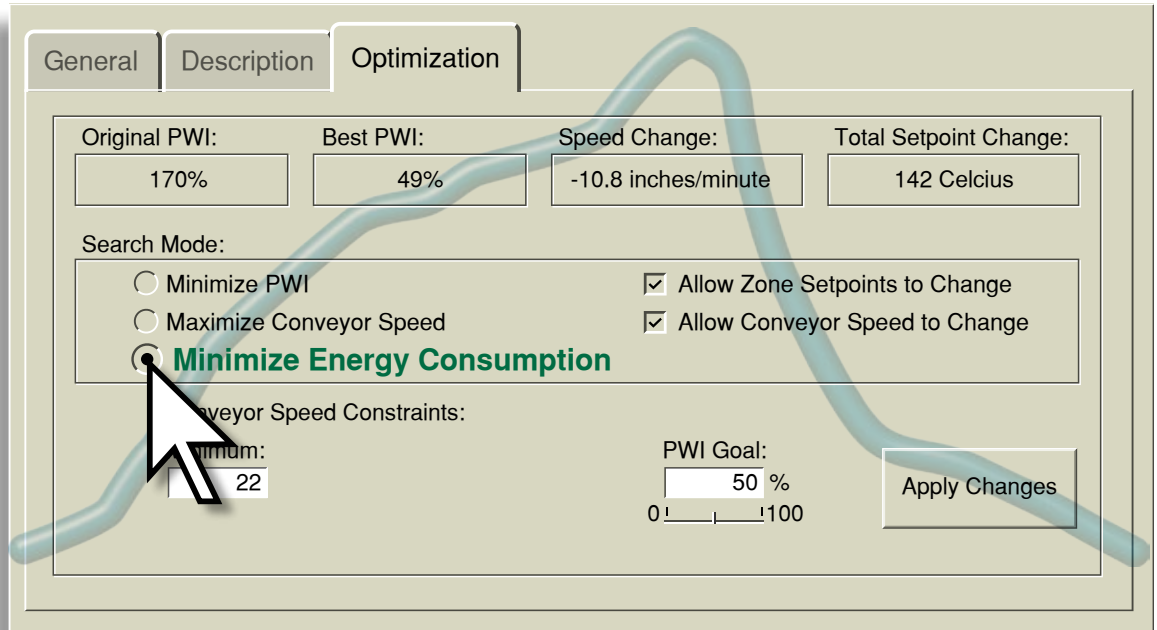


## Reflow Oven Set Up Lower Electricity Use – Improve Production Quality

### Navigator Power Advantages

- Reduce Energy Costs
- Enable Deep in Spec Profiler
- Maximize Product Throughput
- 24 Hour Customer Service



The screenshot shows the 'Optimization' tab of the Navigator Power software interface. It features a light blue background with a wavy line graphic. At the top, there are three tabs: 'General', 'Description', and 'Optimization'. Below the tabs, there are four data boxes: 'Original PWI: 170%', 'Best PWI: 49%', 'Speed Change: -10.8 inches/minute', and 'Total Setpoint Change: 142 Celcius'. Underneath, there is a 'Search Mode:' section with three radio buttons: 'Minimize PWI', 'Maximize Conveyor Speed', and 'Minimize Energy Consumption' (which is selected and highlighted in green). To the right of these are two checked checkboxes: 'Allow Zone Setpoints to Change' and 'Allow Conveyor Speed to Change'. Below the search mode section, there is a 'Conveyor Speed Constraints:' section with a 'Minimum:' input field containing the value '22'. To the right of this is a 'PWI Goal:' section with a slider set to '50%' and a scale from 0 to 100. An 'Apply Changes' button is located at the bottom right of the optimization area.



### Thermal Process Set Up Tool for Lower Electricity Use

#### Technology for Lower Electricity Use

Navigator Power selects the best oven recipe based on user selected criteria:

- Minimum electricity use
- Deep in spec profile
- Maximized throughput
- Minimized oven changeover time

Where do the energy savings come from?

- Most reflow ovens are set up without considerations of electricity use
- Reflow ovens tend to run too hot and too fast
- Software simulation identifies the oven recipe that will yield the lowest electricity use based on the above criteria

When will the electricity savings be realized?

- Instantly

#### Case Studies

Several case studies reveal a typical electricity saving of approximately 15%

Go to [www.kicthermal.com](http://www.kicthermal.com) to read the actual case studies

#### What is required to achieve the electricity savings?

- Knowledge of the appropriate process window
- One initial profile run with TCs on the product
- Knowledge of minimum allowable reflow oven conveyor speed
- KIC Navigator Power and a KIC profiler
- Nothing else

#### Ease of Use Software

- Most profiling tasks are automated and run invisibly in the background
- The user interface enables the responsible engineer to select the higher level criteria such as process window and minimum conveyor speed
- Everything else can be delegated
- The ease of use software means faster oven set up and lower production downtime

# NAVIGATOR POWER™

Technical Support  
24 Hours Every Day  
Everywhere

## Risk Free Guarantee

All KIC products are designed to give maximum value and fast payback by streamlining your thermal process. Investment in a KIC product is a step toward total process control and quality management. All KIC products come with a no questions asked, 30 day money back guarantee.

For more information on any of our products or service please visit us on the Web at: [www.kicthermal.com](http://www.kicthermal.com) or [www.kic.cn](http://www.kic.cn).

## Service Available

Technical Support  
Installation and Setup  
Application Support  
Hardware Support  
Guaranteed Warranty

KIC Navigator Power™ expands the capability and potential of the KIC software by automatically optimizing your process set up.

KIC Navigator Power™ is a stand-alone software option and is also included with the KIC Auto-Focus Power™ software option.

**Note:** *The KIC software may interface directly with some oven controllers, eliminating the need for manual setpoint data entry. Please consult your oven supplier for availability.*

*KIC software is dongle protected.*

Process Window Name: System Default

Solder Paste: SYSTEM DEFAULT

Statistic Name	Low Limit	High Limit	Units
Max Rising Slope (Target=2.0) (Calculate Slope over 20 Seconds)	0.0	3.0	Degrees/Second
Soak Time 140-170C	50	90	Seconds
Time Above Reflow - 183C	40	75	Seconds
Peak Temperature	205	255	Degrees Celsius

Wave      Select TC to view:

Same Specs for all TCs

Process Window Description

**Edit the Process Window Screenshot**

## COMPUTER CONFIGURATION

### Minimum System Requirements

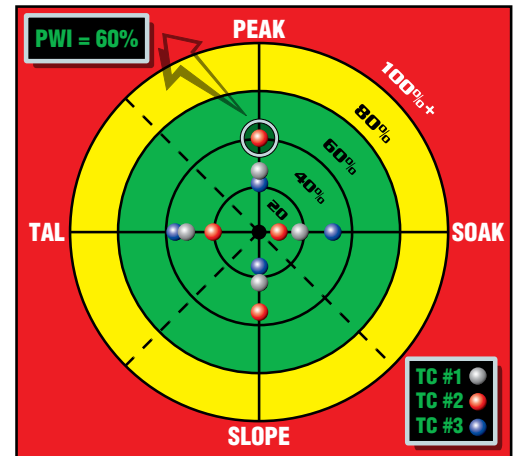
Dual Core / 1 GHz Processor PC with 2 GB RAM  
2 GB available storage  
Video 1024 x 768 resolution / 16-bit  
1 available USB port (for software key)

Visit our website at <http://kicthermal.com/support-download/os-compatibility-chart> for product compatibility with Windows operating systems.



When KIC Software is running on a computer with other applications, a faster CPU and more RAM may be required.

## THE PROCESS WINDOW INDEX™



### Profiling Reduced to a Single Number

The PWI measures the profile's fit to the process window in a mathematical and objective manner by using a single number. This aids in optimizing the process by comparing and ranking alternative profiles in terms of their fit to the available process window. The lower the PWI, the more efficient and stable the process! (See the PWI data sheet for a detailed explanation)

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