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<?xml version="1.0" encoding="UTF-8"?>
<enderio:recipes xmlns:enderio="http://enderio.com/recipes" xmlns:xsi="http://www.w3.
org/2001/XMLSchema-instance" xsi:schemaLocation="http://enderio.com/recipes recipes.
xsd ">
```

```
<!--
```

These are the built-in recipes. You cannot change this file, it is a reference for you only and will be generated every time the game starts.

To make changes to the recipes, copy the recipes you want to change to a file in the 'user' folder. To disable a recipe, add an attribute "disabled" and set it to true, e.g.: <recipe name="Gear" disabled="true" />

You can also disable all built-in recipes with the setting "loadCoreRecipes" in the Ender IO config file, so that only your files in the 'user' folder will be loaded. Please be advised that a number of recipes are absolutely needed, so you will have to copy those over into a 'user' file for the game to load.

Item specifications can reference an alias, an ore dictionary name, a block or an item. You can force the type by prefixing the value with "oredict:", "block:" or "item:". Recipes that have items that cannot be found in-game are either skipped or an error, depending on their "required" attribute.

More information on the syntax can be found in the recipes.xsd file. An XML editor will display that as tooltips when editing this file.

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```
<!-- ElectricalSteel -->
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```
<recipe name="Sagmill: ElectricalSteel Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotElectricalSteel" />
    <output name="dustElectricalSteel" />
  </sagmilling>
</recipe>
```

```
<recipe name="Smelting: ElectricalSteel Dust" required="false">
  <smelting>
    <input name="dustElectricalSteel" />
    <output name="ingotElectricalSteel" />
  </smelting>
</recipe>
```

```
<recipe name="Sagmill: ElectricalSteel Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockElectricalSteel" />
    <output name="dustElectricalSteel" amount="9" />
  </sagmilling>
</recipe>
```

```
<!-- EnergeticAlloy -->
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```
<recipe name="Sagmill: EnergeticAlloy Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotEnergeticAlloy" />
    <output name="dustEnergeticAlloy" />
  </sagmilling>
</recipe>
```

```
<recipe name="Smelting: EnergeticAlloy Dust" required="false">
  <smelting>
    <input name="dustEnergeticAlloy" />
    <output name="ingotEnergeticAlloy" />
  </smelting>
</recipe>
```

```
<recipe name="Sagmill: EnergeticAlloy Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockEnergeticAlloy" />
    <output name="dustEnergeticAlloy" amount="9" />
  </sagmilling>
</recipe>

<!-- VibrantAlloy -->

<recipe name="Sagmill: VibrantAlloy Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotVibrantAlloy" />
    <output name="dustVibrantAlloy" />
  </sagmilling>
</recipe>

<recipe name="Smelting: VibrantAlloy Dust" required="false">
  <smelting>
    <input name="dustVibrantAlloy" />
    <output name="ingotVibrantAlloy" />
  </smelting>
</recipe>

<recipe name="Sagmill: VibrantAlloy Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockVibrantAlloy" />
    <output name="dustVibrantAlloy" amount="9" />
  </sagmilling>
</recipe>

<!-- RedstoneAlloy -->

<recipe name="Sagmill: RedstoneAlloy Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotRedstoneAlloy" />
    <output name="dustRedstoneAlloy" />
  </sagmilling>
</recipe>

<recipe name="Smelting: RedstoneAlloy Dust" required="false">
  <smelting>
    <input name="dustRedstoneAlloy" />
    <output name="ingotRedstoneAlloy" />
  </smelting>
</recipe>

<recipe name="Sagmill: RedstoneAlloy Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockRedstoneAlloy" />
    <output name="dustRedstoneAlloy" amount="9" />
  </sagmilling>
</recipe>

<!-- ConductiveIron -->

<recipe name="Sagmill: ConductiveIron Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotConductiveIron" />
    <output name="dustConductiveIron" />
  </sagmilling>
</recipe>

<recipe name="Smelting: ConductiveIron Dust" required="false">
  <smelting>
    <input name="dustConductiveIron" />
    <output name="ingotConductiveIron" />
  </smelting>
</recipe>
```

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</recipe>

<recipe name="Sagmill: ConductiveIron Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockConductiveIron" />
    <output name="dustConductiveIron" amount="9" />
  </sagmilling>
</recipe>

<!-- PulsatingIron -->

<recipe name="Sagmill: PulsatingIron Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotPulsatingIron" />
    <output name="dustPulsatingIron" />
  </sagmilling>
</recipe>

<recipe name="Smelting: PulsatingIron Dust" required="false">
  <smelting>
    <input name="dustPulsatingIron" />
    <output name="ingotPulsatingIron" />
  </smelting>
</recipe>

<recipe name="Sagmill: PulsatingIron Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockPulsatingIron" />
    <output name="dustPulsatingIron" amount="9" />
  </sagmilling>
</recipe>

<!-- DarkSteel -->

<recipe name="Sagmill: DarkSteel Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotDarkSteel" />
    <output name="dustDarkSteel" />
  </sagmilling>
</recipe>

<recipe name="Smelting: DarkSteel Dust" required="false">
  <smelting>
    <input name="dustDarkSteel" />
    <output name="ingotDarkSteel" />
  </smelting>
</recipe>

<recipe name="Sagmill: DarkSteel Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockDarkSteel" />
    <output name="dustDarkSteel" amount="9" />
  </sagmilling>
</recipe>

<!-- Soularium -->

<recipe name="Sagmill: Soularium Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotSoularium" />
    <output name="dustSoularium" />
  </sagmilling>
</recipe>

<recipe name="Smelting: Soularium Dust" required="false">
  <smelting>
    <input name="dustSoularium" />
    <output name="ingotSoularium" />
  </smelting>
</recipe>
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</smelting>
</recipe>

<recipe name="Sagmill: Soularium Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockSoularium" />
    <output name="dustSoularium" amount="9" />
  </sagmilling>
</recipe>

<!-- Bronze -->

<recipe name="Sagmill: Bronze Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotBronze" />
    <output name="dustBronze" />
  </sagmilling>
</recipe>

<recipe name="Smelting: Bronze Dust" required="false">
  <smelting>
    <input name="dustBronze" />
    <output name="ingotBronze" />
  </smelting>
</recipe>

<recipe name="Sagmill: Bronze Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockBronze" />
    <output name="dustBronze" amount="9" />
  </sagmilling>
</recipe>

<!-- Hepatizon (Metallurgy) -->

<recipe name="Sagmill: Hepatizon Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotHepatizon" />
    <output name="dustHepatizon" />
  </sagmilling>
</recipe>

<recipe name="Smelting: Hepatizon Dust" required="false">
  <smelting>
    <input name="dustHepatizon" />
    <output name="ingotHepatizon" />
  </smelting>
</recipe>

<recipe name="Sagmill: Hepatizon Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockHepatizon" />
    <output name="dustHepatizon" amount="9" />
  </sagmilling>
</recipe>

<!-- DamascusSteel (Metallurgy) -->

<recipe name="Sagmill: DamascusSteel Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotDamascusSteel" />
    <output name="dustDamascusSteel" />
  </sagmilling>
</recipe>

<recipe name="Smelting: DamascusSteel Dust" required="false">
  <smelting>
    <input name="dustDamascusSteel" />
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    <output name="ingotDamascusSteel" />
</smelting>
</recipe>

<recipe name="Sagmill: DamascusSteel Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockDamascusSteel" />
    <output name="dustDamascusSteel" amount="9" />
  </sagmilling>
</recipe>

<!-- Angmallen (Metallurgy) -->

<recipe name="Sagmill: Angmallen Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotAngmallen" />
    <output name="dustAngmallen" />
  </sagmilling>
</recipe>

<recipe name="Smelting: Angmallen Dust" required="false">
  <smelting>
    <input name="dustAngmallen" />
    <output name="ingotAngmallen" />
  </smelting>
</recipe>

<recipe name="Sagmill: Angmallen Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockAngmallen" />
    <output name="dustAngmallen" amount="9" />
  </sagmilling>
</recipe>

<!-- Brass (Metallurgy) -->

<recipe name="Sagmill: Brass Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotBrass" />
    <output name="dustBrass" />
  </sagmilling>
</recipe>

<recipe name="Smelting: Brass Dust" required="false">
  <smelting>
    <input name="dustBrass" />
    <output name="ingotBrass" />
  </smelting>
</recipe>

<recipe name="Sagmill: Brass Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockBrass" />
    <output name="dustBrass" amount="9" />
  </sagmilling>
</recipe>

<!-- Electrum (Metallurgy) -->

<recipe name="Sagmill: Electrum Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotElectrum" />
    <output name="dustElectrum" />
  </sagmilling>
</recipe>

<recipe name="Smelting: Electrum Dust" required="false">
  <smelting>

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    <input name="dustElectrum" />
    <output name="ingotElectrum" />
</smelting>
</recipe>

<recipe name="Sagmill: Electrum Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockElectrum" />
    <output name="dustElectrum" amount="9" />
  </sagmilling>
</recipe>

<!-- ShadowSteel (Metallurgy) -->

<recipe name="Sagmill: ShadowSteel Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotShadowSteel" />
    <output name="dustShadowSteel" />
  </sagmilling>
</recipe>

<recipe name="Smelting: ShadowSteel Dust" required="false">
  <smelting>
    <input name="dustShadowSteel" />
    <output name="ingotShadowSteel" />
  </smelting>
</recipe>

<recipe name="Sagmill: ShadowSteel Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockShadowSteel" />
    <output name="dustShadowSteel" amount="9" />
  </sagmilling>
</recipe>

<!-- Inolashite (Metallurgy) -->

<recipe name="Sagmill: Inolashite Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotInolashite" />
    <output name="dustInolashite" />
  </sagmilling>
</recipe>

<recipe name="Smelting: Inolashite Dust" required="false">
  <smelting>
    <input name="dustInolashite" />
    <output name="ingotInolashite" />
  </smelting>
</recipe>

<recipe name="Sagmill: Inolashite Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockInolashite" />
    <output name="dustInolashite" amount="9" />
  </sagmilling>
</recipe>

<!-- Amordrine (Metallurgy) -->

<recipe name="Sagmill: Amordrine Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotAmordrine" />
    <output name="dustAmordrine" />
  </sagmilling>
</recipe>

<recipe name="Smelting: Amordrine Dust" required="false">

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```
<smelting>
  <input name="dustAmordrine" />
  <output name="ingotAmordrine" />
</smelting>
</recipe>

<recipe name="Sagmill: Amordrine Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockAmordrine" />
    <output name="dustAmordrine" amount="9" />
  </sagmilling>
</recipe>

<!-- BlackSteel (Metallurgy) -->

<recipe name="Sagmill: BlackSteel Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotBlackSteel" />
    <output name="dustBlackSteel" />
  </sagmilling>
</recipe>

<recipe name="Smelting: BlackSteel Dust" required="false">
  <smelting>
    <input name="dustBlackSteel" />
    <output name="ingotBlackSteel" />
  </smelting>
</recipe>

<recipe name="Sagmill: BlackSteel Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockBlackSteel" />
    <output name="dustBlackSteel" amount="9" />
  </sagmilling>
</recipe>

<!-- Quicksilver (Metallurgy) -->

<recipe name="Sagmill: Quicksilver Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotQuicksilver" />
    <output name="dustQuicksilver" />
  </sagmilling>
</recipe>

<recipe name="Smelting: Quicksilver Dust" required="false">
  <smelting>
    <input name="dustQuicksilver" />
    <output name="ingotQuicksilver" />
  </smelting>
</recipe>

<recipe name="Sagmill: Quicksilver Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockQuicksilver" />
    <output name="dustQuicksilver" amount="9" />
  </sagmilling>
</recipe>

<!-- Haderoth (Metallurgy) -->

<recipe name="Sagmill: Haderoth Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotHaderoth" />
    <output name="dustHaderoth" />
  </sagmilling>
</recipe>
```

```

<recipe name="Smelting: Haderoth Dust" required="false">
  <smelting>
    <input name="dustHaderoth" />
    <output name="ingotHaderoth" />
  </smelting>
</recipe>

<recipe name="Sagmill: Haderoth Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockHaderoth" />
    <output name="dustHaderoth" amount="9" />
  </sagmilling>
</recipe>

<!-- Celenegil (Metallurgy) -->

<recipe name="Sagmill: Celenegil Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotCelenegil" />
    <output name="dustCelenegil" />
  </sagmilling>
</recipe>

<recipe name="Smelting: Celenegil Dust" required="false">
  <smelting>
    <input name="dustCelenegil" />
    <output name="ingotCelenegil" />
  </smelting>
</recipe>

<recipe name="Sagmill: Celenegil Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockCelenegil" />
    <output name="dustCelenegil" amount="9" />
  </sagmilling>
</recipe>

<!-- Tartarite (Metallurgy) -->

<recipe name="Sagmill: Tartarite Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotTartarite" />
    <output name="dustTartarite" />
  </sagmilling>
</recipe>

<recipe name="Smelting: Tartarite Dust" required="false">
  <smelting>
    <input name="dustTartarite" />
    <output name="ingotTartarite" />
  </smelting>
</recipe>

<recipe name="Sagmill: Tartarite Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockTartarite" />
    <output name="dustTartarite" amount="9" />
  </sagmilling>
</recipe>

<!-- Cyanite (Tiny Reactors) -->

<recipe name="Sagmill: Cyanite Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotCyanite" />
    <output name="dustCyanite" />
  </sagmilling>
</recipe>

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```
<recipe name="Smelting: Cyanite Dust" required="false">
  <smelting>
    <input name="dustCyanite" />
    <output name="ingotCyanite" />
  </smelting>
</recipe>

<recipe name="Sagmill: Cyanite Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockCyanite" />
    <output name="dustCyanite" amount="9" />
  </sagmilling>
</recipe>

<!-- Blutonium (Tiny Reactors) -->

<recipe name="Sagmill: Blutonium Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotBlutonium" />
    <output name="dustBlutonium" />
  </sagmilling>
</recipe>

<recipe name="Smelting: Blutonium Dust" required="false">
  <smelting>
    <input name="dustBlutonium" />
    <output name="ingotBlutonium" />
  </smelting>
</recipe>

<recipe name="Sagmill: Blutonium Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockBlutonium" />
    <output name="dustBlutonium" amount="9" />
  </sagmilling>
</recipe>

<!-- Graphite (Tiny Reactors) -->

<recipe name="Sagmill: Graphite Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotGraphite" />
    <output name="dustGraphite" />
  </sagmilling>
</recipe>

<recipe name="Smelting: Graphite Dust" required="false">
  <smelting>
    <input name="dustGraphite" />
    <output name="ingotGraphite" />
  </smelting>
</recipe>

<recipe name="Sagmill: Graphite Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockGraphite" />
    <output name="dustGraphite" amount="9" />
  </sagmilling>
</recipe>

<!-- Ludicrite (Tiny Reactors) -->

<recipe name="Sagmill: Ludicrite Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotLudicrite" />
    <output name="dustLudicrite" />
  </sagmilling>
```

```
</recipe>

<recipe name="Smelting: Ludicrite Dust" required="false">
  <smelting>
    <input name="dustLudicrite" />
    <output name="ingotLudicrite" />
  </smelting>
</recipe>

<recipe name="Sagmill: Ludicrite Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockLudicrite" />
    <output name="dustLudicrite" amount="9" />
  </sagmilling>
</recipe>

<!-- Manyullyn (TiC) -->

<recipe name="Sagmill: Manyullyn Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotManyullyn" />
    <output name="dustManyullyn" />
  </sagmilling>
</recipe>

<recipe name="Smelting: Manyullyn Dust" required="false">
  <smelting>
    <input name="dustManyullyn" />
    <output name="ingotManyullyn" />
  </smelting>
</recipe>

<recipe name="Sagmill: Manyullyn Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockManyullyn" />
    <output name="dustManyullyn" amount="9" />
  </sagmilling>
</recipe>

<!-- AluminumBrass (TiC) -->

<recipe name="Sagmill: AluminumBrass Ingot" required="false">
  <sagmilling energy="2400" bonus="none">
    <input name="ingotAluminumBrass" />
    <output name="dustAluminumBrass" />
  </sagmilling>
</recipe>

<recipe name="Smelting: AluminumBrass Dust" required="false">
  <smelting>
    <input name="dustAluminumBrass" />
    <output name="ingotAluminumBrass" />
  </smelting>
</recipe>

<recipe name="Sagmill: AluminumBrass Block" required="false">
  <sagmilling energy="3600" bonus="none">
    <input name="blockAluminumBrass" />
    <output name="dustAluminumBrass" amount="9" />
  </sagmilling>
</recipe>

</enderio:recipes>
```