



V4.3

USER'S MANUAL – May 2017

ENERGY SYSTEMS LABORATORY

Texas Engineering Experiment Station

The Texas A&M University System



Introduction

The International Code Compliance Calculator (IC3) software is a simple, performance based, software tool for verifying that proposed new residences in Texas (of three stories or less) are in compliance with the Texas Building Energy Performance Standards (TBEPS). The IC3 verifies compliance using either the Simulated Performance Alternative Path or the Energy Rating Index Compliance Path criteria in the International Energy Conservation Code (IECC). The software is web-based and available at no charge, for builders, inspectors, architects, engineers, and others.

With the intention to cover the majority of residences that are built in Texas, the IC3 focuses on residential construction of three stories or less which uses conventional wood framing, foundation systems of slab on grade, pier and beam, or raised floors, and that has between 100 to 10,000 square feet of conditioned space per floor. Other types of residential construction such as steel framing, mass (concrete, CMU blocks, logs and insulated concrete forms) may not be candidates for this software and the User should contact the local building official for other energy code compliance options.

The IC3 uses simplified singular inputs, which encourage weighted averages for various energy components with multiple values, including wall and ceiling insulation, windows, ceiling heights and multiple A/C tonnages. Energy compliance for repairs and remodels of existing construction may be demonstrated with this software only if the repairs/additions are included as a whole house approach.

The IC3 calculates the above code performance of a new home and how much pollution is reduced (emissions reduction) by the home's energy efficiency. For projects that meet or exceed the Texas Building Performance Standards, the IC3 generates a detailed seven-page climate zone specific field inspection list, a three-page energy report (with/without a signature block), as well as a certificate. All of the documents are generated in a PDF format and may be saved to the user's PC.

Background

The Federal Clean Air Act (CAA) requires each state to produce and regularly update a State Implementation Plan (SIP). The CAA also requires that SIPs include a description of control strategies, or measures to deal with pollution, for areas that fail to achieve national ambient air quality standards (NAAQS). Finally, this Act grants powers of enforcement to the United States Environmental Protection Agency (EPA).

The EPA originally designated four areas in Texas as having unacceptable ozone levels in excess of the National Ambient Air Quality Standard (NAAQS) limits, leading to a designation as non-attainment areas.

In response, the 77th Texas Legislature's Senate Bill 5 (2001) established the Texas Emissions Reduction Plan (TERP). An element of the TERP is the Texas Building Energy Performance Standards (TBEPS) which adopts energy codes and provides implementation steps. This legislation assigned the Energy Systems Laboratory (ESL) at the Texas A&M Engineering Experiment Station several important roles, including calculation of emissions reduction from energy efficiency and renewable energy programs and initiatives and providing state-wide technical assistance regarding energy standards/codes to the state, municipalities and the building industry.

The ESL has developed several web-based energy efficiency and emissions reduction calculators including Texas Climate Vision (TCV) developed for Austin, TX, and the legacy calculators; eCalc and AIM. The IC3 is used to benchmark the estimated energy performance of new residential and multifamily construction in Texas of three stories or less, and is available via the internet to the general public at no charge.

The ESL is working with the different Councils of Government in Texas to develop a verification mechanism in order to maximize SIP Credits by aggregating emissions reduction accomplished by above-code-compliance.

Requirements

1. Browser: Microsoft Internet Explorer v11+ or Mozilla Firefox v45+
2. Adobe Acrobat Reader DC 15+ or Adobe Acrobat X or later (to view/print/save the certificates and energy reports which are dynamic .pdf format)

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What's New!

In version 4.0 – June 15, 2015

1. Initial release with single family for IECC 2015

In version 4.0.1 – July 31, 2015

1. The original version (4.0) printed the logged in user's name, phone number, and email address in the builder's fields on the certificate and energy report. These can now be overridden on a project-by-project basis. The new input fields on the left side of the screen are now the values that will be printed on the certificate and energy reports.
2. The project notes will now appear on the Energy Report. Due to spacing issues, only the first 60 characters will be printed. If the project notes are longer, they will be truncated in the energy report.
3. On a user's main user screen (the one immediately after login that lists all projects), a button has been added to the top: 'Edit User Information'. This button allows the logged in user's contact information.
4. On a user's main user screen a button has been added to the top: 'Import Project from IC3 version 3.x'. Several users have requested the ability to 'import' projects from the old version of IC3.
5. Users will be prompted to enter their IC3 version 3.14 credentials and the select a project to import. Only single-family project import is available at this time.
6. The user will be prompted for a new project name, project address, and orientation (similar to copying an existing project from version 4.0).

Aside from these fields, the project is copied without alteration *except* that the code is changed to IECC 2015. Some rounding issues on the energy Report have been fixed.

In version 4.1 – September 1, 2016

1. Initial release of Energy Rating Index (ERI) calculation

In version 4.2 – October 15, 2016

1. Added NCTCOG 2015 IECC amended code to the list of available codes

Common Screens

User Login Screen

IC3 International
■ ■ ■ CODE
■ ■ ■ COMPLIANCE
■ ■ ■ CALCULATOR

User Login

This is the publicly accessible energy code compliance software based on the Texas Building Energy Performance Standards. You must register a username and password in order to continue. If you are already registered in IC3 version 3.x, you must register again in the new system.

Username:

Password:

[Register New User](#) [Forgot Password](#)

RESNET
Helping the Industry Go Greener

SECO
State Energy Code Compliance Office

NCTCOG
North Central Texas Council of Governments

TEEG
Texas Energy Efficiency Group

ENERGY SYSTEMS LABORATORY
TEXAS A&M ENGINEERING EXPERIMENT STATION

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Users, who have registered on the current version of IC3, simply enter the Username and Password in the spaces specified and left-click on the “Login” button to be connected to the “**Main Page**”.

If the user has forgotten or needs to change their password, left-click on the “Forgot Password” link to be led through the secure process of changing a password.

A User who has not registered on the current version of IC3, left-click on the “Register New User” link the user will be redirected to the “User Registration” page.

User Resets Password

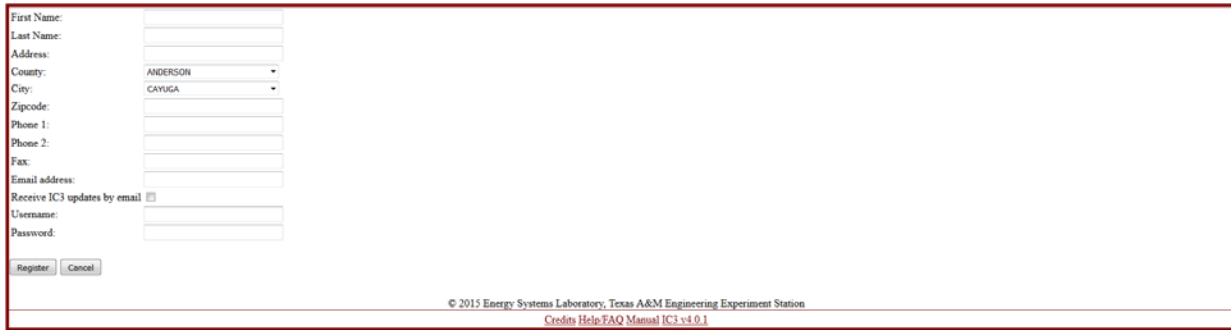
Please enter the username for your account. An email will be sent to the address registered with this account containing the new password. ESL recommends changing this password once you successfully log in.

Username:

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To reset a password, a user simply enters the email address that was used to register. The system will send the user an email with instructions to reset the account. To reset a password without the registered email account, please contact customer service at: esl_e2calc_support@tees.tamus.edu.

User Registration



The image shows a user registration form with the following fields and options:

- First Name: [Text Input]
- Last Name: [Text Input]
- Address: [Text Input]
- Country: [Dropdown Menu, selected: ANDERSON]
- City: [Dropdown Menu, selected: CAYUGA]
- Zipcode: [Text Input]
- Phone 1: [Text Input]
- Phone 2: [Text Input]
- Fax: [Text Input]
- Email address: [Text Input]
- Receive IC3 updates by email:
- Username: [Text Input]
- Password: [Text Input]

Buttons: Register, Cancel

Footer: © 2015 Energy Systems Laboratory, Texas A&M Engineering Experiment Station
Credits Help/FAQ Manual IC3 v1.0.1

After clicking on the **“Register New User”** button on the **“Login Page”** page, a new User may register the first time they use IC3. A user who is registered with IC3 version 3.14 (for IECC 2012 and earlier) must re-register in this new system.

Note: Usernames in the new system should not be an email addresses. Email addresses change over time.

The information provided is the contact information that ESL uses to contact you directly. It should be kept updated.

Checking the receive IC3 updates by email box permit the ESL to send IC3 update information on new releases, updates and scheduled outages.

ESL will never sell contact information to a third party, nor deliver emails, other than official IC3 information, to this email address.

Once the page is successfully completed, the user is taken to **“Main Page.”**

Main Page

Logout		New Project		Edit User Information			
Search		Search					
	Project Name	Street address	City	County	Last Updated On		
Select	000 2015 Qinbo Li_FLA test_IRC-2F	Test	PEARLAND	HARRIS	4/28/2017 5:18:51 PM	Delete	Copy
Select	000 2015 Qinbo Li_FLA test_IRC-3F	Test	ELGIN	TRAVIS	4/14/2017 10:18:38 AM	Delete	Copy
Select	00_2016_Qinbo_FSEC_2000_2015IECC_NG_Elec DHW	Test	PEARLAND	HARRIS	3/24/2017 5:38:32 PM	Delete	Copy
Select	00_2016_Qinbo_FSEC_2000_2015IECC_NG_EP	TEST	PEARLAND	HARRIS	11/18/2016 8:36:55 AM	Delete	Copy
Select	000 2015 Qinbo Li	1000 Balcones Dr	BELLVILLE	AUSTIN	5/2/2017 3:45:15 PM	Delete	Copy
Select	000 2015 Qinbo Li_FLA test_IRC	test	PEARLAND	HARRIS	2/20/2017 5:24:43 PM	Delete	Copy
Select	000 2015 Qinbo Li_FLA test_IRC-1F-Balanced	Balanced	PEARLAND	HARRIS	5/2/2017 3:46:31 PM	Delete	Copy
Select	000 2015 Qinbo Li_FLA test_IRC-2F-Balanced	Balanced	PEARLAND	HARRIS	9/9/2016 5:15:16 PM	Delete	Copy
Select	000 2015 Qinbo Li_FLA test_IRC-3F-Balanced	Balanced	PEARLAND	HARRIS	10/11/2016 10:56:56 AM	Delete	Copy
Select	000 2015 Roof Test_HP	HP System	PEARLAND	HARRIS	9/7/2016 3:42:50 PM	Delete	Copy
Select	000 2015 Roof Test_NG	NG System	GRAND PRAIRIE	TARRANT	8/30/2016 4:11:10 PM	Delete	Copy
Select	000 2015 SPEER Test	test	WAYSIDE	ARMSTRONG	10/5/2016 6:11:11 PM	Delete	Copy
Select	000 2015 SPEER Test_SJO	test	AMARILLO	POTTER	9/1/2016 3:29:03 PM	Delete	Copy
Select	000 2015 SPEER Test_SJO_21hours	test	AMARILLO	POTTER	4/11/2016 6:53:15 PM	Delete	Copy
Select	000 2015 SPEER Test_SJO_22hours	test	AMARILLO	POTTER	8/29/2016 2:40:42 PM	Delete	Copy

1 2 3 4 5 6 7 8 9 10 ...

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[Credits](#) [Help/FAQ](#) [Manual](#) [IC3 v4.3.0](#) **IC3**

Once logged on, the user's "Main Page" will appear. This page allows management all of the user's projects in IC3.

There are several buttons along the top of the page:

- Logout: returns to the "Login Page". Also, inactivity by a user for more than 10 minutes will automatically logout the user.
- New Project: Start a new project.
- Edit User Information: Edit contact information.

The table lists all of the projects that are currently associated with this account. Each line in the table is a separate project in the database. Navigate the pages by selecting the page number at the bottom right.

By default they are ordered alphabetically by Project Name. Projects can be sorted by Last Updated Date. Clicking either link in the table's title row will cause the table to resort.

The User can also search for a keyword within the project. Enter a word or phrase into the search box and click the Search button. The table will reload, and will now contain only those projects with that word or phrase in their title. Clearing the box and clicking search will restore the list of all projects.

Each project line has 3 links:

- Delete: The project will be deleted project using the “**Delete Project**” procedure
- Copy: A duplicate project will be created using the “**Copy Project**” procedure
- Select: The project opens to allow editing and printing of energy reports and other documentation using the “**Single Family Project**” screen

New Project

* Single Family Project

At the current time, only single family residential projects are available

Project Name:

Energy Code: 2015 IECC ▾

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Credits Help FAQ Manual IC2.v4.0.1

Creates a new project.

Only single family projects are available, at the current time.

Project Name must be unique for a user.

Once created you will be taken to the newly created project's **Single Family Project** screen.

Delete Project

Do you really wish to delete project 000 2015 Qinbo Li

If the delete link is clicked, to the user must acknowledge that deletion of the project is requested. Once a project is deleted, it is removed from the system and is not recoverable by the user or the ESL.

Copy project

Please Enter New Project's Data

Project Name

Street address

Orientation of unit front side

When copying an existing project, a new project name, street address, and orientation must be created.

The new project name must be unique for a user. The name and street address should be appropriate for the new project.

Other details and information from the copied project remains.

Single Family Projects

Single Family Project Screen for Performance Path

Return to Project List

Project Name: Simulation Mode: Performance Path ERI Simulation Path

Energy Code: Street Address: County: City: Zip: Builder Name: Builder Email: Builder Phone:

Notes

Global Parameters

Number of Floors: Number of Bedrooms: Orientation of Unit Front Side: Exterior Finish Type: Window: SHGC: U-Factor: Insulation: Wall Cavity Insulation: Wall Continuous Insulation: Stud Type: Ducts: Duct Systems Tested: Supply Duct Insulation: Return Duct Insulation:

Testing: Roof Foundation Heating: A/C Water Heater

Front Side

Length of Wall (ft)	200
Window Area (sq ft)	300
Horizontal Shading (in)	0
Height of Wall (ft)	10

Left Side

Length of Wall (ft)	50
Window Area (sq ft)	40
Horizontal Shading (in)	0
Height of Wall (ft)	10

Right Side

Length of Wall (ft)	60
Window Area (sq ft)	50
Horizontal Shading (in)	0
Height of Wall (ft)	10

Back Side

Length of Wall (ft)	200
Window Area (sq ft)	100
Horizontal Shading (in)	0
Height of Wall (ft)	10

Conditioned Floor Area (sq ft):

Displayed Floor: 1

Submit Project

When downloading the energy report, there are issues with browser plug-ins converting the pdf to HTML. See the link for details: [Help:FAQ](#)

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Credits: [Help:FAQ Manual IC1 v1.0.0](#)

Single Family Project Screen for ERI Path

Return to Project List

Project Name: Simulation Mode: Performance Path ERI Simulation Path

Energy Code: Street Address: County: City: Zip: Builder Name: Builder Email: Builder Phone:

Notes

Global Parameters

Number of Floors: Number of Bedrooms: Orientation of Unit Front Side: Exterior Finish Type: Window: SHGC: U-Factor: Insulation: Wall Cavity Insulation: Wall Continuous Insulation: Stud Type: Ducts: Duct Systems Tested: Supply Duct Insulation: Return Duct Insulation:

Testing: Roof Foundation Heating: A/C Water Heater Appliance

Front Side

Length of Wall (ft)	200
Window Area (sq ft)	300
Horizontal Shading (in)	0
Height of Wall (ft)	10

Left Side

Length of Wall (ft)	50
Window Area (sq ft)	40
Horizontal Shading (in)	0
Height of Wall (ft)	10

Right Side

Length of Wall (ft)	60
Window Area (sq ft)	50
Horizontal Shading (in)	0
Height of Wall (ft)	10

Back Side

Length of Wall (ft)	200
Window Area (sq ft)	100
Horizontal Shading (in)	0
Height of Wall (ft)	10

Conditioned Floor Area (sq ft):

Displayed Floor: 1

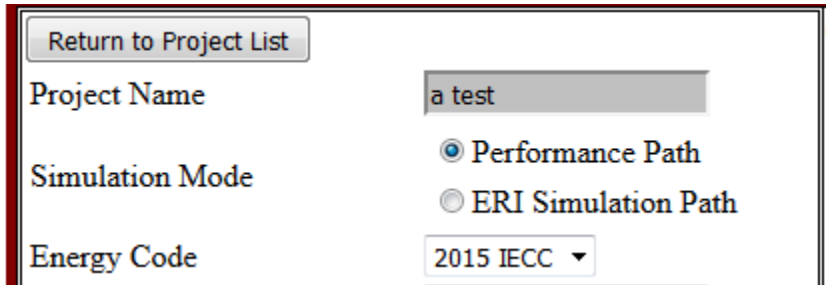
Submit Project

When downloading the energy report, there are issues with browser plug-ins converting the pdf to HTML. See the link for details: [Help:FAQ](#)

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This screen consists of several parts:

Mode Selection

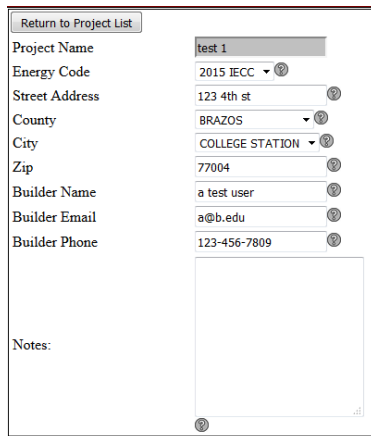


The screenshot shows a web form titled "Mode Selection". At the top left is a button labeled "Return to Project List". Below it are three input fields: "Project Name" with the text "a test", "Simulation Mode" with two radio buttons, "Performance Path" (selected) and "ERI Simulation Path", and "Energy Code" with a dropdown menu showing "2015 IECC".

Immediately under the return to Project List button, is the mode selector

- Select Performance Path to run an IECC Simulated Performance. A selection box labeled 'Energy Code' will appear populated with all currently available energy codes. Select the appropriate one.
- Select ERI Simulation Path to run an Energy Rated Index simulation in accordance with ANSI/RESNET/ICC 301-2014.

Project Data



The screenshot shows a web form titled "Project Data". At the top left is a button labeled "Return to Project List". Below it are several input fields: "Project Name" (test 1), "Energy Code" (2015 IECC), "Street Address" (123 4th st), "County" (BRAZOS), "City" (COLLEGE STATION), "Zip" (77004), "Builder Name" (a test user), "Builder Email" (a@b.edu), and "Builder Phone" (123-456-7809). There is also a "Notes:" section with a text area.

At the upper left section of the page is the project data screen. This consists of the generic data (address, builder data, etc.) for the project.

It is critical that the county and zip code are correct for the project to determine the correct weather file. When a county is selected, the city drop-down list will populate with known cities in the county. Within each list, there is an entry 'unincorporated'. If your city does not appear in

the list, select 'unincorporated'. The county is the determining factor, not the city. Please contact customer service at esl_e2calc_support@tees.tamus.edu and to provide information on missing county-city combinations that are missing from the database.

The builder information is printed on the energy report by default. When a new project is created, the logged-in user's contact information is used. The default information can be edited prior to printing the energy report.

The notes section is provided for additional project data that you want to include. These notes will appear on the energy report.

Error List

- Wall Cavity Insulation limited between 5 and 50
- Wall Continuous Insulation limited to 2 decimal precision
- Continuous insulation may be 0, but if not it has a minimum value of R-2 and a maximum value of R-10

The error list is at the bottom left of the page, below the project data. This is a list of all displayed data that is incorrect. Errors often are a result of a value that is out of acceptable range. Acceptable ranges for values are dependent on the selected IECC code.

Errors that occur in the supplemental panel information will color red the access button to the supplemental panel containing the error.

A report may not be submitted until all displayed errors in the list and in the supplemental panels have been corrected.

Submit Project

Submit Project

The submit project button will appear when all input errors have been resolved. Once the Submit Project button is clicked, the project will be submitted to the DOE2 calculation engine. A message stating the project is above or below code will appear once the simulation is complete.

Print Certificate

Print Energy Report

Inspection Form

In performance mode, if the project returns with a percent above code > 0% (passing), three print buttons will appear.

In ERI mode, if the project returns with a passing ERI \leq the maximum ERI as set by the Texas legislature, three print buttons will appear.

- Print Certificate: prints a small certificate for placement in the residential electrical panel.
- Print Energy Report: prints a detailed energy report on the project, for submittal to the jurisdiction for permitting.
- Inspection Form: an official Department of Energy (DOE) IECC inspection form based on climate zone. Note: this form is provided by the DOE.

[When downloading the energy Report, there are issues with browser plug-ins converting the .pdf to HTML5. See the link for details. Help/FAQ](#)

The energy report uses a new format called 'dynamic pdf'. Adobe Acrobat or Adobe Reader DC operates in the new format. If the user pdf converter is having a problem downloading the energy report, set the browser to open the Energy Report in one of the above Adobe products, rather than be handled 'internally'.

How to instructions are different for every browser. Detailed instructions can be found by clicking the Help/FAQ link.

The right side of the screen is where of the majority of the project data is entered.

Detailed help information can be obtained by clicking the 'question mark icon' after each field. Any field outside of acceptable range will have a red asterisk, and a message will appear in the Error List.

Global Parameters

Number of Floors	<input type="text" value="2"/>
Number of Bedrooms	<input type="text" value="4"/>
Orientation of Unit Front Side	<input type="text" value="North"/>
Exterior Finish Type	<input type="text" value="Brick"/>
Window	
SHGC	<input type="text" value="0.2"/>
U-Factor	<input type="text" value="0.25"/>
Insulation	
Wall Cavity Insulation	<input type="text" value="R-22"/>
Wall Continuous Insulation	<input type="text" value="R-3"/>
Studs	
Stud Type	<input type="text" value="2 x 4"/>
Ducts	
Duct Systems Tested <input checked="" type="checkbox"/>	
Supply Duct Insulation	<input type="text" value="R-10"/>
Return Duct Insulation	<input type="text" value="R-8"/>

Global information is located in the left column of the data entry screen. If the values are not constant throughout the residence, use an average or the most common for non-numerical entries.

Note: After exiting each field, the webpage will run a complete diagnosis on the project and update the Error List. The webpage will reload once the diagnosis and update are complete. Please wait for the page update prior to continuing data entry. Any changes made to another field during the diagnosis will be undone and will need to be reentered.

Supplemental Panels

Supplemental Panels are accessed by clicking on the buttons located below the Global Parameters. Each button will open a panel for entering the supplemental.

When the values in these supplemental fields are out of range or otherwise incorrect, it will be reported in one of two ways:

- If the panels are closed, the button will be colored red
- If the panels are open, the specific errors will be listed in the Error List

Note: For new projects, check the default values in all six supplemental panels to ensure the values correspond to this project.

Testing

Testing	
Duct Tightness (CFM25, post-construction test)	
Duct Tightness Test	Not Tested
Fraction of Duct Area Outside of Conditioned Space	0
Mechanical Ventilation Type	Balanced
Ventilation Rate (CFM)	200
Ventilation Operation (hrs/day)	24
Ventilation Fan Power(Watts)	43
Blower Door Test (ACH50)	
Blower Door Test	Tested
Blower Door Test Value	4
<input type="button" value="Close"/>	

The Testing Supplemental Panel allows input of basic testing values. Not all fields in the example above will appear on this project, only the testing fields applicable to this project will appear.

Duct Tightness tests are to be performed at CFM25, post-construction. Blower Door tests are to be performed at ACH50. When a pre-construction certificate is needed, select the 'Tested' option and enter an estimated value in these fields. When the actual results are available, edit these fields to get a final post-construction energy report.

Note: There are only 2 options in IC3 4.0, which are 'Tested' and 'Not Tested'. The value should be set to 'Tested' for IECC 2015 and higher. The 'Not tested' option is retained for use in imported projects only.

Mechanical Ventilation, when needed, has limits to its input values that are intricately connected to other fields in the project. Changing other fields in the project may alter the minimum or maximum values allowed. It is recommended to enter all other values in the project, before correcting any errors in these fields.

Roof

Roof	
Roof Covering Material	Composite Shingle
Radiant Barrier <input checked="" type="checkbox"/>	
Sealed Attic <input checked="" type="checkbox"/>	
Roof Insulation:	R-31
Ceiling Area	
Attic Floor Area (sq ft)	700
Flat Roof Area (sq ft)	0
Cathedral Ceiling Area (sq ft)	0
Area of Wall Adjacent to Unconditioned Attic Space (sq ft)	0
The total entered roof area is 700 sq ft. The total floor area is 663.06 sq ft	
<input type="button" value="Close"/>	

Roof details are entered on the Roof Supplemental Panel.

Note: the total ceiling area must be equal to or larger than the conditioned floor area of the top floor. The **Floor Plan Details** should be completed prior to the Roof Panel.

Foundation

Foundation	
Type of Foundation	Slab on Grade
Foundation Insulation	R-5
<input type="button" value="Close"/>	

Data about the foundation is entered on the Foundation Supplemental Panel.

Heating



The screenshot shows a window titled "Heating" with a red border. It contains the following fields: "Heating Type:" with a dropdown menu set to "Heat Pump", and "Heating Efficiency (HSPF):" with a numeric input field set to "10". A "Close" button is located at the bottom left.

Information on the central heating system is entered on the Heating Supplemental Panel.

A/C

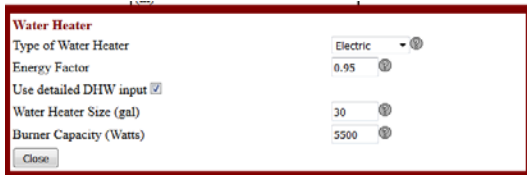


The screenshot shows a window titled "A/C" with a red border. It contains the following fields: "SEER:" with a numeric input field set to "18", and "Tonnage:" with a numeric input field set to "2". A "Close" button is located at the bottom left.

Information on the central A/C system is entered on the A/C Supplemental Panel.

Note: IC3 requires central air and heating. The program is not designed to evaluate other types of systems.

Water Heater



The screenshot shows a window titled "Water Heater" with a red border. It contains the following fields: "Type of Water Heater" with a dropdown menu set to "Electric", "Energy Factor" with a numeric input field set to "0.95", a checked checkbox for "Use detailed DHW input", "Water Heater Size (gal)" with a numeric input field set to "30", and "Burner Capacity (Watts)" with a numeric input field set to "5500". A "Close" button is located at the bottom left.

Information on the water heater is entered on the Water Heater Supplemental Panel.

Data entry for the details of each individual water heater when multiple water heaters are used is not permitted. Data shall be averaged for the multiple units and entered as one.

Appliances (ERI mode Only)

Lighting		Clothes Dryer		Clothes Washer	
Percent High-Efficiency Interior Lighting	<input type="text" value="75"/>	Fuel Type of Dryer	<input checked="" type="radio"/> Electric	Labeled Energy Rating (kWh/yr)	<input type="text" value="704"/>
Percent High-Efficiency Exterior Lighting	<input type="text" value="75"/>		<input type="radio"/> Natural Gas	Electric Rate (\$/kWh)	<input type="text" value="0.0803"/>
Dishwasher		Type of Dryer	<input checked="" type="radio"/> Timer	Annual Gas Cost (\$/yr)	<input type="text" value="23"/>
Dishwasher Capacity (# of settings)	<input type="text" value="12"/>		<input type="radio"/> Moisture Sensor	Natural Gas Rate (\$/therm)	<input type="text" value="0.58"/>
Dishwasher Energy Factor	<input type="text" value="1.30"/>	Dryer Electric Energy Efficiency	<input type="text" value="3.01"/>	Washer Capacity (ft ³)	<input type="text" value="2.874"/>
Range/Oven		Refrigerator		Modified Energy Factor (MEF)	<input type="text" value="0.817"/>
Fuel Type	<input checked="" type="radio"/> Electricity	Annual Energy Use (kWh/yr)	<input type="text" value="691"/>	Other	
	<input type="radio"/> Natural Gas			Has Programmable Thermostat	<input type="checkbox"/>
	<input type="checkbox"/> Induction Range			<input type="button" value="Set to Default"/>	
	<input type="checkbox"/> Convection Oven				
<input type="button" value="Close"/>					

Appliance and lighting information is entered on the Appliance Supplemental Panel.

The Set to Default button will set all values in this panel to default values as determined by the IECC and the National Appliance Energy Conservation Act.

This panel will only appear in ERI mode, as this data has no impact on the IECC Simulated Performance path.

Floor Plan Details

Displayed Floor 2

Front Side		
Length of Wall (ft)	<input type="text" value="50"/>	
Window Area (sq ft)	<input type="text" value="20"/>	
Horizontal Shading (in)	<input type="text" value="5"/>	
Height of Wall (ft)	<input type="text" value="10"/>	

Left Side		
Length of Wall (ft)	<input type="text" value="50"/>	
Window Area (sq ft)	<input type="text" value="12"/>	
Horizontal Shading (in)	<input type="text" value="5"/>	
Height of Wall (ft)	<input type="text" value="10"/>	

Back Side		
Length of Wall (ft)	<input type="text" value="50"/>	
Window Area (sq ft)	<input type="text" value="48"/>	
Horizontal Shading (in)	<input type="text" value="5"/>	
Height of Wall (ft)	<input type="text" value="10"/>	

Right Side		
Length of Wall (ft)	<input type="text" value="50"/>	
Window Area (sq ft)	<input type="text" value="0"/>	
Horizontal Shading (in)	<input type="text" value="5"/>	
Height of Wall (ft)	<input type="text" value="10"/>	

Summary		
Conditioned Floor Area (sq ft)	<input type="text" value="663.06"/>	
Conditioned Area Over Unconditioned Space (sq ft):	<input type="text" value="0"/>	

The right side of the data entry screen shows a graphical representation of the residential data by floor level.

The Displayed Floor entry shows which floor level of the residence is currently displayed in the graphic. The first floor values must be entered. Additional floor levels may be added by entering the data separately or by selecting the 'copy lower floor' button, which will import the data from the floor level directly below.

On each of the four sides you must enter data for that side:

Left Side

Length of Wall (ft) ?	50
Window Area (sq ft) ?	12
Horizontal Shading (in) ?	5
Height of Wall (ft) ?	10

- IC3 requires a rectangular residence. Changing the 'Length of Wall' field for a given wall will also set the opposite wall's length to the same value. For residences that are not rectangles, use the smallest dimensions that the residence will fit.
- IC3 requires a level ceiling. Changing the 'Height of Wall' field will set all walls to the same height. For houses with a non-uniform ceiling height, use the average height across the residence.
- 'Window Area' may not be larger than the calculated wall area based on the wall length and height

In the center of the graphic is the general size data for this floor level:

Conditioned Floor Area (sq ft) ?	663.06
Conditioned Area Over Unconditioned Space (sq ft): ?	0

- 'Conditioned Floor Area' may not be larger than calculated maximum based on the wall length.
- For all stories above the first, the 'Conditioned Area over Unconditioned Space' field appears. The following formula must be met for the IC3 to consider the project valid:
 $\text{<Conditioned Floor Area> - <Conditioned Area over Unconditioned Space> = <Conditioned Floor Area> of lower floor.}$