

DNAComponent => ComponentDefinition  
type = <SBOL:DNA>

DNASequence(x) => Sequence  
encoding = <SBOL:IUPACDNA>  
elements = x

CDS => DnaComponent  
role = <SBOL:CDS>

=>

Creates a template of a  
ComponentDefinition  
called "DNAComponent"  
with type "<SBOL:DNA>"

Imports

lacI\_seq : DNASequence("atggtgaatgt")

lacI\_cds : CDS  
description = "The lacI CDS"  
name = "lacI"  
sequence = lacI\_seq

:

Creates a instance of a  
ComponentDefinition  
from the "CDS" template  
called "lacI\_cds"

=

Sets the sequence  
property equal to the  
"lacI\_seq" Sequence  
instance.

Becomes

lacI\_seq : Sequence  
encoding = <SBOL:IUPACDNA>  
displayId = "lacI\_seq"  
elements = "atggtgaatgt"

lacI\_cds : ComponentDefinition  
role = <SBOL:CDS>  
type = <SBOL:DNA>  
displayId = "lacI\_cds"  
description = "The lacI CDS"  
name = "lacI"  
sequence = lacI\_seq

The value of the property  
"displayId" is inherited  
from the name of the  
instantiation.

The "role" and "type"  
properties are populated  
from the nested  
templates:

< CDS < DNAComponent

```
<?xml version="1.0" ?>
```

```
<rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#" xmlns:dcterms="http://purl.org/dc/terms/" xmlns:prov="http://www.w3.org/ns/prov#" xmlns:sbol="http://sbols.org/v2#">
  <sbol:ComponentDefinition rdf:about="http://partsregistry.org/cd/lacI_cds">
    <sbol:persistentIdentity rdf:resource="http://partsregistry.org/cd/lacI_cds"/>
    <sbol:displayId>lacI_cds</sbol:displayId>
    <dcterms:title>lacI</dcterms:title>
    <dcterms:description>The lacI CDS</dcterms:description>
    <sbol:type rdf:resource="http://www.biopax.org/release/biopax-level3.owl#DnaRegion"/>
    <sbol:role rdf:resource="http://identifiers.org/so/SO:0000316"/>
    <sbol:sequence rdf:resource="http://partsregistry.org/seq/lacI_seq"/>
  </sbol:ComponentDefinition>
  <sbol:Sequence rdf:about="http://partsregistry.org/seq/lacI_seq">
    <sbol:persistentIdentity rdf:resource="http://partsregistry.org/seq/lacI_seq"/>
    <sbol:displayId>lacI_seq</sbol:displayId>
    <sbol:elements>atggtgaatgt</sbol:elements>
    <sbol:encoding rdf:resource="http://www.chem.qmul.ac.uk/iubmb/misc/naseq.html"/>
  </sbol:Sequence>
</rdf:RDF>
```