

# Vaucanson

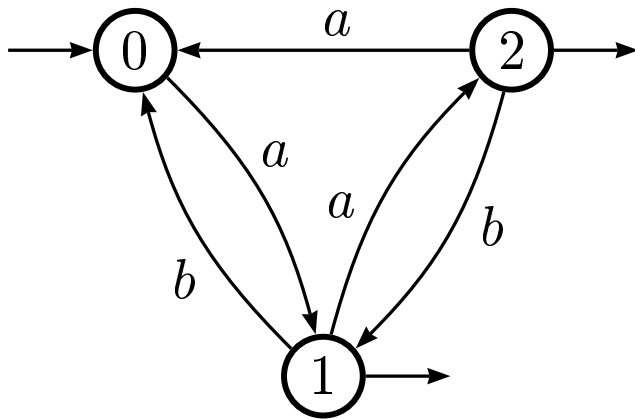
Sylvain Lombardy & Jacques Sakarovitch

LIAFA - Université Paris 7

CNRS - ENST

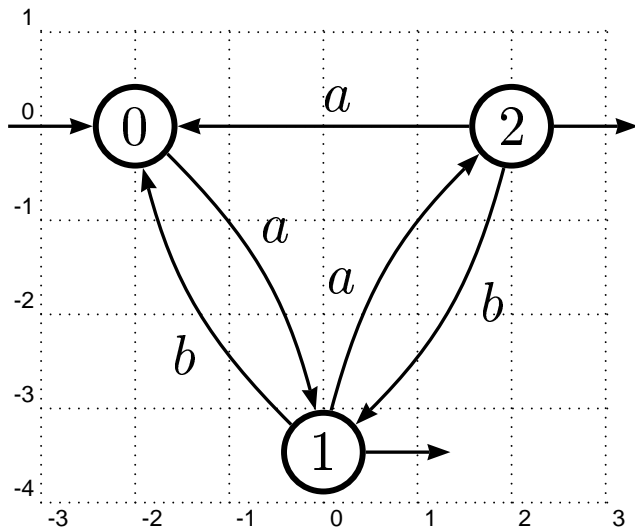
<http://www.liafa.jussieu.fr/~lombardy/Vauc/>

**Exemple :**



```
\begin{VCPicture}{(-3,-4)(3,1)}
\State[0]{(-2,0)}{A}
\State[1]{(0,-3.464)}{B}
\State[2]{(2,0)}{C}
%
\Initial{A}
\Final{B}
\Final{C}
%
\ArcL{A}{B}{a} \ArcL{B}{A}{b}
\ArcL{B}{C}{a} \ArcL{C}{B}{b}
\EdgeR{C}{A}{a}
%
\end{VCPicture}
```

**Exemple :**



```
\begin{VCPicture}{(-3,-4)(3,1)}
\State[0]{(-2,0)}{A}
\State[1]{(0,-3.464)}{B}
\State[2]{(2,0)}{C}
%
\Initial{A}
\Final{B}
\Final{C}
%
\ArcL{A}{B}{a} \ArcL{B}{A}{b}
\ArcL{B}{C}{a} \ArcL{C}{B}{b}
\EdgeR{C}{A}{a}
%
\end{VCPicture}
```

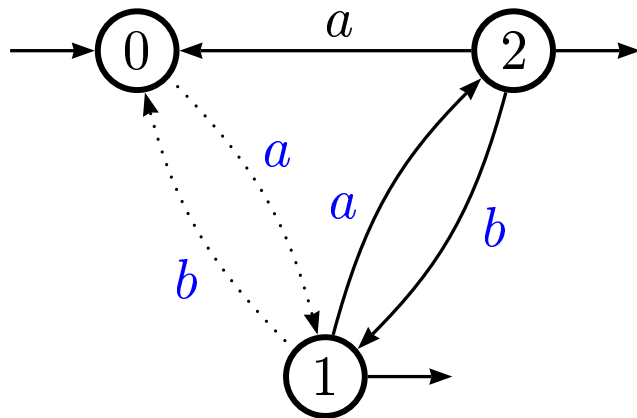
## Paramètres

Derrière une commande simple : `\State[0]{(-2,0)}{A}`  
se cachent de nombreux paramètres **implicites** :

- diamètre,
- épaisseur des traits,
- couleurs (des traits, de l'étiquette, du fond),
- taille de l'étiquette,
- *etc.*

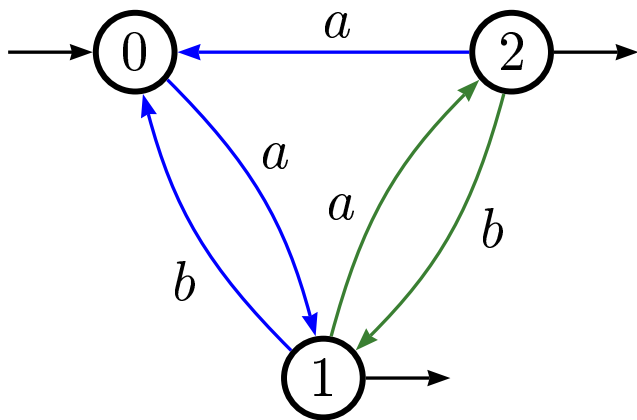
L'utilisateur peut modifier ces paramètres de façon **temporaire** :

**Exemple :**



```
\begin{VCPicture}{(-3,-4)(3,1)}
\State[0]{(-2,0)}{A}
\State[1]{(0,-3.464)}{B}
\State[2]{(2,0)}{C}
\Initial{A} \Final{B} \Final{C}
\ChgEdgeLabelColor{blue}
\ChgEdgeLineStyle{dotted}
\ArcL{A}{B}{a} \ArcL{B}{A}{b}
\RstEdgeLineStyle
\ArcL{B}{C}{a} \ArcL{C}{B}{b}
\RstEdgeLabelColor
\EdgeR{C}{A}{a}
\end{VCPicture}
```

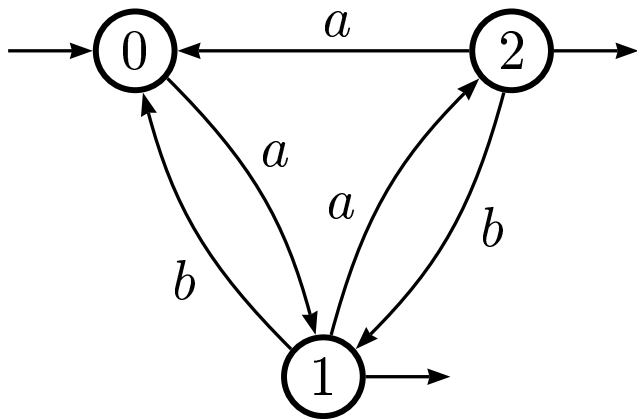
**Exemple :**



...ou **définitive** :

```
\begin{VCPicture}{(-3,-4)(3,1)}  
\State[0]{(-2,0)}{A}  
\State[1]{(0,-3.464)}{B}  
\State[2]{(2,0)}{C}  
\Initial{A} \Final{B} \Final{C}  
\SetEdgeLineColor{blue}  
\ArcL{A}{B}{a} \ArcL{B}{A}{b}  
\ChgEdgeLineColor{OliveGreen}  
\ArcL{B}{C}{a} \ArcL{C}{B}{b}  
\RstEdgeLineColor  
\EdgeR{C}{A}{a}  
\end{VCPicture}
```

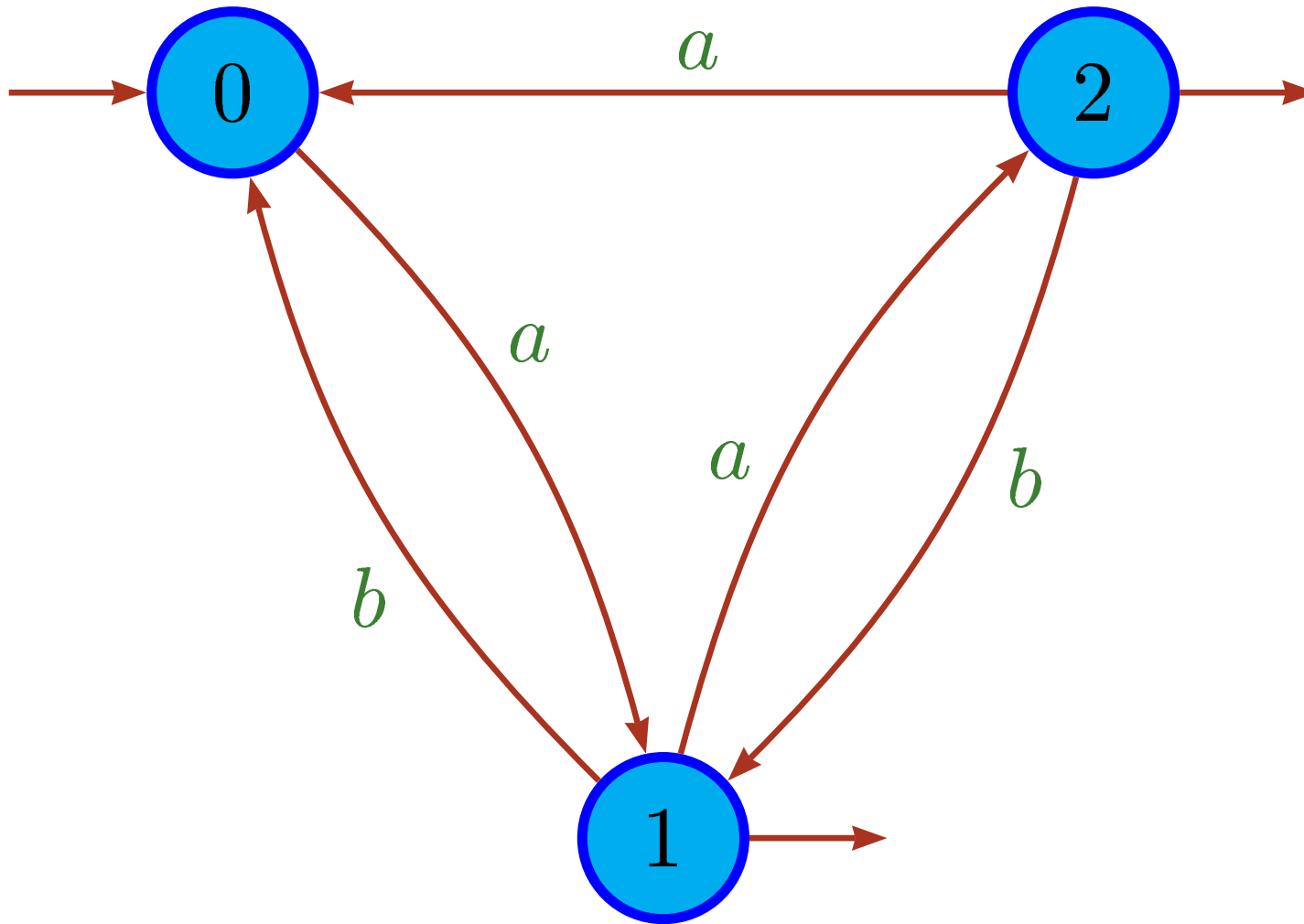
→ On peut définir des fichiers de “style” :



```
\input{Vaucanson_pref} %style par défaut  
\VCCall{dessin}
```

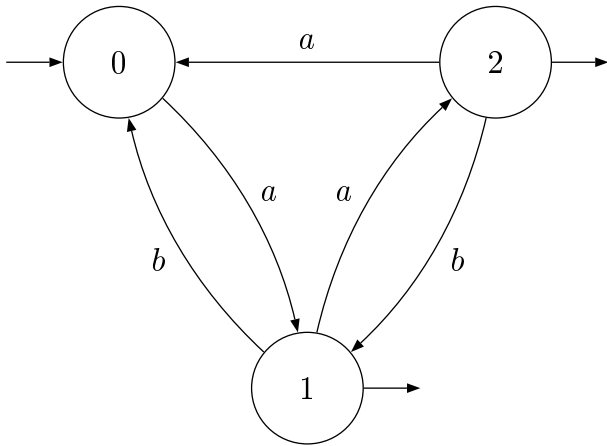
```
\input{Vaucanson_slides}
```

```
\VCCall{dessin}
```

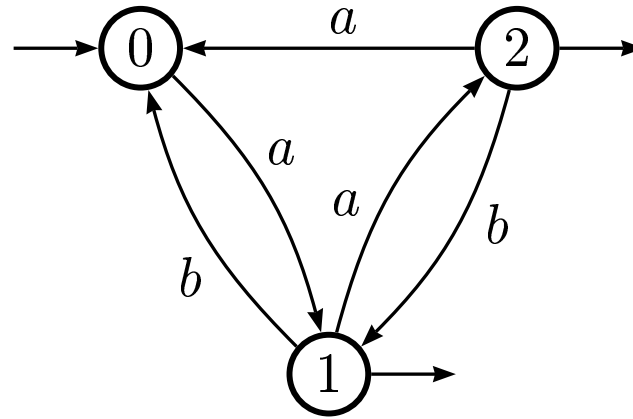


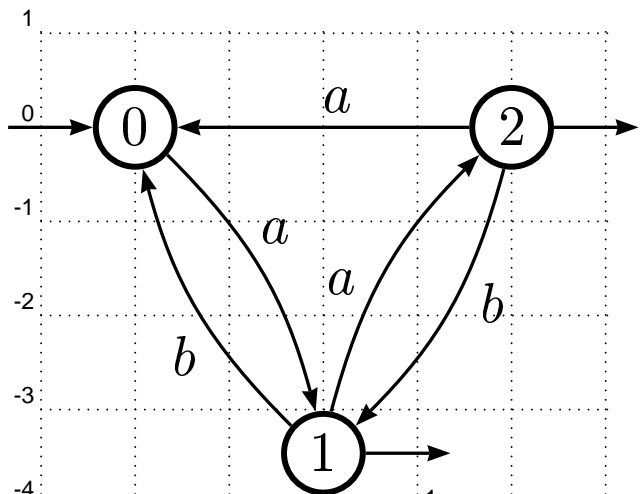


```
\input{Vaucanson_gas}  
\VCCall{dessin}
```

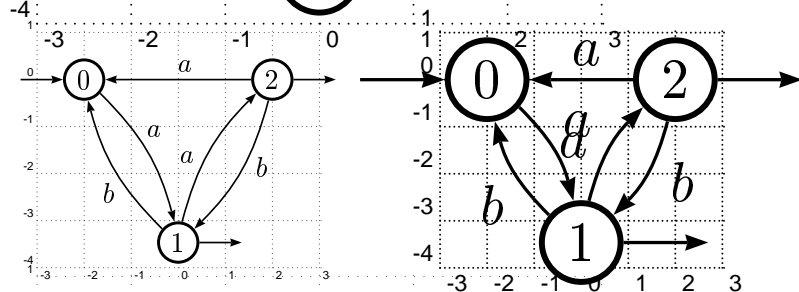


```
\input{Vaucanson_pref}  
\VCCall{dessin}
```

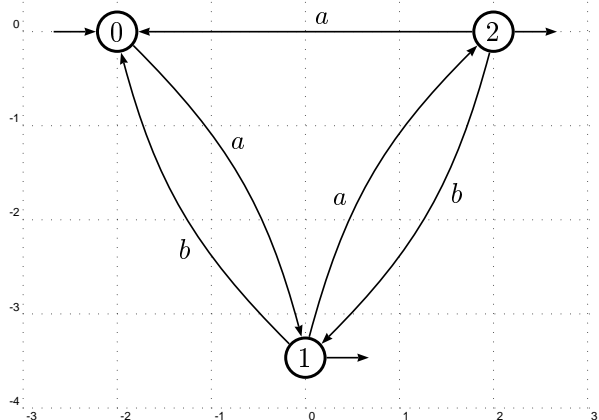




```
\FixVCScale{.6} %MediumPicture
\VCCall{dessin}
```



```
\FixVCScale{.6}
\FixVCGridScale{.5}
\FixVCScale{.3} \VCCall{dessin}
\FixVCGridScale{.5} \VCCall{dessin}
```



```
\FixVCScale{.3}
\FixVCGridScale{2}
\VCCall{dessin}
```

## Types de paramètres

- Paramètres **prédéfinis** : `\MediumPicture`, `\LargeState`,  
`\DimState`, `\EdgeLineDouble`, *etc.*
- Paramètres **ajustables** : `EdgeLineWidth`, `StateLabelScale`,  
`EdgeLineStyle`, *etc.*  
s'utilisent avec `\Chg...`, `\Rst...`, `\Set...`
- Paramètres **avancés** : Forme de la flèche, des boucles, *etc.*

## Commandes simples/commandes évoluées

...

%

```
\LoopN{A}{a}
```

```
\LoopR[.3]{60}{B}{a}
```

%

```
\ArcL{A}{B}{b}
```

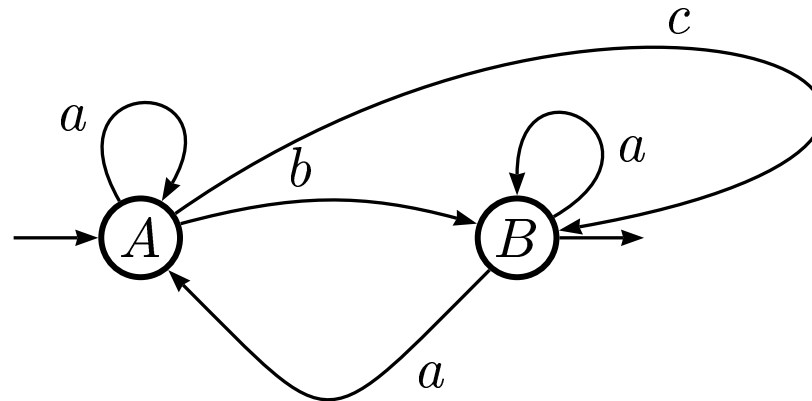
```
\VArcL[.3]{arcangle=45,ncurv=1.5}{B}{A}{a}
```

%

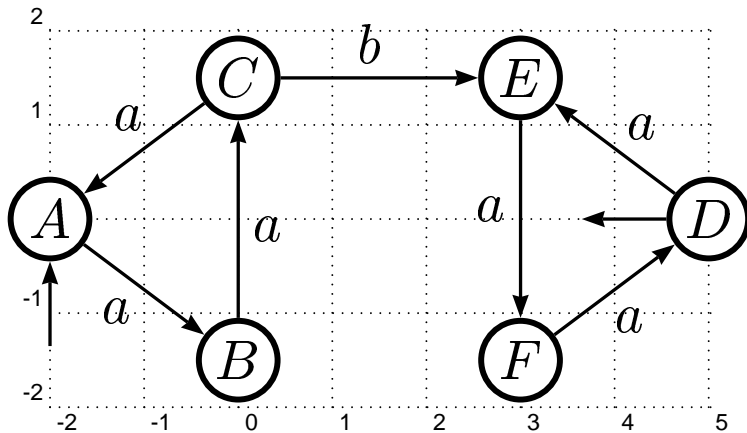
```
\VCurveL[.8]{angleA=35,angleB=10,ncurv=3}{A}{B}{c}
```

%

```
\end{VCPicture}
```



## Structurer un dessin



```
\ShowGrid
```

```
\begin{VCPicture}{(-2,-2)(5,2)}
```

```
\State[A]{(-2,0)}{A}
```

```
\State[B]{(0,-1.5)}{B}
```

```
\State[C]{(0,1.5)}{C}
```

```
\VCPut[180]{(3,0)}{
```

```
\State[D]{(-2,0)}{D}
```

```
\State[E]{(0,-1.5)}{E}
```

```
\State[F]{(0,1.5)}{F}
```

```
}
```

```
\Initial[s]{A} \Final{D}
```

```
\EdgeR{A}{B}{a} \EdgeR{D}{E}{a}
```

```
\EdgeR{B}{C}{a} \EdgeR{E}{F}{a}
```

```
\EdgeR{C}{A}{a} \EdgeR{F}{D}{a}
```

```
\EdgeL{C}{E}{b}
```

```
\end{VCPicture}
```



