GURPS Space **advanced world-building sequence system summary page**

Universe number 1

System number **1**

max. habitability **8**

max. affinity **8**

Name of star ***Sol***

system number **1**

class of star **G2 V**

mass **1** M(sol)

luminosity **1.00** L(sol)

age **3.5** billion years

diameter **0.009** a.u.

row number	ID #	orbit radius (a.u.) (10,000 km)	world type	size (Earth dia.)	mass (Earth masses)	g (Earth g.)	atmosphere	hydrographics	temp (C)	climate	solar day (hours)	HI	RVM	Affinity
1	**I**	0.21	small rock planet	0.68	0.29	0.62	none		308	infernal	infinite	0	1	1
2	**II**	0.36	tiny rock planet	0.48	0.09	0.38	none		176	infernal	infinite	0	0	0
3	**III**	0.65	standard greenhouse planet	0.93	0.72	0.84	superdense corrosive		683	infernal	infinite	-2	0	-2
4	**IV**	0.99	standard garden planet	1.0	1.0	1.0	standard breathable	76% water	12	cool	42.7	**8**	0	**8**
5	IVa	6.4	small rock moon	0.56	0.10	0.33	none		-5	chilly	42.7	0	0	0
6	**V**	1.9	tiny rock planet	0.22	0.01	0.18	none		-76	frozen	16.7	0	-2	-2
7		3.6	asteroid belt						-130	frozen		0	1	1
8	**VI**	6.1	large gas giant	14	2000	11	superdense corrosive				18.4			
9			7 moonlets						-164	frozen		0	0	0
10	VIa	69	tiny sulfur moon	0.21	0.00	0.11	none		-186	frozen	35.7	-2	0	-2
11	VIb	90	tiny ice moon	0.15	0.00	0.08	none		-176	frozen	53.1	0	-1	-1
12	VIc	114	small ice moon	0.41	0.04	0.21	very dense mildly toxic	30% hydrocarbons	-154	frozen	75.6	-1	0	-1
13			3 moonlets						-164	frozen		0	0	0
14	**VII**	10	medium gas giant	12	400	3.0	superdense corrosive				14.7			
15			7 moonlets						-189	frozen		0	1	1
16	VIIa	44	tiny ice moon	0.21	0.00	0.08	none		-199	frozen	40.7	0	0	0
17	VIIb	84	small ice moon	0.39	0.02	0.16	very dense mildly toxic	30% hydrocarbons	-182	frozen	106	-1	-1	-2
18			1 moonlet						-189	frozen		0	0	0
19	**VIII**	20	medium gas giant	10	250	2.3	superdense corrosive				13.4			
20			8 moonlets						-212	frozen		0	0	0
21	VIIIa	106	small hadean moon	0.35	0.02	0.14	none		-231	frozen	192	0	-1	-1
22	VIIIb	122	tiny ice moon	0.13	0.00	0.05	none		-219	frozen	235	0	0	0
23	VIIIc	141	small hadean moon	0.34	0.02	0.14	none		-231	frozen	293	0	-1	-1
24	VIIId	158	tiny ice moon	0.14	0.00	0.04	none		-219	frozen	349	0	1	1
25	VIIIe	181	tiny ice moon	0.16	0.00	0.08	none		-219	frozen	426	0	0	0
26			3 moonlets						-212	frozen		0	0	0
27	**IX**	33	medium gas giant	11	350	2.8	superdense corrosive				20.0			
28			12 moonlets						-226	frozen		0	1	1
29	IXa	163	tiny ice moon	0.15	0.00	0.06	none		-232	frozen	307	0	0	0
30			2 moonlets						-226	frozen		0	0	0

GURPS Space **dvanced world-building sequence** **planet data display**

display row # **4** (see system table)

system number	1	world	IV	*Earth*

Planetology

class of star	G2 V	
mean distance	0.99	a.u.
perihelion	0.98	a.u.
aphelion	1.0	a.u.
axial tilt	23.4°	
annual period	0.989	years
	203.2	local days
local day	42.7	hours

standard garden planet

diameter	1.0	x Earth's
	12756	km
density	1.0	x Earth's
	5.5	g/cm^3
surface gravity	1.0	g.
	9.8	m/s^2
escape velocity	11	km/s
vulcanism	moderate	
tectonics	moderate	

climate cool

temperature		
average	12	C
periphelion	14	C
aphelion	10	C
illumination	102	% Earth's

oceans 76%

composition	water	
tidal range	0.48	m

atmosphere

main gases	N2, O2	
traces &c.		
class	breathable	
pressure	1.0	bar
	(standard)	

Population & economy

		Habitability	8
Resources	average	RVM	0
		Affinity	8

settlement type	
carrying capacity	5.0 E+9
population	
tech level	10 PR
per-capita income	G$
typical wealth	
economic volume	G$
spaceport class	

Government

world unity
government type
control rating

Installations

type	PR

Society

Sky objects

	class	apparent: size (degrees)	period (hours)	tides (m)
sun:	G2 V	0.53	42.7	0.48
IVa:	small rock moon	6.4	fixed	

GURPS Space advanced world-building sequence user controls

Personal user number	**1**	enter a counting number (i.e. a positive integer)
use US Customary units?	**FALSE**	enter TRUE for US units, FALSE for Metric
campaign technology level	**10**	

Base carrying capacity at very high TL

TL	Base carrying capacity
8	million
9	million
10	million
11	**25** million
12	**30** million

User-specified stellar characteristics

number of stars	**1**	Insert 1, 2, or 3, or leave blank for a random result
age of system	**3.5**	Insert the system age in billions of years, or leave blank for a random result
mass of primary star	**1**	Insert the mass of the primary star in solar masses, or leave blank for a random result
class of primary star	**G2 V**	The stellar class is calculated from mass and age. You cannot alter it.
luminosity of primary star	**1.00**	The star's luminosity is calculated from mass and age. You cannot alter it.
mass of [nearer] companion		Insert the mass of a companion star in solar masses, or leave blank for a random result
class of [nearer] companion		The stellar class is calculated from mass and age. You cannot alter it.
luminosity of [nearer] companion		The star's luminosity is calculated from mass and age. You cannot alter it.
radius of 1st companion's orbit		Insert the semimajor axis of the nearer companion's orbit in AU, or leave blank for a random result
:centricity of 1st companion's orbit		Insert the eccentricity of the nearer companion's orbit, on a scale of 0 to 1, not including 1, or leave blank for a random result
periapsis of 1st companion		Insert the periapsis of the 1st companion's orbit in AU, or leave blank for a random result. This will over-ride radius and eccentricity
apapsis of 1st companion		Insert the apapsis of the 1st companion's orbit in AU, or leave blank for a random result. This will over-ride radius and eccentricity
mass of further companion		Insert the mass of the primary star in solar masses, or leave blank for a random result
class of further companion		The stellar class is calculated from mass and age. You cannot alter it.
luminosity of further companion		The star's luminosity is calculated from mass and age. You cannot alter it.
radius of 2nd companion's orbit		Insert the semimajor axis of the further companion's orbit in AU, or leave blank for a random result
:centricity of 1st companion's orbit		Insert the eccentricity of the further companion's orbit, on a scale of 0 to 1, not including 1, or leave blank for a random result
periapsis of 2nd companion		Insert the periapsis of the 2nd companion's orbit in AU, or leave blank for a random result. This will over-ride radius and eccentricity
apapsis of 2nd companion		Insert the apapsis of the 2nd companion's orbit in AU, or leave blank for a random result. This will over-ride radius and eccentricity
arrangement of gas giants	**conventional**	Insert "none", "conventional", "epistellar", or "eccentric", or leave blank for a random result
radius of orbit of first gas giant		Insert the semimajor axis of the first gas giant's orbit in AU, or leave blank for a random result. Will over-ride 'arrangement of gas giants'.
:centricity of orbit of first gas giant		Insert the eccentricity of the first gas giant's orbit, on a scale of 0 to 1, not including 1, or leave blank for a random result. Will over-ride 'arrangei

User-specified planet

world type	**standard**	Insert "asteroid belt", "tiny", "small", "standard", "large", or leave blank for a random system.
subtype	**garden**	Insert "hadean", "ammonia", "ice", "ocean", "garden", "greenhouse" or "chthonian"
complete world type	**standard garden**	This value is calculated. You cannot alter it. 4 4
primordial atmospheric mass	**1**	Insert relative atmospheric mass (about 0.5 to 1.5). May be diminished by tide-locking.
basic atmosphere	**breathable**	This value is calculated. You cannot alter it.
worse atmosphere?	**FALSE**	Insert TRUE for marginal atmosphere, else FALSE or leave blank
atmospheric composition	**breathable**	This value is calculated. You cannot alter it.
marginal condition number		Insert the number of a marginal condition from the table on the right
marginal condition		This value is calculated. You cannot alter it.
primordial hydrographic coverage	**76**	Insert hydrographic % between 50 and 100
average surface temperature	**285**	Insert temperature between 250 and 340 Kelvins
that's	**12**	Celsius
climate	**cool**	This value is calculated. You cannot alter it.
blackbody temperature	**279**	This value is calculated. You cannot alter it.
density	**1**	Insert density between 0.8 and 1.2 times Earth's
diameter	**1.00**	This value is calculated. Adjust it using density and surface gravity.
surface gravity	**1**	Insert surface gravity between 0.51 and 1.08 times Earth's
mass	**1.00**	times Earth's. This value is calculated, you cannot alter it.
atmospheric pressure	**1.00**	times Earth's. This figure is calculated. To adjust it, alter atmospheric mass.
orbital radius	**0.99**	Astronomical units. This figure is calculated. You cannot alter it.
orbital eccentricity	**0.0167**	
obliquity (axial tilt)	**23.4**	(degrees)
primordial day length	**24**	Insert the original day length (before tidal braking) in hours. About 6 to 40, average about 12.
number of major moons	**1**	0, 1, or 2. Or leave blank for a random result.
number of moonlets		0, 1, or 2. This value will be over-ridden if number of major moons is not blank or zero.
type of moon	**small**	Insert a world type no larger that that of the planet (tiny, small, standard, or large), or leave blank for a random result.
distance of moon	**5**	(planetary diameters). No less than 5. No more than 40.

number	marginal condition
1	Cl, F
2	sulfur compounds
3	NOx
4	organic toxins
5	low O2
6	pollutants
7	high CO2
8	high O2
9	inert gases

resource value modifier	**0**	Insert resource value between -2 and 2
vulcanism	**moderate**	Insert "none", "light", "moderate", "heavy", or "extreme", or leave blank for a random result.
tectonics	**moderate**	Insert "none", "light", "moderate", "heavy", or "extreme", or leave blank for a random result.