# Bull's Eye Training

Preamble

Structure

The chapters of this training regroup the different screens of Bull's Eye in respect of their function. Each new chapter represent a greater autonomy of the user, but necessitate the knowledge of the previous chapters. The screens are presented as follow, its use is described then the screen is shown and it's content coded and finally the content is described.

5 Level/roles

Analysis/ Research

Site management

Configuration

Follow-up
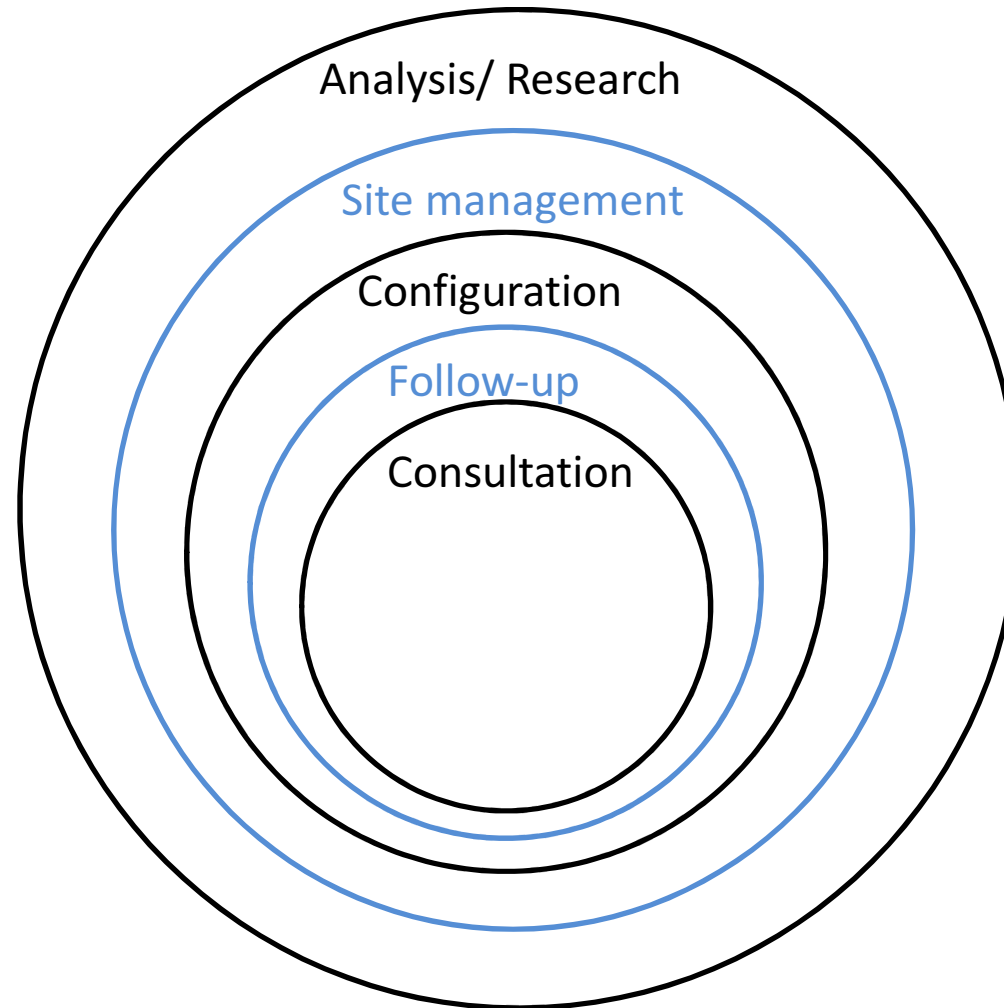
Consultation

5 user autonomy levels

1. The user can only consult the data and results of his site(s).
2. The user can keep the model(s) relevant longer by entering the data following the configuration of the site.
3. The user can model his site(s) himself
4. The user can manage his site(s).
5. The user can produce superior models with a high degree of precision by adjusting parameters to represent his site(s) specifically.

Complete training plan

The 5 levels are composed of the screens shown in an order facilitating the learning of the software. That means that the order in which they appear in the training doesn't necessarily correspond to the order in which they appear in the software.

1ˢᵗ level: screens

1. Models
   A. Relative productions
   B. Data by billing period
2. Statements
   A. Statement
   B. Refrigeration system
3. Models
   A. Consumption graphs
   B. Daily Weathers

2nd level: screens

1. Invoices
   A. Electricity
   B. Water
   C. Combustibles
2. Products
   A. Production

3rd level: screens

1. General
2. Configuration
   A. Hour types
   B. Hours
   C. Zones
   D. Statutory holidays
   E. Weather Coefficients
   F. Operations
   G. Fixed Loads

3rd level: screens

3. Products
   A. Catalog
   B. Parameters
4. Supplies
5. Events
6. Models
   A. Compiled

4th level: screens

1. Weathers
   A. Search
2. Supplies
3. Templates
   A. Search
4. Supply categories

4th level: screens

5. Constants

6. Units

7. Refrigeration system

    A. Equivalence factors

    B. Scales

8. Access

    A. Account manager

5th level: screens

1. Industry
   A. Industries
   B. Types
   C. Zones
2. Models
   A. Algorithms
   B. Parameters

Consultation

1st level: Consultation

A user of this level can only consult the data and results of a model already in place. This chapter explain what is the available data and how to consult it, in order to maximise what he is getting back from the analysis.

1ˢᵗ level: screens

1. Models
   A. Relative productions
   B. Data by billing period
2. Statements
   A. Statement
   B. Refrigeration system
3. Models
   A. Consumption graphs
   B. Daily Weathers

1.1.1 Relative productions

This screen's purpose is to consult the production data of a period for every known products.

1.1.1 Relative productions

1.1.1 Relative productions

1.1.1.1 Energy: the energy for which the user wishes to consult the data.

1.1.1.2 Model: indicate the model for which the user wishes to consult the data (mandatory field).

1.1.1.3 Period: start and end dates of the period for which the user wishes to consult the data.

1.1.1.4 Apply filter: return the data corresponding to the filters.

1.1.1 Relative productions

1.1.1.5 Name: the name of the product for which the quantity is shown.

1.1.1.6 Quantity: the quantity produced over the given period.

1.1.1.7 Relative Quantity: the quantity produced multiplied by the relative weight of the product (dependent on the energy selected).

1st level: screens

1. Models
   A. Relative productions
   B. Data by billing period
2. Statements
   A. Statement
   B. Refrigeration system
3. Models
   A. Consumption graphs
   B. Daily Weathers

1.1.2 Data by billing period

This screen's purpose is to regroup the data, such as the produced quantities, heating and cooling degree-days and the electricity consumption on the same temporal basis. The electricity billing period is the basis used because of the consumption stability.

1.1.2 Data by billing period

Training, Fredericton (NB, Canada)

Sites > Training > Models > Data by billing period

General   Configuration ▾   Invoices ▾   Products ▾   Supplies   Events   Statements ▾   Models ▾

Filters

Energy	**1.1.2.1**
Model	**1.1.2.2**
Period	**1.1.2.3**

Q Apply Filter

1.1.2.4

Data by billing period

# Billing Date		Total Consumption	Products	Fixed Loads	Cost	Events	Days	HDD	CDD
1.1.2.5 and 1.1.2.6		**1.1.2.7**	**1.1.2.8**	**1.1.2.9**	**1.1.2.10**	**1.1.2.11 and 1.1.2.12**		**1.1.2.13 and 1.1.2.14**	

1.1.2 Data by billing period

1.1.2.1 Energy: indicate the type of energy for which the user wishes to consult the data (mandatory field).

1.1.2.2 Model: indicate the name of the model of which the user wishes to consult the data (mandatory field).

1.1.2.3 Period: start and end dates of the period for which the user wishes to consult the data.

1.1.2.4 Apply filter: return the data corresponding to the filters.

1.1.2.5 #: the invoice number.

1.1.2.6 Billing Date: end date of the billing period for which the data is shown.

1.1.2 Data by billing period

1.1.2.7 Total Consumption: the total energy of the selected type consumed over the period.

1.1.2.8 Products: the products list and the quantity of each produced over the billing period.

1.1.2.9 Fixed loads: energy consumption by fixed loads categories over the billing period.

1.1.2.10 Cost: the estimated cost of the energy consumption by fixed loads categories over the billing period.

1.1.2.11 Events: the correction over the base consumption due to statutory holidays or events over the billing period, by fixed loads categories.

1.1.2 Data by billing period

1.1.2.12 Days: number of days comprised in the billing period (include the billing date)

1.1.2.13 HDD: heating degree-days over the billing period, a heating degree-day represent a full day where the temperature is one degree under the building heating set point.

1.1.2.14 CDD: cooling degree-days (same as 1.1.2.13 but for A/C)

1st level: screens

1. Models
   A. Relative productions
   B. Data by billing period
2. Statements
   A. Statement
   B. Refrigeration system
3. Models
   A. Consumption graphs
   B. Daily Weathers

1.2.1 Statement

This screen's purpose is to detail the consumption of the supplies by breaking it down to their power, hours of usage, and a percentage of correction depending on the usage. It also shows the impact of events and statutory holidays on supplies consumption.

1.2.1 Statement

Training, Fredericton (NB, Canada)

Sites › Training › Statements › Statement

| General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾ |

Filters

Energy
Electrical 1.2.1.1

Model 1.2.1.2

Period 1.2.1.3
[📅] to [📅]

Category 1.2.1.4

Zone 1.2.1.5

Supply 1.2.1.6

Production   Not production 1.2.1.7

🔍 Apply Filter

1.2.1.8

Statement

Zone	Hr Type	Supplies	Power				Normal Consumption				Losses			Statutory holidays			Extras		
			Watts	Ballast-%	Number lights	Quantity	Hours	Days	kWh	$	Hours	Days	kWh	Hours	Days	kWh	Hours	Days	kWh
1.2.1.9 to 1.2.1.11			1.2.1.12 and 1.2.1.13				1.2.1.14				1.2.1.15			1.2.1.16			1.2.1.17		

1.2.1 Statement

1.2.1.1 Energy: the energy for which the user wishes to consult the data (mandatory field).

1.2.1.2 Model: indicate the name of the model for which the user wishes to consult the data (mandatory field).

1.2.1.3 Period: start and end dates of the period for which the user wishes to consult the data (mandatory field).

1.2.1.4 Category: the fixed loads category for which the user wishes to consult the data.

1.2.1 Statement

1.2.1.5 Zone: the zone for which the user wishes to consult the data.

1.2.1.6 Supply: the supply type for which the user wishes to consult the data.

1.2.1.7.1 Production: Only the supplies that are flagged production will be returned.

1.2.1.7.2 Not production: Only the supplies that are not flagged production will be returned.

1.2.1 Statement

1.2.1.8 Apply filter: return the data corresponding to the filters.

1.2.1.9 Zone: the zone which holds the supply.

1.2.1.10 Hr Type: the hour type that represent the schedule of usage of the supply.

1.2.1.11 Supplies: the supply name for which the data is shown.

1.2.1 Statement

1.2.1.12 Power: The data concerning the instant consumption of a supply.

1.2.1.12.1 Watts: the supply power in Watts.

1.2.1.12.2 Ballast-%: the correction percentage on the power to get the real consumption of the supply. A ballast (lighting) will generally imply a percentage over 100% because it comes over the power of the bulb. Oppositely, a supply working on a cycle will have a percentage under 100%. If no information is given the software uses 100%.

1.2.1 Statement

1.2.1.13.1 Number lights: the quantity of lights included in the given lighting supply, in a given zone with a given hour type.

1.2.1.13.2 Quantity: the supply quantity in a given zone with a given hour type.

1.2.1.14 Normal Consumption: the consumption for the supply quantity over the period if no events and holidays occured.

1.2.1.14.1 Hours: the normal number of working hours for the supplies over the given period.

1.2.1 Statement

1.2.1.14.2 Days: the number of days over which the supply has functioned.

1.2.1.14.3 kWh (TJ): the normal consumption in kWh (TJ) of the supplies over the period.

(1.2.1.12.1 X 1.2.1.12.2 X 1.2.1.13.1 X 1.2.1.14.1)

1.2.1.14.4 $: the cost associated with the consumption (1.2.1.14.3).

1.2.1 Statement

1.2.1.15 Losses: the results of the loss events over the period.

1.2.1.15.1 Hours: the number of working hours lost for the supplies over the given period because of events.

1.2.1.15.2 Days: the number of days affected by loss events.

1.2.1.15.3 kWh (TJ): the lost supply consumption in kWh (TJ) over the period because of loss events.

1.2.1 Statement

1.2.1.16 Statutory holidays: the results of the statutory holidays over the period.

1.2.1.16.1 Hours: the number of working hours lost for the supplies over the given period because of statutory holidays.

1.2.1.16.2 Days: the number of days affected by statutory holidays.

1.2.1.16.3 kWh (TJ): the lost supply consumption in kWh (TJ) over the period because of statutory holidays.

1.2.1 Statement

1.2.1.17 Extras: the results of the extra events over the period.

1.2.1.17.1 Hours: the number of working hours added for the supplies over the given period because of events.

1.2.1.17.2 Days: the number of days affected by extra events.

1.2.1.17.3 kWh (TJ): the added supply consumption in kWh (TJ) over the period because of extra events.

1st level: screens

1. Models
   A. Relative productions
   B. Data by billing period
2. Statements
   A. Statement
   B. Refrigeration system
3. Models
   A. Consumption graphs
   B. Daily Weathers

1.2.2 Refrigeration system

This screen's purpose is to consult the data about the refrigerated and freezing warehouses and working spaces. If there are sale refrigerators they are represented as well. Their dimensions and consumption are shown.

1.2.2 Refrigeration system

1.2.2 Refrigeration system

1.2.2.1 Model: indicate the name of the model for which the user wishes to consult the data (mandatory field).

1.2.2.2 Period: start and end dates of the period for which the user wishes to consult the data.

1.2.2.3 Zone: the zone for which the user wishes to consult the data.

1.2.2.4.1 Production: Only the supplies that are flagged production will be returned.

1.2.2 Refrigeration system

1.2.2.4.2 Not production: Only the supplies that are not flagged production will be returned.

1.2.2.5 Apply filter: return the data corresponding to the filters.

1.2.2.6 Name: indicate the name of the refrigerated or freezing warehouse or working space.

1.2.2.7 Height: the height of the space.

1.2.2 Refrigeration system

1.2.2.8 Width: the width of the space.

1.2.2.9 Length: the length of the space.

1.2.2.10 Volume: the volume of the space.

1.2.2.11 Average consumption: the average power used for the refrigeration system by unit of volume, taking into account the geometry of the system and the activities taking place.

1.2.2 Refrigeration system

1.2.2.12 Load factor: the standard load factor of a refrigeration system.

1.2.2.13 Production: the percentage of the space that is related to production activities.

1.2.2.14 Consumption: consumption for the refrigeration of the space over the given period.

1ˢᵗ level: screens

1. Models
    A. Relative productions
    B. Data by billing period
2. Statements
    A. Statement
    B. Refrigeration system
3. Models
    A. Consumption graphs
    B. Daily Weathers

1.3.1 Consumption graphs

This screen's purpose is to show graphically the relation between the production and consumption.

1.3.1 Consumption graphs

Training, Fredericton (NB, Canada)

Sites > Training > Models > Consumption Graphs

General   Configuration ▾   Invoices ▾   Products ▾   Supplies   Events   Statements ▾   Models ▾

Filters

Energy   **1.3.1.1**

Model   **1.3.1.2**

Period   **1.3.1.3**

1.3.1.4

🔍 Apply Filter

Consumption Graphs   **1.3.1.5**

1.3.1 Consumption graphs

1.3.1.1 Energy: indicate the energy type for which the user wishes to consult the data (mandatory field).

1.3.1.2 Model: indicate the name of the model for which the user wishes to consult the data (mandatory field).

1.3.1.3 Period: the first and last year of the period over which the user wishes to produce the trendline (inclusively and mandatory).

1.3.1.4 Apply filter: return the figure of the data corresponding to the filters.

1.3.1.5 Linear Trendlines: space where the figure of the consumption as a function of the production.

1st level: screens

1. Models
   A. Relative productions
   B. Data by billing period
2. Statements
   A. Statement
   B. Refrigeration system
3. Models
   A. Consumption graphs
   B. Daily Weathers

1.3.2 Daily Weathers

This screen's purpose is to consult the meteorological data used to model the consumption. The heating and cooling degree-days, the effect of the wind and the sun and the impact of humidity are shown. It is especially useful to determine which effects have a significative impact when modeling.

1.3.2 Daily Weathers

Training, Fredericton (NB, Canada)

Sites > Training > Models > Daily Weather

| General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾ |

Filters

Model 1.3.2.1

Period 1.3.2.2 📅 to 📅

🔍 Apply Filter

1.3.2.3

Daily Weather

Conditions				DD				Sun impact Coefficient		Wind impact Coefficient		° Effect Sun & Wind			° Effect Sun only			° Effect Wind only		
Date	Humidity	Wind	Sun	Heating	Cooling	Dbt	Wbt	Heating	Cooling	Heating	Cooling	Heating	Cooling	Dbta	Heating	Cooling	Dbta	Heating	Cooling	Dbta
1.3.2.4 and 1.3.2.5				1.3.2.6 to 1.3.2.8				1.3.2.9		1.3.2.10		1.3.2.11			1.3.2.12			1.3.2.13		

1.3.2 Daily Weathers

1.3.2.1 Model: indicate the name of the model for which the user wishes to consult the data (mandatory field).

1.3.2.2 Period: start and end dates of the period for which the user wishes to consult the data.

1.3.2.3 Apply filter: return the data corresponding to the filters.

1.3.2.4 Date: the date for which the data is given.

1.3.2 Daily Weathers

1.3.2.5 Conditions: the data supplied by the user if desired. They are not included in the Bull's Eye database.

    1.3.2.5.1 Humidity: the relative humidity (%) for the day.

    1.3.2.5.2 Wind: the average wind speed of the day.

    1.3.2.5.3 Sun: the number of hours of sunshine for the day.

1.3.2 Daily Weathers

1.3.2.6 DD: the degree-days for the day.

    1.3.2.6.1 Heating: heating degree-days.

    1.3.2.6.2 Cooling: cooling degree-days.

1.3.2 Daily Weathers

1.3.2.7 Dbt: the dry bulb temperature for the day.

1.3.2.8 Wbt: the wet bulb temperature for the day.

1.3.2.9 Sun impact Coefficient: the coefficients of the impact of sunshine on the degree-days.

    1.3.2.9.1 Heating: coefficient on the heating degree-days.

    1.3.2.9.2 Cooling: coefficient on the cooling degree-days.

1.3.2 Daily Weathers

1.3.2.10 Wind impact Coefficient: the coefficients of the impact of wind speed on the degree-days.

1.3.2.10.1 Heating: coefficient on the heating degree-days.

1.3.2.10.2 Cooling: coefficient on the cooling degree-days.

1.3.2 Daily Weathers

1.3.2.11 Effect Sun & Wind: the effects of the sun and wind on the degree-days and the apparent temperature.

1.3.2.11.1 Heating: heating degree-days taking into account the effect of the sun and wind.

1.3.2.11.2 Cooling: cooling degree-days taking into account the effect of the sun and wind.

1.3.2.11.3 Dbta: adjusted temperature taking into account the effects of the sun and wind.

1.3.2 Daily Weathers

1.3.2.12 Effect Sun only: the effects of the sun on the degree-days and the apparent temperature.

1.3.2.12.1 Heating: heating degree-days taking into account the effect of the sun.

1.3.2.12.2 Cooling: cooling degree-days taking into account the effect of the sun.

1.3.2.12.3 Dbta: adjusted temperature taking into account the effects of the sun.

1.3.2 Daily Weathers

1.3.2.13 Effect Wind only: the effects of the wind on the degree-days and the apparent temperature.

1.3.2.13.1 Heating: heating degree-days taking into account the effect of the wind.

1.3.2.13.2 Cooling: cooling degree-days taking into account the effect of the wind.

1.3.2.13.3 Dbta: adjusted temperature taking into account the effects of the wind.

Follow-up

2nd level: Follow-up

A user of this level can add data to an existing model. It allows the model to stay correct as long as the follow-up is done or until changes impacting the energy consumption are made to the building.

2ⁿᵈ level: screens

1. Invoices
   A. Electricity
   B. Water
   C. Combustibles
2. Products
   A. Production

2.1.1 Electricity

This screen's purpose is to input the data relative to the site's electricity consumption and production.

2.1.1 Electricity

Training, Fredericton (NB, Canada)

Sites › Training › Invoices › Electricity invoices

General Configuration ▾ **Invoices** ▾ Products ▾ Supplies Events Statements ▾ Models ▾

2.1.1.1	2.1.1.2 to 2.1.1.4

Electricity invoices

☁ Export   ☁ Import   ＋ Add New

Name	Number	Period ending	Invoice Amount		Apparent Power		Billed Power		Actual Power		Electricity Consumption			Last modification	Actions
			Before Taxes	Taxes included	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Billed	Peak	Produced On Site		
2.1.1.5 to 2.1.1.7			2.1.1.8 and 2.1.1.9		2.1.1.10 and 2.1.1.11		2.1.1.12 and 2.1.1.13		2.1.1.14 and 2.1.1.15		2.1.1.16 to 2.1.1.18			2.1.1.19	2.1.1.20

2.1.1 Electricity

2.1.1.1 Export: allows the data input to be exported in an EXCEL file. If no data has been input it returns the EXCEL template on which the user can write the data before importing it into Bull's Eye. The template isn't shown because the fields are the same as the screen shown here.

2.1.1.2 Import: this button import the EXCEL template back into Bull's Eye so the data is read.

2.1.1.3 Add New: allows to access the screen where you can add new data in Bull's Eye.

2.1.1.3 Electricity (Add New)

Training, **Fredericton (NB, Canada)**

Sites > Training > Invoices > Electricity invoices >

General | Configuration ▾ | **Invoices** ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾

Electricity invoice   ?

Period *	[ ] 📅 to [ ] 📅		2.1.1.3.1
Name			
Invoice number *			2.1.1.3.2 and 2.1.1.3.3
Billed consumption *		KWH	
Invoice before taxes		$	2.1.1.3.4 and 2.1.1.3.5
Invoice taxes included		$	
Apparent power peak		KVA	2.1.1.3.6 and 2.1.1.3.7
Apparent power off peak		KVA	
Billed power peak		KW	2.1.1.3.8 and 2.1.1.3.9
Billed power off peak		KW	
Actual power peak		KW	2.1.1.3.10 and 2.1.1.3.11
Actual power off peak		KW	
Peak consumption		KWH	2.1.1.3.12 and 2.1.1.3.13
Electricity generated on site		KWH	2.1.1.3.14

2.1.1.3.15   Save electricity invoice   Cancel   2.1.1.3.16

2.1.1.3 Electricity (Add New)

2.1.1.3.1Period: start and end dates of the period covered by the invoice (inclusively). This field is mandatory.

2.1.1.3.2 Name: allows the giving of a name to the invoice. This field doesn't require unicity.

2.1.1.3.3 Invoice number: the invoice number or it's given number on the list. This field is mandatory and the number must be unique.

2.1.1.3.4 Billed consumption: the quantity of electricty bought on the invoice (kWh). This field is mandatory.

2.1.1.3 Electricity (Add New)

2.1.1.3.5 Invoice before taxes: price without taxes.

2.1.1.3.6 Invoice taxes included: price with the taxes.

2.1.1.3.7 Apparent power peak: power on peak accounting for the real power and reactive power.

2.1.1.3.8 Apparent power off peak : power off peak accounting for the real power and reactive power.

2.1.1.3 Electricity (Add New)

2.1.1.3.9 Billed power peak: power on peak billed by the provider.

2.1.1.3.10 Billed power off peak : power off peak billed by the provider.

2.1.1.3.11 Actual power peak: the true power used during peak.

2.1.1.3.12 Actual power off peak : the true power used off peak.

2.1.1.3 Electricity (Add New)

2.1.1.3.13 Peak consumption: the electricity consumption (included in the billed consumption) during peak consumption hours (defined by the provider).

2.1.1.3.14 Electricity generated on site: electricity produced on site during the period covered by the invoice. The means of production of the electricity doesn't matter but it shouldn't be included in a invoice.

2.1.1.3 Electricity (Add New)

2.1.1.3.15 Save electricity invoice: saves the data input.

2.1.1.3.16 Cancel: cancels the data input.

2.1.1 Electricity

2.1.1.4 Delete all: delete every electricity invoices entered (visible only if there are any).

2.1.1.5 Name: invoice name (see 2.1.1.3.2).

2.1.1.6 Number: invoice number (see 2.1.1.3.3).

2.1.1.7 Period ending: the date of the end of the billing period (see 2.1.1.3.1).

2.1.1.8 Invoice Amount Before Taxes: see 2.1.1.3.5.

2.1.1.9 Invoice Amount Taxes included: see 2.1.1.3.6.

2.1.1 Electricity

2.1.1.10 Apparent Power Peak: see 2.1.1.3.7.

2.1.1.11 Apparent Power Off Peak : see 2.1.1.3.8.

2.1.1.12 Billed Power Peak: see 2.1.1.3.9.

2.1.1.13 Billed Power Off Peak : see 2.1.1.3.10.

2.1.1.14 Actual Power Peak: see 2.1.1.3.11.

2.1.1.15 Actual Power Off Peak : see 2.1.1.3.12.

2.1.1 Electricity

2.1.1.16 Electricity Consumption Billed: see 2.1.1.3.4.

2.1.1.17 Electricity Consumption Peak: see 2.1.1.3.13.

2.1.1.18 Electricity Consumption Produced On Site: see 2.1.1.3.14.

2.1.1.19 Last modification: indicate the moment where the data of an invoice has been changed for the last time and the name of the user that modified the data.

2.1.1 Electricity

2.1.1.20 Actions: contains the modify button ✎ that allows the return to the « Add New » screen with the data already input and the delete button   ✖   to delete the data input.

2nd level: screens

1. Invoices
    A. Electricity
    B. Water
    C. Combustibles
2. Products
    A. Production

2.1.2 Water

This screen's purpose is to input water consumption in order to calculate its heating and cooling loads.

2.1.2 Water

Training, Fredericton (NB, Canada)

Sites > Training > Invoices > Water Invoices

General   Configuration ▾   Invoices ▾   Products ▾   Supplies   Events   Statements ▾   Models ▾

2.1.2.2 to 2.1.2.4

Water Invoices

2.1.2.11   ☁ Export   ☁ Import   + Add New

			Consumption - Usage			Purchase			
Name	Invoice Number	End	Cooling Water	Hot Water	Aqueduct Meter	Cold Water	Hot Water	Steam Last modification	Actions
2.1.2.5 and 2.1.2.6	2.1.2.7	2.1.2.8	2.1.2.9	2.1.2.10	2.1.2.11	2.1.2.12	2.1.2.13 and 2.1.2.14	2.1.2.15

2.1.2 Water

2.1.2.1 Export: allows the data input to be exported in an EXCEL file. If no data has been input it returns the EXCEL template on which the user can write the data before importing it into Bull's Eye. The template isn't shown because the fields are the same as the screen shown here.

2.1.2.2 Import: this button import the EXCEL template back into Bull's Eye so the data is read.

2.1.2 Water

2.1.2.3 Add New: allows to access the screen where you can add new data in Bull's Eye.

2.1.2.4 Delete all: delete every water invoices entered (visible only if there are any).

2.1.2.5 Name: see 2.1.2.3.2.

2.1.2.3 Water (Add New)

Training, Fredericton (NB, Canada)

Sites > Training > Invoices > Water invoice >

General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾

Water

Period *		📅 to	📅	2.1.2.12.1
Name				2.1.2.12.2
Invoice number *				and 2.1.2.12.3
Cooling Water Consumption		m3		2.1.2.12.4
Hot Water Consumption		m3		to 2.1.2.12.7
Aqueduct Meter Consumption		m3		2.1.2.12.8
Cold Water Purchased		m3		to 2.1.2.12.11
Hot Water Purchased		m3		2.1.2.12.12
Steam Purchased		kg		to 2.1.2.12.15

2.1.2.12.16 Save Water invoice Cancel 2.1.2.12.17

2.1.2.3 Water (Add New)

2.1.2.3.1 Period: start and end dates of the period covered by the invoice (inclusively). This field is mandatory.

2.1.2.3.2 Name: the name of the invoice. This field doesn't require unicity.

2.1.2.3.3 Invoice number: the invoice number or it's given number on the list. This field is mandatory and the number must be unique.

2.1.2.3.4 Cooling Water Consumption: quantity of water cooled on site over the period.

2.1.2.3 Water (Add New)

2.1.2.3.5 :the unit of volume in which the value of 2.1.12.4 is expressed.

2.1.2.3.6 Hot Water Consumption: quantity of water heated on site over the period.

2.1.2.3.7 :the unit of volume in which the value of 2.1.12.6 is expressed.

2.1.2.3 Water (Add New)

2.1.2.3.8 Aqueduct Meter Consumption: the quantity of water consummed delivered by an utility at its aqueduct temperature. 2.1.2.3.4 and 2.1.2.3.6 are included in this figure.

2.1.2.3.9 :the unit of volume in which the value of 2.1.3.8 is expressed.

2.1.2.3.10 Cold Water Purchased: the quantity of water bought to its setpoint temperature.

2.1.2.3.11 :the unit of volume in which the value of 2.1.3.10 is expressed.

2.1.2.3 Water (Add New)

2.1.2.3.12 Hot Water Purchased: the quantity of water bought to its setpoint temperature.

2.1.2.3.13 :the unit of volume in which the value of 2.1.3.12 is expressed.

2.1.2.3.14 Steam Purchased: the quantity of water bought in steam state.

2.1.2.3.15 :the unit of mass in which the value of 2.1.3.14 is expressed.

2.1.2.3 Water (Add New)

2.1.2.3.16 Save Water Invoice: saves the data input.

2.1.2.3.17 Cancel: cancels the data input.

2.1.2 Water

2.1.2.6 Invoice Number: see 2.1.2.3.3.

2.1.2.7 End: end date of the billing period (see 2.1.2.3.1).

2.1.2.8 Consumption – Usage Cooling Water: see 2.1.2.3.4.

2.1.2.9 Consumption – Usage Hot Water: see 2.1.2.3.6.

2.1.2.10 Consumption – Usage Aqueduct Meter: see 2.1.2.3.8.

2.1.2.11 Purchase Cold Water: see 2.1.2.3.10.

2.1.2 Water

2.1.2.12 Purchase Hot Water: see 2.1.2.3.12.

2.1.2.13 Purchase Steam: see 2.1.2.3.14

2.1.2.14 Last modification: indicate the moment where the data of an invoice has been changed for the last time and the name of the user that modified the data.

2.1.2.15 Actions: contains the modify button ✎ that allows the return to the « Add New » screen with the data already input and the delete button ✖ to delete the data input.

2nd level: screens

1. Invoices
   A. Electricity
   B. Water
   C. Combustibles
2. Products
   A. Production

2.1.3 Combustibles

This screen's purpose is to input the data relative to the site's combustibles consumption and the energy related.

2.1.3 Combustibles

Training, Fredericton (NB, Canada)

Sites > Training > Invoices > Combustibles Invoices

General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾

Filters

Period 2.1.3.1   to

Category 2.1.3.2

Type 2.1.3.3

Q Apply Filter

2.1.3.4

Combustibles Invoices

2.1.3.5 to 2.1.3.8   ☁ Export   ☁ Import   ✚ Add New

Invoice Number	Name	Period ending	Category	Type	Lower Upper	Quantity	Calorific power	Before Taxes	Taxes included	Last modification	Actions
								Invoice Amount			
2.1.3.9	2.1.3.10 and 2.1.3.11		2.1.3.12 and 2.1.3.13		2.1.3.14 and 2.1.3.15		2.1.3.16	2.1.3.17 and 2.1.3.18		2.1.3.19	2.1.3.20

2.1.3 Combustibles

2.1.3.1 Period: start and end dates of the period for which the user wishes to consult the invoices.

2.1.3.2 Category: the category of combustible for which the user wishes to consult the invoices (see 2.1.3.7.4).

2.1.3.3 Type: the type of combustible for which the user wishes to consult the invoices (see 2.1.3.7.5).

2.1.3.4 Apply filter: return the invoices corresponding to the filters 2.1.3.1 to 2.1.3.3.

2.1.3 Combustibles

2.1.3.5 Export: allows the data input to be exported in an EXCEL file. If no data has been input it returns the EXCEL template on which the user can write the data before importing it into Bull's Eye. The template isn't shown because the fields are the same as the screen shown here.

2.1.3.6 Import: this button import the EXCEL template back into Bull's Eye so the data is read.

2.1.3.7 Add New: allows to access the screen where you can add new data in Bull's Eye.

2.1.3.8 Delete all: delete every combustibles invoices entered (visible only if there are any).

2.1.3.7 Combustibles (Add New)

Training, Fredericton (NB, Canada)

Sites › Training › Invoices › Combustibles invoice ›

General   Configuration ▾   Invoices ▾   Products ▾   Supplies   Events   Statements ▾   Models ▾

Combustibles invoice   ❓

Period * [📅] to [📅]	**2.1.3.7.1**
Name * [ ]	**2.1.3.7.2**
Invoice number * [ ]	**2.1.3.7.3**
Category [▾] Type [▾]	**2.1.3.7.4 and 2.1.3.7.5**
Lower Upper [▾]	**2.1.3.7.6**
Quantity [ ] [▾]	**2.1.3.7.7 and 2.1.3.7.8**
Calorific power [ ] [🔄] TJ	**2.1.3.7.9**
Invoice Amount before taxes [ ] $ Invoice Amount taxes included [ ] $	**2.1.3.7.10 and 2.1.3.7.11**

2.1.3.7.12	Save Combustible invoice	Cancel	2.1.3.7.13

2.1.3.7 Combustibles (Add New)

2.1.3.7.1 Period: start and end dates of the period covered by the invoice (inclusively). This field is mandatory.

2.1.3.7.2 Name: the name of the invoice. This field is mandatory but doesn't require unicity.

2.1.3.7.3 Invoice number: the invoice number or it's given number on the list. This field is mandatory and the number must be unique.

2.1.3.7.4 Category: the category of the combustible of the invoice . This field is mandatory.

2.1.3.7 Combustibles (Add New)

2.1.3.7.5 Type: the type of combustible of the invoice, the types availables are dependant on the selected category. This field is mandatory.

2.1.3.7.6 Lower Upper: allow the user to determine how the content of carbon of the combustible used is higher or lower than the average for this combustible type. This field is mandatory.

2.1.3.7.7 Quantity: the combustible consumption value. This field is mandatory.

2.1.3.7.8 : the unit of the value 2.1.3.7.7. The unit type is dependant on the combustible type. This field is mandatory.

2.1.3.7 Combustibles (Add New)

2.1.3.7.9 Calorific power: quantity of energy obtained from the burning of one unit of combustible. This field is mandatory. The symbol allows the user to get the value in the software data in case he doesn't know it.

2.1.3.7.10 Invoice amount before taxes: the amount of the invoice without taxes.

2.1.3.7.11 Invoice amount taxes included: the amount of the invoice including taxes.

2.1.3.7 Combustibles (Add New)

2.1.3.7.12 Save Combustible Invoice: saves the data input.

2.1.3.7.13 Cancel: cancels the data input.

2.1.3 Combustibles

2.1.3.9 Invoice Number: see 2.1.3.7.3.

2.1.3.10 Name: see 2.1.3.7.2.

2.1.3.11 Period ending: see 2.1.3.7.1.

2.1.3.12 Category: see 2.1.3.7.4.

2.1.3.13 Type: see 2.1.3.7.5.

2.1.3.14 Lower Upper: see 2.1.3.7.6.

2.1.3 Combustibles

2.1.3.15 Quantity: see 2.1.3.7.7.

2.1.3.16 Calorific power: see 2.1.3.7.9.

2.1.3.17 Invoice amount - Before taxes: see 2.1.3.7.10.

2.1.3.18 Invoice amount – Taxes included: see 2.1.3.7.11.

2.1.3.19 Last modification: indicate the moment where the data of an invoice has been changed for the last time and the name of the user that modified the data.

2.1.3 Combustibles

2.1.3.20 Actions: contains the modify button ✏️ that allows the return to the « Add New » screen with the data already input and the delete button ❌ to delete the data input.

2nd level: screens

1. Invoices
   A. Electricity
   B. Water
   C. Combustibles
2. Products
   A. Production

2.2.1 Production

This screen's purpose is to input the quantity of each product produced over a given period. It allows to indicate on what kind of schedule the products are made as well.

2.2.1 Production

2.2.1 Production

2.2.1.1 Export: allows the data input to be exported in an EXCEL file. If no data has been input it returns the EXCEL template on which the user can write the data before importing it into Bull's Eye. The template isn't shown because the fields are the same as the screen shown here.

2.2.1.2 Import: this button import the EXCEL template back into Bull's Eye so the data is read.

2.2.1.3 Add New: allows to access the screen where you can add new data in Bull's Eye.

2.2.1.3 Production (Add New)

Training, Fredericton (NB, Canada)

Sites > Training > Products > Productions >

General   Configuration ▾   Invoices ▾   **Products ▾**   Supplies   Events   Statements ▾   Models ▾

Production   ❓

Period * [   ] 📅 to [   ] 📅   **2.2.1.3.1 and 2.2.1.3.2**

Product *   ▾

Quantity * [   ]   **2.2.1.3.3 and 2.2.1.3.4**

Hour Type *   ▾

2.2.1.3.5   Save Production   Cancel   **2.2.1.3.6**

2.2.1.3 Production (Add New)

2.2.1.3.1 Period: start and end dates of the production period (inclusively). This field is mandatory.

2.2.1.3.2 Product: the name of the product of which the production is input (see 3.3.1). This field is mandatory.

2.2.1.3.3 Quantity: the quantity of the product made for the given period. This field is mandatory.

2.2.1.3.4 Hour Type: the hour type correspondind to the production schedule (see 3.2.1). This field is mandatory.

2.2.1.3 Production (Add New)

2.2.1.3.5 Save Production: saves the data input.

2.2.1.3.6 Cancel: cancels the data input.

2.2.1 Production

2.2.1.4 Delete all: delete every production period entered (visible only if there are any).

2.2.1.5 Product: see 2.2.1.3.2.

2.2.1.6 Start End: see 2.2.1.3.1.

2.2.1.7 Quantity: see 2.2.1.3.3.

2.2.1.8 Hour Type: see 2.2.1.3.4.

2.2.1 Production

2.2.1.9 Last modification: indicate the moment where the data of an invoice has been changed for the last time and the name of the user that modified the data.

2.2.1.10 Actions: contains the modify button ✏ that allows the return to the « Add New » screen with the data already input and the delete button ✖ to delete the data input.

Configuration

3rd level: Configuration

A user of this level is able to model his energetic consumption with an acceptable level of precision.

3rd level: screens

1. General
2. Configuration
   A. Hour types
   B. Hours
   C. Zones
   D. Statutory holidays
   E. Weather Coefficients
   F. Operations
   G. Fixed Loads

3rd level: screens

3. Products
   A. Catalog
   B. Parameters
4. Supplies
5. Events
6. Models
   A. Compiled

3.1.1 General

This screen's purpose is to enter the basic information regarding the site such as its name, adress and the contact information among others. It is mandatory to fill it when a site is created.

3.1.1 General

Training, Fredericton (NB, Canada)

Sites > Training

| General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾ |

Informations

3.1.1.1   [Deactivate support]

Name *	Training	3.1.1.2
Weather city *	Fredericton (NB, Canada)	3.1.1.3
Description		3.1.1.4
Contact		3.1.1.5
Phone		and 3.1.1.6

Characteristics

Unit System *	International	3.1.1.7
Total ventilation		m3/s	3.1.1.8 and 3.1.1.9

☐ Ventilation requirements are higher in summer than in winter?

☐ This site has a fluid circulation cooling system (cooling tower, geothermal...)?

3.1.1.10 and 3.1.1.11

3.1.1 General (continued)

Taxes						3.1.1.12 + Add New
Name	Type	% heating		% cooling	Last modification	Actions

3.1.1.13 to 3.1.1.18

Display

Display on side bar	☐	3.1.1.19
Display order	0	3.1.1.20

3.1.1.21 Save Site

Cancel 3.1.1.22

3.1.1 General

3.1.1.1 Activate/Deactivate support: allows the user to give/withdraw acces to this site to the administrators to get support/keep their data private.

3.1.1.2 Name: name of the site (mandatory field).

3.1.1.3 Weather city: name of the nearest city for which meteorological data is available (mandatory field).

3.1.1.4 Description: a brief description of the site specificities.

3.1.1 General

3.1.1.5 Contact: the site contact's name.

3.1.1.6 Phone: the site contact's phone number.

3.1.1.7 Unit system: allows the user to choose if the units of the site are from the international system or the imperial system.

3.1.1.8 Total ventilation: total capacity of the ventilation equipments.

3.1.1.9 : the flow unit in which the value 3.1.1.8 is expressed.

3.1.1 General

3.1.1.10 Ventilation requirements are higher in summer than in winter?: check this box if the ventilation requirements are higher in summer (usually because of the process).

3.1.1.11 This site has a fluid circulation cooling system (cooling tower, geothermal,...)?: check this box if any system of this kind is present on site.

3.1.1.12 Add New: allows the user to enter informations on taxes applied on supplies and energy consumption.

3.1.1.12 General (Add New)

Tax

| Name * | 3.1.1.12.1 |
| Type | 3.1.1.12.2 to 3.1.1.12.4 |

3.1.1.12.5 Save Tax | Cancel 3.1.1.12.6

3.1.1.12 General (Add New)

3.1.1.12.1 Name: the tax name. This field is mandatory.

3.1.1.12.2 Type: allows the differentiation between taxes applied on the cost of supplies and taxes applied on energy consumption.

3.1.1.12.3 % heating: the % of the energy used for the building heating that is taxable. Only visible if the type indicate a tax on energy consumption.

3.1.1.12.4 % cooling: the % of the energy used for the building cooling that is taxable. Only visible if the type indicate a tax on energy consumption.

3.1.1.12 General (Add New)

3.1.1.12.5 Save tax: Saves the data input.

3.1.1.12.6 Cancel: cancels the data input.

3.1.1 General

3.1.1.13 Name : see 3.1.1.12.1.

3.1.1.14 Type: see 3.1.1.12.2.

3.1.1.15 % heating : see 3.1.1.12.3.

3.1.1.16 % cooling : see 3.1.1.12.4.

3.1.1 General

3.1.1.17 Last modification: indicate the moment where the data of an invoice has been changed for the last time and the name of the user that modified the data.

3.1.1.18 Actions: contains the modify button ✏️ that allows the return to the « Add New » screen with the data already input and the archive button 👁️ to archive the data input or reactivate it.

3.1.1 General

3.1.1.19 Display on side bar: check this box if the user want the site to appear in the quick access list (at the top of the left dark band).

3.1.1.20 Display order: allows the user to decide the position of the site in the quick access list if 3.1.1.10 is checked.

3.1.1.21 Save Site: saves the data input and creates the site.

3.1.1.22 Cancel: cancels the data input.

3rd level: screens

1. General
2. Configuration
   A. Hour types
   B. Hours
   C. Zones
   D. Statutory holidays
   E. Weather Coefficients
   F. Operations
   G. Fixed Loads

3rd level: screens

3. Products
   A. Catalog
   B. Parameters
4. Supplies
5. Events
6. Models
   A. Compiled

3.2.1 Hour Types

This screen's purpose is to write the name of the different hour types corresponding to the different work schedule of supplies and departments.

3.2.1 Hour Types

Training, Fredericton (NB, Canada)

Sites › Training › Settings › Hour Types

General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾

Hour Types

3.2.1.1   + Add New

| Name | 3.2.1.2 | Last modification | 3.2.1.3 | 3.2.1.4 | Actions |

3.2.1 Hour Types

3.2.1.1 Add New: allows to access the screen where you can add new data in Bull's Eye.

3.2.1.2 Name: see 3.2.1.1.1.

3.2.1.3 Last modification: indicate the moment where the data has been changed for the last time and the name of the user that modified the data.

3.2.1.4 Actions : contains the modify button ✐ that allows the return to the « Add New » screen with the data already input and the delete button ❎ to delete the data input.

3.2.1.1 Hour Types (Add New)

3.2.1.1 Hour Types (Add New)

3.2.1.1.1 Name: the name the user wishes to enter for the hour type (for example: « 24/24 » or « office hours »). This field is mandatory.

3.2.1.1.2 Save Hour Type: saves the data input.

3.2.1.1.3 Cancel: cancels the data input.

3rd level: screens

1. General
2. Configuration
   A. Hour types
   B. Hours
   C. Zones
   D. Statutory holidays
   E. Weather Coefficients
   F. Operations
   G. Fixed Loads

3rd level: screens

3. Products
   A. Catalog
   B. Parameters

4. Supplies

5. Events

6. Models
   A. Compiled

3.2.2 Hours

This screen's purpose is to define exactly the work schedule for every hour types.

3.2.2 Hours

| General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾ |

Hours

3.2.2.1   + Add New

Type	Start	End	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Hours	Last modification	Actions
3.2.2.2 to 3.2.2.4			3.2.2.5 to 3.2.2.11							3.2.2.12	3.2.2.13	3.2.2.14

3.2.2 Hours

3.2.2.1 Add New: allows to access the screen where you can add new data in Bull's Eye.

3.2.2.2 Type: see 3.2.2.1.1.

3.2.2.3 Start: see 3.2.2.1.2.

3.2.2.4 End: see 3.2.2.1.2.

3.2.2.5 Sunday: see 3.2.2.1.4.

3.2.2.1 Hours (Add New)

Training, Fredericton (NB, Canada)
Sites › Training › Settings › Hours ›

| General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾ |

Hour ❓

3.2.2.1.1 Type *

3.2.2.1.2 Period *

Days 3.2.2.1.3 ➕ Add New ❓

Sunday ▾	00:00	to	00:00	✖
Monday ▾	00:00	to	00:00	✖
Tuesday ▾	00:00	to	00:00	✖
Wednesday ▾	00:00	to	00:00	✖
Thursday ▾	00:00	to	00:00	✖
Friday ▾	00:00	to	00:00	✖
Saturday ▾	00:00	to	00:00	✖

3.2.2.1.4 to 3.2.2.1.10

3.2.2.1.11 Save Hour Cancel **3.2.2.1.12**

3.2.2.1 Hours (Add New)

3.2.2.1.1 Type: the name of the hour type (given in 3.2.1) to which the work schedule must be applied. This field is mandatory.

3.2.2.1.2 Period: date of start and end of the period over which the data entered is valid (inclusively). This field is useful if the work schedule of some departments changed over time (due to a new collective labor agreement for example). The start date is mandatory.

3.2.2.1 Hours (Add New)

3.2.2.1.3 Add New: adds days in the list. It's possible for the same day to appear in the list more than once. For example for night lighting it would be necessary to enter 00:00 to 08:00 and 20:00 to 00:00, which means two fields are required for the same day. The user must be careful to ensure the days are repeated only on purpose.

3.2.2.1.4 Sunday: allows to enter the work schedule of the sunday, in the 24h format. If there is no work hours that day the button must be used to delete the day from the list.

3.2.2.1 Hours (Add New)

3.2.2.1.5 Monday: allows to enter the work schedule of the monday, in the 24h format. If there is no work hours that day the button ⊠ must be used to delete the day from the list.

3.2.2.1.6 Tuesday: allows to enter the work schedule of the tuesday, in the 24h format. If there is no work hours that day the button ⊠ must be used to delete the day from the list.

3.2.2.1 Hours (Add New)

3.2.2.1.7 Wednesday: allows to enter the work schedule of the wednesday, in the 24h format. If there is no work hours that day the button ⊠ must be used to delete the day from the list.

3.2.2.1.8 Thursday: allows to enter the work schedule of the thursday, in the 24h format. If there is no work hours that day the button ⊠ must be used to delete the day from the list.

3.2.2.1 Hours (Add New)

3.2.2.1.9 Friday: allows to enter the work schedule of the friday, in the 24h format. If there is no work hours that day the button must be used to delete the day from the list.

3.2.2.1.10 Saturday: allows to enter the work schedule of the saturday, in the 24h format. If there is no work hours that day the button must be used to delete the day from the list.

3.2.2.1 Hours (Add New)

3.2.2.1.11 Save Hour: saves the data input.

3.2.2.1.12 Cancel: cancels the data input.

3.2.2 Hours

3.2.2.6 Monday: see 3.2.2.1.5.

3.2.2.7 Tuesday: see 3.2.2.1.6.

3.2.2.8 Wednesday: see 3.2.2.1.7.

3.2.2.9 Thursday: see 3.2.2.1.8.

3.2.2.10 Friday: see 3.2.2.1.9.

3.2.2.11 Saturday: see 3.2.2.1.10.

3.2.2 Hours

3.2.2.12 Hours: total number of working hours in a week for this work schedule.

3.2.2.13 Last modification: indicate the moment where the data has been changed for the last time and the name of the user that modified the data.

3.2.2.14 Actions : contains the modify button ✎ that allows the return to the « Add New » screen with the data already input and the delete button ❌ to delete the data input.

3rd level: screens

1. General
2. Configuration
   A. Hour types
   B. Hours
   C. Zones
   D. Statutory holidays
   E. Weather Coefficients
   F. Operations
   G. Fixed Loads

3rd level: screens

3. Products
    A. Catalog
    B. Parameters
4. Supplies
5. Events
6. Models
    A. Compiled

3.2.3 Zones

This screen's purpose is to split the site in zones if desired. Doing so facilitate the treatment of departments with different working hours for example . At least one zone must be created in order to model the site.

3.2.3 Zones

Training, Fredericton (NB, Canada)

Sites > Training > Settings > Zones

General | Configuration ▼ | Invoices ▼ | Products ▼ | Supplies | Events | Statements ▼ | Models ▼

Zones

3.2.3.1 + Add New

Zone	Hour Types	Gross Size	Net Size	Cost ($)	Last modification	Actions
3.2.3.2 and 3.2.3.3		3.2.3.4	3.2.3.5	3.2.3.6 and 3.2.3.7		3.2.3.8

3.2.3 Zones

3.2.3.1 Add New: allows to access the screen where you can add new data in Bull's Eye.

3.2.3.2 Zone: the zone's name preceded by its parent zone name, see 3.2.3.1.1 and 3.2.3.1.2.

3.2.3.3 Hour Types: see 3.2.3.1.3.

3.2.3.4 Gross Size: see 3.2.3.1.4.

3.2.3.5 Net Size: the zone's gross size (3.2.3.4) minus the size of the subzones included into this one.

3.2.3.1 Zones (Add New)

Training, Fredericton (NB, Canada)

Sites › Training › Settings › Zones ›

General Configuration ▾ Invoices ▾ Products ▾ Supplies Events Statements ▾ Models ▾

Zone   ❓

Name *	3.2.3.1.1
Parent	3.2.3.1.2 and 3.2.3.1.3
Hour type *	By Inheritance
Gross Size	m2 3.2.3.1.4 and 3.2.3.1.5
Net Size	m2
Cost	3.2.3.1.6 $

3.2.3.1.7 Save Zone   Cancel   3.2.3.1.8

3.2.3.1 Zones (Add New)

3.2.3.1.1 Name: the name the user wishes to give the zone. This is a mandatory field.

3.2.3.1.2 Parent: the zone comprising the current zone. For example, the zone « production area » could be comprised by the zone « plant » which would be its parent. It is possible to create subzones inside an existing zone without limitations. Going back to the example, the zone « production area » could, in turn, include the zone « quality inspection office », and so on.

3.2.3.1 Zones (Add New)

3.2.3.1.3 Hour type: the hour type (given in 3.2.1) that will be applied by default to the supplies inside the zone. In addition to the type created by the user, « By Inheritance » can be selected. In that case, the hour type of the parent zone is transferred to this one as well. This is a mandatory field

3.2.3.1.4 Gross Size: the total size of the zone and its units. The size of the subzones is substracted from this value to automatically calculate the net size.

3.2.3.1.5 : the surface unit in which the value 3.2.3.1.4 is expressed.

3.2.3.1 Zones (Add New)

3.2.3.1.6 Cost: the zone cost (for accounting purposes).

3.2.3.1.7 Save Zone: saves the data input.

3.2.3.1.8 Cancel: cancels the data input.

3.2.3 Zones

3.2.3.6 Cost ($): see 3.2.3.1.6.

3.2.3.7 Last modification: indicate the moment where the data has been changed for the last time and the name of the user that modified the data.

3.2.3.8 Actions : contains the modify button ✎ that allows the return to the « Add New » screen with the data already input and the delete button ✖ to delete the data input.

3rd level: screens

1. General
2. Configuration
    A. Hour types
    B. Hours
    C. Zones
    D. Statutory holidays
    E. Weather Coefficients
    F. Operations
    G. Fixed Loads

3rd level: screens

3. Products
    A. Catalog
    B. Parameters
4. Supplies
5. Events
6. Models
    A. Compiled

3.2.4 Statutory holidays

This screen's purpose is to define the impact of the statutory holidays on the energy consumption if any.

3.2.4 Statutory holidays

| General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾ |

Holidays

3.2.4.1   **+ Add New**

Name	Exclusions	Periods	Last modification	Actions
3.2.4.2	3.2.4.3	3.2.4.4	3.2.4.5	3.2.4.6

3.2.4 Statutory holidays

3.2.4.1 Add New: allows to access the screen where you can add new data in Bull's Eye.

3.2.4.2 Name: see 3.2.4.1.1.

3.2.4.3 Exclusions: see 3.2.4.1.7.

3.2.4.4 Periods: see 3.2.4.1.4.

3.2.4.5 Last modification: indicate the moment where the data has been changed for the last time and the name of the user that modified the data.

3.2.4.1 Statutory holidays (Add New)

Training, Fredericton (NB, Canada)

Sites › Training › Settings › Statutory holidays ›

General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾

Statutory holidays   ❓

| Name * | 3.2.4.1.1 |
| Description | 3.2.4.1.2 |

Periods   3.2.4.1.3 [+ Add New]

📅   to   📅
3.2.4.1.4   [✖]

Exclusions   3.2.4.1.5 [+ Add New]

3.2.4.1.6   Type

Exclusion

Hour Type ▾   3.2.4.1.7   [✖]

3.2.4.1.8 [Save Statutory holiday] [Cancel]   3.2.4.1.9

3.2.4.1 Statutory holidays (Add New)

3.2.4.1.1 Name: the name of the statutory holiday. This field is mandatory.

3.2.4.1.2 Description: allows to describe the holidays in temr of operation if needed.

3.2.4.1.3 Add New: add a new period field.

3.2.4.1.4 Periods: the date and hour of the start and the end of the holiday . Since many holidays don't have a fixed date the period must be defined for every year. The button delete a period.

3.2.4.1 Statutory holidays (Add New)

3.2.4.1.5 Add New: add a new exclusion field.

3.2.4.1.6 Type: determines the type of exclusion.
Four types can be chosen:

1. Supply : A kind of supply.
2. Site Supply: a specific supply listed for the site.
3. Hour Type: The supplies working on a specific schedule.
4. Zone: The supplies comprised in a specific zone.

3.2.4.1 Statutory holidays (Add New)

3.2.4.1.7 Exclusions: what is not affected by the holiday (therefore still working despite the holiday). There is no limit to the amount of exclusions but a supply excluded more than once will still be counted once. The button   delete an exclusion.

3.2.4.1.8 Save Statutory holiday: saves the data input.

3.2.4.1.9 Cancel: cancels the data input.

3.2.4 Statutory holidays

3.2.4.6 Actions : contains the modify button   that allows the return to the « Add New » screen with the data already input and the delete button   to delete the data input.

3rd level: screens

1. General
2. Configuration
   A. Hour types
   B. Hours
   C. Zones
   D. Statutory holidays
   E. Weather Coefficients
   F. Operations
   G. Fixed Loads

3rd level: screens

3. Products
   A. Catalog
   B. Parameters
4. Supplies
5. Events
6. Models
   A. Compiled

3.2.5 Weather coefficients

This screen's purpose is to define the coefficents correcting the degree days (cooling and heating). Those coefficients are specific to a site and relies on data taken on site.

3.2.5 Weather coefficients

Training, Fredericton (NB, Canada)

Sites > Training > Settings > Weather Coefficients

General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾

Weather Coefficients

3.2.5.1 ➕ Add New

Coefficient	Unit	Maximum value	Associated coefficient	Minimum value	Associated coefficient	Last modification	Actions
3.2.5.2	3.2.5.3	3.2.5.4	3.2.5.5	3.2.5.6	3.2.5.7	3.2.5.8	3.2.5.9

3.2.5 Weather coefficients

3.2.5.1 Add New: allows to access the screen where you can add new data in Bull's Eye.

3.2.5.2 Coefficient: see 3.2.5.1.1.

3.2.5.3 Unit: the unit in which the value 3.2.5.2 is expressed.

3.2.5.4 Maximum value: see 3.2.5.1.3.

3.2.5.5 Associated coefficient: see 3.2.5.1.4.

3.2.5.1 Weather coefficients (Add New)

Training, Fredericton (NB, Canada)

Sites › Training › Settings › Weather Coefficients ›

General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾

Weather Coefficient ❓

Coefficient * [3.2.5.1.1   ▾]

Units * [▾] 3.2.5.1.2

Maximum value * [   ]
Associated coefficient * [   ] 3.2.5.1.3 and 3.2.5.1.4

Minimum value * [   ] 3.2.5.1.5

Associated coefficient * [   ] 3.2.5.1.6

3.2.5.1.7 [Save Weather Coefficient] [Cancel] 3.2.5.1.8

3.2.5.1 Weather coefficients (Add New)

3.2.5.1.1 Coefficient: the parameter taken into account to correct the temperature and the place in the calculations where the correction will occur.

3.2.5.1.2 Units: the units in which the value 3.2.5.1.1 is expressed.

3.2.5.1.3 Maximum value: the maximum value that is permitted for the correction. A value superior to the maximum value will return the same coefficent as the maximum value.

3.2.5.1.4 Associated coefficient: the coefficient used to correct the temperature when the value 3.2.5.1.3 is reached.

3.2.5.1 Weather coefficients (Add New)

3.2.5.1.5 Minimum value: the minimum value that is permitted for the correction. A value inferior to the minimum value will return the same coefficent as the minimum value.

3.2.5.1.6 Associated coefficient: the coefficient used to correct the temperature when the value 3.2.5.1.3 is reached.

3.2.5.1.7 Save Weather Coefficent: saves the data input.

3.2.5.1.8 Cancel: cancels the data input.

3.2.5 Weather coefficients

3.2.5.6 Minimum value: see 3.2.5.1.5.

3.2.5.7 Associated coefficient: see 3.2.5.1.6.

3.2.5.8 Last modification: indicate the moment where the data has been changed for the last time and the name of the user that modified the data.

3.2.5.9 Actions : contains the modify button ✎ that allows the return to the « Add New » screen with the data already input and the delete button ✖ to delete the data input.

3rd level: screens

1. General
2. Configuration
   A. Hour types
   B. Hours
   C. Zones
   D. Statutory holidays
   E. Weather Coefficients
   F. Operations
   G. Fixed Loads

3rd level: screens

3. Products
   A. Catalog
   B. Parameters
4. Supplies
5. Events
6. Models
   A. Compiled

3.2.6 Operations

This screen's purpose is to define setpoints and other operation parameters for the site.

3.2.6 Operations

Training, Fredericton (NB, Canada)

Sites > Training > Settings > Operations

General | Configuration | Invoices | Products | Supplies | Events | Statements | Models

Operations

3.2.6.1 [+ Add New]

Type	End	Value	Standard Value	Relative Weight	Last modification	Actions
3.2.6.2	3.2.6.3 and 3.2.6.4		3.2.6.5	3.2.6.6	3.2.6.7	3.2.6.8

3.2.6 Operations

3.2.6.1 Add New: allows to access the screen where you can add new data in Bull's Eye.

3.2.6.2 Type: see 3.2.6.1.1.

3.2.6.3 End: see 3.2.6.1.4.

3.2.6.4 Value: see 3.2.6.1.2.

3.2.6.5 Standard Value: standard value for this parameter (value to come).

3.2.6.1 Operations (Add New)

Training, Fredericton (NB, Canada)

Sites > Training > Settings > Operations >

| General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾ |

Operation ❓

Operation type *   3.2.6.1.1   ▾

Value *   3.2.6.1.2 and 3.2.6.1.3   ▾

Standard Value

Period   🗓 to   🗓   3.2.6.1.4

Relative Weight   3.2.6.1.5

3.2.6.1.6   Save Operation   Cancel   3.2.6.1.7

3.2.6.1 Operations (Add New)

3.2.6.1.1 Operation type: the type of parameter the user wishes to define. This is a mandatory field. A parameter can be one of the following types:

1. Air Heating: the setpoint for fresh air intake heating.
2. Coefficient of Performance: the coefficient of performance of the water cooling system.
3. Electric cooled water percentage: percentage of the water cooled on site (see 2.1.2.8) that is cooled from an electric energy source.
4. Electric heated water percentage: percentage of the water heated on site (see 2.1.2.9) that is heated from an electric energy source.

3.2.6.1 Operations (Add New)

5. Freezing Insulation: the isolation constant of the walls of the freezing warehouses and working spaces.

6. Freezing Spaces: the setpoint of the freezing warehouses and working spaces.

7. Reference Air Conditionning : the air conditionning setpoint of the facility. Also allows to indicate a period over which air conditionning is unvailable, if required.

8. Reference Heating: the heating setpoint in the factory. Also allows to indicate a period over which heating is unvailable, if required.

3.2.6.1 Operations (Add New)

9. Refrigerant Gas Temperature: the cooling fluid temperature at the entrance of the cooling towers.

10. Refrigerated Spaces: the setpoint of the refrigerated warehouses and working spaces.

11. Refrigeration Insulation: the isolation constant of the walls of the refrigerated warehouses and working spaces.

12. Set Point Air Conditionning : the air conditionning set point in the facility (indicative only).

13. Set Point Heating: the heating set point in the facility (indicative only).

3.2.6.1 Operations (Add New)

14. Setpoint Cooling Tower: the setpoint of the cooling fluid at the exit of the cooling towers.Refrigeration Insulation: the isolation constant of the walls of the refrigerated warehouses and working spaces.

15. Thermal cooled water percentage: percentage of the water cooled on site (see 2.1.2.8) that is cooled from a thermal energy source.

16. Thermal heated water percentage: percentage of the water heated on site (see 2.1.2.9) that is heated from a thermal energy source.

3.2.6.1 Operations (Add New)

17. Water Cooling: the cooling water setpoint.

18. Water exchange capacity: value of the heating power installed, used to verify that the water heating consumption is possible.

19. Water exchange cooling capacity: value of the cooling power installed, used to verify that the water cooling consumption is possible.

20. Water Heating: the hot water setpoint.

3.2.6.1 Operations (Add New)

3.2.6.1.2 Value: the value of the parameter. This is a mandatory field. A standard value will also be available as a reference.

3.2.6.1.3 : the unit in which the value 3.2.6.1.2 is expressed.

3.2.6.1.4 Period: the start and end date of the period over which the given value is valid for the parameter.

3.2.6.1.5 Relative Weight: if more than one value are given to a single parameter their respective importance is calculated using their relative weight (function to come).

3.2.6.1 Operations (Add New)

3.2.6.1.6 Save Operation: saves the data input.

3.2.6.1.7 Cancel: cancels the data input.

3.2.6 Operations

3.2.6.6 Relative Weight: see 3.2.6.1.5.

3.2.6.7 Last modification: indicate the moment where the data has been changed for the last time and the name of the user that modified the data.

3.2.6.8 Actions : contains the modify button ✎ that allows the return to the « Add New » screen with the data already input and the delete button ✖ to delete the data input.

3rd level: screens

1. General
2. Configuration
   A. Hour types
   B. Hours
   C. Zones
   D. Statutory holidays
   E. Weather Coefficients
   F. Operations
   G. Fixed Loads

3rd level: screens

3. Products
   A. Catalog
   B. Parameters
4. Supplies
5. Events
6. Models
   A. Compiled

3.2.7 Fixed Loads

This screen's purpose is to enter consumption values for each kind of fixed loads without setting up all the supplies. It is a abridged method and it can be reflected in the analysis of the consumption's profile.

3.2.7 Fixed Loads

Training, Fredericton (NB, Canada)

Sites > Training > Settings > Fixed Loads

| General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾ |

Fixed Loads

3.2.7.1 to 3.2.7.4   ☁ Export   ☁ Import   ✚ Add New

Start	End	Lighting	Ventilation	Air compressors	Pumps	Other loads	Last modification	Actions
3.2.7.5		3.2.7.6	3.2.7.7	3.2.7.8	3.2.7.9	3.2.7.10	3.2.7.11	3.2.7.12

3.2.7 Fixed Loads

3.2.7.1 Export: this button allows to export the data entered in an EXCEL format. If no data was entered it export the templates on which to enter the data in EXCEL to ensure Bull's Eye will be able to read it. The template is not described because the fields are the same than the « Add New » screen.

3.2.7.2 Import: this button import the EXCEL template back into Bull's Eye so the data is read.

3.2.7.3 Add New: allows to access the screen where you can add new data in Bull's Eye.

3.2.7.3 Fixed Loads (Add New)

Training, Fredericton (NB, Canada)

Sites > Training > Settings > Fixed loads >

General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾

Fixed loads   ❓

Period *   [   ] 📅 to [   ]   3.2.7.3.1

Lighting *   [   ]   3.2.7.3.2 and 3.2.7.3.3
Ventilation *   [   ]

Air compressors * [   ]   3.2.7.3.4

Pumps *   [   ]
Other loads *   [   ]   3.2.7.3.5 and 3.2.7.3.6

3.2.7.3.7   [Save Loads]   [Cancel] 3.2.7.3.8

3.2.7.3 Fixed Loads (Add New)

3.2.7.3.1 Period: the start and end date of the consumption period. These fields are mandatory.

3.2.7.3.2 Lighting: the consumption in kWh that represents the whole lighting load over the given period.

3.2.7.3.3 Ventilation: the consumption in kWh that represents the whole ventilation load over the given period.

3.2.7.3.4 Air compressor: the consumption in kWh that represents the whole load from the compressors over the given period.

3.2.7.3 Fixed Loads (Add New)

3.2.7.3.5 Pumps: the consumption in kWh that represents the whole load from the pumps over the given period.

3.2.7.3.6 Other loads: the consumption in kWh that represents all the other loads over the given period.

3.2.7.3.7 Save Loads: saves the data input.

3.2.7.3.8 Cancel: cancels the data input.

3.2.7 Fixed Loads

3.2.7.4 Delete all: delete every consumption period entered (visible only if there are any).

3.2.7.5 Start End: see 3.2.7.3.1.

3.2.7.6 Lighting: see 3.2.7.3.2.

3.2.7.7 Ventilation: see 3.2.7.3.3.

3.2.7.8 Air compressors: see 3.2.7.3.4.

3.2.7 Fixed Loads

3.2.7.9 Pumps: see 3.2.7.3.5.

3.2.7.10 Other loads: see 3.2.7.3.6.

3.2.7.11 Last modification: indicate the moment where the data has been changed for the last time and the name of the user that modified the data.

3.2.7.12 Actions : contains the modify button ✎ that allows the return to the « Add New » screen with the data already input and the delete button ✖ to delete the data input.

3rd level: screens

1. General
2. Configuration
   A. Hour types
   B. Hours
   C. Zones
   D. Statutory holidays
   E. Weather Coefficients
   F. Operations
   G. Fixed Loads

3rd level: screens

3. Products
   A. Catalog
   B. Parameters
4. Supplies
5. Events
6. Models
   A. Compiled

3.3.1 Catalog

This screen's purpose is to list the products produced on site.

3.3.1 Catalog

Training, Fredericton (NB, Canada)

| General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾ |

Catalog

3.3.1.1 to 3.3.1.4 ☁ Export ☁ Import ＋ Add New

Name	Last modification	Actions
3.3.1.5	3.3.1.6	3.3.1.7

3.3.1 Catalog

3.3.1.1 Export: this button allows to export the data entered in an EXCEL format. If no data was entered it export the templates on which to enter the data in EXCEL to ensure Bull's Eye will be able to read it. The template is not described because the fields are the same than the « Add New » screen.

3.3.1.2 Import: this button import the EXCEL template back into Bull's Eye so the data is read.

3.3.1.3 Add New: allows to access the screen where you can add new data in Bull's Eye.

3.3.1.3 Catalog (Add New)

Training, Fredericton (NB, Canada)

Sites > Training > Products > Catalog >

General   Configuration ▾   Invoices ▾   Products ▾   Supplies   Events   Statements ▾   Models ▾

Product   ❓

Name * | 3.3.1.3.1

3.3.1.3.2   Save Product   Cancel   3.3.1.3.3

3.3.1.3 Catalog (Add New)

3.3.1.3.1 Name: the name of the product.

3.3.1.3.2 Save Product: saves the data input.

3.3.1.3.3 Cancel: cancels the data input.

3.3.1 Catalog

3.3.1.4 Delete all: delete every products entered (visible only if there are any).

3.3.1.5 Name: see 3.3.1.3.1.

3.3.1.6 Last modification: indicate the moment where the data has been changed for the last time and the name of the user that modified the data.

3.3.1.7 Actions : contains the modify button ✎ that allows the return to the « Add New » screen with the data already input and the delete button ✖ to delete the data input.

3rd level: screens

1. General
2. Configuration
   A. Hour types
   B. Hours
   C. Zones
   D. Statutory holidays
   E. Weather Coefficients
   F. Operations
   G. Fixed Loads

3rd level: screens

3. Products
    A. Catalog
    B. Parameters
4. Supplies
5. Events
6. Models
    A. Compiled

3.3.2 Parameters

This screen's purpose is to establish the relative weight of the various products regarding the consumption of electrical and thermal energy required.

3.3.2 Parameters

Training, Fredericton (NB, Canada)

Site > Training > Products > Parameters

General | Configuration ▾ | Invoices ▾ | **Products ▾** | Supplies | Events | Statements ▾ | Models ▾

Parameters

3.3.2.1 ➕ Add New

	Period				Relative Weight				
Name	Start	End	Electrical	Thermal	Electrical Calculated		Thermal Calculated	Last modification	Actions
3.3.2.2	3.3.2.3		3.3.2.4	3.3.2.5	3.3.2.6		3.3.2.7	3.3.2.8	3.3.2.9

3.3.2 Parameters

3.3.2.1 Add New: allows to access the screen where you can add new data in Bull's Eye.

3.3.2.2 Name: see 3.3.2.1.2.

3.3.2.3 Start End: see 3.3.2.1.1.

3.3.2.4 Electrical: see 3.3.2.1.3.

3.3.2.5 Thermal: see 3.3.2.1.4.

3.3.2.1 Parameters (Add New)

3.3.2.1 Parameters (Add New)

3.3.2.1.1 Period: Start and end date of the period over which the relative weights are valid.

3.3.2.1.2 Product: the name of the product for which the relative weights are given.

3.3.2.1.3 Electrical relative weight: the electricity consumption required to produce this product compared to other products.

3.3.2.1 Parameters (Add New)

3.3.2.1.4 Thermal relative weight: the thermal energy consumption required to produce this product compared to other products.

3.3.2.1.5 Save Parameters: saves the data input.

3.3.2.1.6 Cancel: cancels the data input.

3.3.2 Parameters

3.3.2.6 Electrical Calculated: result of the pretreatment module that calculate the relative weights of the products (module to come).

3.3.2.7 Thermal Calculated: result of the pretreatment module that calculate the relative weights of the products (module to come).

3.3.2.8 Last modification: indicate the moment where the data has been changed for the last time and the name of the user that modified the data.

3.3.2.9 Actions : contains the modify button   ☑ that allows the return to the « Add New » screen with the data already input and the delete button   ☒   to delete the data input.

3rd level: screens

1. General
2. Configuration
   A. Hour types
   B. Hours
   C. Zones
   D. Statutory holidays
   E. Weather Coefficients
   F. Operations
   G. Fixed Loads

3rd level: screens

3. Products
    A. Catalog
    B. Parameters
4. Supplies
5. Events
6. Models
    A. Compiled

3.4.1 Supplies

This screen's purpose is to list the supplies of the site and configure their operation. For this matter, supplies refer to anything consuming energy to function but that is not a part of the production lines (lamps, phones, computers,…).

3.4.1 Supplies

Training, Fredericton (NB, Canada)

Sites › Training › Supplies

General | Configuration ▾ | Invoices ▾ | Products ▾ | **Supplies** | Events | Statements ▾ | Models ▾

Supplies - Add/Edit

Zone *   [   ] ☰   3.4.1.1

Supply *   [   ] ⚙ ☰   3.4.1.2

Quantity *   [   ]   3.4.1.3
                                           and 3.4.1.4
                  [Save]

Period ❓ [   ] 📅 to [   ] 📅   3.4.1.5

Hour type ❓ [   ] ☰   3.4.1.6

Use %   [100.00]   3.4.1.7
                                           to 3.4.1.9
Production ☐

Cost   [   ]

Supplies   3.4.1.10 to 3.4.1.12   [☁ Export] [☁ Import]

Zone	Supply	Quantity	Start	End	Hour Type	Use	Production	Interior	Cost	Last modification	Actions
3.4.1.1 and 3.4.1.2		3.4.1.3	3.4.1.5		3.4.1.6	3.4.1.7 and 3.4.1.8		3.4.1.13	3.4.1.9 and 3.4.1.14		3.4.1.15

3.4.1 Supplies

3.4.1.1 Zone: the zone (configured in 3.2.3) in which the supply is. This is a mandatory field.

3.4.1.2 Supply: the supply's name. The name comes from the supply data base, which means the system will suggests some names as the user starts typing it in. This is a mandatory field. There are two types of supply that requires more data, therefore triggering the modification of the screen:

1. Refrigerators and freezers (including refrigerated and freezing areas)
2. Ventilation supplies

3.4.1.2 Supplies (refrigerated areas)

3.4.1.2 Supplies (refrigerated areas)

3.4.1.2.1 Name: the name of the custom supply. This field is mandatory and the name must be unique.

3.4.1.2.2 Interior Exterior: indicates if the refrigerated area is in contact with the outside temperature or if it's completely inside a building. This impact the loads necessary to control its temperature at the given setpoint.

3.4.1.2.3 Height: the height of the area.

3.4.1.2.4 : the unit of lenght in which the value 3.4.1.2.3 is expressed.

3.4.1.2 Supplies (refrigerated areas)

3.4.1.2.5 Width: the width of the area.

3.4.1.2.6 : the unit of lenght in which the value 3.4.1.2.5 is expressed.

3.4.1.2.7 Length: the lenght of the area.

3.4.1.2.8 : the unit of lenght in which the value 3.4.1.2.7 is expressed.

3.4.1.2 Supplies (ventilation)

3.4.1.2 Supplies (ventilation)

3.4.1.2.9 Capacity: the total capacity of the ventilation supply. This is a mandatory field.

3.4.1.2.10 : the unit of flow in which the value 3.4.1.2.9 is expressed.

3.4.1.2.11 Add New: add a component to the ventilation supply. The components can be deleted with the button . Some components are mandatory for some ventilation supplies.

3.4.1.2 Supplies (ventilation)

3.4.1.2.12 Load type: the load type of the component. This is a mandatory field. Components can be one of the four following types:

1. Ventilation: the fans used to convey air.
2. Compressor: the compressor used for cooling.
3. Condensor: the fans used for condensation.
4. Heating: the heating coil or burner used to heat the fresh air intaked.

3.4.1.2 Supplies (ventilation)

3.4.1.2.13 Quantity: the quantity of a component of the ventilation supply.

3.4.1.2.14 Volts: the electric tension on the component.

3.4.1.2.15 Phases: the number of phases of the electric current going through the component.

3.4.1.2.16 RLA: (Rated Load Ampacity) the standard current in use of the component at full load.

3.4.1.2 Supplies (ventilation)

3.4.1.2.17 FLA: (Full Load Ampacity) the standard current in use of the component at full load.

3.4.1.2.18 Power Value: the power of the component.

3.4.1.2.19 Power Unit: the unit of power in which the value 3.4.1.2.18 is expressed.

3.4.1.2.20 Power Factor (%): allows the system to calculate the power of the component in case the information is missing. If this value is also unknown, the system can calculate a probable value in some cases.

3.4.1 Supplies

3.4.1.3 Quantity: the quantity of supplies for which all fields are identical.

3.4.1.4 Save: saves the data input and add the supply in the list at the bottom of the screen.

3.4.1.5 Period: the start and end date of the use of a supply if required.

3.4.1.6 Hour type: the name of the hour type corresponding to the supply's working schedule. If nothing is entered, the supply will work on the schedule of its zone's hour type.

3.4.1 Supplies

3.4.1.7 Use %: the usage facto of the supply in percent. It takes into account the power used compared to the nominal power and the time used compared to the working schedule.

3.4.1.8 Production: allows to consider a supply as used for production purpose in regard of varying taxes, in accordance with the applying fiscal law. The user using this option must know the fiscal law, concerning what is considered necessary to production, well.

3.4.1.9 Cost: the cost of the supply can be entered for accounting and inventory purposes.

3.4.1 Supplies

3.4.1.10 Export: this button allows to export the data entered in an EXCEL format. If no data was entered it export the templates on which to enter the data in EXCEL to ensure Bull's Eye will be able to read it. The template is not described because the fields are the same than the « Add New » screen.

3.4.1.11 Import: this button import the EXCEL template back into Bull's Eye so the data is read.

3.4.1.12 Delete all: delete every supplies entered (visible only if there are any).

3.4.1 Supplies

3.4.1.13 Interior: see 3.4.1.2.2.

3.4.1.14 Last modification: indicate the moment where the data has been changed for the last time and the name of the user that modified the data.

3.4.1.15 Actions : contains the modify button ✎ that allows the return to the « Add New » screen with the data already input and the delete button ✖ to delete the data input.

3rd level: screens

1. General
2. Configuration
    A. Hour types
    B. Hours
    C. Zones
    D. Statutory holidays
    E. Weather Coefficients
    F. Operations
    G. Fixed Loads

3rd level: screens

3. Products
    A. Catalog
    B. Parameters
4. Supplies
5. Events
6. Models
    A. Compiled

3.5.1 Events

This screen's purpose is to list the occurrences where the site didn't function in its usual way and to take them into account. These events can be a power outtage, a shutdown, an extended work day or anything else out of the ordinary affecting the energy consumption. If such events are not recorded the model's precision might decrease.

3.5.1 Events

Training, Fredericton (NB, Canada)

Sites > Training > Events

General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾

Events

3.5.1.1   + Add New

Name	Type Effect	Affects	Intersection	Periods	Last modification	Actions
3.5.1.2	3.5.1.3 and 3.5.1.4	3.5.1.5	3.5.1.6	3.5.1.7	3.5.1.8	3.5.1.9

3.5.1 Events

3.5.1.1 Add New: allows to access the screen where you can add new data in Bull's Eye.

3.5.1.2 Name: see 3.5.1.1.2.

3.5.1.3 Type: see 3.5.1.1.1.

3.5.1.4 Effect: see 3.5.1.1.4.

3.5.1.5 Affects: see 3.5.1.1.11.

3.5.1.1 Events (Add New)

Training, Fredericton (NB, Canada)

Sites > Training > Events >

General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾

Event   ❓

| Type * | 3.5.1.1.1 | ▾ |

| Name * | 3.5.1.1.2 |

Description | 3.5.1.1.2 and 3.5.1.1.3 |

Effect on calculations * | 100.00 | % 3.5.1.1.4 |

Periods 3.5.1.1.5 and 3.5.1.1.6   ➕ Add New

Affected 3.5.1.1.7 to 3.5.1.1.12   Whole site ☐ Intersection ☐   ➕ Add New

Type | Affected | Quantity

| Hour Type ▾ | | | ✖ |
| Hour Type ▾ | | | ✖ |

3.5.1.1.13 | Save Event | Cancel | 3.5.1.1.14

3.5.1.1 Events (Add New)

3.5.1.1.1 Type: Define whether the event is an extra, a loss or a temporary generator. The temporary generator allows to add produced electricity in watts. This is a mandatory field.

3.5.1.1.2 Name: the name the user wishes to give the event. This is a mandatory field.

3.5.1.1.3 Description: allows to write a brief description of the event if required.

3.5.1.1 Events (Add New)

3.5.1.1.4 Effect on calculations : the effective percentage of loss or extra. It is useful for supplies working by intervals and events taking place over a long period of time. For the temporary generator, it's the power generated in Watts. This is a mandatory field.

3.5.1.1.5 Add New: add a period over which the event takes place. There is no limitations on the number of periods used for a single event.

3.5.1.1.6 Periode: the start date and hour and the end date and hour of the event if none are entered the event won't affect the calculation.

3.5.1.1 Events (Add New)

3.5.1.1.7 Whole site: check this box if the event concern the whole site.

3.5.1.1.8 Intersection: check this box if the only supplies that should be affected by the event are the ones fulfilling all the given conditions. When unchecked, every supply fulfilling at least one condition (3.5.1.1.11) will be affected by the event.

3.5.1.1.9 Add New: add a new condition for the event to affect a supply (this doesn't exist for the temporary generator).

3.5.1.1 Events (Add New)

3.5.1.1.10 Type: determines the type of condition used to affect the supplies. Four types can be chosen:

1. Supply : A kind of supply.

2. Site Supply: a specific supply listed for the site.

3. Hour Type: The supplies working on a specific schedule.

4. Zone: The supplies comprised in a specific zone.

3.5.1.1 Events (Add New)

3.5.1.1.11 Affected: indicate the condition to fulfill for a supply to be affected by the event.

3.5.1.1.12 Quantity: the quantity of supplies affected (only available for the Site supply type of condition).

3.5.1.1.13 Save Event: saves the data input.

3.5.1.1.14 Cancel: cancels the data input.

3.5.1 Events

3.5.1.6 Intersection: see 3.5.1.1.8.

3.5.1.7 Periods:see 3.5.1.1.6.

3.5.1.8 Last modification: indicate the moment where the data has been changed for the last time and the name of the user that modified the data.

3.5.1.9 Actions : contains the modify button ✐ that allows the return to the « Add New » screen with the data already input and the delete button ✖ to delete the data input.

3rd level: screens

1. General
2. Configuration
   A. Hour types
   B. Hours
   C. Zones
   D. Statutory holidays
   E. Weather Coefficients
   F. Operations
   G. Fixed Loads

3rd level: screens

3. Products
   A. Catalog
   B. Parameters
4. Supplies
5. Events
6. Models
   A. Compiled

3.6.1 Compiled

This screen's purpose is to compiled the data and to calculate the fixed loads . It also lists all the compiled model that have been done for the site.

3.6.1 Compiled

Training, Fredericton (NB, Canada)

Sites > Training > Models > Compiled

General Configuration ▾ Invoices ▾ Products ▾ Supplies Events Statements ▾ Models ▾

Compiled

3.6.1.1   + Add New

Title	Creation Modification	Original Start Date Last Start Date	Original End Date Last End Date	Status	Reports	Actions
3.6.1.2	3.6.1.3	3.6.1.4	3.6.1.5	3.6.1.6	3.6.1.7	3.6.1.8

3.6.1 Compiled

3.6.1.1 Add New: allows to access the screen where you can add new data in Bull's Eye.

3.6.1.2 Title: see 3.6.1.1.2.

3.6.1.3 Creation Modification: the date of the first and last compilation, respectively.

3.6.1.4 Original Start Date Last Start Date: the start date of the first and last compilation, respectively.

3.6.1.5 Original End Date Last End Date: the end date of the first and last compilation, respectively.

3.6.1.1 Compiled (Add New)

Training, Fredericton (NB, Canada)

Sites › Training › Models › Compile ›

General   Configuration ▾   Invoices ▾   Products ▾   Supplies   Events   Statements ▾   **Models ▾**

Informations ⓗ

| Period * | | to | | 3.6.1.1.1 and 3.6.1.1.2 |
| Title * | | | | |

Parameters ⓗ

Model options

☐ Electrical   3.6.1.1.3 and 3.6.1.1.4

☐ Thermal

Provenance of the data

☐ Productions   3.6.1.1.5 and 3.6.1.1.6

☐ Use fixed loads data from site supplies

Refrigeration

☐ Refrigerated spaces

☐ Freezing spaces   3.6.1.1.7

☐ Take the air conditioning shutdown period into account for refrigerated and freezing spaces   to 3.6.1.1.12

☐ Take the heating shutdown period into account for refrigerated and freezing spaces

☐ Temperature of the refrigerant gas at the inlet of the cooling tower

☐ Take the outside humidity impact into account

Heating

☐ Take the effect of the sun into account   3.6.1.1.13 and 3.6.1.1.14

☐ Take the effect of the wind into account

Cooling

☐ Take the effect of the sun into account   3.6.1.1.15 and 3.6.1.1.16

☐ Take the effect of the wind into account

3.6.1.1.17   [Compile] [Cancel]   3.6.1.1.18

3.6.1.1 Compiled (Add New)

3.6.1.1.1 Period: the start and end date of the period over which the data is to be compiled. This is a mandatory field.

3.6.1.1.2 Title: The name of the model. This is a mandatory field.

 3.6.1.1.3 Electrical: check this box if the data concerning the electricity consumption is to be compiled.

3.6.1.1 Compiled (Add New)

3.6.1.1.4 Thermal: check this box if the data concerning the fuel consumption is to be compiled.

3.6.1.1.5 Productions: check this box if the model should include the production of at least one product.

3.6.1.1.6 Use fixed loads datat from site supplies: check this box if the fixed loads must be calculated from the supplies input in section 3.4.1 instead of the estimations of section 3.2.7.

3.6.1.1 Compiled (Add New)

3.6.1.1.7 Refrigerated spaces: check this box if at least one refrigerated area is on site.

3.6.1.1.8 Freezing spaces: check this box if at least one freezing area is on site.

3.6.1.1 Compiled (Add New)

3.6.1.1.9 Take the air conditioning shutdown period into account for refrigerated and freezing spaces: check this box if the loads of the refrigerated and freezing spaces should be calculated with the outside temperature instead of the setpoint if air conditioning is not functioning.

3.6.1.1.10 Take the heating shutdown period into account for refrigerated and freezing spaces: check this box if the loads of the refrigerated and freezing spaces should be calculated with the outside temperature instead of the setpoint if heating is not functioning.

3.6.1.1 Compiled (Add New)

3.6.1.1.11 Temperature of the refrigerant gas at the inlet of the cooling tower: check this box if the degree days should be corrected according to this parameter (see 3.2.5) (function to come).

3.6.1.1.12 Take the outside humidity impact into account: check this box if the wet bulb temperature is to be used instead the dry bulb temperature for the calculations of the cooling fixed loads (function to come).

3.6.1.1 Compiled (Add New)

3.6.1.1.13 Heating Take the effect of the sun into account : check this box if the effect of the sun is to be taken into account for the calculations of the heating load.

3.6.1.1.14 Heating Take the effect of the wind into account : check this box if the effect of the wind is to be taken into account for the calculations of the heating load.

3.6.1.1.15 Cooling Take the effect of the sun into account : check this box if the effect of the sun is to be taken into account for the calculations of the cooling load.

3.6.1.1 Compiled (Add New)

3.6.1.1.16 Cooling Take the effect of the wind into account :
check this box if the effect of the wind is to be taken into account for the calculations of the cooling load.

3.6.1.1.17 Compile: saves the parameters chosen and start the compilation.

3.6.1.1.18 Cancel: cancels the data input.

3.6.1 Compiled

3.6.1.6 Status: information on the step of the compilation being achieved.

3.6.1.7 Reports: allows the consultation of the reports associated with the compiled models.

3.6.1.8 Actions : contains the modify button ✎ that allows the return to the « Add New » screen with the data already input, the delete button ✖ to delete the data input, and the buttons ▣ ☰ to produce a report and modify its parameter, respectively.

Site management

4th level: Site management

A user of this level can manage everything that regards its site(s). That includes managing access and adding supplies or meteorological data to the databases.

4th level: screens

1. Weathers
   A. Search
2. Supplies
3. Templates
   A. Search
4. Supply categories

4th level: screens

5. Constants

6. Units

7. Refrigeration system

    A. Equivalence factors

    B. Scales

8. Access

    A. Account manager

4.1.1 Search

This screen's purpose is to consult the metorological database. It is also possible to add data from there to it to complete the database or to keep it up to date.

4.1.1 Search

Search
Administration > Weather > Search

Filters

Cities   4.1.1.1

▾

Period   4.1.1.2

📅   to   📅

🔍 Apply Filter

4.1.1.3

Weather   4.1.1.4   ✚ Add New   ☁ Import   4.1.1.5

Start Date	End Date	City	Unit System	Heating	Cooling	Humidity	Water Temperature	Sunshine	Wind	Precipitations	Average Temperature (Day)	Average Temperature (Night)	Actions
4.1.1.6		4.1.1.7 and 4.1.1.8		4.1.1.9 and 4.1.1.10		4.1.1.11 and 4.1.1.12		4.1.1.13 to 4.1.1.15			4.1.1.16	4.1.1.17	4.1.1.18

4.1.1 Search

4.1.1.1 Cities: drop-down menu of the cities for which some meteorological data is available.

4.1.1.2 Period: start and end date of the period over which the user is interested in consulting the data.

4.1.1.3 Apply filter: returns the data corresponding to the filters.

4.1.1 Search

4.1.1.4 Add New: allows to access the screen where you can add new data in Bull's Eye.

4.1.1.5 Import: this button import the EXCEL template back into Bull's Eye so the data is read.

4.1.1.6 Start Date End Date: see 4.1.1.4.3.

4.1.1.7 City: see 4.1.1.4.1.

4.1.1.4 Search (Add New)

Weather

Administration > Weather > Weather

Weather

City *		4.1.1.4.1
Unit System *	International	4.1.1.4.2
Sart period *		4.1.1.4.3
End period *		to 4.1.1.4.7
Heating		°C * d
Cooling		°C * d
Humidity		%	4.1.1.4.8
Water Temperature		°C	4.1.1.4.9
Sunshine		h	to 4.1.1.4.14
Wind		km/h
Precipitations		mm	4.1.1.4.15 and 4.1.1.4.16
Average Temperature (Day)		°C	4.1.1.4.17
Average Temperature (Night)		°C	to 4.1.1.4.20

4.1.1.4.21   Save Weather   Cancel   4.1.1.4.22

4.1.1.4 Search (Add New)

4.1.1.4.1 City: the name of the city for which the data is entered. This is a mandatory field.

4.1.1.4.2 Unit System: the unit system used (international or imperial). This is a mandatory field.

4.1.1.4.3 Start period End Period: the start and end date of the period for which the data is entered. This is a mandatory field.

4.1.1.4.4 Heating: the number of heating degree days for the city over the given period.

4.1.1.4 Search (Add New)

4.1.1.4.5 : the unit in which the value 4.1.1.4.4 is expressed.

4.1.1.4.6 Cooling: the number of cooling degree days for the city over the given period.

4.1.1.4.7 : the unit in which the value 4.1.1.4.6 is expressed.

4.1.1.4.8 Humidity: the relative humidity averaged over the period.

4.1.1.4 Search (Add New)

4.1.1.4.9 Water Temperature: the average temperature of the water for the aqueduct over the given period.

4.1.1.4.10 : the unit in which the value 4.1.1.4.9 is expressed.

4.1.1.4.11 Sunshine: the total time of sunshine over the given period.

4.1.1.4.12 : the unit in which the value 4.1.1.4.11 is expressed.

4.1.1.4 Search (Add New)

4.1.1.4.13 Wind: the wind velocity averaged over the given period.

4.1.1.4.14 : the unit in which the value 4.1.1.4.13 is expressed.

4.1.1.4.15 Precipitations: total precipitations over the given period.

4.1.1.4.16 : the unit in which the value 4.1.1.4.14 is expressed.

4.1.1.4 Search (Add New)

4.1.1.4.17 Average Temperature (Day): the average temperature between 08:00 and 20:00 over the given period.

4.1.1.4.18 : the unit in which the value 4.1.1.4.17 is expressed.

4.1.1.4.19 Average Temperature (Night): the average temperature between 20:00 and 08:00 over the given period.

4.1.1.4.20 : the unit in which the value 4.1.1.4.19 is expressed.

4.1.1.4 Search (Add New)

4.1.1.4.21 Save Weather: saves the data input.

4.1.1.4.22 Cancel: cancels the data input.

4.1.1 Search

4.1.1.8 Unit system: see 4.1.1.4.2.

4.1.1.9 Heating: see 4.1.1.4.4.

4.1.1.10 Cooling: see 4.1.1.4.6.

4.1.1.11 Humidity: see 4.1.1.4.8.

4.1.1.12 Water Temperature: see 4.1.1.4.9.

4.1.1 Search

4.1.1.13 Sunshine: see 4.1.1.4.11.

4.1.1.14 Wind: see 4.1.1.4.13.

4.1.1.15 Precipitations: see 4.1.1.4.15.

4.1.1.16 Average Temperature (Day): see 4.1.1.4.17.

4.1.1.17 Average Temperature (Night): see 4.1.1.4.19.

4.1.1 Search

4.1.1.18 Actions : contains the modify button ✐ that allows the return to the « Add New » screen with the data already input and the delete button ✖ to delete the data input.

4th level: screens

1. Weathers
   A. Search
2. Supplies
3. Templates
   A. Search
4. Supply categories

4th level: screens

5. Constants

6. Units

7. Refrigeration system

   A. Equivalence factors

   B. Scales

8. Access

   A. Account manager

4.2.1 Supplies

This screen's purpose is to consult and modify the supplies database.

4.2.1 Supplies

4.2.1 Supplies

4.2.1.1 Keywords: one or more keywords used to find supplies.

4.2.1.2 Category: the fixed loads category to which the supply belongs to. The category is one of the following:

1. Lighting
2. Ventilation
3. Air Compressors
4. Pumps
5. Others

4.2.1 Supplies

4.2.1.3 Apply filter: returns the data corresponding to the filters.

4.2.1.4 Export: this button allows to export the data entered in an EXCEL format. If no data was entered it export the templates on which to enter the data in EXCEL to ensure Bull's Eye will be able to read it. The template is not described because the fields are the same than the « Add New » screen.

4.2.1.5 Import: this button import the EXCEL template back into Bull's Eye so the data is read.

4.2.1 Supplies

4.2.1.6 Add New: allows to access the screen where you can add new data in Bull's Eye.

4.2.1.7 Name: see 4.2.1.6.1.

4.2.1.8 Actions : contains the modify button ✏️ that allows the return to the « Add New » screen with the data already input and the delete button ❌ to delete the data input. The actions only appear for supplies that the user input.

4.2.1.6 Supplies (Add New)

Administration > Supplies >

Informations

Name *		4.2.1.6.1
Category *		4.2.1.6.2
Quantity *		4.2.1.6.3
Class		
Subclass		
Number		4.2.1.6.4 to 4.2.1.6.7
Company		
Power	w	4.2.1.6.8 and 4.2.1.6.9
Load factor	%	4.2.1.6.10
Energy types		
Keywords		4.2.1.6.11 and 4.2.1.6.12
Description		4.2.1.6.13

4.2.1.6.14 **Save Supply** Cancel 4.2.1.6.15

4.2.1.6 Supplies (Add New)

4.2.1.6.1 Name: the name of the supply. This is a mandatory field.

4.2.1.6.2 Category: the fixed loads category to which the supply belongs to. This is a mandatory field. The category is one of the following:

1. Lighting
2. Ventilation
3. Air Compressors
4. Pumps
5. Others

4.2.1.6 Supplies (Add New)

4.2.1.6.3 Quantity: the quantity of the same supply considered in the description. For example, for a Fluorescent T12 - 2 X 3' Tubes - Electronic Ballast the quantity is 2 because there is two tubes of 25 watts each. This is a mandatory field.

4.2.1.6 Supplies (Add New)

4.2.1.6.4 Class: a group of supplies from a given category.

4.2.1.6.5 Subclass: a group of supplies from a given class.

4.2.1.6.6 Number: the model number.

4.2.1.6.7 Company: The supplier of this specific supply.

4.2.1.6 Supplies (Add New)

4.2.1.6.8 Power: the supply's power.

4.2.1.6.9 : the unit in which the value 4.2.1.6.8 is expressed.

4.2.1.6.10 Load factor: percentage of the supply's nominal power solicited when it is used.

4.2.1.6.11 Energy types: the energy source that fuels the supply.

4.2.1.6 Supplies (Add New)

4.2.1.6.12 Keywords: allows the user to enter a few keywords to facilitate the search for this supply.

4.2.1.6.13 Description: allows the user to enter a brief description of the supply if required.

4.2.1.6.14 Save Supply: saves the data input.

4.2.1.6.15 Cancel: cancels the data input.

4th level: screens

1. Weathers
   A. Search
2. Supplies
3. Templates
   A. Search
4. Supply categories

4th level: screens

5. Constants

6. Units

7. Refrigeration system

    A. Equivalence factors

    B. Scales

8. Access

    A. Account manager

4.3.1 Search

This screen's purpose is to create and use site templates to configure many sites with similarities faster.

4.3.1 Search

Search

Filters

Keywords   4.3.1.1

Q Apply Filter

4.3.1.2

4.3.1.3   + Add New

Templates

Name 4.3.1.4	Description 4.3.1.5	4.3.1.6 Actions
métro		
Modèle	Modèle système	
Normal	Pour le Canada	
Ontario		
Provigo		
test A	gabarit pour le cas A de test	
test B	gabarit pour le cas B de test	

4.3.1 Search

4.3.1.1 Keywords: words to find the templates required. The key words will be looked for in the templates' names and descripti.

4.3.1.2 Apply filter: returns the data corresponding to the filters.

4.3.1.3 Add New: add a new template. The addition won't be described here because it is the same as the configuration described on chapters 2 and 3.

4.3.1 Search

4.3.1.4 Name: the name of the template.

4.3.1.5 Description: the template's description.

4.3.1.6 Actions : contains the modify button ✎ that allows the return to the « Add New » screen with the data already input and the delete button ✖ to delete the data input.

4th level: screens

1. Weathers
   A. Search
2. Supplies
3. Templates
   A. Search
4. Supply categories

4th level: screens

5. Constants

6. Units

7. Refrigeration system

    A. Equivalence factors

    B. Scales

8. Access

    A. Account manager

4.4.1 Supply Categories

This screen's purpose is to define the 5 categories of fixed loads that will be used to analyze the energy consumtpion.

4.4.1 Supply Categories

4.4.1 Supply Categories

4.4.1.1 Add New: allows to access the screen where you can add new data in Bull's Eye.

4.4.1.2 Name: see 4.4.1.1.1.

4.4.1.3 Type: see 4.4.1.1.2.

4.1.1.4 Actions : contains the modify button ☑ that allows the return to the « Add New » screen with the data already input and the delete button ⊠ to delete the data input.

4.4.1.1 Supply Categories(Add New)

Supply Category

Administration > Settings > Supply Category >

Supply Category

4.4.1.1.1   Name *

4.4.1.1.2   Type *   Air compressors

4.4.1.1.3   Description

4.4.1.1.4   Save supply category   Cancel   4.4.1.1.5

4.4.1.1 Supply Categories(Add New)

4.4.1.1.1 Name: the name of the fixed load category. This is a mandatory field.

4.4.1.1.2 Type: the fixed load type. This is a mandatory field.

4.4.1.1.3 Description: a brief description of the fixed load category.

4.4.1.1.4 Save supply category: saves the data input.

4.4.1.1 Supply Categories(Add New)

4.4.1.1.5 Cancel: cancels the data input.

4th level: screens

1. Weathers
   A. Search
2. Supplies
3. Templates
   A. Search
4. Supply categories

4th level: screens

5. Constants

6. Units

7. Refrigeration system

   A. Equivalence factors

   B. Scales

8. Access

   A. Account manager

4.5.1 Constants

This screen's purpose is to configure the constants required for bull's eye's calculations with respect to regional and time specificities.

4.5.1 Constants

Constants

Administration › Settings › Constants

Constants

4.5.1.1   + Add New

Type	Start Date	End Date	Value	Unit system	Units	Country	Province	Actions
DD			18,00	International	°C	Canada		✏ ✖
DD			18,33	International	°C	United States		✏ ✖
DD			64,40	Imperial	°F	Canada		✏ ✖
DD			65,00	Imperial	°F	United States		✏ ✖
Fridge Freezer Percent			28,00	International	%			✏ ✖
Fridge Freezer Percent			28,00	Imperial	%			✏ ✖
Water Heating Energy			1.16E-3	International	kWh/L			✏ ✖
Water Heating Energy			8,32	Imperial	BTU/gal			✏ ✖

4.5.1.2

4.5.1.3

4.5.1.4 and 4.5.1.5

4.5.1.6 to 4.5.1.9

4.5.1 Constants

4.5.1.1 Add New: allows to access the screen where you can add new data in Bull's Eye.

4.5.1.2 Type: see 4.5.1.1.1.

4.5.1.3 Start Date End Date: see 4.5.1.1.3.

4.5.1.4 Value: see 4.5.1.1.4.

4.5.1.5 The unit system in which the units used belong.

4.5.1.1 Constants (Add New)

Constant

Administration › Settings › Constant ›

Constant

4.5.1.1.1	Type *		▾
4.5.1.1.2	Unit System *	International	▾
4.5.1.1.3 and 4.5.1.1.4	Period	[ ] 📅 to [ ] 📅	
	Value *	[ ]	
4.5.1.1.5 to 4.5.1.1.7	Units		▾
	Country		▾
	State / Province		▾

4.5.1.1.8   Save Constant   Cancel   4.5.1.1.9

4.5.1.1 Constants (Add New)

4.5.1.1.1 Type: the type of constant for which the data is given. This is a mandatory field. The possibles types are:

1. Coal: energetic content of coal.

2. Coal CO2: CO2 emissions resulting from coal combustion.

3. DD: reference temperature form which the degree days are calculated.

4.5.1.1 Constants (Add New)

4. Electricity CH4: CH4 emissions resulting from electricity consumption.

5. Electricity CO2: CO2 emissions resulting from electricity consumption.

6. Electricity NxOx: NxOx emissions resulting from electricity consumption.

7. Water Heating Energy: the quantity of energy required to increase the water temperature of 1 degree.

4.5.1.1 Constants (Add New)

8. Natural Gas: energetic content of natural gas.

9. Natural Gas CH4: CH4 emissions resulting from natural gas combustion.

10. Natural Gas CO2: CO2 emissions resulting from natural gas combustion.

11. Natural Gas NxOx: NxOx emissions resulting from natural gas combustion.

12. Oil 2: energetic content of oil #2.

13. Oil 2 CO2: CO2 emissions resulting from oil #2 combustion.

4.5.1.1 Constants (Add New)

14. Oil 6: energetic content of oil #6.

15. Oil 6 CO2: CO2 emissions resulting from oil #6 combustion.

16. Fridge Freezer Percent: the average load factor of commercial refrigerators and freezers.

17. Propane CO2: CO2 emissions resulting from propane combustion.

4.5.1.1 Constants (Add New)

4.5.1.1.2 Unit System: the unit system compatible with the constant.

4.5.1.1.3 Period: the start and end date of the validity period if the constant changes in time.

4.5.1.1.4 Value: the value of the constant. This is a mandatory field.

4.5.1.1.5 Units: The units corresponding to the value of the constant.

4.5.1.1 Constants (Add New)

4.5.1.1.6 Country: the country for which the constant is valid if it varies from place to place.

4.5.1.1.7 State/Province: the state/ the province for which the constant is valid if it varies from place to place.

4.5.1.1.8 Save Constant: saves the data input.

4.5.1.1.9 Cancel: cancels the data input.

4.5.1 Constants

4.5.1.6 Units: see 4.5.1.1.5.

4.5.1.7 Country: see 4.5.1.1.6.

4.5.1.8 Province: see 4.5.1.1.7.

4.5.1.9 Actions : contains the modify button ✎ that allows the return to the « Add New » screen with the data already input and the delete button ✖ to delete the data input.

4th level: screens

1. Weathers
   A. Search
2. Supplies
3. Templates
   A. Search
4. Supply categories

4th level: screens

5. Constants

6. Units

7. Refrigeration system

   A. Equivalence factors

   B. Scales

8. Access

   A. Account manager

4.6.1 Units

This screen's purpose is to present the different units that are available on Bull's Eye.

4.6.1 Units

Units

Filters

Keywords 4.6.1.1

4.6.1.2

🔍 Apply Filter

4.6.1.3

➕ Add New

Units

4.6.1.4 Category	4.6.1.5 Unit system	4.6.1.6 Name	4.6.1.7 Symbol	4.6.1.8 Reference	4.6.1.9 Multiplicative factor	4.6.1.10 Additive factor	4.6.1.11 Actions
Area	Imperial	square foot	ft2	m2	0,09	0,00	
Area	Imperial	square inch	in2	m2	6.45E-4	0,00	
Area	International	square meter	m2	m2	1,00	0,00	
Degree-day	International	celsius day	°C * d	°C * d	1,00	0,00	
Degree-day	Imperial	farhenheit day	°F * d	°C * d	0,56	0,00	

4.6.1 Units

4.6.1.1 Keywords: one or a few words to identify the unit looked for.

4.6.1.2 Apply Filter: return the units associated with the Keywords input.

4.6.1.3 Add New: allows to access the screen where you can add new data in Bull's Eye.

4.6.1.4 Category: see 4.6.1.3.3.

4.6.1.3 Units (Add New)

Unit

Unit

4.6.1.3.1 — Name *	
4.6.1.3.2 — Symbol *	
4.6.1.3.3 and — Category *	Mass
4.6.1.3.4 — Reference unit *	kg
4.6.1.3.5 to — Multiplicative factor *	
4.6.1.3.7 — Additive factor *	0,0000000000
— Unit System *	☐ International ☐ Imperial

4.6.1.3.8   Save Unit   Cancel   4.6.1.3.9

4.6.1.3 Units (Add New)

4.6.1.3.1 Name: the unit's complete name. For example, kilometers/hour. This is a mandatory field.

4.6.1.3.2 Symbol: the abreviation used for this unit. For example, km/h. This is a mandatory field.

4.6.1.3.3 Category: indicates what the unit are used to count (Energy, Mass, Distance, etc.). This is a mandatory field.

4.6.1.3.4 Reference unit: the unit of a category by which every conversion are done. This is a mandatory field.

4.6.1.3 Units (Add New)

4.6.1.3.5 Multiplicative factor: the relative value of the units in comparison with the reference. This is a mandatory field. As an example, the fahrenheit degrees have a factor of 0,56 because 0,56 Celsius degree = 1 fahrenheit degree.

4.6.1.3.6 Additive factor: the value required the readjust the reference unit scale towards the given unit. This is a mandatory field. As an example, the fahrenheit degrees have a factor of 32 because when Celsius degrees are converted in fahrenheit degrees an addition of 32 is required.

4.6.1.3 Units (Add New)

4.6.1.3.7 Unit system: indicates to which system the unit belongs to (International, Imperial or both). This is a mandatory field.

4.6.1.3.8 Save Unit: saves the data input.

4.6.1.3.9 Cancel: cancels the data input.

4.6.1 Units

4.6.1.5 Unit system: see 4.6.1.3.7.

4.6.1.6 Name: see 4.6.1.3.1.

4.6.1.7 Symbol: see 4.6.1.3.2.

4.6.1.8 Reference: see 4.6.1.3.4.

4.6.1.9 Multiplicative factor: see 4.6.1.3.5.

4.6.1.10 Additive factor: see 4.6.1.3.6.

4.6.1 Units

4.6.1.11 Actions : contains the modify button ✐ that allows the return to the « Add New » screen with the data already input and the delete button ⊠   to delete the data input.

4th level: screens

1. Weathers
   A. Search
2. Supplies
3. Templates
   A. Search
4. Supply categories

4th level: screens

5. Constants

6. Units

7. Refrigeration system

   A. Equivalence factors

   B. Scales

8. Access

   A. Account manager

4.7.1 Equivalence Factors

This screen's purpose is to establish equivalence factors between different refrigerator/ freezer types. The refrigerator and freezer described here are used for the purpose of display and sale in a grocery store.

4.7.1 Equivalence Factors

Equivalence Factors

Administration > Settings > Refrigeration system > Equivalence Factors

Equivalence Factors

4.7.1.1 and 4.7.1.2 [+ Add New] [☁ Import]

Name 4.7.1.3	Code 4.7.1.4	Equivalence factor 4.7.1.5	4.7.1.6 Actions
Freezer Closed	cF	1	✎ ✖
Freezer Closed Tomb	cTF	1	✎ ✖
Freezer Open	cO	1	✎ ✖
Freezer Open Tomb	cTO	1	✎ ✖
Freezer Semi-Closed	cSF	1	✎ ✖
Freezer Walk-in Closed	cWF	2	✎ ✖
Freezer Walk-in Open	cWO	2	✎ ✖
Fridge Close	rF	1	✎ ✖
Fridge Close Tomb	rTF	1	✎ ✖
Fridge Open	rO	1	✎ ✖
Fridge Open Tomb	rTO	1	✎ ✖
Fridge Semi-Closed	rSF	1	✎ ✖
Fridge Walk-in Closed	rWF	2	✎ ✖
Fridge Walk-in Open	rWO	2	✎ ✖

4.7.1 Equivalence Factors

4.7.1.1 Add New: allows to access the screen where you can add new data in Bull's Eye.

4.7.1.2 Import: this button import the EXCEL template back into Bull's Eye so the data is read.

4.7.1.3 Name: see 4.7.1.1.1.

4.7.1.4 Code: see 4.7.1.1.3.

4.7.1.1 Equivalence Factors (Add New)

Equivalence Factor

Administration > Settings > Refrigeration system > Equivalence Factor >

Equivalence Factor

4.7.1.1.1	Name *
4.7.1.1.2	Equivalence Factor *
4.7.1.1.3	Code *

4.7.1.1.4   Save Equivalence Factor   Cancel   4.7.1.1.5

4.7.1.1 Equivalence Factors (Add New)

4.7.1.1.1 Name: the name of the type of refrigerator/freezer. This is a mandatory field.

4.7.1.1.2 Equivalence factor: the equivalence factor of this type of refrigerator/freezer based on its real energy consumption compared with its nominal one. This is a mandatory field.

4.7.1.1.3 Code: the abreviation that will represents this type of refrigerator/freezer.

4.7.1.1 Equivalence Factors (Add New)

4.7.1.1.4 Save Equivalence Factor : saves the data input.

4.7.1.1.5 Cancel: cancels the data input.

4.7.1 Equivalence Factors

4.7.1.5 Equivalence Factor: see 4.7.1.1.2.

4.7.1.6 Actions : contains the modify button ✎ that allows the return to the « Add New » screen with the data already input and the delete button ✖ to delete the data input.

4th level: screens

1. Weathers
   A. Search
2. Supplies
3. Templates
   A. Search
4. Supply categories

4ᵗʰ level: screens

5. Constants

6. Units

7. Refrigeration system

    A. Equivalence factors

    B. Scales

8. Access

    A. Account manager

4.7.2 Scales

This screen's purpose is to establish the energy consumption per unit of volume of each type of refrigerator/freezer.

4.7.2 Scales

Scales					
					4.7.2.1 and 4.7.2.2 [+ Add New] [☁ Import]
4.7.2.3 Type	4.7.2.4 Rank	4.7.2.5 Energy Average	4.7.2.6 Minimum Volume	4.7.2.7 Maximum Volume	4.7.2.8 Actions
Freezer Open	1	92,00 BTU/(h *ft3)	1,00 ft3	64,00 ft3	[✎] [✕]
Fridge Open	1	92,69 BTU/(h *ft3)	1,00 ft3	64,00 ft3	[✎] [✕]

Administration > Settings > Refrigeration system > Scales

4.7.2 Scales

4.7.2.1 Add New: allows to access the screen where you can add new data in Bull's Eye.

4.7.2.2 Import: this button import the EXCEL template back into Bull's Eye so the data is read.

4.7.2.3 Type: see 4.7.2.1.1.

4.7.2.4 Rank: see 4.7.2.1.2.

4.7.2.1 Scales (Add New)

Scale

Administration > Settings > Refrigeration system > Scale > Freezer Closed

Scale

4.7.2.1.1   Type *   Freezer Closed

4.7.2.1.2   Rank *

4.7.2.1.3 to   Minimum Volume *   gal
4.7.2.1.6   Maximum Volume *   gal

4.7.2.1.7   Energy Average *   BTU/(h *ft3)
and 4.7.2.1.8

4.7.2.1.9   Save Scale   Cancel   4.7.2.1.10

4.7.2.1 Scales (Add New)

4.7.2.1.1 Type: the type of refrigerator/freezer for which the data is input. This is a mandatory field. The drop-down menu comes from 4.7.1.

4.7.2.1.2 Rank: idicates the order in which the types of refrigerators/freezers are displayed.

4.7.2.1.3 Volume Minimum: the minimum volume of a refrigerator/freezer of this type.

4.7.2.1.4 : the unit in which the value 4.7.2.1.3 is expressed.

4.7.2.1 Scales (Add New)

4.7.2.1.5 Volume Maximum: the maximum volume of a refrigerator/freezer of this type.

4.7.2.1.6 : the unit in which the value 4.7.2.1.5 is expressed.

4.7.2.1.7 Energy Average: the average energy consumption per unit of volume and its unit.

4.7.2.1.8 : the unit in which the value 4.7.2.1.7 is expressed.

4.7.2.1 Scales (Add New)

4.7.2.1.9 Save Scale: saves the data input.

4.7.2.1.10 Cancel: cancels the data input.

4.7.2 Scales

4.7.2.5 Energy Average: see 4.7.2.1.7.

4.7.2.6 Volume Minimum: see 4.7.2.1.3.

4.7.2.7 Volume Maximum: see 4.7.2.1.5.

4.7.2.8 Actions : contains the modify button ✎ that allows the return to the « Add New » screen with the data already input and the delete button ✖ to delete the data input.

4th level: screens

1. Weathers
   A. Search

2. Supplies

3. Templates
   A. Search

4. Supply categories

4th level: screens

5. Constants

6. Units

7. Refrigeration system

    A. Equivalence factors

    B. Scales

8. Access

    A. Account manager

4.8.1 Account Manager

This screen's purpose is to manage user accounts and their access rights on Bull's Eye.

4.8.1 Account Manager

Account Manager

Administration › Settings › Access › Account Manager

Account manager

4.8.1.1 | + Add New | + Add an existing account
4.8.1.2

| User name 4.8.1.3 | 4.8.1.4 | Client | Role | 4.8.1.5 | Last name 4.8.1.6 | First name | 4.8.1.8 Actions |

and 4.8.1.7

4.8.1 Account Manager

4.8.1.1 Add New: allows to access the screen where you can add new data in Bull's Eye.

4.8.1.2 Add an existing account: allows to add a user that already possess an account for another client to this client. Beware, the role and the access related are identical for every client, it is very important to make sure that the type of access given is appropriate before proceeding.

4.8.1.3 User name: see 4.8.2.1.1.

4.8.1.4 Client: the name given to the ensemble of databases used, directly and indirectly, by the user.

4.8.1.1 Account Manager (Add New)

Account

Account

4.8.1.1.1 User name *	
4.8.1.1.2 Password *	
4.8.1.1.3 and 4.8.1.1.4 Last name * First name *	
4.8.1.1.5 to 4.8.1.1.7 Language * Role * Sites	

Language * English

Role * Site Manager

Sites
- Demo - Commercial building
- Demo - Industry A
- Demo - Industry C
- formation
- métro
- Normal
- Provigo
- test B

- Demo - Hotel
- Demo - Industry B
- Demo - Industry D
- gel
- Modèle
- Ontario
- test A
- test1

4.8.1.1.8   Save account   Cancel   4.8.1.1.9

4.8.1.1 Account Manager (Add New)

4.8.1.1.1 User name: the email address linked to the account and is used as a user name.

4.8.1.1.2 Password: the password of the account.

4.8.1.1.3 Last name: the last name of the user.

4.8.1.1.4 First name: the first name of the user.

4.8.1.1.5 Language: the choice of language for Bull's Eye to be displayed in, for the user.

4.8.1.1 Account Manager (Add New)

4.8.1.1.6 Role: the function the user has on Bull's Eye, it defines the user's rights.

4.8.1.1.7 Sites: the list of sites for which the user can obtain access.

4.8.1.1.8 Save account: saves the data input and creates the account.

4.8.1.1.9 Cancel: cancels the data input.

4.8.1 Account Manager

4.8.1.5 Role: see 4.2.8.1.6.

4.8.1.6 Last name: see 4.8.2.1.3.

4.8.1.7 First name: see 4.8.2.1.4.

4.8.1.8 Actions : contains the modify button ✎ that allows the return to the « Add New » screen with the data already input and the delete button ✖ to delete the data input.

Analysis/research

5th level: Analysis/research

A user of this level can use the different mathematical parameters intervening in the model making to customize completely his analysis and get the optimal precision.

5th level: screens

1. Industry
   A. Industries
   B. Types
   C. Zones
2. Models
   A. Algorithms
   B. Parameters

5.1.1 Industries

This screen's purpose is to establish default consumtpion value for different areas for all kinds of industries.

5.1.1 Industries

Industries

Industries

5.1.1.1

+ Add New

Types 5.1.1.2	Zone 5.1.1.3	sq. ft. / occupant 5.1.1.4	W / sq. ft. for outlet 5.1.1.5	CFM / sq. ft. 5.1.1.6	CFM / occupant 5.1.1.7	W / sq. ft. for lighting 5.1.1.8	W / occupant 5.1.1.9	Actions 5.1.1.10

5.1.1 Industries

5.1.1.1 Add New: allows to access the screen where you can add new data in Bull's Eye.

5.1.1.2 Types: see 5.1.1.1.1.

5.1.1.3 Zone: see 5.1.1.1.2.

5.1.1.4 sq. ft./ occupant: see 5.1.1.1.3.

5.1.1.5 W/sq. ft. For outlet: see 5.1.1.1.4.

5.1.1.1 Industries (Add New)

Industry

Administration > Settings > Industry > Industry >

Industry

5.1.1.1.1 Type *	
5.1.1.1.2 Zone *	
5.1.1.1.3 and sq. ft. / occupant **5.1.1.1.4** W / sq. ft. for outlet	
5.1.1.1.5 to CFM / sq. ft. CFM / occupant **5.1.1.1.7** W / sq. ft. for lighting	
5.1.1.1.8 W / occupant	

5.1.1.1.9	Save configuration	Cancel	5.1.1.1.10

5.1.1.1 Industries (Add New)

5.1.1.1.1 Type: the commercial activity or type of industry for which the data is entered. This is a mandatory field. The type must be included in the list manageable from the screen 5.1.2.

5.1.1.1.2 Zone: a kind of area for which the data is entered. This is a mandatory field. The zone must be included in the list manageable from the screen 5.1.3.

5.1.1.1 Industries (Add New)

5.1.1.1.3 sq. ft./ occupant: the quatity of square feet that a person normally occupies. Useful for offices amongst other.

5.1.1.1.4 W/sq. ft. For outlet: the power per square foot that is used for power outlets (a function of their number).

5.1.1.1.5 CFM/ sq. ft.: the quantity of ventilation required per square foot in cubic feet/minute.

5.1.1.1 Industries (Add New)

5.1.1.1.6 CFM/ occupant: the quantity of ventilation required per occupant in cubic feet/minute.

5.1.1.1.7 W/sq. ft. for lighting: the power required for lighting per square foot.

5.1.1.1.8 W/occupant: the power of the supply per occupant (only for some specific supplies).

5.1.1.1 Industries (Add New)

5.1.1.1.9 Save configuration: saves the data input.

5.1.1.1.10 Cancel: cancels the data input.

5.1.1 Industries

5.1.1.6 CFM/ sq. ft.: see 5.1.1.1.5.

5.1.1.7 CFM/ occupant: see 5.1.1.1.6.

5.1.1.8 W/sq. ft. for lighting: see 5.1.1.1.7.

5.1.1.9 W/occupant: see 5.1.1.1.8.

5.1.1 Industries

5.1.1.10 Actions : contains the modify button ☑ that allows the return to the « Add New » screen with the data already input and the delete button ☒ to delete the data input.

5th level: screens

1. Industry
   A. Industries
   B. Types
   C. Zones
2. Models
   A. Algorithms
   B. Parameters

5.1.2 Types

This screen's purpose is to manage the industry types that are used in the screen 5.1.1.

5.1.2 Types

Types

Administration > Settings > Industry > Types

Types

5.1.2.1   + Add New

Type 5.1.2.2	5.1.2.3 Code	5.1.2.4 Actions

5.1.2 Types

5.1.2.1 Add New: allows to access the screen where you can add new data in Bull's Eye.

5.1.2.2 Type: see 5.1.2.1.1.

5.1.2.3 Code: see 5.1.2.1.2.

5.1.2.4 Actions : contains the modify button ✏ that allows the return to the « Add New » screen with the data already input and the delete button ❌ to delete the data input.

5.1.2.1 Types (Add New)

Type

Type

5.1.2.1.1   Type *

5.1.2.1.2   Code *

5.1.2.1.3   **Save Type**   Cancel   5.1.2.1.4

5.1.2.1 Types (Add New)

5.1.2.1.1 Type: the name of the industry type. This is a mandatory field.

5.1.2.1.2 Code: the numerical tag of the industry type form the NAICS (North American Industry Classification System). This is a mandatory field.

5.1.2.1.3 Save Type: saves the data input.

5.1.2.1.4 Cancel: cancels the data input.

5th level: screens

1. Industry
   A. Industries
   B. Types
   C. Zones
2. Models
   A. Algorithms
   B. Parameters

5.1.3 Zones

This screen's purpose is to establish the name of the areas found in the different industry types and used in the screen 5.1.1.

5.1.3 Zones

Zones

Zones

5.1.3.1 + Add New

| Name | 5.1.3.2 | 5.1.3.3 Code | 5.1.3.4 Actions |

5.1.3 Zones

5.1.3.1 Add New: allows to access the screen where you can add new data in Bull's Eye.

5.1.3.2 Name: see 5.1.2.1.1.

5.1.3.3 Code: see 5.1.2.1.2.

5.1.3.4 Actions : contains the modify button ✎ that allows the return to the « Add New » screen with the data already input and the delete button ✖ to delete the data input.

5.1.3.1 Zones (Add New)

Zone

Administration > Settings > Industry > Zone >

Zone

5.1.3.1.1 Name *	
5.1.3.1.2 Code *	
5.1.3.1.3 Description	

5.1.3.1.4 Save Zone | Cancel **5.1.3.1.5**

5.1.3.1 Zones (Add New)

5.1.3.1.1 Name: the zone' name. This is a mandatory field.

5.1.3.1.2 Code: the numerical tag of the zone from the order in which they are added. This is a mandatory field.

5.1.3.1.3 Description: a brief description of what should constitute that kind of zone.

5.1.3.1.4 Save Zone: saves the data input.

5.1.3.1.5 Cancel: cancels the data input.

5th level: screens

1. Industry
   A. Industries
   B. Types
   C. Zones
2. Models
   A. Algorithms
   B. Parameters

5.2.1 Algorithms

This screen's purpose is to verify the step by step calculations of the model making.

5.2.1 Algorithms

General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | **Models ▾**

Filters

Energy *   5.2.1.1
                                                                              ▼

Model *   5.2.1.2
                                                                              ▼

Period   5.2.1.3
📅   to   📅

Second End Period
📅

Iterations   5.2.1.4
☐ Last iteration only   to

Outdoor temperature effect
☐ Same as model's configuration   5.2.1.5

Heating   to 5.2.1.9
☐ Take the effect of the sun into account   ☐ Take the effect of the wind into account

Cooling
☐ Take the effect of the sun into account   ☐ Take the effect of the wind into account

Other
☐ Take the effect of the humidity into account   ☐ Take the effect of the cooling towers into account

⚙ Compute

Algorithm   5.2.1.10   5.2.1.11   ☁ Export all

Date | Iterations | Production | Slope | Constant | F1 | F2 | F3 | FTotal | Lighting | Ventilation | Air compressors | Pumps | Other Loads | Total Load | Hot water for production | Chilled water for production | Cooling of the refrigerated areas | Cooling

5.2.1 Algorithms

5.2.1.1 Energy: the energy for which the user wants to examine the model.

5.2.1.2 Model: the name of the compiled data from which the calculations should be made (establish on screen 3.6.1).

5.2.1.3 Period: the start and end date of the period over which the user wishes to do a model as if it was part of the original compilation, to simulate following compilations (as there are in the following-up of a project), use the « Second End Period ».

5.2.1.4 Iterations: filters the iterations to be returned.

5.2.1 Algorithms

5.2.1.5 Same as model's configuration: deactivate the options 5.2.1.6 to 5.2.1.9 as they are copied from the compilation parameters (see 3.6.1).

5.2.1.6 Heating: selects if the effect of the sun and winds on heating are to be taken into account.

5.2.1.7 Cooling: selects if the effect of the sun and winds on cooling are to be taken into account.

5.2.1.8 Take the effect of the humidity into account: correct the loads of some systems by using the wet bulb temperature.

5.2.1 Algorithms

5.2.1.9 Take the effect of the cooling towers into account: correct the loads of some systems on the basis of the refrigerant gas temperature (see 3.2.6.1).

5.2.1.10 Compute: returns the data corresponding to the filters.

5.2.1.11 Export all: export the calculated data into Excel. That data includes:

1. Date: the end date of the billing period for which the data corresponds.

5.2.1 Algorithms

2. Iterations: the iteration number to which the data corresponds.

3. Production: the total production (the sum of each products multiplied by its relative weight) (see section 3.2).

4. Slope: the energy consumption due to the production of one unit.

5. Constant: the sum of the fixed loads that are not attributed. If the fixed loads that are not due to production have been correctly reported through the supplies, (see section 3.3.1) only production related fixed loads are represented here.

5.2.1 Algorithms

6. F1 : the quantity of electricity bought, in kWh.

7. F2: the quantity of electricity produced on site, in kWh.

8. F3: the quantity of electricity stemming from temporary generators events, in kWh.

9. FTotal: the sum of F1, F2 and F3.

10. Lighting: the consumption in kWh due to lighting fixed loads.

11. Ventilation: the consumption in kWh due to ventilation fixed loads.

12. Air compressors: the consumption in kWh due to air compressors fixed loads.

5.2.1 Algorithms

13. Pumps: the consumption in kWh due to pumps fixed loads.

14. Other Loads: the consumption in kWh due to other fixed loads.

15. Total Load: the sum of the 5 preceding fixed loads categories' consumption.

16. Hot water for production: the consumption in kWh used to heat water on site (see section 2.1.2).

17. Chilled water for production: the consumption in kWh used to chill water on site (see section 2.1.2).

18. Cooling of the refrigerated areas: the consumption in kWh used to cool the refrigerated areas.

5.2.1 Algorithms

19. Cooling of the freezing areas: the consumption in kWh used to cool the freezing areas.

20. BT1_4: the sum of the columns 16 to 19.

21. Building heating: the consumption in kWh used to heat the building.

22. Building cooling: the consumption in kWh used to cool the building.

23. Cooling fixed loads: the consumption in kWh used by the cooling system but that is not directly proportional to temperature. It is only present when a refrigerated area or a fluid circulation cooling system is on site.

5.2.1 Algorithms

24. C: the consumption in kWh required for the production according to the model.
25. Crl: the minimum between C and FTotal minus all the consumption not linked to the production according to the model.
26. Total: the sum of all the aforementioned consumptions.
27. E1: the difference between FTotal and Total.
28. E2: E1/FTotal (the relative error compared to the total consumption).
29. E3: the difference per hour (E1/ (days*24 hours/day)).
30. Days: the number of days covered by the billing period.

5.2.1 Algorithms

31. M14a: dry bulb average temperature adjusted over the billing period.

32. Adjusted cooling degree days: the cooling degree days adjusted over the billing period.

33. Shutdown adjusted cooling degree days : the degree days that are not having any effect on the cooling consumption because the cooling systems were not functioning.

34. Adjusted heating degree days: the heating degree days adjusted over the billing period.

35. Shutdown adjusted heating degree days : the degree days that are not having any effect on the heating consumption because the heating systems were not functioning

5.2.1 Algorithms

36. Slope1: slope before the iteration in progress.
37. Slope2: slope from the iteration in progress.

5.2.1 Algorithms

38. FactoryCooling: cooling setpoint used for the building (see section 3.2.6). It is suggested to enter only one setpoint, which would be the closest to external temperature (with the exception of refrigerated spaces).

39. FactoryHeating: heating setpoint used for the building (see section 3.2.6). It is suggested to enter only one setpoint, which would be the closest to external temperature.

5.2.1 Algorithms

40. Description: a brief description of what the iteration is calculating.

41. Block: the number of the block the iteration in progress belongs to.

42. Low Limit: the lowest number for which the period will be within the specified tolerance (see section 5.2.2).

43. High Limit: the highest number for which the period will be within the specified tolerance (see section 5.2.2).

44. Group: the number of the group to which the period belongs.

45. Group Rule: the number of the rule used to affect a period to a group.

5.2.1 Algorithms

46. Common Value: the value shared by all the period of the same group that allows them all to be within the specified tolerance(see section 5.2.2).

47. Smoothing Rule: the information of the final handling of the groups to allow every year to respect their annual difference (see section 5.2.2).

48. Annual difference: the total difference between the year's consumption and the year's modeled consumption relative to the year's consumption. It has to be inferior to the annual difference (see section 5.2.2).

5th level: screens

1. Industry
   A. Industries
   B. Types
   C. Zones
2. Models
   A. Algorithms
   B. Parameters

5.2.2 Parameters

This screen's purpose is is to define the mathematical parameters required to model the consumption. As the parameters function are identical regardless of the energy they apply to, only one instance will be presented here but they repeat for each energy type as the values may differ.

5.2.2 Parameters

Training, Fredericton (NB, Canada)

Sites › Training › Models › Parameters

General | Configuration ▾ | Invoices ▾ | Products ▾ | Supplies | Events | Statements ▾ | Models ▾

Linear regression · Electrical

5.2.2.1 Variation of the slope 1 *   %   5.2.2.4 Maximum iterations 1

5.2.2.2 Variation of the slope 2 *   %   5.2.2.5 Maximum iterations 2

5.2.2.3 Variation of the slope 3 *   %   5.2.2.6 Maximum iterations 3

Mathematic Limits · Electrical

☐ Compute Smoothing   5.2.2.7

Period difference   5.2.2.8   Annual difference   5.2.2.9   Recursivity   5.2.2.10

Scales · Electrical

5.2.2.11   ➕ Add New

Name   5.2.2.12

| Type | Min. | | Max. 5.2.2.15 | Factor 1 % 5.2.2.16 | | Factor 2 % 5.2.2.17 |

5.2.2.13   5.2.2.14

Save Parameters   5.2.2.18

5.2.2 Parameters

5.2.2.1 Variation of the slope 1: the stopping criteria of the first iterative loop. It's the minimum percentage of variation of the slope between two iterations for the solution to be considered unstable.This is a mandatory field.

5.2.2.2 Variation of the slope 2: the stopping criteria of the second iterative loop. It's the minimum percentage of variation of the slope between two iterations for the solution to be considered unstable.This is a mandatory field.

5.2.2 Parameters

5.2.2.3 Variation of the slope 3: the stopping criteria of the third iterative loop. It's the minimum percentage of variation of the slope between two iterations for the solution to be considered unstable.This is a mandatory field.

5.2.2.4 Maximum iterations 1: the maximum number of iterations allowed before quitting the first iterative loop forcibly.

5.2.2.5 Maximum iterations 2: the maximum number of iterations allowed before quitting the second iterative loop forcibly.

5.2.2.6 Maximum iterations 3: the maximum number of iterations allowed before quitting the third iterative loop forcibly.

5.2.2 Parameters

5.2.2.7 Compute Smoothing: check this box to activate the post treatment smoothing module.

5.2.2.8 Period difference: allowed tolerance for each billing period, in percentage.

5.2.2.9 Annual difference: Allowed tolerance for each year, in percentage.

5.2.2.10 Recursivity: the maximum number of recursivity allowed.

5.2.2 Parameters

5.2.2.11 Add New: adds a scale to parameter.

5.2.2.12 Name: the name the user wishes to give the scale.

5.2.2.13 Type: the variable affected by the scale. The possible types are:
1. Refrigerated spaces
2. Freezing spaces
3. Ventilation heating
4. Building heating
5. Building cooling
6. Cooling fixed loads

5.2.2 Parameters

5.2.2.14 Min.: the low bound of what is included in the scale. The value is compared to the difference between the temperatur over a period and the setpoint of the selected type.

5.2.2.15 Max.: the high bound of what is included in the scale. The value is compared to the difference between the temperatur over a period and the setpoint of the selected type.

5.2.2.16 Factor 1%: the factor in percent that is applied on the first calculation of the consumption associated with the selected type.

5.2.2.17 Factor 2%: the factor in percent that is applied on the other calculations of the consumption associated with the selected type.

5.2.2 Parameters

5.2.2.18 Save parameters: saves the data input.