First, click on P on the left bar under "packages" in ARES. Select DIL 16 and click on OK. Now, select DIL 16 in packages and put it PCB. Then click on the component and select decompose in the upper bar. Doing this, you can manage the dimensions.

From view menu, select "mm" under toggle menu. This way, each square in the PCB layout is set as mm. Next, set the E_1 , D, e, E, e_A dimensions of XR2206 looking at the datasheet(package 300 MIL PDIP).

After setting the dimensions select all the component and click on the right Mouse button and click on "make package".

•••••			
	🕮 Make Package		? ×
	Indexing and Library Selection 3D Visualization		
	New Package <u>N</u> ame: 300PDIP		Save Package To Library: USERPKG
	Package Category:	✓ New	
	Package <u>Type</u> :		
NAME=DIL16 NAME=DIL16	Through Hole Package Sub-category:	∼ New	
TYPE=MODEL	Miscellaneous	√ New	
	Package Description:		
SCALE=1IN NAME=DIP16_300	Advanced Mode (Edit Manually)		
FILE=DIP300.VML		Help	0K Cancel

After making above setting click on OK button. Creating package part is finished and let's turn to ISIS.

S Pick Devices Keywor<u>d</u>s: pic16f84a Match Whole Words? <u>R</u>esults (1): PIC16E84A Preview Library Cat. Sub-Cat. Manufacturer Description VSM DLL Model [PIC16] Device <u>16</u> 15 OSC1/CLKIN OSC2/CLKOUT Category: [All Categorie Microproces: 4 MCLR RA4/TICK RB0/IN RB1 RB2 RB3 RB4 RB5 RB5 RB6 RB7 PCB Previ Sub-category: Manufact DIL18 OK Cancel

Under "devices" menu click on "P" and chose PIC16F84A.



Let's click on PIC16F84A under devices menu and put it to ISIS schematic screen.

To set the names and types(I/O/P) of pins select the component in schematic and click on decompose in upper bar.

Fin Name: AMSI Default Pin Number: 1 Draw body? ✓ Draw name? ✓ Draw number? ✓ Electrical Type: PS - Passive ● IP - Input ○ OP - Output ○ IO - Bidirectional ○	? × ? × Rotate Pin Name?	16 OSC1/CLKIN RA0 17 15 OSC2/CLKOUT RA1 1 4 MCLR RA3 2 RA4/T0CKI 6 7 7 RB0/INT 7 83 10 RB3 10 11 11 RB4 11 7 10 RB5 12 13 10
Use the PgUp and PgDn keys to	o navigate through the pins OK Cancel	NAME=PIC16F84A *PINOUT DIL18 *PINOUT SOIC127P1032X265-18
Image: Book of the second state STO Pin Name: STO STO Default Pin Number: 2 Draw body? Draw body? ✓ Draw name? ✓ Draw number? ✓ Electrical Type: PS - Passive O IP - Input OP - Output O IO - Bidirectional Use the PgUp and PgDn keys to	? × Rotate Pin Name? Rotate Pin Number? TS - Tristate O PU - Pull-up O PD - Pull-down O PP - Power Pin o navigate through the pins	1 AMSI RA0 17 0SC2/CLKOUT RA1 1 4 MCLR RA3 RA4/T0CKI 3 RB0/INT 6 RB1 8 RB2 9 RB3 10 RB4 11 RB5 12 RB6 13
<previous next=""></previous>	OK Cancel	NAME=PIC16F84A *PINOUT DIL18 *PINOUT SOIC127P1032X265-18

Looking at the "pic description" part in datasheet gives the names and types of pins correctly.

There are 16 pins but you will not put 4. And 12. Pins to the schematic.

Finally, you will have



Select all the component and click on right Mouse button and chose "make device".

		IS Make Device ?
+1 AMSI STO MO *3 MO *5 TC1 TC2 TR1 TR2	SYMA2 16, SYMA1 15, SYMA2 14, WAVE2 13, WAVE1 14, SYNC0 11, BIAS 9, FSKI 9,	Device Properties General Properties: Enter the name for the device and the component reference prefix. Device Name: 2206 Reference Prefig: U Enter the name of any external module file that you want attached to the device when it is place External Module: Active Component Properties: Enter properties for component animation. Please refer to the Proteus VSM SDK for more inform Symbol Name Stem:
NAME=PI *PINOUT *PINOUT	IC10F84A DIL18 SOIC127P1032X265-18	No. of States: Image: No. of States: Bitwise States? Link to DLL? Help Kack Next> OK

Name the component.



In the next window, select the package you defined in ARES and click on "add/edit" as below.

Write down the pin numbers in column A.

	<mark>isis</mark> Packa	ige Device	2											?	\times	
	Packaging	js: DIL1 ⊡De	8 efault packag	je?	Add	Rename	Delete	e Order			A	0.3in				
	No. Of Gat	e 1	Gates	(elements)	can be sw	vapped on the	PCB lay	out?		2		$\[mathcal{F}\]$		<u>P</u> .4		
	Pin	Hidden	Common	Туре	Α			^					7			
	SYNCO			Output	11									\circ		_
	TC1			Input	5						3		16			ed. It is st
H	TC2			Input	6											valid if yo
	TB1			Output	7						4		15			0.4
	TR2			Output	8					ĽĽ.						0.3 4
	VDD	~	~	Power	4					8	6		14			1 m
	VSS	~	~	Power	12					Ö.	-		-			-
	WAVE1			Input	13						6		13			2
	WAVE2			Input	14											۲
	NC Pins					Add F	in	Remove Pin			•		•			•
	Swapable	Pins:								~	7 🗥					•
							\sim	Add					Ψ.			۰
								Demain								۲
								nelliuve								-
							\sim	Replace								
	Use AR	ES Librarie	15						H	lelp	Assi	gn Package(s)		Cancel		1
ľ																
-																

After setting pin numbers please select your package defined in Ares and click on Add button.

Then you will have

	55 Package Device	2						?
	Packagings: 300F	PDIP			~		0 Sin	
	D	efault package?	Add	Rename Dele	ete Order		0.5III A───	→
	No. Of Gate 1	Gates (elemen	ts) can be s	wapped on the PCB la	ayout?			.⊑
	Pin Hidden	Common Type	А		^			
+1 AM	SI AMSI	Input	1					0
×2 ST(O BIAS ESKI	Uutpu	t IU 9					14
	MO	Outpu	t 3					
×5 тс	STO	Outpu	t 2			.⊑ (4	1
× 6 7 TC	2 SYMA1	Input	15			.7		
	1 SYMA2	Input	16					12
	TC1	Input	5					.
			-		¥			· ·
	NC Pins			Add Pin	Remove Pin		7	•
	Swapable Pins:							
NAM *PIN	E= OU			1	^ Add			
*PIN	ou				Remove			
↔					Replace			
					•			
	🗹 Use ARES Librarie	2e				Help	Assign Package(s)	Cancel

After making correct arrangement of pins you will click on next button.

Then fill in the blank as below and click on Next.

	Make Device Component Properties & Definitions Use the New and Delete keys to add/remove properties to the device. Properties can be	? :
1 AMSI SYMA2 16 2 STO SYMA1 15 3 MO WAVE1 14 3 WAVE1 13 14 5 TC1 14 13 7 TR1 BIAS 9 8 TR2 FSKI 9	packaging for PCB layout and parameters for simulator models, as well as information suc and components costs. ITFMOD CODEGEN PROGRAM CLOCK CFGWORD DBG, RANDOM_PMEM DBG, STARTUP_DELAY DBG, GENERATE_CLKOU WDT_PERIOD EPR_WRITEDATA_DELAY PORTTDLH PORTAGE	h as stock-code
NAME=PIC10F84A *PINOUT DIL18 *PINOUT SOIC127P1032X265-18	New Delete Visibility: Hide Name & Value Use default property definitions when editing Components?	Cance

Please delete the filename as below.

	Image: Make Device ? × Device Data Sheet & Help File
AMSI SYMA2 STO SYMA1 MO WAVE2 TC1 TC1 TC2 SYNCO TR1 BIAS TR2 FSKI 9	Data Sheet : Data Sheet : Download Server: Download Server: Download Path: Download Liser Id: Download Liser Id:
NAME=PIC16F84A *PINOUT DIL18 *PINOUT SOIC127P1032X265-18	Help Topic: Help File: PIC16>POPUP Context Number: 0
	Help <back next=""> OK Cancel</back>

Fill in the blanks as below and click on OK.

	GE Make Device	?
	Indexing and Library Selection	
· · · · · · · · · · · · · · · · · · ·	Device <u>C</u> ategory: Analog ICs → New	Save Device To <u>L</u> ibrary USERDVC
	Device Sub-category:	
AMSI SYMA2 *** STO SYMA1	Miscellaneous V New	
	Device <u>M</u> anufacturer:	
WAVET	Microchip V New	
× 3 TC1 6 TC2 SVNC0 11	Stock/Order <u>C</u> ode:	
7 TR1 BIAS 0		
TR2 FSKI	Device <u>D</u> escription:	
	PIC16 Microcontroller (1024B code, 68B data, 64B	
	Advanced Mode (Edit Fields Manuallu)	
	Device Notes:	
*PINOUT DIL18		
*PINOUT SOIC127P1032X265-18	· · · · · · · · · · · · · · · · · · ·	
•	Help <back next=""></back>	OK Ca

Your component is ready to use with its package.

