<u>E</u> ile ⊻iew Just th	ne Facts <u>M</u> aintenance <u>H</u> elp				
Project name Project name	4-24-2014 2:03:05 PM	*Project Name	Project name		
		Customer Name			
		*Address 1	123 Street		
		Address 2			
		*City	Your Town		
		*Postal Code	Any State or Provence	Country USA	
		Project Type		county cont	
		Specifying Engineer	a name	Architect another name	
		General Contractor	one more name		*Altitude 789
		Building Type Building Description	Other		
		Phone Number	[		
			Is this a SMA	CNA Project?	
			Is this a New	Construction	
			Is this a LEED	D Project?	
	Add New Project	Edit Customer	Save Customer	<u>Cancel Changes</u>	Duct Sealing From The Inside
C Draviour		· · · · · · · · · · · · · · · · · · ·	Harre marvar wir	- buttles - Catillists	Next (FOL )

When you click on the "New" button" the "Customer Information" screen will appear. To keep a history of the systems that are sealed we need to record specific information on these sites, so we will now start inputting the information requested on the computer screen. Some input will be required in order to proceed further, while other information will be optional. Start by inputting the owner's name and the street address of the location, and then using the drop down boxes select the city, state and zip code. For a new city, state and zip code, this new information will have to be entered and it will be saved for late use. The telephone number is the final required entry, as the fax number and the email address are optional inputs.

Note that Altitude is a required field and will change with job-sites. This field is used in the algorithms during the sealing process.

Also note the check box for SMACNA leakage class if you have the engineering specification for the job. This will help the software determine a target CFM for you. Will help you minimize the unknown around duct leak test failure. Note if you select this then the subsequent screen will look different with a few more options.

SMACNA abbr for Sheet Metals Association for Contractors of North America

Why? - ESCO's may specify that a duct work should go from Class 6 to Class 2 (say)

- you may want to re-commission the ductwork to current standards

Click on "Save" and then hit the "Next" or F9 key to display the next screen

system and	d seal even	t informat	
on-SMACNA	A)		
	• / SmartSei	al(4.0.0.11) Commercial - [Existing Project]	
Eile View Facts Maintenance Help			
	A Client		
System	ådd Oustom		
*Desm	intion of system	*Technician name	'our Tech
Main e	pipment model Your Brand	*Operating Pressure 3	*Units wg v
	*A/C tonnage 5	Type of HVAC built	ir Handler v
	*Fan CFM 2000		
			reporting Op Pressure us
NW Tower Preseal	Description of sealing event NW Tower *Supply/Return Supply 2 *Duct construction type Metal(1000) Status Ready For Preseal T	000 Change CFM	
	Supply air system Constant volume su	pply ~	
	*Operating Pressure 3	*Units Wg ~	Duct Op Pressure used for
	Edit Event	Save Event Cancel Sealing Chan	sealing certificate
	Fields marke	d with an * are required fields	
	The Sealing event s SMACNA job.	ection is for a NO	N-
<u>&lt;-</u> P	(is different for a SIV	IACINA JOD)	

This is the screen if you had NOT selected the SMACNA option.

Now you need to input data into the two sections

(top portion) a) info about the system. Note Operating pressure here is for the system. And is used for <u>summary report only</u>

(bottom section) is info about sealing events for the above system. Note that the operating pressure here is for the specific duct work that is being sealed. This value is used for the software logic, tests and the individual seal certificate.

As an example, You may have a 30Ton system with various branches and as part of your sealing project, you may want to split the job up into a number of sealing events each operating at a much lower operating pressure than the main system ductwork. So for every system you can have many 'sealing events' one for each sub-system.

Note:

This bottom section will look different depending upon what you selected in the Project information screen. If you had selected 'SMACNA' = Yes then you will see a different screen discussed separately

Remember to click 'Save' for each section.

Then click "Next" or hit the F9 key.

ile View Just the Facts Maint	enance Help					
	Office	8				
ystem elio		Add System				
	*Description of System	hello *Technicia		hnician name vk	L.	
	Main equipment model		*Operat	Pressure 500	*Units	
	*A/C tonnage	20	Туре	of HVAS unit		
	*Fan capacity (CFM)	20000		rep	orting Op Pressure	
	Edit System Save System Canc		es Help	UN	ILT IT Summary Cer	
ealing Event	-					
ial Preseal		Add Se	aling Event	Calculate 3	Surface Area	
	*Description of sealing	ng event trial		SMACNA Allowable Le	akage	
	*Supply	/Return Supply	Supply	*Duct class (wg) 2	g) 2	
	*Maximum duct p	Concrete/	(Concrete/	*Leakage	ss 6 🗸	
	Cumplusi	Status Ready to	A A A A A A A A A A A A A A A A A A A		wable leakage 8,8	
	Supply all	system	2	Note: Allowable leakage will o	alculate of cave	
				Contract of the second s	talassa and feathers	
				Duc	t class used for log	
Edit Event	Save Event Cancel Sealing Changes	Help		Duc and cert	post seal and seali ificate	
Edit Event	Save Event Cancel Sealing Changes	Help		Duc and cert	t class used for log post seal and seali ificate	

Next we will talk about the sealing event screen if you had selected the SMACNA option on the main Project information page.

The Duct class is important and is basically the static pressure in the duct work (or operating pressure of the duct work). In absence of data, you can use the design pressure of the duct in w.g. This value is used for the software logic, pre and post seal and also for determining the target leakage levels

## Terminology Alert

SMACNA Seal Class - A B C defines the scope of your sealing effort (whether it includes take-offs, joints or nothing)

SMACNA Leakage class ( $C_L$ ) – (2,4,6,8, ) helps quantify the allowable leakage (CFM) for your duct work This is a function of duct area, static pressure. Lower class means you are targeting to reach a very tight system (or low target leakage levels)

In the software we use SMACNA Leakage Class and NOT the SMACNA Seal Class

e View Just the Facts Maintenance Help	Office	
Calo SMACNA Allowable Leaks *Surface ar	eulate Surface Area age ea 1330.9	*Technician name vk *Operating Pressure 500 *Units Type of HVAC unit
*SMACNA leakage cla Allowable leaka Note: Allowable leaka	ge vill calculate on save	d Sealing Event SMACNA Allowable Leakage "Surface area 40 "Dud class (vg) 2 dy for Preseal Tes
SMACNA inputs -	Supply air system	Note: Allowable leakage will calculate on save

Here we talk in detail about the SMACNA inputs -

- 1. Ductwork surface area (sqft): Is the total square footage of the ductwork portion being sealed. You can use the calulator as described in the next page
- Duct Class (wg) The Duct class is important and is basically the static pressure in the duct work (or operating pressure). In absence of data, you can use the design pressure of the duct in w.g. This value is IMPORTANT and is used in the software logic, pre and post seal and also for determining the target leakage levels
- 3. Leakage class helps quantify the leakage in your duct work. Class 2 is a tighter duct work than a Class 4.

In the next slide will walk you through how to calculate duct area (if you do not have this information ready)



This quick calculator can help you quickly calculate surface area of the Duct portion that you are sealing (You will need this if the engineer has specified a SMACNA class and you need to figure out how much is the allowable leakage).

Just select type of section and enter the dimensions. Then select "Add Surface Area". (In the above picture you see 3 sections calculated). The software automatically sums up the total square footage when you click 'close.'