of the agent, so it can be serialized when moving to another container.
≡◆	See	This method provides the agents whose observable properties are visible. It is called once a turn, before Act.
≡◆	Send(String, Object, String)	Sends a message to a specific agent, identified by name.
≡◆	Send(String, String, String)	Sends a message to a specific agent, identified by name.
≡◆	SendToMany(List String , Object, String)	Sends a message to a specific set of agents, identified by name.

⬢	SendToMany(List String , String, String)	Sends a message to a specific set of agents, identified by name.
⬢	Setup	This method is called as the first turn or right after an agent has moved to a new container. It is similar to the constructor of the class, but it may be used for agent-related logic, e.g. for sending initial message(s).
⬢	Stop	Stops the execution of the agent and removes it from the environment. Use the Stop method instead of Environment.Remove when the decision to be stopped belongs to the agent itself.

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◢ See Also

Reference
Agent Class
ActressMas Namespace

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AgentActDefault Method

This is the method that is called when the agent does not receive any messages at the end of a turn.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#

Copy

```csharp
public virtual void ActDefault()
```

◢ See Also

Reference
Agent Class
ActressMas Namespace

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AgentBroadcast Method

Overload List

	Name	Description
▤◈	Broadcast(Object, Boolean, String)	Sends a message to all the agents in the environment.
▤◈	Broadcast(String, Boolean, String)	Sends a message to all the agents in the environment.

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See Also

Reference
Agent Class
ActressMas Namespace

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AgentLoadState Method

Imports the state of the agent, after it has moved from another container.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#

Copy

```
public virtual void LoadState(
        AgentState state
)
```

Parameters

state
    Type: ActressMasAgentState
    The state of the agent

◢ See Also

Reference
Agent Class
ActressMas Namespace

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AgentSaveState Method

Exports the state of the agent, so it can be serialized when moving to another container.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#

Copy

```csharp
public virtual AgentState SaveState()
```

Return Value
Type: AgentState

◢ See Also

Reference
Agent Class
ActressMas Namespace

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AgentSend Method

◢ Overload List

	Name	Description
▪◆	Send(String, Object, String)	Sends a message to a specific agent, identified by name.
▪◆	Send(String, String, String)	Sends a message to a specific agent, identified by name.

Top

◢ See Also

Reference
Agent Class
ActressMas Namespace

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AgentSendToMany Method

◢ Overload List

	Name	Description
▦◆	SendToMany(ListString, Object, String)	Sends a message to a specific set of agents, identified by name.
▦◆	SendToMany(ListString, String, String)	Sends a message to a specific set of agents, identified by name.

Top

◢ See Also

Reference
Agent Class
ActressMas Namespace

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AgentState Constructor

Syntax

C#

Copy

```csharp
protected AgentState()
```

See Also

Reference
AgentState Class
ActressMas Namespace

AgentState Properties

The AgentState type exposes the following members.

◢ Properties

	Name	Description
🖳	AgentType	The agent class needed in order to instantiate the agent object after a move
🖳	Name	The agent name

Top

◢ See Also

Reference
AgentState Class
ActressMas Namespace

AgentStateAgentType Property

The agent class needed in order to instantiate the agent object after a move

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#

Copy

```csharp
public Type AgentType { get; set; }
```

Property Value
Type: Type

◢ See Also

Reference
AgentState Class
ActressMas Namespace

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AgentStateName Property

The agent name

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#

Copy

```csharp
public string Name { get; set; }
```

Property Value
Type: String

◢ See Also

Reference
AgentState Class
ActressMas Namespace

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Container Properties

The Container type exposes the following members.

Properties

	Name	Description
	Name	The name of the container. If the container is not connected to the server, this method will return the empty string.

Top

See Also

Reference
Container Class
ActressMas Namespace

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Container Methods

The Container type exposes the following members.

◢ Methods

	Name	Description
≡◆	AllContainers	Returns a list with the names of all the containers in the distributed system. This list may change over time, as some new containers may get connected and existing ones may disconnect.
≡◆	RunMas	Starts the execution of the multiagent system defined in the environment.
≡◆	Start	Tries to connect to the server and activates the container.
≡◆	Stop	Disconnects from the server and deactivates the container.

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◢ See Also

Reference
Container Class
ActressMas Namespace

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ContainerRunMas Method

Starts the execution of the multiagent system defined in the environment.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

```C#
public void RunMas(
        EnvironmentMas environment,
        RunnableMas mas
)
```

Parameters

environment
    Type: ActressMasEnvironmentMas
    The multiagent environment
mas
    Type: ActressMasRunnableMas
    The multiagent system to be executed

◢ See Also

Reference
Container Class
ActressMas Namespace

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ContainerStart Method

Tries to connect to the server and activates the container.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#

Copy

```csharp
public void Start()
```

◢ See Also

Reference
Container Class
ActressMas Namespace

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ContainerStop Method

Disconnects from the server and deactivates the container.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#
Copy

```csharp
public void Stop()
```

◢ See Also

Reference
Container Class
ActressMas Namespace

Container Events

The Container type exposes the following members.

◢ Events

	Name	Description
⚡	NewText	An event handler for the ongoing messages provided by the container.

Top

◢ See Also

Reference
Container Class
ActressMas Namespace

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ContainerNewText Event

An event handler for the ongoing messages provided by the container.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

```csharp
public event NewTextEventHandler NewText
```

Value
Type: ActressMasNewTextEventHandler

◢ See Also

Reference
Container Class
ActressMas Namespace

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EnvironmentMas Properties

The EnvironmentMas type exposes the following members.

◢ Properties

	Name	Description
🖼️	ContainerName	The name of the container that contains the environment. If the container is not set or not connected to the server, this method will return the empty string.
🖼️	Memory	An object that can be used as a shared memory by the agents.
🖼️	NoAgents	The number of agents in the environment

Top

◢ See Also

Reference
EnvironmentMas Class
ActressMas Namespace

ActressMAS - A .NET Multiagent Framework

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EnvironmentMasMemory Property

An object that can be used as a shared memory by the agents.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

Syntax

C#

Copy

```csharp
public Dictionary<string, Object> Memory {
get; set; }
```

Property Value
Type: DictionaryString, Object

See Also

Reference
EnvironmentMas Class
ActressMas Namespace

EnvironmentMasNoAgents Property

The number of agents in the environment

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

Syntax

C#

Copy

```csharp
public int NoAgents { get; }
```

Property Value
Type: Int32

See Also

Reference
EnvironmentMas Class
ActressMas Namespace

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EnvironmentMas Methods

The EnvironmentMas type exposes the following members.

◢ Methods

	Name	Description
≡◆	Add(Agent)	Adds an agent to the environment. The agent should already have a name and its name should be unique.
≡◆	Add(Agent, String)	Adds an agent to the environment. Its name should be unique.
≡◆	AllAgents	Returns a list with the names of all the agents.
≡◆	AllContainers	Returns a list with the names of all the containers in the distributed system. This list may change over time, as some new containers may get connected and existing ones may disconnect.

	Continue	Continues the simulation for an additional number of turns, after an initial simulation has finished. The simulation may stop earlier if there are no more agents in the environment. If the number of turns is 0, the simulation runs indefinitely, or until there are no more agents in the environment.
	FilteredAgents	Returns a list with the names of all the agents that contain a certain string.
	RandomAgent	Returns the name of a randomly selected agent from the environment

⧉	RandomAgent(Random)	Returns the name of a randomly selected agent from the environment using a predefined random number generator. This is useful for experiments involving non-determinism, but which should be repeatable for analysis and debugging.
⧉	Remove(String)	Stops the execution of the agent identified by name and removes it from the environment. Use the Remove method instead of Agent.Stop when the decision to stop an agent does not belong to the agent itself, but to some other agent or to an external factor.

≡◆	Remove(Agent)	Stops the execution of the agent and removes it from the environment. Use the Remove method instead of Agent.Stop when the decision to stop an agent does not belong to the agent itself, but to some other agent or to an external factor.
≡◆	Send	Sends a message from the outside of the multiagent system. Whenever possible, the agents should use the Send method of their own class, not the Send method of the environment. This method can also be used to simulate a forwarding behavior.
≡◆	SendRemote	Sends a message to a remote agent in another container.

	SimulationFinished	A method that may be optionally overriden to perform additional processing after the simulation has finished.
	Start	Starts the simulation.
	TurnFinished	A method that may be optionally overriden to perform additional processing after a turn of the simulation has finished.

Top

See Also

Reference
EnvironmentMas Class
ActressMas Namespace

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EnvironmentMasAdd Method

◢ Overload List

	Name	Description
≡◍	Add(Agent)	Adds an agent to the environment. The agent should already have a name and its name should be unique.
≡◍	Add(Agent, String)	Adds an agent to the environment. Its name should be unique.

Top

◢ See Also

Reference
EnvironmentMas Class
ActressMas Namespace

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EnvironmentMasAllAgents Method

Returns a list with the names of all the agents.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

```C#
public List<string> AllAgents()
```

Return Value
Type: ListString

◢ See Also

Reference
EnvironmentMas Class
ActressMas Namespace

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EnvironmentMas RandomAgent Method

◢ Overload List

	Name	Description
≡◈	RandomAgent	Returns the name of a randomly selected agent from the environment
≡◈	RandomAgent(Random)	Returns the name of a randomly selected agent from the environment using a predefined random number generator. This is useful for experiments involving non-determinism, but which should be repeatable for analysis and debugging.

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◢ See Also

Reference
EnvironmentMas Class

ActressMas Namespace

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EnvironmentMasRandomAgent Method

Returns the name of a randomly selected agent from the environment

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#

Copy

```csharp
public string RandomAgent()
```

Return Value
Type: String

◢ See Also

Reference
EnvironmentMas Class
RandomAgent Overload
ActressMas Namespace

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EnvironmentMas Remove Method

◢ Overload List

	Name	Description
≡◆	Remove(String)	Stops the execution of the agent identified by name and removes it from the environment. Use the Remove method instead of Agent.Stop when the decision to stop an agent does not belong to the agent itself, but to some other agent or to an external factor.
≡◆	Remove(Agent)	Stops the execution of the agent and removes it from the environment. Use the Remove method instead of Agent.Stop when the decision to stop an agent does not belong to the agent itself, but to some other agent or to an external factor.

Top

◢ See Also

Reference
EnvironmentMas Class

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EnvironmentMasSendRemote Method

Sends a message to a remote agent in another container.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

Syntax

C#

Copy

```csharp
public void SendRemote(
        string receiverContainer,
        Message message
)
```

Parameters

receiverContainer
    Type: SystemString
    The destination container
message
    Type: ActressMasMessage
    The message to be sent

See Also

Reference
EnvironmentMas Class
ActressMas Namespace

EnvironmentMasSimulationFinished Method

A method that may be optionally overriden to perform additional processing after the simulation has finished.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

Syntax

C#

Copy

```csharp
public virtual void SimulationFinished()
```

See Also

Reference
EnvironmentMas Class
ActressMas Namespace

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EnvironmentMasStart Method

Starts the simulation.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#
Copy

```csharp
public void Start()
```

◢ See Also

Reference
EnvironmentMas Class
ActressMas Namespace

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EnvironmentMas Fields

The EnvironmentMas type exposes the following members.

Fields

	Name	Description
🔧	_container	

Top

See Also

Reference
EnvironmentMas Class
ActressMas Namespace

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EnvironmentMas_container Field

Syntax

C#

Copy

```
protected Container _container
```

Field Value
Type: Container

See Also

Reference
EnvironmentMas Class
ActressMas Namespace

Info Class

Information about ActressMas version

Inheritance Hierarchy

SystemObject   ActressMasInfo

Namespace: ActressMas
Assembly: ActressMas (in ActressMas.dll) Version: 3.0.0.0
(3.0.0.0)

Syntax

C#

```
public class Info
```

Copy

The Info type exposes the following members.

Constructors

	Name	Description
	Info	

Top

Fields

	Name	Description
	Version	ActressMas current version

◢ See Also

Reference

Info Constructor

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#	Copy

```csharp
public Info()
```

◢ See Also

Reference
Info Class
ActressMas Namespace

Info Fields

The Info type exposes the following members.

◢ Fields

	Name	Description
◆ ▪	Version	ActressMas current version

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◢ See Also

Reference
Info Class
ActressMas Namespace

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InfoVersion Field

ActressMas current version

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#

```csharp
public static readonly string Version
```

Field Value
Type: String

◢ See Also

Reference
Info Class
ActressMas Namespace

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Message Constructor

◢ Overload List

	Name	Description
≡◈	Message	Initializes a new instance of the Message class with an empty message.
≡◈	Message(String, String, Object)	Initializes a new instance of the Message class.
≡◈	Message(String, String, String)	Initializes a new instance of the Message class.
≡◈	Message(String, String, Object, String)	Initializes a new instance of the Message class.
≡◈	Message(String, String, String, String)	Initializes a new instance of the Message class.

Top

◢ See Also

Reference
Message Class
ActressMas Namespace

Message Constructor

Initializes a new instance of the Message class with an empty message.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#	Copy

```csharp
public Message()
```

◢ See Also

Reference
Message Class
Message Overload
ActressMas Namespace

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Message Properties

The Message type exposes the following members.

◢ Properties

	Name	Description
🗔	Content	The content of the message (a string).
🗔	ContentObj	The content of the message (an object).
🗔	ConversationId	The conversation identifier, for the cases when a conversation involves multiple messages that refer to the same topic
🗔	Receiver	The name of the agent that needs to receive the message
🗔	Sender	The name of the agent that sends the message

Top

◢ See Also

Reference
Message Class
ActressMas Namespace

MessageContent Property

The content of the message (a string).

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

```C#
public string Content { get; set; }
```

Copy

Property Value
Type: String

◢ See Also

Reference
Message Class
ActressMas Namespace

MessageContentObj Property

The content of the message (an object).

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#

Copy

```csharp
public Object ContentObj { get; set; }
```

Property Value
Type: Object

◢ See Also

Reference
Message Class
ActressMas Namespace

MessageConversationId Property

The conversation identifier, for the cases when a conversation involves multiple messages that refer to the same topic

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

Syntax

C#

Copy

```csharp
public string ConversationId { get; set; }
```

Property Value
Type: String

See Also

Reference
Message Class
ActressMas Namespace

MessageReceiver Property

The name of the agent that needs to receive the message

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

```
C#                                                          Copy
public string Receiver { get; set; }
```

Property Value
Type: String

◢ See Also

Reference
Message Class
ActressMas Namespace

MessageSender Property

The name of the agent that sends the message

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#

Copy

```csharp
public string Sender { get; set; }
```

Property Value
Type: String

◢ See Also

Reference

Message Class
ActressMas Namespace

Message Methods

The Message type exposes the following members.

◢ Methods

	Name	Description
≡◆	Format	Returns a string of the form " [Sender -> Receiver]: Content"
≡◆	Parse(String , List String)	Parses the content of a message and identifies the action (similar, e.g., to a performative) and the list of parameters.
≡◆	Parse(String , String)	Parses the content of a message and identifies the action (similar, e.g., to a performative) and the parameters concatenated in a string.
≡◆	Parse1P	Parses the content of a message and identifies the action (similar, e.g., to a performative) and the single parameter.

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◢ See Also

Reference

MessageFormat Method

Returns a string of the form "[Sender -> Receiver]: Content"

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#

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```csharp
public string Format()
```

Return Value
Type: String

◢ See Also

Reference
Message Class
ActressMas Namespace

Message Parse Method

◢ Overload List

	Name	Description
▤◈	Parse(String , List String)	Parses the content of a message and identifies the action (similar, e.g., to a performative) and the list of parameters.
▤◈	Parse(String , String)	Parses the content of a message and identifies the action (similar, e.g., to a performative) and the parameters concatenated in a string.

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◢ See Also

Reference
Message Class
ActressMas Namespace

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NewTextEventArgs Constructor

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

Syntax

C#

Copy

```csharp
public NewTextEventArgs(
        string text
)
```

Parameters

text
    Type: SystemString

See Also

Reference

NewTextEventArgs Class
ActressMas Namespace

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NewTextEventArgs Properties

The NewTextEventArgs type exposes the following members.

◢ Properties

	Name	Description
🖼️	Text	The text of the message

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◢ See Also

Reference
NewTextEventArgs Class
ActressMas Namespace

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NewTextEventArgsText Property

The text of the message

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

Syntax

C#

Copy

```csharp
public string Text { get; }
```

Property Value
Type: String

See Also

Reference
NewTextEventArgs Class
ActressMas Namespace

NewTextEventHandler Delegate

An event handler for a message from a server or a container.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

```C#
public delegate void NewTextEventHandler(
        Object source,
        NewTextEventArgs e
)
```

Parameters

source
    Type: SystemObject
e
    Type: ActressMasNewTextEventArgs

◢ See Also

Reference
ActressMas Namespace

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ObservableAgent Constructor

◢ Overload List

	Name	Description
▪◆	ObservableAgent(DictionaryString, String)	Initializes a new instance of the ObservableAgent class.
▪◆	ObservableAgent(String)	Initializes a new instance of the ObservableAgent class.
▪◆	ObservableAgent(String, DictionaryString, String)	Initializes a new instance of the ObservableAgent class.

Top

◢ See Also

Reference
ObservableAgent Class
ActressMas Namespace

ObservableAgent Constructor (DictionaryString, String)

Initializes a new instance of the ObservableAgent class.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

Syntax

C#

Copy

```csharp
public ObservableAgent(
        Dictionary<string, string>
observable
)
```

Parameters

observable
    Type: System.Collections.GenericDictionaryString, String
    A collection of observable properties

See Also

Reference
ObservableAgent Class
ObservableAgent Overload
ActressMas Namespace

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ObservableAgent Constructor (String)

Initializes a new instance of the ObservableAgent class.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#

Copy

```csharp
public ObservableAgent(
        string name
)
```

Parameters

name
    Type: SystemString
    The name of the observable agent

◢ See Also

Reference
ObservableAgent Class
ObservableAgent Overload
ActressMas Namespace

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ObservableAgent Properties

The ObservableAgent type exposes the following members.

◢ Properties

	Name	Description
🗔	Observed	The properties of the observed agent which are visible to the agent who registers to see them. They are a subset of the full Observables properties of an agent.

Top

◢ See Also

Reference

ObservableAgent Class
ActressMas Namespace

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RunnableMas Constructor

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

Syntax

C#

Copy

```csharp
protected RunnableMas()
```

See Also

Reference
RunnableMas Class
ActressMas Namespace

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RunnableMas Methods

The RunnableMas type exposes the following members.

◢ Methods

	Name	Description
≡◆	RunMas	Starts the execution of a multiagent environment within a container

Top

◢ See Also

Reference
RunnableMas Class
ActressMas Namespace

RunnableMasRunMas Method

Starts the execution of a multiagent environment within a container

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

```C#
public virtual void RunMas(
        EnvironmentMas env
)
```

Parameters

env
    Type: ActressMasEnvironmentMas
    The multiagent environment

◢ See Also

Reference
RunnableMas Class
ActressMas Namespace

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Server Methods

The Server type exposes the following members.

◢ Methods

	Name	Description
⬗	Start	Tries to start the server
⬗	Stop	Stops the server

Top

◢ See Also

Reference
Server Class
ActressMas Namespace

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ServerStart Method

Tries to start the server

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

Syntax

C#

Copy

```csharp
public void Start()
```

See Also

Reference
Server Class
ActressMas Namespace

ServerStop Method

Stops the server

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

Syntax

C#

Copy

```csharp
public void Stop()
```

See Also

Reference
Server Class
ActressMas Namespace

Server Events

The Server type exposes the following members.

◢ Events

	Name	Description
⚡	NewText	An event handler for the ongoing messages provided by the server.

Top

◢ See Also

Reference
Server Class
ActressMas Namespace

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ServerNewText Event

An event handler for the ongoing messages provided by the server.

Namespace: ActressMas **Assembly:** ActressMas (in ActressMas.dll) Version: 3.0.0.0 (3.0.0.0)

◢ Syntax

C#   Copy

```csharp
public event NewTextEventHandler NewText
```

Value
Type: ActressMasNewTextEventHandler

◢ See Also

Reference
Server Class
ActressMas Namespace