

Title: Does the Docker message: 'Ignoring unsupported options: restart' mean the restart policy is ignored?

Post Body:

Using `docker stack deploy`, I can see the following message:

```
Ignoring unsupported options: restart
```

- Does it mean that restart policies are not in place?
- Do they have to be specified outside the compose file?

You can see this message for example with the [Joomla compose file available at the bottom of that page](#). To start the compose file:

```
sudo docker swarm init  
sudo docker stack deploy -c stackjoomla.yml joomla
```

Accepted Answer:

A Compose YAML file is used by both `docker-compose` tool, for local (single-host) dev and test scenarios, and Swarm Stacks, for production multi-host concerns.

There are many settings in the Compose file which only work in one tool or the other (`docker-compose up` vs. `docker stack deploy`) because some settings are specific to dev and others specific to production clusters. It's OK that they are there, and you'll see warnings in either tool when there are settings included that the specific tool will ignore. This is commonly seen for `build`: settings (which are `docker-compose` only) and `deploy`: settings (which are Swarm Stacks only).

The whole goal here is a single file you can use in both tools, and the relevant sections of the compose file are used in that scenario, while the rest are ignored.

All of this can be referenced for the individual setting in the [compose file documentation](#). If you're often working in Compose YAML, I recommend always having a tab open on this page, as I've referenced it almost daily for years, as the spec keeps changing (we're on 3.4+ now).

`docker-compose` does not restart containers by default, but it can if you set the single-setting `restart`: [as documented here](#). But that setting doesn't work for Swarm Stacks. It will show up as a warning in a `docker stack deploy` to remind you that the setting will not take effect in a Swarm Stack.

Swarm Stacks use the `restart_policy`: under the `deploy`: setting, [which gives finer control with multiple sub-settings](#). Like all Stack's, the defaults don't have to be specified in the compose file, and you'll see their default settings documented on that docs page.

There is a list on that page of the [settings that won't work in a Swarm Stack](#), but it looks incomplete as the `restart`: setting should be there too. I'll submit a PR to fix that.

Also, in the Joomla example you pointed us too, that README seems out of date as well, as it includes `links`: in the compose example, which are [deprecated as of Compose version 2](#), and not needed anymore (because all containers on a custom virtual network can reach each other now).

Highest Rated Answer:

If you `docker-compose up` your application on a Docker host in standalone mode, all that Compose will do is start containers. It will not monitor the state of these containers once they are created. So it is up to you to ensure that your application will still work if a container dies. You can do this by setting a *restart-policy*.

If you deploy an application into a Docker swarm with `docker stack deploy`, things are different. A stack is created that consists of service specifications. Docker swarm then makes sure that for each service in the stack, at all times the specified number of instances is running. If a container fails, swarm will **always** spawn a new instance in order to match the service specification again. In this context, a *restart-policy* does not make any sense and the corresponding setting in the compose file is ignored.

If you want to stop the containers of your application in swarm mode, you either have to undeploy the whole stack with `docker stack rm <stack-name>` or scale the service to zero with `docker service scale <service-name>=0`.