

# EDHM module in/out data document

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# Prec

## PRECDivid

IN/OUT	Variable group	Variable	Units	Notes
IN	MetData	Precipitation	mm/	
		TAir	Cel	
OUT	Prec	RainFall	mm/	The equal volume of snow, not the depth of snow
		SnowFall	mm/	

# Canopy

## ReferenceET

### ReferenceET.PenmanMonteith

IN/OUT	Variable	Variable	Units	Notes
	group			
IN	TimeData	NDay	N/A	the day un the year
	GeoData	Elevation	m	
		Latitude	deg	
	MetData	Tmax	Cel	
		Tmin	Cel	
		Tmean	Cel	
		WindSpeed	m/s	
		WindH	m	the high, that wind speed measure
		SunHour	h	for daily RET
		RelativeHumidity	100%	
OUT	ET	RET	mm	

### ReferenceET.Hargreaves

IN/OUT	Variable	Variable	Units	Notes
	group			
IN	TimeData	NDay	N/A	the day un the year
	LandData	Latitude	deg	
	MetData	Tmax	Cel	
		Tmin	Cel	

		Tmean	Cel
OUT	ET	RET	mm

# ActualET

# ET.VIC

IN/OUT	Variable group	Variable	Units	Notes
IN	ET	RET	mm	
	Prec	Precipitation	mm	
	Intercept	Interception	mm	
	Canopy	StorageCapacity	mm	
	Ground	MoistureVolume	mm	
		MoistureCapacityMax	mm	
	Aerodyna	AerodynaResist		
		ArchitecturalResist		
		StomatalResist		
	OUT	ET		
		Transpiration	mm	
		EvaporationCanopy	mm	
		EvaporationLand	mm	

## INTERCEPTION

### INTERCEPTION.Gash

IN/OUT	Variable group	Variable	Units	Notes
IN	ET	EvaporationCanopy	mm	
	Prec	Precipitation	mm	
	Intercept	Interception	mm	
	Canopy	StorageCapacity	mm	
OUT	Intercept	Interception	mm	
	Prec	Precipitation	mm	

### INTERCEPTION.SNOWVIC

IN/OUT	Variable group	Variable	Units	Notes
IN	Prec	RainFall	mm	
		SnowFall		
	ET	EvaporationCanopy	mm	
	Intercept	InterceptRain	mm	
		InterceptSnow		
	Atmos	PVegVaporFlux	mm	
	Energy	TFoliage, TCanopy,		
		TSnow, TSurf		
		VaporizLatentHeat		
		ShortOverIn,		
	Snow	LongOverIn		
		Coverage		
	Aerodyna	DisplacCanopy		

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		WindSpeedCanopy	
		AerodynaResistCanopy	
		ReferHeightCanopy	
		RoughCanopy	
	VegData	MaxIntercept	
		Albedo	
		LAI	
		IsOverstory	
	MetData	TAir	
		AirDensity	
		VaporPressure	
		AirPressure	
		VaporPressDeficit	
OUT	Intercept	InterceptSnow	mm
		InterceptRain	
	Prec	RainFall	
		SnowFall	
	Atmos	VegVaporFlux	
	Energy	TFoliage	
		LongOverOut	
		LongUnderIn	

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# Ground

## InfiltratRat

### InfiltratRat.GreenAmpt

IN/OUT	Variable	Variable	Units	Notes
group				
IN	Ground	Conductivity	mm	
		WettingFrontSuction	mm	
		Depth		
		Porosity		
		MoistureVolume		
OUT	Infilt	InfiltrationRat	mm/T	

## Infiltration

### Infiltration.SER

IN/OUT	Variable	Variable	Units	Notes
group				
IN	Prec	Precipitation	mm	
	Ground	MoistureCapacityMax	mm	
		MoistureCapacity	mm	
OUT	Infilt	Infiltration	mm/T	



## Infiltration.OIER

IN/OUT	Variable group	Variable	Units	Notes
IN	Prec	Precipitation	mm	
	Infilt	InfiltrationRateMax	mm	
OUT	Infilt	Infiltration	mm/T	

## RUNOFF

### RUNOFF.SER

IN/OUT	Variable group	Variable	Units	Notes
IN	Prec	Precipitation	mm	
	Ground	MoistureVolume	mm	
		MoistureCapacityMax	mm	
OUT	Ground	Runoff	mm	
	Infilt	Infiltration		

### RUNOFF.OIER

IN/OUT	Variable group	Variable	Units	Notes
IN	Prec	Precipitation	mm	
	Infilt	InfiltrationRateMax	mm	
OUT	Ground	Runoff	mm	
	Infilt	Infiltration		

## RUNOFF.VIC

IN/OUT	Variable	Variable	Units	Notes
group				
IN	Prec	Precipitation	mm	
	Ground	MoistureVolume	mm	
		MoistureCapacityMax	mm	
	Infilt	InfiltrationRateMax	mm	
OUT	Ground	Runoff	mm	
	Infilt	Infiltration		

## RUNOFF.VM

IN/OUT	Variable	Variable	Units	Notes
group				
IN	Prec	Precipitation	mm	
	Ground	MoistureCapacity	mm	
		MoistureCapacityMax	mm	
	Infilt	InfiltrationRateMax	mm	
OUT	Ground	Runoff	mm	
	Infilt	Infiltration		

## GROUNDWATER

### GROUNDWATER.VIC

IN/OUT	Variable	Variable	Units	Notes
group				

IN	Ground	Volum[1:3]	mm
		Depth[1:3]	mm
		BaseFlow	mm
	ET	Transpiration	mm
		EvaporationLand	mm
	Aerodyna	AerodynaResist	
		ArchitecturalResist	
		StomatalResist	
OUT	Ground	Volum[1:3]	mm

## BASEFLOW

### BASEFLOW.ARNO

IN/OUT	Variable group	Variable	Units	Notes
IN	Ground	MoistureVolume	mm	
		MoistureCapacityMax	mm	
OUT	Ground	BaseFlow	mm	

# Route

## IUH

### makeUHall

IN/OUT	Variable group	Variable	Units	Notes
IN	IUH	UHPParam		
		UHMethond		
OUT	IUH	UHAll[]		list

## fctIUH

### fctIUH.Nash

IN/OUT	Variable group	Variable	Units	Notes
IN	IUH\$ UHPParam	IUHNashStorage		
		IUHNashShape		
OUT		ut		

## fctIUH.Shipeng

IN/OUT	Variable group	Variable	Units	Notes
IN	IUH\$ UHPParam	RiverheadNumber		
		StreamLength		
		WaveVelocity		
OUT		ut		

## fctIUH.RuiXF

IN/OUT	Variable group	Variable	Units	Notes
IN	IUH\$ UHParam	RiverLength IUHRuiXFAttenuation WaveVelocity		
OUT		ut		

## CONFLUENCE

### CONFLUENCE.G2RES

IN/OUT	Variable group	Variable	Units	Notes
IN	Route	WaterSource	m3/s	
	Confluence	TypeGridID TransAll		
	IUH	UHAll		
OUT	Route	StaFlow	m3/s	

### CONFLUENCE.WSnGSmGn

IN/OUT	Variable group	Variable	Units	Notes
IN	Route	WaterSource	m3/s	
	Confluence	TypeGridID TransAll		
	IUH	UHAll		

OUT	Route	StaFlow	m3/s
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## ROUTE

### ROUTE.IUHG2RES

IN/OUT	Variable group	Variable	Units	Notes
IN	Route	WaterSource	m3/s	
	Confluence	TypeGridID		
		TransAll		
	IUH	UHParam		
		UHMethond		
OUT	Route	StaFlow	m3/s	

## Snow

### SNOW

### SNOW.VIC

IN/OUT	Variable group	Variable	Units	Notes
IN	SoilData	Roughness	m3/s	
	VegData	VegHeight		
		TrunkRatio		
		Displacement		
		RefHeight		

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	Roughness
	WindAttenuation
	Fetch
	MaxIntercept
	LAI
	Albedo
	IsOverstory
MetData	PrecipitationHoch
	WindSpeed
	VaporPressDefficit
	ShortWave
	AirDensity
	VaporPressure
	AirPressure
GeoData	Latitude
LandData	MaxSnowDistribSlope
	SnowRough
	LagOneSlope
	SigmaSlope
TimeData	JDay
OUT	

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