# **Elastic Agent**

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Unknown directive type "automodule".

.. automodule:: torch.distributed.elastic.agent

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Unknown directive type "currentmodule".

.. currentmodule:: torch.distributed.elastic.agent

#### Server

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Unknown directive type "automodule".

.. automodule:: torch.distributed.elastic.agent.server

Below is a diagram of an agent that manages a local group of workers.

### **Concepts**

This section describes the high-level classes and concepts that are relevant to understanding the role of the agent in torchelastic.

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Unknown directive type "currentmodule".

.. currentmodule:: torch.distributed.elastic.agent.server

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Unknown directive type "autoclass".

```
.. autoclass:: ElasticAgent
:members:
```

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Unknown directive type "autoclass".

```
.. autoclass:: WorkerSpec
:members:
```

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Unknown directive type "autoclass".

```
.. autoclass:: WorkerState
:members:
```

```
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Unknown directive type "autoclass".

.. autoclass:: Worker
:members:
```

```
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Unknown directive type "autoclass".

.. autoclass:: WorkerGroup
:members:
```

### **Implementations**

Below are the agent implementations provided by torchelastic.

```
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Unknown directive type "currentmodule".

... currentmodule:: torch.distributed.elastic.agent.server.local_elastic_agent
```

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Unknown directive type "autoclass".

.. autoclass:: LocalElasticAgent

## **Extending the Agent**

To extend the agent you can implement `ElasticAgent directly, however we recommend you extend SimpleElasticAgent instead, which provides most of the scaffolding and leaves you with a few specific abstract methods to implement.

```
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Unknown directive type "currentmodule".

... currentmodule:: torch.distributed.elastic.agent.server
```

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Unknown directive type "autoclass".

```
.. autoclass:: SimpleElasticAgent
:members:
:private-members:
```

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Unknown directive type "autoclass".

 $... autoclass:: {\tt torch.distributed.elastic.agent.server.api.RunResult}\\$