

Parameter and Extra Layer Attribute

```
class paddle.trainer_config_helpers.attrs.ParameterAttribute(name=None,
is_static=False, initial_std=None, initial_mean=None, initial_max=None, initial_min=None,
l1_rate=None, l2_rate=None, learning_rate=None, momentum=None,
sparse_update=False)
```

Parameter Attributes object. To fine-tuning network training process, user can set attribute to control training details, such as l1,l2 rate / learning rate / how to init param.

NOTE: IT IS A HIGH LEVEL USER INTERFACE.

- Parameters:**
- **is_static** (*bool*) — True if this parameter will be fixed while training.
 - **initial_std** (*float or None*) — Gauss Random initialization standard deviation. None if not using Gauss Random initialize parameter.
 - **initial_mean** (*float or None*) — Gauss Random initialization mean. None if not using Gauss Random initialize parameter.
 - **initial_max** (*float or None*) — Uniform initialization max value.
 - **initial_min** (*float or None*) — Uniform initialization min value.
 - **l1_rate** (*float or None*) — the l1 regularization factor
 - **l2_rate** (*float or None*) — the l2 regularization factor
 - **learning_rate** (*float or None*) — The parameter learning rate. None means 1. The learning rate when optimize is $\text{LEARNING_RATE} = \text{GLOBAL_LEARNING_RATE} * \text{PARAMETER_LEARNING_RATE} * \text{SCHEDULER_FACTOR}$.
 - **momentum** (*float or None*) — The parameter momentum. None means use global value.
 - **sparse_update** (*bool*) — Enable sparse update for this parameter. It will enable both local and remote sparse update.

```
set_default_parameter_name(name)
```

Set default parameter name. If parameter not set, then will use default parameter name.

Parameters: **name** (*basestring*) — default parameter name.

```
class
```

```
paddle.trainer_config_helpers.attrs.ExtraLayerAttribute(error_clipping_threshold=None,
drop_rate=None, device=None)
```

Some high level layer attributes config. You can set all attributes here, but some layer doesn't support all attributes. If you set an attribute to a layer that not support this attribute, paddle will print an error and core.

- Parameters:**
- **error_clipping_threshold** (*float*) — Error clipping threshold.
 - **drop_rate** (*float*) — Dropout rate. Dropout will create a mask on layer output. The dropout rate is the zero rate of this mask. The details of what dropout is please refer to [here](#).
 - **device** (*int*) — device ID of layer. device=-1, use CPU. device>0, use GPU. The details allocation in parallel_nn please refer to [here](#).

`paddle.trainer_config_helpers.attrs.ParamAttr`
alias of `ParameterAttribute`

`paddle.trainer_config_helpers.attrs.ExtraAttr`
alias of `ExtraLayerAttribute`