The Goebel Company being the first US supplier of A664 test interfaces, has expanded into a breadth of avionics and aerospace interfaces accompanied by a suite of productivity tools. Our Goebelyzer analyzer systems offer unparalleled insight into bus data and are used in flight test, system simulation, LRU design, verification and manufacturing test. Our Gtools suite of productivity products offer industry leading capability along with the quickest learning curve. Our tools are integrated with ICD data definitions for the corresponding programs. We provide interface cards for inclusion in customer test equipment as well as turn key Goebelyzer systems with our extensive Gtools and analyzer capabilities.

Goebelyzer features
- Record multiple interfaces on synchronized time line
- Auto record on power up for flight test
- Powerful plotting, triggering, filtering and sorting
- Import NTAR captures from other vendors
- Export CSV, XML, TEXT.
- Data pass through modification (Arinc 664, Arinc 429)
- Network latency measurements

Goebelyzer Bus support by program
- Primus EPIC: ASCB-D
- Boeing 7X7: Arinc 664, P2P, CAN2.0B, Arinc 429

Goebelyzer ICD decodes
- ICD based decode to engineering units
- ICD support for Arinc 664 for Boeing 787
- ICD support for Arinc 429, CAN, Arinc 661
- ICD support for CAN2.0B for Boeing 787
- ICD support of Flight Controls P2P for Boeing 787 and NASA Orion CEV
- ICD support for Arinc 429 for Boeing 787, 747, and P8
- ICD support for Arinc 739 MCDU on A429

Gtools
- Control panel of A664 VL and Port parameters
- Scripting language for scenario generation
- Replay of Goebelyzer data captures
- Replay of NTAR captures from other vendors
- FIDO support for flight debug data on Smiths GPM for 787
- Data Loader support, Arinc 615-A
Goebelyzer

The Goebel Company has developed decoding capabilities for a multitude of avionics interfaces in our Goebelyzer bus analyzer. Data is displayed in engineering units based on ICD definitions. We have ICD import tools from various CSV formats (SKIFF, SLATE, SMART) for multiple programs. Our decode capabilities are advanced to the point where our tools are routinely employed to decode NTAR capture files from other vendors. Once imported, the same capabilities for export to text, CSV, XML, plots or PCAP formats are provided. Unlike some competing analyzers, data is displayed during capture. In addition, live displays of user specified data items can be generated via simple mouse clicks from ICD definitions.

Goebelyzer Models

Chose from several models of Goebelyzer to suit your needs. Base configuration systems (GLYZR) can be rack mounted or sit on your desktop in a tower configuration. For flexibility, chose the Goebelyzer cart (GLYZR-

GLYZR-GTIU-4
Goebelyzer rugged compact shown with optional laptop
28v power for flight test. 14 lbs

GLYZR-CT, GLYZR-PRO-CT
Goebelyzer base system on roll around cart
For flexibility, chose the Goebelyzer cart to roll around the lab and access the busses you want to monitor. For maximum capacity of add in interface cards, chose the Pro version (GLYZR-PRO).

GLYZR-P17
Goebelyzer portable with 17” display
A portable briefcase size model can go where with you. 32 lbs

GLYZR-FT
Goebelyzer compact 2u base system
3 PCI-X, 240 GB SSD recording disk, 19”x3.5”x17.8”, 25lbs

GLYZR
Goebelyzer 4u rack mount base system
with 4 PCI-X, 1 PCIe slots, add interfaces below. 19”x7”x20.8", 37lbs

GLYZR-PRO
Goebelyzer 4u rack mount base system
with 8 PCI-X, 1 PCIe and 3 PCI slots
19”x7”x20.8", 37lbs
Gtools
Our Gtools suite of productivity tools is a customer inspired collection of industry leading capabilities addressing a variety of user requirements. The breadth of capabilities in one low cost all inclusive package is unprecedented.

Gtools – Record
Record data on multiple interfaces with a synchronized time line. Recording is initiated via GUI control, or can be configured to start automatically on power on.

Gtools – Control panel
Our Arinc 664 card can be configured and controlled from an extensive API, or from an A664 control panel. With the control panel, VLs and Ports can be viewed for activity, errors, and bandwidth. A664 control consists of VL and Port stop, start, redundancy, and integrity control for a companion simulation application. This eliminates the requirement for GUI control from the application.

Gtools – Replay
An indispensable tool in the Gtools suite is the ability to replay Goebelyzer captures, or TIS, NTAR files for interoperability with other vendors. Replay is an often used method of scenario reproduction for LRU debug.

Gtools – Scripting
One of the most powerful tools in the Gtools productivity suite is the scripting capability. With simple script files, one can generate A664, P2P or Mil 1553 traffic utilizing the advanced data generation and error injection capabilities of the API. Apply a sine wave to a data element or stop a frame counter for one frame, are examples of possible capabilities accomplished with simple script files. Now we are making these capabilities accessible with a mouse click in our A664 control GUI. No other vendor provides the power of our data generation capabilities in any form, while we provide these capabilities via API, scripting, and now in GUI form.

Gtools - Data Loader
Gtools Data Loader supporting Arinc 615-A for Boeing 787 and A664 Programs. There is no longer a need to procure separate tools for simulation, analysis and data loading. Now with 429 data loading for legacy systems.

Gtools – FIDO
Flight Information Data Output - FIDO is a mechanism for accessing data inside an end system, in this case the Smiths GPM. Goebelyzers with Arinc A664 interface cards and Gtools package include the FIDO tool. This tool provides for selection of GPM flight and debug data for viewing. Data elements are chosen by simple point and click from variable names listed in the FIDO XML data base. The data elements selected are built into a Goebelyzer script to send the messages required to retrieve the data. Requests are made to the FIDO partition by executing the generated script. Goebelyzer software provides decoding, graphing and export of retrieved data. The FIDO tool is simply the easiest way by far to interrogate GPM FIDO data. In conjunction with Goebelyzer capabilities, FIDO data can be viewed in real-time, plotted or exported to CSV, or data bases. Users who need to look at FIDO data have no other reasonable alternative to view this data.

### Gtools Applications

- **ICD**
- **Recorded capture files**
- **Gtools**
- **Gtools Scripting**
- **Goebelyzer**
- **Gtools Replay**
- **Gtools FIDO**
- **Gtools Data Loader**
- **User Simulation**

### Goebelyzer Interfaces

<table>
<thead>
<tr>
<th>Part number</th>
<th>Interface description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLYZR-GTAX</td>
<td>Arinc 664</td>
</tr>
<tr>
<td>GLYZR-GTAS</td>
<td>ASCB-D</td>
</tr>
<tr>
<td>GLYZR-GTP20</td>
<td>20 channel P2P (Boeing 787, COMAC 919 flight controls bus) with breakout</td>
</tr>
<tr>
<td>GLYZR-GT422</td>
<td>4 channel 422/485</td>
</tr>
<tr>
<td>GLYZR-GT429</td>
<td>8 rx/tx channel Arinc 429 with breakout</td>
</tr>
<tr>
<td>GLYZR-GT1553</td>
<td>2 channel Mil std 1553</td>
</tr>
<tr>
<td>GLYZR-GTSW</td>
<td>4 channel SpaceWire</td>
</tr>
<tr>
<td>GLYZR-GTADC</td>
<td>20 channel analog to digital</td>
</tr>
<tr>
<td>GLYZR-GTCAN</td>
<td>2 channel Can 2.0B</td>
</tr>
</tbody>
</table>

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