



## PicoLite – Verifying Insulin Safety during Cold Chain Transportation

**Application:** Monitoring cold chain transportation of insulin

**Organization:** PrJSC "INDAR" – Insulin Producer

### Background:

Insulin needs to be transported with great care as it can be affected by extreme heat or cold, which may lead to loss of potency of the insulin – a life risking situation. It is therefore imperative that manufacturing companies will monitor the temperature of the insulin vials during shipment in order to verify that the required temperature is maintained and that the insulin is safe for use by diabetes patients.



### About the Customer:

INDAR is a unique insulin producer in Ukraine, providing a complete technological cycle for producing genetically engineered insulin (recombinant human insulin) starting from production of substance to finished product. INDAR manufacturing operates in accordance with GMP standards and passed ANVISA inspection. PrJSC "Indar" has more than 15 years experience in research and production of drugs, selling its products in Ukraine and other countries such as Moldova, Kazakhstan, Russia, Brazil and more. INDAR has four laboratories and more than 300 highly qualified specialists and employees focusing their efforts on maintaining a reliable and efficient process from the production of the insulin through its shipment. The company's product portfolio is constantly expanding to cover a full range of therapeutical segments, including but not limited to all types of Diabetes, its complications and related diseases. Being the partner of Ukrainian Healthcare in 2012-2016 the company portfolio will be enriched by strategically and socially essential products for healing HIV/AIDS, Tuberculosis and Oncology in alliance with multi-national companies.

### Key Customer Challenges:

- Transportation of products manufactured by INDAR to their customers requires cold chain conditions (temperature between +2 °C and +8 °C) due to the perishable nature of insulin.
- INDAR's products are shipped inside Ukraine and exported to other countries and continents (the shipment can take up to several days).
- In order to verify the quality and safety of the insulin vials and provide the customers with proof that the shipment process was performed according to the required temperature range, INDAR was searching for a temperature monitoring solution that will enable them to monitor the shipment process and produce PDF data reports with alarm indications.



### **PicoLite Solution:**

INDAR added Fourtec's PicoLite single-trip data logger to the cold chain transportation of insulin from their production plant to their customers' site. The temperature during shipment was monitored by the PicoLite device, enabling INDAR'S customers to view the shipment data by connecting the device via USB to the computer. A PDF report with alarm indications, specifying if there are any deviations from pre-defined thresholds, is automatically generated as soon as the product shipment has reached its destination. Using the license-free DataSuite software or the weboomerang™ application (Fourtec's new cloud-based application for emailing PicoLite trip reports over the web), this feature enables INDAR to have immediate access to the data collected over the course of the journey and receive a detailed trip report via email, in PDF format, as soon as the logger is connected to the PC during transit or at the final destination.

### **Measurable Results:**

- The PicoLite solution proved to be a cost effective solution, providing accurate and reliable conformation of temperature with detailed analysis of shipments from origin to destination.
- Using a single-trip logger saves INDAR the overhead associated with returning multi-trip data loggers back from the customers.
- Using the weboomerang™ application eliminates the challenge of receiving the trip's data reports from the customers. When the logger is connected to the computer, the weboomerang™ application handles the rest, up until the point where the report reaches INDAR's inbox.