PHC OX server

Edition : auto generated by oxgentexi on 20 April 2024

OpenXM.org

1 PHC

PHC pack ox ox_sm1_phc . phc.rr . phc $(OpenXM_HOME)/lib/asir-contrib .

```
[255] phc.start();
0
[257] phc.phc([x^2+y^2-4,x*y-1]);
The detailed output is in the file tmp.output.*
The answer is in the variable Phc.
0
[260] Phc ;
[[[-0.517638,0],[-1.93185,0]],
[[1.93185,0],[0.517638,0]],
[[-1.93185,0],[-0.517638,0]],
[[0.517638,0],[1.93185,0]]]
[261]
```

Author of PHC pack: Jan Verschelde. http://www2.math.uic.edu/~jan/download.html 1: Jan Verschelde, PHCpack: A general-purpose solver for polynomial systems by homotopy continuation". ACM Transaction on Mathematical Softwares, 25(2): 251-276, 1999.
2: Cox, D., O'Shea, Little, J., Using Algebraic Geometry, Springer. Mixed volumes .

1.1

1.1.1 phc.start

phc.start()
:: Localhost ox_sm1_phc .

return

- Localhost ox_sm1_phc . ox_sm1_phc .
- Xm_noX =1 , ox_sm1_phc debug window .
- Phc_proc .

```
P = phc.start()
```

ox_launch, phc

1.1.2 phc.phc

phc.phc(*s*|proc=*p*)
:: PHC pack *s* .

return

p

s

- *S* PHC pack . PHC pack Jan Verschelde . www.mth.msu.edu/~jan . PHC pack , , black-box solver . black-box solver , . , PHC pack , .

- PHC tmp.phc.out.pid, tmp.input.*, tmp.output.* . pid ox_sm1_phc . tmp.output.* PHC pack .
- length(s) .

Algorithm: Jan Verschelde, PHCpack: A general-purpose solver for polynomial systems by homotopy continuation". ACM Transaction on Mathematical Softwares, 25(2): 251-276, 1999.

```
[232] P = phc.start();
0
[233] phc.phc([x^2+y^2-4,x*y-1]|proc=P);
The detailed output is in the file tmp.output.*
The answer is in the variable Phc.
0
[234] Phc;
[[[-1.93185,0],[-0.517638,0]],
 [[0.517638,0],[1.93185,0]],
 [[-0.517638,0],[-1.93185,0]],
 [[1.93185,0],[0.517638,0]]]

 [[x=[real, imaginary], y=[real,imaginary]],  the first solution
  [x=[real, imaginary], y=[real,imaginary]],  the second solution
  ...
```

ox_launch, phc.start, $(OpenXM_HOME)/bin/lin_phcv2(original PHC pack binary for linux)

Index

(Index is nonexistent)

(Index is nonexistent)

Short Contents

1 PHC 1
Index 3

Table of Contents

1 PHC 1

1.1 1

1.1.1 `phc.start` 1

1.1.2 `phc.phc` 1

Index 3