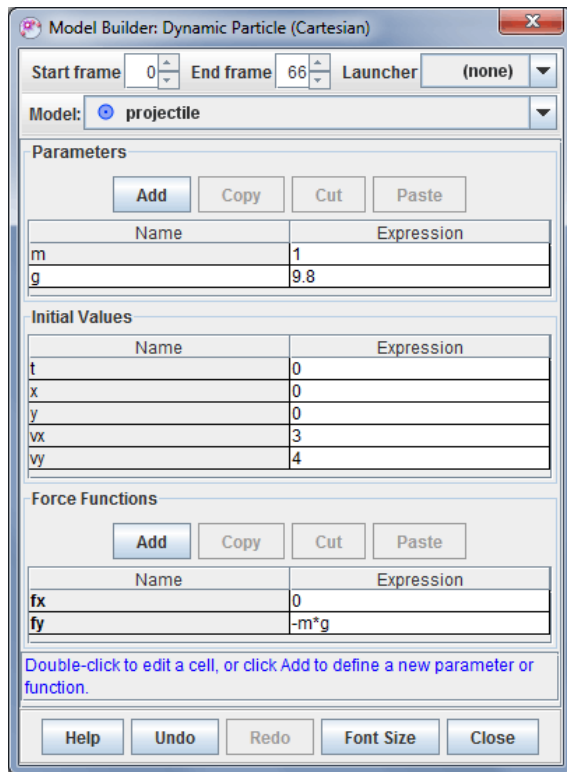




Tracker Particle Models

Dynamic models



Cartesian, polar coordinates
Model builder
Force equations
Parameters
Initial conditions
Start, end frames
Launching a model

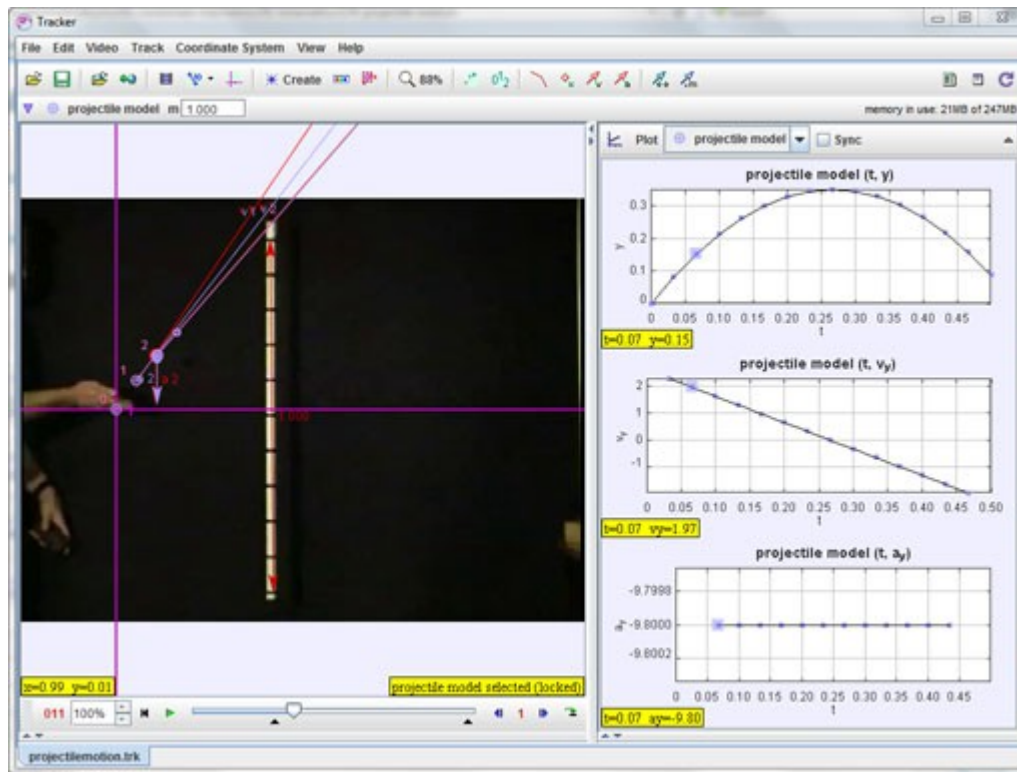
Useful resources:

[Tracker Help: particle models](#)



Tracker Particle Models

Dynamic model example: Projectile motion



The Model Builder: Dynamic Particle (Cartesian) window shows the configuration for the 'projectile model'. The 'Start frame' is 9 and the 'End frame' is 31. The 'Launcher' is set to '(none)'. The 'Model' is 'projectile model'.

Parameters

Name	Expression
m	1
v0	3.14
theta	$\pi * .315$
g	9.8

Initial Values

Name	Expression
t	0
x	0
y	0
vx	$v0 * \cos(\text{theta})$
vy	$v0 * \sin(\text{theta})$

Force Functions

Name	Expression
fx	0
fy	$-m * g$

Buttons: Add, Copy, Cut, Paste, Help, Undo, Redo, Font Size, Close.

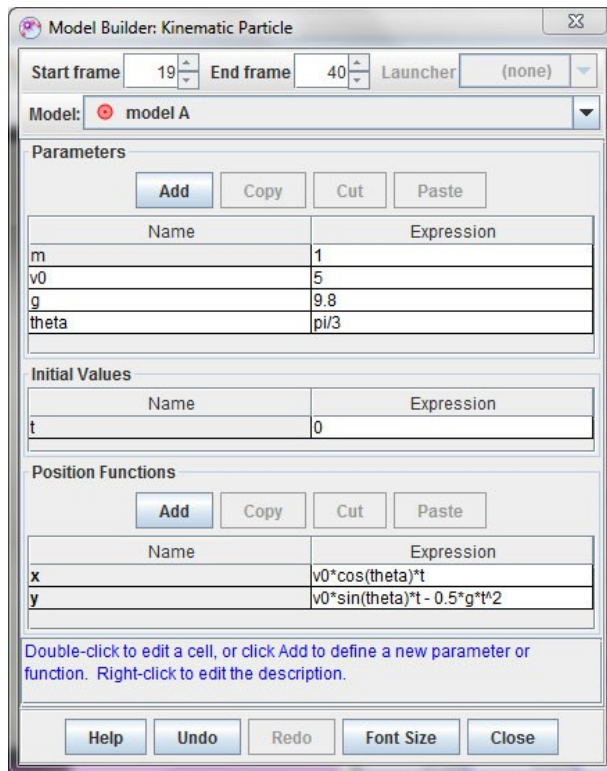
Useful resources:

[Projectile model TRZ](#)



Tracker Particle Models

Analytic models



- *Model builder*
- *Motion equations*
- *Parameters*
- *Initial time*
- *Start, end frames*

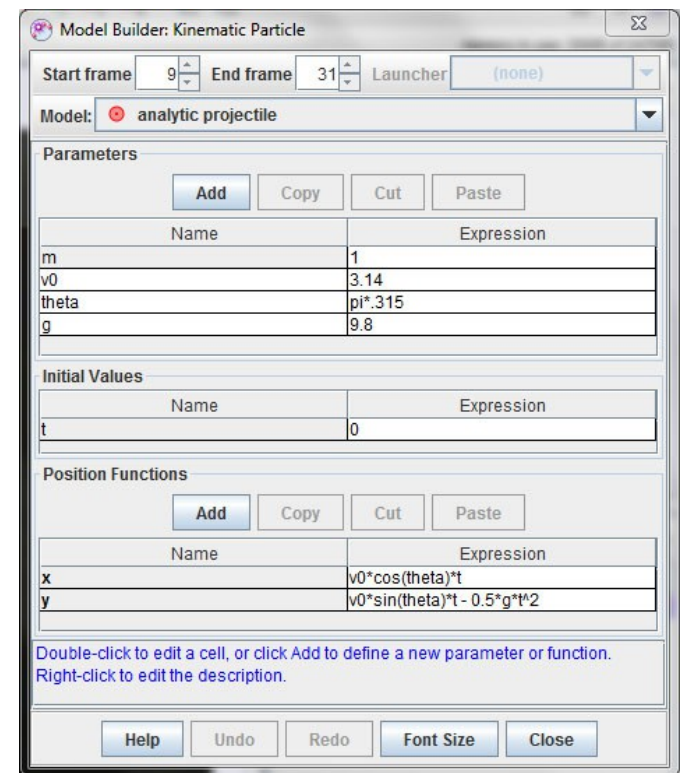
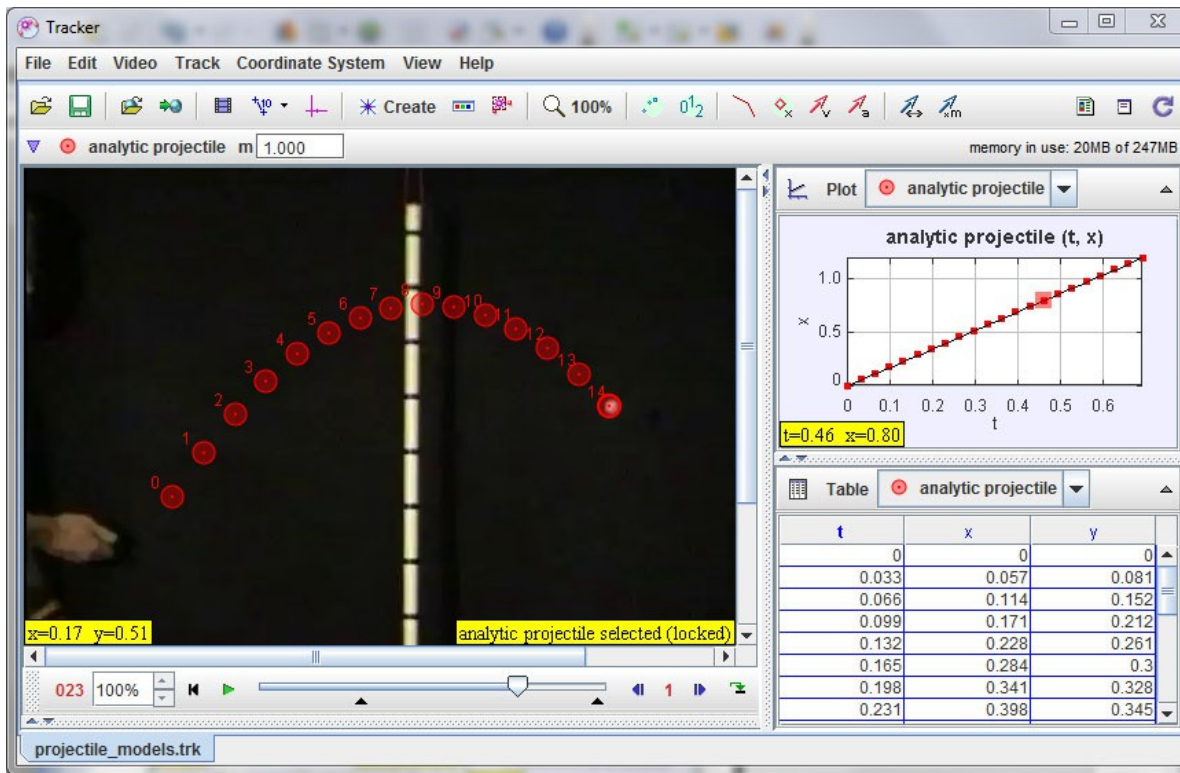
Useful resources:

[Tracker Help: particle models](#)



Tracker Particle Models

Analytic model example: Projectile motion



Useful resources:

DL browser: [projectile_models.trk](#)