

```
// ----- pews specification - publish_music.pews -----

ns bank = "http:\\http://aws.amazon.com/fps/"
ns spotify = "http://ws.spotify.com/"
ns twitter = "https://dev.twitter.com/docs/api/"
ns facebook = "https://api.facebook.com/method/"

alias searchMusic = portType/search/1/track in spotify
alias selectMusic = portType/lookup/1/trackdetail in spotify
alias downloadMusic = portType/lookup/1/downloadtrack in spotify
alias listenMusic = portType/lookup/1/executetrack in spotify
alias pay = portType/proceedPayment in bank
alias sendConfirmation = portType/confirmation in bank
alias publishTwitter = portType/oauth/authenticate in twitter
alias publishFacebook = portType/lookup/1/downloadtrack in facebook

def buyToken = ?
def publishToken = ?

service buyMusic = pay . sendConfirmation

searchMusic . selectMusic .
  ([buyToken=1](buyMusic . downloadMusic . listenMusic) +
   [buyToken=0]listenMusic) .
  ([publishToken='twitter']publishTwitter +
   [publishToken='facebook']publishFacebook)
```

pi-pews specification

namespace

operation

variable

composite operation

path

path/
main process

```
searchMusic . selectMusic .
  ([buyToken=1](buyMusic . downloadMusic . listenMusic) +
   [buyToken=0]listenMusic) .
  ([publishToken='twitter']publishTwitter +
   [publishToken='facebook']publishFacebook)

def contract buyMusicContract{
  isAppliedTo: buyMusic;
  requires: name == ?? && password == ?? &&
           cardName == ? && cardNumber == ??;
  (onFailureDo: call(buyMusic));
  ensures : notification == 'payment ok -
           download authorized';
           paymentStatus == true;
  timeConstraint : meet(pay,sendConfirmation);
```

path

contract definition

pre-condition

post-condition

time constraint