

## 1. Fichier de Configuration du générateur

# Fichier de Configuration du générateur

```
<?xml version="1.0" encoding="ISO-8859-1" ?>

<!-- comment -->

<parameters>

    <parameter name="..." min="..." max="..." step="..." default="..." level="..." description="..."/>

    <link      name="..." description="..."/>

</parameters>
```

- **balise parameters :** (*obligatoire et unique*) Balise englobante.

- ◆ **balise parameter :** (*nombre quelconque d'occurrence*) Un paramètre du générateur.

- ◊ **attribut name :** Nom du paramètre.
    - ◊ **attribut min :** Valeur minimal du paramètre.
    - ◊ **attribut max :** Valeur maximal du paramètre.
    - ◊ **attribut step :** Pas entre deux valeurs de paramètres (par exemple +1 ou \*2).
    - ◊ **attribut default :** Valeur par défaut de ce paramètre.
    - ◊ **attribut level :** Niveau requis pour que l'utilisateur puisse voir ce paramètre. Le niveau varie de 0 (paramètre jamais affiché) 1 (affichage de presque aucun des paramètres (mode néophyte) à 5 (affichage de tous les paramètres (mode expert)).
    - ◊ **attribut description:** Description du paramètre.

- ◆ **balise link :** (*nombre quelconque d'occurrence*) Indication d'un lien entre deux composants du processeur.

- ◊ **attribut name :** Nom du paramètre.
    - ◊ **attribut src :** Source du lien.
    - ◊ **attribut dest :** Destination du lien.
    - ◊ **attribut description:** Description du paramètre.

Ce qui suit est un exemple de fichier de configuration du générateur.

```
<?xml version="1.0" encoding="ISO-8859-1" ?>

<!-- comment -->

<parameters>

    <parameter name="nb_icache" min="1" max="32" step="+1" default="1" />
    <parameter name="nb_dcache" min="1" max="32" step="+1" default="1" />
    <parameter name="nb_front_end" min="1" max="8" step="+1" default="1" />
    <parameter name="nb_ifetch" min="1" max="8" step="+1" default="1" />
    <parameter name="nb_decod" min="1" max="8" step="+1" default="1" />
    <parameter name="nb_out_of_order_engine" min="1" max="8" step="+1" default="1" />
    <parameter name="nb_execution_loop" min="1" max="8" step="+1" default="1" />
    <parameter name="nb_reservation_station" min="1" max="8" step="+1" default="1" />
    <parameter name="nb_execution" min="1" max="8" step="+1" default="1" />
    <parameter name="nb_writeback" min="1" max="8" step="+1" default="1" />
```

```

<parameter name="arbiter" min="1" max="4" step="+1" default="1"
<parameter name="associativity" min="1" max="4" step="+1" default="1"
<parameter name="bypass_execute_gpr" min="0" max="1" step="+1" default="1"
<parameter name="bypass_execute_spr" min="0" max="1" step="+1" default="1"
<parameter name="bypass_memory_in" min="0" max="1" step="+1" default="1"
<parameter name="bypass_memory_out" min="0" max="1" step="+1" default="1"
<parameter name="commit_out_of_order_thread" min="0" max="1" step="+1" default="0"
<parameter name="have_meta_predictor" min="0" max="1" step="+1" default="0"
<parameter name="keep_data" min="0" max="1" step="+1" default="1"
<parameter name="nb_branch_complete" min="1" max="8" step="+1" default="1"
<parameter name="nb_branch_decod" min="1" max="8" step="+1" default="1"
<parameter name="nb_gpr_free" min="1" max="4" step="+1" default="1"
<parameter name="nb_gpr_physical" min="32" max="512" step="*2" default="1"
<parameter name="nb_inst" min="1" max="8" step="+1" default="1"
<parameter name="nb_port" min="1" max="8" step="+1" default="1"
<parameter name="nb_prediction" min="1" max="8" step="+1" default="1"
<parameter name="nb_spr_free" min="1" max="4" step="+1" default="1"
<parameter name="nb_spr_physical" min="2" max="512" step="*2" default="1"
<parameter name="one_queue" min="0" max="1" step="+1" default="1"
<parameter name="predictor_0_have_bht" min="0" max="1" step="+1" default="0"
<parameter name="predictor_0_have_pht" min="0" max="1" step="+1" default="0"
<parameter name="predictor_0_bht_nb_shifter" min="1" max="8" step="+1" default="1"
<parameter name="predictor_0_bht_size_shifter" min="1" max="8" step="+1" default="1"
<parameter name="predictor_0_pht_nb_counter" min="1" max="8" step="+1" default="1"
<parameter name="predictor_0_pht_size_address_share" min="1" max="8" step="+1" default="1"
<parameter name="predictor_0_pht_size_counter" min="1" max="8" step="+1" default="1"
<parameter name="predictor_1_have_bht" min="0" max="1" step="+1" default="0"
<parameter name="predictor_1_have_pht" min="0" max="1" step="+1" default="0"
<parameter name="predictor_1_bht_nb_shifter" min="1" max="8" step="+1" default="1"
<parameter name="predictor_1_bht_size_shifter" min="1" max="8" step="+1" default="1"
<parameter name="predictor_1_pht_nb_counter" min="1" max="8" step="+1" default="1"
<parameter name="predictor_1_pht_size_address_share" min="1" max="8" step="+1" default="1"
<parameter name="predictor_1_pht_size_counter" min="1" max="8" step="+1" default="1"
<parameter name="predictor_2_have_bht" min="0" max="1" step="+1" default="0"
<parameter name="predictor_2_have_pht" min="0" max="1" step="+1" default="0"
<parameter name="predictor_2_bht_nb_shifter" min="1" max="8" step="+1" default="1"
<parameter name="predictor_2_bht_size_shifter" min="1" max="8" step="+1" default="1"
<parameter name="predictor_2_pht_nb_counter" min="1" max="8" step="+1" default="1"
<parameter name="predictor_2_pht_size_address_share" min="1" max="8" step="+1" default="1"
<parameter name="predictor_2_pht_size_counter" min="1" max="8" step="+1" default="1"
<parameter name="size_data" min="32" max="64" step="*2" default="32"
<parameter name="size_queue" min="1" max="32" step="*2" default="1"
<parameter name="size_windows" min="1" max="32" step="*2" default="1"
<parameter name="speculated_memory_read" min="0" max="1" step="+1" default="1"
<parameter name="type_mul" min="0" max="1" step="+1" default="0"
<parameter name="type_div" min="0" max="1" step="+1" default="0"
<parameter name="type_ext" min="0" max="1" step="+1" default="0"
<parameter name="type_ff1" min="0" max="1" step="+1" default="0"
<parameter name="type_f11" min="0" max="1" step="+1" default="0"

<link      name="link_icache"          src="front_end"           dest="icache"
<link      name="link_dcache"          src="execution_loop"     dest="dcache"
<link      name="link_out_of_order_engine" src="front_end"           dest="out_of_order_engine"
<link      name="link_decod"          src="ifetch"              dest="decod"
<link      name="link_rename"         src="decode"              dest="rename"
<link      name="link_execution_loop" src="out_of_order_engine" dest="execution"

</parameters>

```