

Mobyle vers Playmoby

Déploiement de *web services*

Julien Maupetit Pierre Tufféry

RPBS

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Objectif

→ Déployer des *web services biomoby* sur RPBS *via* Playmoby.



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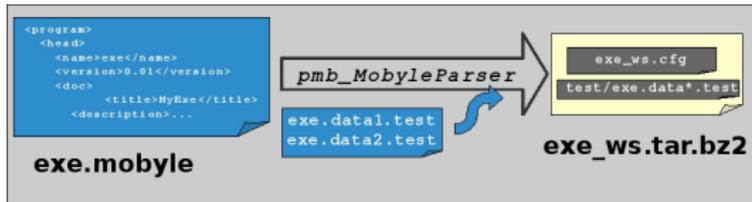


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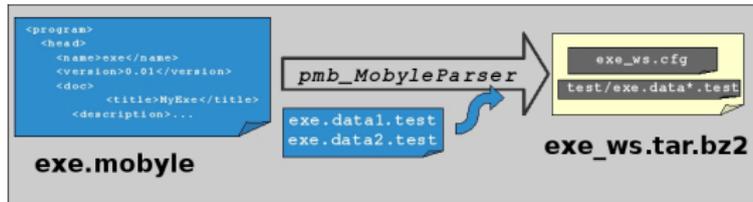


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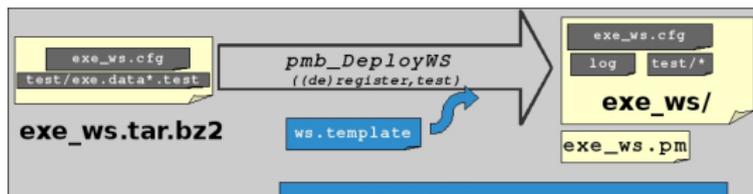
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3.

PlayMoby environment



Avantage

Mobyle@RPBS

Note: This is still an alpha version. Everything is not functional yet.

The screenshot displays the Mobyle@RPBS web interface. At the top, there are navigation tabs: 'Welcome', 'Programs', 'Data Bookmarks', 'Jobs', and 'Tutorials'. Below these, a search bar and a 'BasicBuilder' section are visible. The 'BasicBuilder' section contains a description: 'A basic tool to build a protein 3D structure from canonical states. It will take an amino acid sequence, a sequence of letters describing the conformation of the backbone of each amino acid, and return a PDB file.' There are 'Reset' and 'Run' buttons. Below the description, there are two input fields: 'Sequence File (Sequence)' and '3D Sequence File (_3DSequence)'. Each field has a 'Paste' button, a 'DB' dropdown, and a 'File' button. There are also 'clear data' and 'select' buttons for each field. On the left side, there is a sidebar with a 'Programs' section containing a tree view of tools like 'Design', 'Sequence', 'Structure', 'Analysis', 'Editor', 'Handlogy', 'Proketo', 'Prediction', and 'Superposition'. Below that is a 'Data Bookmarks' section with a table listing 'Sequence query data' and '3DSequence_3Dquery data'. At the bottom left, there is a 'Tutorials' section with links like 'How to use Mobyle?', 'How to stop a job', 'Registration information', 'Sequence formats', and 'Agreement formats'.

- ▶ Playmoby utilise la DTD Mobyle pour la description des services.
- ▶ Déploiement automatisable ?



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BasicBuilder

A basic tool to build a protein 3D structure from canonical states. It will take an amino acid sequence, a sequence of letters describing the conformation of the backbone of each amino acid, and return a PDB file.

Sequence File (Sequence)

Paste | DB | File | clear data

3D Sequence File (_3DSequence)

Paste | File | clear data

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- ▶ Playmoby utilise la DTD Mobyle pour la description des services.
- ▶ Déploiement automatisable ?
- ▶ Pas totalement
- ▶ DTD Mobyle



command

Mobyle :

```
<header>  
...  
  <command>/data/aw3/Builder.py</command>  
</header>
```

Playmoby :

```
<parameters>  
  <parameter iscommand="1">  
    <name>basicbuilder</name>  
    <prompt>command</prompt>  
    <type>  
      <datatype>  
        <class>string</class>  
      </datatype>  
    </type>  
    <format>  
      <code proglang="perl">"/data/aw3/Builder.py"</code>  
      <code proglang="python">"/data/aw3/Builder.py"</code>  
    </format>  
  </parameter>  
  ...  
</parameters>
```

datatype

Mobyly :

```
<parameter ismandatory="1" issimple="1" ismaininput="1">  
  ...  
  <type>  
    <datatype>  
      <class>Sequence</class>  
    </datatype>  
  </type>  
  ...  
</parameter>
```

Playmoby :

```
<parameter ismandatory="1" issimple="1" ismaininput="1">  
  ...  
  <type>  
    <datatype>  
      <class>Sequence</class>  
    </datatype>  
    <biomoby>AminoAcidSequence</biomoby>  
  </type>  
  ...  
</parameter>
```



category

Mobyle :

```
<head>  
...  
  <category>Structure:Edition</category>  
...  
</head>
```

Playmoby :

```
<head>  
...  
  <category>Service</category>  
</head>
```



output file

Mobyly :

```
<parameter isout="1">  
  <name>outfile_out</name>  
  ...  
  <filenames>  
    <code proglang="perl">"basicbuilder.pdb"</code>  
    <code proglang="python">"basicbuilder.pdb"</code>  
  </filenames>  
</parameter>
```

Playmoby :

```
<parameter isout="1">  
  <name>outfile_out</name>  
  ...  
  <filenames>  
    <code proglang="perl">basicbuilder.pdb</code>  
    <code proglang="python">basicbuilder.pdb</code>  
  </filenames>  
</parameter>
```



Conclusion

► Support du Perl

```
<parameter ismandatory="1" issimple="1" ismaininput="1">  
...  
<format>  
  <code proglang="perl">"_iseq_$value" </code>  
  <code proglang="python">"_iseq_" + query</code>  
</format>  
...  
</parameter>
```

- Homogénéisation mineure des XML
- Déploiement rapide et efficace de *web service* biomoby
- Utilisez Moby/Playmoby !

