

---

**From:** Gunn, Roy CCS  
**Sent:** Friday, August 31, 2012 2:41 PM  
**To:** Mark Williams  
**Cc:** Chen, Xiao CCS; Stewart, JC CCS  
**Subject:** RE: Runtest Station information

Mark,  
found test procedures that JC had done earlier

Roy

---

**From:** Mark Williams [<mailto:mark.williams@compassauto.net>]  
**Sent:** Thursday, August 30, 2012 10:59 AM  
**To:** Gunn, Roy CCS  
**Subject:** Runtest Station information

Roy –

Xiao mentioned that you might be the better resource to get us the information on the runttest stations that we spoke about yesterday. Those items included any electrical drawings that you have and the details on the testing procedure. Of course, any other documentation, etc. that would help us develop a proposal would also be appreciated.

Thanks,

Mark Williams  
[mark.williams@compassauto.net](mailto:mark.williams@compassauto.net)  
Compass Automation, Inc.  
901.380.5708

LEGAL DISCLAIMER

The information transmitted is intended solely for the individual or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of or taking action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you have received this email in error please contact the sender and delete the material from any computer.

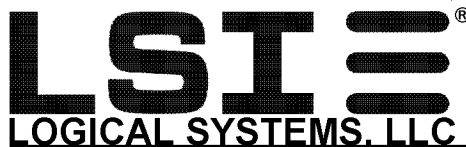
**From:** David Gray <dgray@logicalsysinc.com>  
**Sent:** Friday, August 24, 2012 4:43 PM  
**To:** Stewart, JC                    CCS; Gunn, Roy                    CCS  
**Subject:** Proposal for Line 2 Run Test and Charge Board Panel Addittions

**Categories:** External, Orange Category

JC and Roy,

          Please find attached the quote you requested. If you have any questions don't hesitate to call or email.

Thanks,  
David Gray  
901-268-2254 Cell  
9013-312-5143 Office



**LOGICAL SYSTEMS, LLC.**

P.O. BOX 341321  
Ph 901.377.5574

BARTLETT, TN 38184-1321  
Fax 901.377.1812

Creation Date: August 24, 2012

Last Revision Date: August 24, 2012

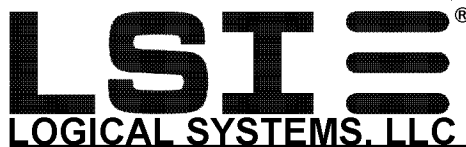
Submitted to: JC Stewart

Submitted by: David Gray

JC Stewart  
United Technologies Carrier  
97 South Byhalia Rd.  
Collierville, TN 38017  
901-854-3000 voice  
JC.Stewart@Carrier.UTC.com

**Bid Prepared by LOGICAL SYSTEMS, LLC.  
Proposal No. 13052F  
Line 2 Additions  
4 Dual Refrigerant Run Tests and 4 Charge Boards**

This document is confidential information of Logical Systems, LLC and is only for use by United Technologies Carrier and Logical Systems, LLC. All information contained herein is to be strictly controlled and in no case can this information be shared outside of the parties listed here without prior written consent from both parties.



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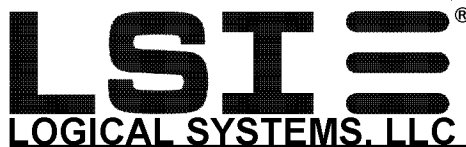
## Table of Contents

Overview .....	2
1 Scope of Work .....	3
2 Equipment .....	4
3 Software .....	4
4 Project Management .....	5
5 On-Site Support.....	5
6 Installation .....	5
7 Client Responsibilities .....	5
8 Schedule.....	5
9 Pricing.....	6
10 Terms and Conditions .....	7

## Overview

Logical Systems is pleased to present this Fixed Price proposal for the engineering and design services required for the 4 Dual Refrigerant Run Tests and 4 Charge Boards for the Line 2 Additions.

If accepted, this document forms the entire basis for the contract between the two parties. No other terms or agreements, unless explicitly referenced in this document, are agreed to. A written purchase order is required for confirmation of the order and must reference this proposal number.



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## 1 Scope of Work

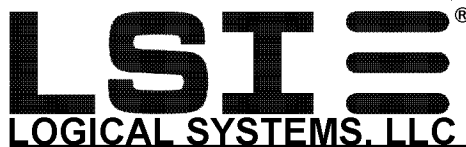
Carrier Collierville, TN has need for 4 new Dual Refrigerant Run Test Stations and 4 new Charge Board Panels.

The new Run Test Stations will be designed to match the existing Line 2 Run Test Stations. Pricing options are included for using either Opto 22 Snap Ethernet I/O or Opto 22 Brick I/O as the existing stations use today. Selecting the Snap Ethernet I/O option for the Run Test stations will require the existing program to be modified (by Others) or optionally replaced with the purchase of the LSI's DALS software package as indicated in the pricing section. Selecting the Brick I/O option would not require an existing program modification but Carrier could choose to replace the existing software with DALS at this time.

The new Charge Board panels are for Line 2. These systems are to match the existing Carrier Charge Boards which utilize Carriers in house Charge Board program. The Charge Board panels are to be setup as dual refrigerant systems but the Coriolis and Red Lion meters for the R22 charging circuit are to be omitted. All other hardware in the panel is to be in place to allow for dual refrigerant charging.

This scope of work was provided via phone conversations and emails between David Gray (LSI), JC Stewart (Carrier), and Roy Gunn (Carrier) as well as a site visit on 8/17/12. An Excel spreadsheet was provided for Run Test I/O definition (Valid Tests.xlsx Dated:9/16/11).

It is recognized by the parties that the aforementioned scope of services is based on the current evaluation and corresponding request by United Technologies Carrier and it is possible that variations in the scope of services specified herein may be adjusted from time to time based on newly found needs and requirements at the facility. In such an event, Logical Systems will use its best efforts to keep United Technologies Carrier informed of any such variations and, in any event, shall receive United Technologies Carrier's advance approval prior to undertaking any variations that will increase the costs of services by Logical Systems to United Technologies Carrier.



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## 2 Equipment

LSI will provide 4 Dual Refrigerant Run Test Stations matching existing Line 2 Stations with all necessary hardware excluding the following:

### 2.1 Customer Supplied Equipment

Qty	Description
1	Computer with 2 NIC cards and 2 serial ports or USB to Serial Adapters
1	Keyboard Wedge Scanner
1	Moisture Analyzer and Moisture Sensor
1	Evaporators with installed valves
1	Hoses and piping
1	Unit Connection Fixtures to attach to cabling
1	Computer mounting hardware
1	Unit Testing Area Enclosure with Door

LSI will provide 4 Dual Refrigerant Charge Board panels matching existing Line 2 panels with all necessary hardware excluding the following:

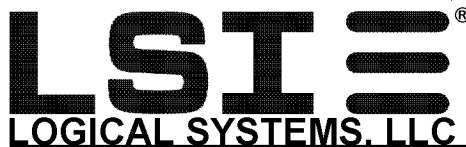
### 2.2 Customer Supplied Equipment

Qty	Description
1	Valve Manifolds, Valves and Hoses from Charge Board
1	Vacuum Pump
1	Computer with Network Card and Sea Level Com Card
1	Keyboard Wedge Scanner
1	Operator PB Station

## 3 Software

For the Run Test stations, an option has been provided in this proposal (pricing for this option is in section 9) for LSI's DALS (Diagnostic Assembly Line System) Software to be utilized. The new DALS software will utilize Carrier's existing SQL Server. A script will be provided for the DALS database generation. An installation package will be generated and provided to Carrier for its use. The installation will allow for unlimited installation of the DALS Office software on office pc's. The DALS Office software package provides access to Program/Subroutine development, Reports, Data Analysis, and Station and Line configuration. The DALS Auto Run test software provides for automatic testing via user configured programs and subroutines, Manual unit testing, Software I/O Calibration, and Auto/Manual Hi-Pot operation. An import routine will be written to import existing IPCS test procedures into DALS software format. The DALS Software is warranted for the life of the system for software defects excluding any travel or hardware expense.

The Charge Boards will utilize Carriers existing in house software.



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## 4 Project Management

LSI will provide knowledgeable personnel for Project Management within LSI's scope.

## 5 On-Site Support

Onsite startup support is covered for the Run Test stations with the purchase of the optional DALSSoftware.

## 6 Installation

Installation and supervision is to be by Carrier.

## 7 Client Responsibilities

### 7.1 Source Documentation

United Technologies Carrier is to provide existing drawings for Line 2 Run Test stations to LSI.

United Technologies Carrier is to provide existing Run Test ValidTests.txt file for Line 2 Run Test.

United Technologies Carrier is to provide documentation on existing Carrier communication Protocols for incorporation into the run test station.

### 7.2 Existing Equipment Condition

It is the responsibility of United Technologies Carrier to ensure that all existing equipment is fully functional and operational to support the scope of this proposal. Any equipment found not to be in satisfactory condition will be repaired or replaced at the owner's expense.

### 7.3 Installation

All installation will be provided by others.

### 7.4 Modification of Existing Programming (if applicable)

If the existing obsolete Run Test software is utilized, any and all modifications will be provided by others.

## 8 Schedule

Schedule to be determined ARO.



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## 9 Pricing

**Pricing** Fixed Price **Option 1:** Line 2 Run Test Duplicate (Brick I/O)

Option 1 Run Test Stations	Qty	Cost Each	Total
Line 2 Run Test Engineering and Fabrication	4	\$74,385.00	\$297,540.00
DALS Software and Onsite Startup Support	1	\$45,690.00	\$45,690.00
Taxes (Note 1)			\$0.00
<b>Fixed Price Line Item #1.1</b>			\$343,230.00

**Pricing** Fixed Price **Option 2:** Line 2 Run Test with SNAP-PAC Ethernet I/O

Option 2 Run Test Stations	Qty	Cost Each	Total
Line 2 Run Test Engineering and Fabrication	4	\$68,608.00	\$274,432.00
DALS Software and Onsite Startup Support	1	\$45,690.00	\$45,690.00
Taxes (Note 1)			\$0.00
<b>Fixed Price Line Item #1.2</b>			\$320,122.00

**Pricing** Fixed Price: Line 2 Charge Board Panels

Charge Boards	Qty	Cost Each	Total
Line 2 Dual Refrigerant Charge Board Panel and 1 Flow meter Circuit	4	\$19,116.00	\$76,464.00
Taxes (Note 1)			\$0.00
<b>Fixed Price Line Item #2</b>			\$76,464.00

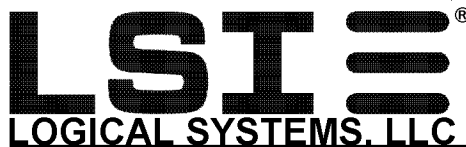
### NOTES:

1. Federal, state, or local taxes, fees, or permits are not included. LSI™ will be required to charge and collect sales tax unless furnished with the appropriate exemption documentation.

### Remit Payments to:

Logical Systems, LLC  
P O Box 341321  
Memphis, TN 38184-1321





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## 10 Terms and Conditions

### 10.1 GOVERNANCE OF PROPOSALS

10.1.1 If there is any conflict between this proposal, if accepted and earlier orders or proposals this proposal will govern.

### 10.2 PAYMENT

10.2.1 For Lump Sum or Fixed Price contracts, Customer shall make to Logical Systems, LLC a 40% of Fixed Price payment at placement of order and 60% of Fixed Price on completion.

10.2.2 Payment is due 30 days from post date of invoice. If post date is not determinable, payment is due 30 days from invoice date. User shall pay 1.5% per month of the unpaid balance if amounts are not paid within 65 days of the post date or 65 days of the invoice date if the post date is not determinable. LOGICAL SYSTEMS, LLC shall be entitled to compensation for the cost of collection, including but not limited to interest and/or attorney fees.

10.2.3 Federal, state, or local taxes, fees, or permits are not included. United Technologies Carrier will be required to pay sales tax unless LSI™ is furnished with the appropriate exemption documentation.

### 10.3 DEFINITIONS

10.3.1 LSI™ or Seller – LOGICAL SYSTEMS, LLC

10.3.2 User – United Technologies Carrier

10.3.3 Equipment – The hardware or software (including control system programming) described in the body of the proposal.

### 10.4 VALIDITY OF PROPOSAL

10.4.1 This Proposal is valid for 30 days, unless extended in writing by LOGICAL SYSTEMS, LLC

### 10.5 SALE AND DELIVERY

10.5.1 F.O.B. LSI™ location, unless otherwise specified in the proposal. User to pay all freight and insurance charges from F.O.B. point, and all demurrage, rigging and unloading charges at destination point.

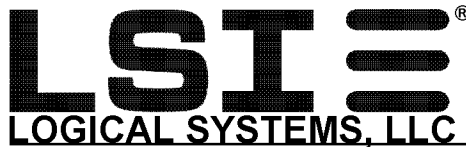
### 10.6 WARRANTY

10.6.1 LOGICAL SYSTEMS, LLC warrants Equipment of its own manufacture to be free from defects in materials and workmanship for a period of twelve (12) months from shipment. THIS WARRANTY EXTENDS ONLY TO THE USER, AND IN NO EVENT SHALL LOGICAL SYSTEMS, LLC BE LIABLE FOR PROPERTY DAMAGE SUSTAINED BY A PERSON DESIGNATED BY THE LAW OF ANY JURISDICTION AS A THIRD PARTY BENEFICIARY OF THIS WARRANTY OR ANY OTHER WARRANTY HELD TO SURVIVE LOGICAL SYSTEMS, LLC'S DISCLAIMER. Replacement parts or software modifications provided under the terms of this warranty are warranted for the remainder of the warranty period applicable to the Equipment, as if such parts were original components of the Equipment. With respect to equipment, materials, parts and accessories manufactured by others, LOGICAL SYSTEMS, LLC will undertake to obtain for User the full benefits of the manufacturer's warranties, BUT IN NO EVENT SHALL USER OR ANY OTHER PERSON HAVE ANY REMEDY AGAINST LOGICAL SYSTEMS, LLC FOR BREACH OF MANUFACTURER'S WARRANTY. A defect in a part shall not condemn the whole machine or software program. THE WARRANTY DESCRIBED IN THIS PARAGRAPH SHALL BE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

### 10.7 EXCLUSIVE REMEDY

10.7.1 Upon written notification received by LOGICAL SYSTEMS, LLC within the above stated warranty period of any failure to conform to the above warranty, upon return prepaid to LOGICAL SYSTEMS, LLC of any nonconforming original part of its own manufacture, and upon inspection by LOGICAL SYSTEMS, LLC to verify said nonconformity, LOGICAL SYSTEMS, LLC shall repair or replace said original part without charge to User. LOGICAL SYSTEMS, LLC shall ship the repaired or replaced part to User at User's expense. Cost for removal and/or installation of repaired or replaced parts supplies under the above warranty shall be at the User's expense. Correction of nonconformities, in the manner and for the period of time provided above, shall constitute fulfillment of all liabilities of LOGICAL SYSTEMS, LLC to User or any other person whether based upon contract, tort (including negligence), strict liability or otherwise.

10.7.2 THE REMEDIES SET FORTH HEREIN ARE EXCLUSIVE, WITHOUT REGARD TO WHETHER ANY DEFECT WAS DISCOVERABLE OR LATENT AT THE TIME OF DELIVERY OF THE EQUIPMENT TO



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USER. The essential purpose of this exclusive remedy shall be to provide User with repair or replacement of parts or components that prove to be defective within the period and under the conditions previously set forth. This exclusive remedy shall not have failed of its essential purpose (as that term is used in the Uniform Commercial Code) provided LOGICAL SYSTEMS, LLC remains willing to repair or replace defective parts or components within a commercially reasonable time after it obtains actual knowledge of the existence of a particular defect.

#### 10.8 CORROSION EXCLUSION

10.8.1 The Seller specifically excludes corrosion of stainless steel or other metals normally used in the fabrication of the Equipment from its warranty. The Seller is not liable for loss or damage to corrosion from exposure to aggressive liquids or atmospheres. Nor shall Seller be held liable for User's failure to properly clean or care for this Equipment.

#### 10.9 LIMITATIONS OF LIABILITY

10.9.1 IN NO EVENT SHALL LOGICAL SYSTEMS, LLC BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL OR INDIRECT DAMAGES NOR SHALL LOGICAL SYSTEMS, LLC BE LIABLE FOR ANY LOSS OF PROFIT, LOSS BY REASON OF PLANT SHUTDOWN, NON-OPERATION OR INCREASED EXPENSE OF OPERATION, LOSS OF PRODUCT OR MATERIALS, WITH RESPECT TO THIS PROPOSAL OR ANYTHING DONE IN CONNECTION THEREWITH (INCLUDING, WITHOUT LIMITATION, SERVICES PROVIDED PURSUANT TO THIS AGREEMENT), WHETHER BASED UPON PROPOSAL, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE. LOGICAL SYSTEMS, LLC's liability to USER hereunder, if any, shall in no event exceed the total amount paid to LOGICAL SYSTEMS, LLC hereunder by USER.

10.9.2 Any indemnification obligation or other liability of Logical Systems, LLC is strictly limited to direct damages to the extent due to the negligent acts or omissions of Logical Systems and is further limited to the amount of the purchase order, including accepted change orders, for the work which gives rise to the damages.

#### 10.10 INSTALLATION

10.10.1 Unless otherwise specifically agreed, User assumes full responsibility for the installation and start-up of the Equipment and for any loss or damage of whatever nature to persons or property.

#### 10.11 ACCELERATION

10.11.1 If the terms of payment for the Equipment allow for installment payments, User agrees that LOGICAL SYSTEMS, LLC, at its discretion, may accelerate and make due and payable all remaining installments if (a) User shall fail to make one or more installments when due, or (b) any of the events constituting cause for automatic cancellation under the CANCELLATION paragraph below shall have occurred before or after delivery of the Equipment.

#### 10.12 FORCE MAJEURE

10.12.1 No liability shall result from delays in shipment caused by circumstances beyond the control of Seller, including but not limited to, Acts of God, fire, flood, war, riots, accidents, strikes, plant shutdown, rules and regulations of local, state and Federal governmental agencies or any causes beyond the reasonable control of Seller.

#### 10.13 ACCEPTANCE

10.13.1 This Proposal shall be a binding contract on receipt of first payment of the first invoice and acceptance of payment by an officer or authorized employee of LOGICAL SYSTEMS, LLC

#### 10.14 CANCELLATION

10.14.1 LOGICAL SYSTEMS, LLC may cancel this Proposal before shipment if User refuses to authorize shipment within thirty (30) days after notice that the Equipment is ready, or fails to make any payment or execute any documents required prior to shipment. (b) This Proposal may, at the sole discretion of Logical Systems, be canceled if User has become insolvent or bankrupt or admits in writing its inability to pay its debts as they mature, or if proceedings are commenced by or against User in any jurisdiction under a provision or chapter of any bankruptcy act, or if User suffers the appointment of a receiver or trustee or makes an assignment for the benefit of creditors. (c) User may not cancel except upon payment of twenty percent (20%) of the total price of the Equipment, plus LOGICAL SYSTEMS, LLC's non-recoverable costs (including incidental and consequential damages) attributable to this Proposal, plus a restocking charge to be determined by LOGICAL SYSTEMS, LLC



**LOGICAL SYSTEMS, LLC.**

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**10.15 ARBITRATION**

10.15.1 Any controversy of claim arising out of or relating to this Proposal should be determined by arbitration in accordance with the rules of the American Arbitration Association. With regard to hearing locale, hearing locale shall be in Memphis, Tennessee. The arbitration shall be conducted by a single arbitrator and shall be in the English language.

**10.16 MODIFICATION OR WAIVER OF PROVISION**

10.16.1 This Proposal cannot be modified except by agreement in writing signed by LOGICAL SYSTEMS, LLC. A waiver or repeated waiver by LOGICAL SYSTEMS, LLC of any provision or the breach of any provision shall not constitute a further waiver of such provision or breach.

**10.17 MERGER CLAUSE**

10.17.1 This Proposal including all appendices, constitutes the final written expression of the terms of this Proposal and is a complete and exclusive statement of those terms, and any and all representations, promises, warranties or statements by LOGICAL SYSTEMS, LLC's agent that differ in any way from the terms of this written Proposal shall be given no force of effect.

**10.18 OTHER CHARGES**

10.18.1 A processing charge shall be payable by User to Seller for each change order or equipment drawing change requested by User after Seller has received the approved drawings. The processing charge shall be added to the material and labor cost associated with each such change order. A processing charge shall be payable by User to Seller for "Prepay and Add" shipping charges.

10.18.2 A charge for storage shall be payable by the User if the User requests shipment deferral beyond the date of completion. Deferral of shipment will not defer invoicing or payment terms of the order.

10.18.3 Additional engineering, start-up support, and training not included within the scope of this proposal shall be provided on a T&M basis per LOGICAL SYSTEMS, LLC standard rates. Any stand-by time that is not the fault of the Seller, incurred by the Seller's employees at the User's site will be billed on a T&M basis.

10.18.4 Pricing data is based upon all work being performed in a forty-hour week. Any overtime required and pre-approved by USER will be billed per LOGICAL SYSTEMS, LLC's standard T&M rate sheet, which is incorporated by reference to this agreement.

10.18.5 All costs incurred for performance bonds shall be borne by the User.

10.18.6 All costs incurred for CE or UL approval shall be borne by the user.

10.18.7 Seller will reasonably attempt to manage travel costs to the estimate provided, however any travel costs that exceed the estimate provided will be invoiced at Seller's cost.

10.18.8 On the event of a direct hire of a LOGICAL SYSTEMS, LLC employee, the hiring company shall pay to Logical Systems, LLC a recruiting fee equal to four months of base billing.

Submitted By:	
David Gray	August 24, 2012
Name	Date

As an authorized representative of United Technologies Carrier, I hereby authorize Logical Systems, LLC to perform the work as described in this document.

Authorized By:	
Printed Name & Signature	Date

**END OF PROPOSAL**

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**From:** Dearth, Staber CAR  
**Sent:** Friday, September 16, 2011 6:24 PM  
**To:** Brunswick, George CAR; Chen, Xiao CAR; Gunn, Roy CAR;  
Pugh, Larry CAR; Tindell, Dennis M; Wiseman, Mike CAR  
**Subject:** FW: Runtest Program

fyi

*Staber Dearth*

Carrier Corporation  
Engineering Manager  
97 South Byhalia Road  
Collierville, TN 38017  
Office 901-861-5353  
Cell 901-569-3986

---

**From:** London, Lee CAR  
**Sent:** Friday, September 16, 2011 10:55 AM  
**To:** Dearth, Staber CAR  
**Subject:** FW: Runtest Program

Do you have someone (perhaps George) to spearhead switching away from LSI. They are going to charge us \$500k to make the runttest stations Windows 7 compliant. See below for a contact to start with.

Regards,

*Lee London*

---

**From:** Keiling, Herman CAR  
**Sent:** Monday, August 08, 2011 1:38 PM  
**To:** London, Lee CAR  
**Cc:** Cooke, Randall CAR  
**Subject:** RE: Runtest Program

Lee,

I work in the Engineering System group out of Syracuse supporting development labs worldwide. We typically are not involved in run test stands, but will do anything that we can to assist you in moving forward. The software that I support (LabPRO developed in LabVIEW) is an easy customizable software package that can be used for a run test stand but typically is used in the development area, and Carrier owns the rights to this code which was developed in conjunction with Viewpoint. We do have LabPRO installed in the Charlotte Customer Witness test facility which does a combination of end of line testing as well as some development testing. I would be more than willing to either visit myself, have a representative from our contracting partner Viewpoint, or both if you feel that would be best. We have a 10+ year relationship with Viewpoint and they have a wide range of installed application from product development testing to automated manufacturing run test stands.

Joe Salazar would not be the best contact, he is more involved in the sales and license management side than the technical side, and NI defers to its alliance members for specific development efforts. I work directly with Jim Campbell at Viewpoint, and have a full time equivalent employee on site.

Let me know how you would like to proceed and I can look at the system for you or get you in touch with someone.

Regards,  
Herman Keiling  
Engineering Systems  
315-432-3100  
315-415-5476

---

**From:** Cooke, Randall CAR  
**Sent:** Monday, August 08, 2011 12:30 PM  
**To:** Keiling, Herman CAR  
**Subject:** FW: Runtest Program

Would you be able to travel to Collierville in September to evaluate the Run Test opportunity below?

---

**From:** London, Lee CAR  
**Sent:** Monday, August 08, 2011 11:52 AM  
**To:** Cooke, Randall CAR  
**Cc:** Dearth, Staber CAR  
**Subject:** Runtest Program

Randy,

I'm the engineering manager for the Collierville, TN split system condenser manufacturing facility. I received your name from the Indianapolis plant in the hopes that you may be able to assist us with a problem that we have. We currently runttest each of our condensers at the end of the assembly lines using a third party software that checks different parameters such as amp draw, delta temp, airflow, etc... The third party software is a closed program that they maintain the rights to the code, and we are worried that they will go out of business in the future. Also, they are charging exorbitant amounts of money to make small programming changes. My understanding is that you may be able to assist in sending someone here to take a look at our current situation and make recommendations. From our phone conversation, I would like to get the contact information for Joe Salazar at National Instruments or if you could arrange for him to contact me. Also, please discuss this with Herman when he returns and get his thoughts. I can be reached on my cell phone at 901-356-1767. Thanks in advance.

Regards,

*Lee London*

Engineering Manager  
ph 901-861-5347  
fax 860-660-0652  
[lee.london@carrier.utc.com](mailto:lee.london@carrier.utc.com)

---

**From:** Jim Gavigan <JGavigan@logicalsysinc.com>  
**Sent:** Friday, September 25, 2009 3:11 AM  
**To:** Gunn, Roy CAR; Stewart, JC CAR  
**Cc:** David Gray  
**Subject:** RE: Run test software changes

Roy and JC,

Sorry this is later than planned. I was out of the office a good part of the day and we had an email outage as we were upgrading some equipment. I will try to run you down tomorrow.

Regards,

Jim Gavigan  
Sales and Marketing Manager  
Logical Systems Inc  
7950 Stage Hills Road  
Bartlett, TN 38133  
[jgavigan@logicalsysinc.com](mailto:jgavigan@logicalsysinc.com)

(901) 377-5574 (office)

(901) 229-0005 (cel)

<http://www.logicalsysinc.com/>

\*\*new website - please visit us online!\*\*



---

**From:** Jim Gavigan  
**Sent:** Wednesday, September 23, 2009 4:15 PM  
**To:** 'roy.gunn@carrier.utc.com'; 'jc.stewart@carrier.utc.com'  
**Subject:** Run test software changes

Hey guys,

I just submitted the new quote with the software license fees and the site license option to David and Larry for review. I should be able to send that back out tomorrow. I will be seeing David Crawford at 9:30am. Maybe I can catch you guys and see if you have any questions when I get finished. Will you guys be around?

Regards,

Jim Gavigan  
Sales and Marketing Manager  
Logical Systems Inc  
7950 Stage Hills Road  
Bartlett, TN 38133  
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\*\*new website - please visit us online!\*\*



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**From:** David Gray <dgray@logicalsysinc.com>  
**Sent:** Wednesday, September 02, 2009 8:50 PM  
**To:** Gunn, Roy CAR  
**Subject:** RE: Quote for Runtest Panel & Software

How many runttests?

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**From:** Gunn, Roy CAR [<mailto:Roy.Gunn@carrier.utc.com>]  
**Sent:** Wednesday, September 02, 2009 3:30 PM  
**To:** David Gray  
**Cc:** Pugh, Larry CAR; Stewart, JC CAR; Dearth, Staber CAR  
**Subject:** Quote for Runtest Panel & Software

David,  
Here are the drawings of line 7 runttest cabinets you needed for quoting.

<<1816srt.zip>>  
Thanks,  
Roy Gunn  
Senior Manufacturing Engineer  
Carrier Corp.  
97 South Byhalia Road  
Collierville, Tn. 38017  
[roy.gunn@carrier.utc.com](mailto:roy.gunn@carrier.utc.com)



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**From:** Stewart, JC BIS  
**Sent:** Tuesday, December 09, 2014 4:55 PM  
**To:** Anderson, Juwana Renee; Robinson, Taylor BIS  
**Subject:** FW: LSI Time and Material Proposal 15119 for R410 Push System add-on to one Existing Run Test Station

Proposal for pump to purge the refrigerant at runtest.

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**From:** Gail Roane [<mailto:groane@logicalsysinc.com>]  
**Sent:** Tuesday, December 09, 2014 8:43 AM  
**To:** Stewart, JC BIS  
**Cc:** Dan Miller  
**Subject:** [External] LSI Time and Material Proposal 15119 for R410 Push System add-on to one Existing Run Test Station

JC,

Please find attached LSI's Time and Material Proposal 15119 for R410 Push System add-on to one Existing Run Test Station.

Don't hesitate to contact me if you have any questions concerning this proposal's intent or scope.

Thanks for the opportunity.

Regards,

**Gail Roane**  
Project Manager  
Logical Systems, LLC  
2756 Appling Center Cove - Suite 101  
Memphis, TN 38133

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