

```
(%i1) compile_file("c:/Users/prodanov/Dropbox/maxima/intde1.lisp");
```

```
(%o1) [ c:/Users/prodanov/Dropbox/maxima/intde1.lisp,
      #P"c:/Users/prodanov/Dropbox/maxima/intde1.fasl" ]
```

```
(%i2) :lisp (atan 1.0d0 1)
0.7853981633974483
```

```
(%i2) atan(1),numer;
(%o2) 0.7853981633974483
```

```
(%i3) :lisp(defun f (x) (/ 1 (sqrt x)));
F
```

```
(%i3) load("c:/Users/prodanov/Dropbox/maxima/intde1.lisp");
(%o3) c:/Users/prodanov/Dropbox/maxima/intde1.lisp
```

```
(%i4) :lisp(defun f1 (x) (/ 1 (* x x)));
F1
```

```
(%i4) :lisp(quadde::intde #'f 0.0d0 1.0d0 1.0d-15 0.0d0);
1.9999999999999993
3.999999999999999e-15
```

```
(%i4) :lisp(quadde::intdei #'f1 1.0d0 1.0d-15 0.0d0);
0.9999999999999997
2.00000000000000286e-15
```

```
(%i4) compile_file("c:/Users/prodanov/Dropbox/maxima/quadde.lisp");
(%o4) [ c:/Users/prodanov/Dropbox/maxima/quadde.lisp,
      #P"c:/Users/prodanov/Dropbox/maxima/quadde.fasl" ]
```

```
(%i5) load("c:/Users/prodanov/Dropbox/maxima/quadde.lisp");
(%o5) c:/Users/prodanov/Dropbox/maxima/quadde.lisp
```

```
(%i6) quad_intde(1/sqrt(x),x,0,1, 'epsrel=1e-15);
(%o6) [ 1.999999999999999, 3.999999999999999 10-15 ]
```

```
(%i7) quad_intde(sin(x),x,0,%pi, 'epsrel=1e-15);
(%o7) [ 1.999999999999999, 4.000000003255215 10-15 ]
```

```
(%i8) integrate(sin(x),x,0, %pi);
(%o8) 2
```

```
(%i9) quad_intdei(exp(-x)/sqrt(x),x,0, 'epsrel=1e-15);
```

```
(%o9) [ 1.772453850905516, 7.089857411626387 10-15 ]
```

```
(%i10) gamma(1/2),numer;
```

```
(%o10) 1.772453850905516
```

```
(%i11) quad_intdeo(sin(x)/x,x,0, 1, 'epsrel=1e-15);
```

```
(%o11) [ 1.570796326794897, 6.638903747798591 10-15 ]
```

```
(%i12) integrate(sin(x)/x,x,0, inf);
```

```
(%o12)  $\frac{\%pi}{2}$ 
```

```
(%i13) quad_intdeo(bessel_j(0,x)/(x^2+1)*x,x,0, 1, 'epsrel=1e-15);
```

```
(%o13) [ 0.4210244382407084, 2.23303344580517 10-15 ]
```

```
(%i14) bessel_k(0,1),numer;
```

```
(%o14) 0.4210244382407085
```

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