```
KnotAtlasPath = "C:/drorbn/projects/KAtlas/";
AppendTo[$Path, KnotAtlasPath];
<< KnotTheory`
WikiLinkPath = KnotAtlasPath <> "WikiLink/";
Get[WikiLinkPath <> "WikiLink.m"];
SetJarPath[WikiLinkPath];
ScratchWorkDirectory = KnotAtlasPath <> "ScratchImages";
CreateWikiConnection[
  "http://katlas.math.toronto.edu/w/index.php",
  "DrorsRobot",
  "***"
];
<< src/KnotTheoryExtra.m
<< WikiLink/ManagingKnotData.m
```

```
Loading KnotTheory` (version of September 5, 2005, 15:29:41)...
```

Be careful here to provide the path in a format your operating system understands!

```
Ls = AllLinks[];
```

```
Length[Ls]
```

```
1424
```

```
L = Ls[[1405]]
```

```
Link[11, NonAlternating, 440]
```

```
StringReplace[
 ToString[MultivariableAlexander[L][t], WikiForm],
 {
  "t(1)" → "u", "t(2)" → "v", "t(3)" → "w",
  "t(4)" → "x", "t(5)" → "y", "t(6)" → "y"
 }
]
```

```
KnotTheory::loading : Loading precomputed data in MultivariableAlexander4Links`.
```

```
<math>-v u^3+x u^3+2 v w u^2-w u^2+v x u^2-v w x
  u^2-2 x u^2+u^2-2 v w u+w u-v x u+v w x u+2 x u-u+v w-w x</math>
```

```
"Data:" <> NameString[L] <> "/Multivariable Alexander"
```

```
Data:L11n440/Multivariable Alexander
```

```
MVAUpload[L_] := WikiSetPageText[
  "Data:" <> NameString[L] <> "/Multivariable_Alexander",
  ToString[
   MultivariableAlexander[L][t] /. t[i_] :> {u, v, w, x, y, z}[[i]],
   WikiForm
  ]
 ]
```

```
(Print[out = (# → MVAUpload[#])]; out) & /@ AllLinks[]
```

```
Plus @@ (Last /@ %)
```

```
1424 True
```

```
pd1 = PD[Link[4, Alternating, 1]]
```

```
PD[X[6, 1, 7, 2], X[8, 3, 5, 4], X[2, 5, 3, 6], X[4, 7, 1, 8]]
```

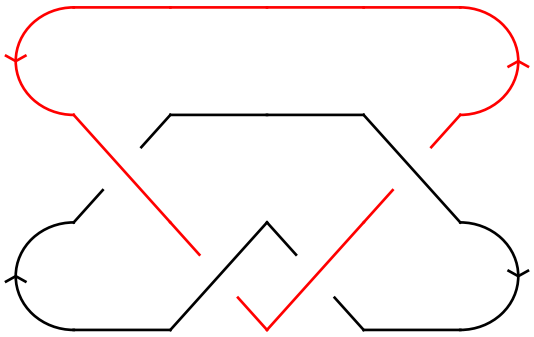
```
pd2 = PD[X[6, 4, 7, 3], X[8, 2, 5, 1], X[2, 6, 3, 5], X[4, 8, 1, 7]]
```

```
PD[X[6, 4, 7, 3], X[8, 2, 5, 1], X[2, 6, 3, 5], X[4, 8, 1, 7]]
```

```
MultivariableAlexander[#][t] & /@ {pd1, pd2}
```

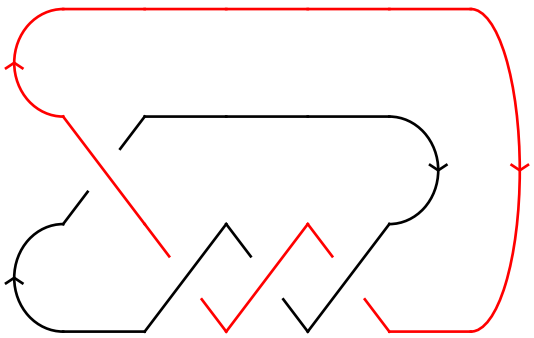
```
{-t[1] - t[2], -1 - t[1] t[2]}
```

```
DrawMorseLink[pd1] // Show
```



```
- Graphics -
```

```
DrawMorseLink[pd2] // Show
```



```
- Graphics -
```

```
pd1 = PD[Link[11, NonAlternating, 381]]
```

```
PD[X[6, 1, 7, 2], X[14, 7, 15, 8], X[4, 15, 1, 16],
 X[5, 10, 6, 11], X[8, 4, 9, 3], X[22, 18, 19, 17], X[11, 20, 12, 21],
 X[19, 12, 20, 13], X[18, 22, 5, 21], X[9, 16, 10, 17], X[2, 14, 3, 13]]
```

```
Skeleton[pd1]
```

```
{Loop[1, 2, 3, 4], Loop[19, 20, 21, 22],
 Loop[5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18]}
```

```
pd2 = PD[X[6, 4, 7, 3], X[14, 7, 15, 8], X[4, 16, 1, 15],
   X[5, 10, 6, 11], X[8, 1, 9, 2], X[22, 18, 19, 17], X[11, 20, 12, 21],
   X[19, 12, 20, 13], X[18, 22, 5, 21], X[9, 16, 10, 17], X[2, 13, 3, 14]]
```

```
PD[X[6, 4, 7, 3], X[14, 7, 15, 8], X[4, 16, 1, 15],
 X[5, 10, 6, 11], X[8, 1, 9, 2], X[22, 18, 19, 17], X[11, 20, 12, 21],
 X[19, 12, 20, 13], X[18, 22, 5, 21], X[9, 16, 10, 17], X[2, 13, 3, 14]]
```

```
MultivariableAlexander[#][t] & /@ {pd1, pd2}
```

```
{0, 0}
```