imc LINK

connectivity • productivity • data security

Automatic transfer of measurement data and system status monitoring

imc LINK at a glance

- Automated measurement data transfer from measurement system to PC
- Network independent: LAN/Ethernet, Modem, WLAN, 3G/4G Wireless etc.
- Supports HTTPS protocol for secure data transmission
- Well suited for intermittent or unreliable network connections, such as mobile measurement systems or remote monitoring systems
- Graphical map for GPS position
- Automated data reduction, analysis, and reporting in conjunction with imc FAMOS
- Compatible with all current imc data acquisition instrumentation

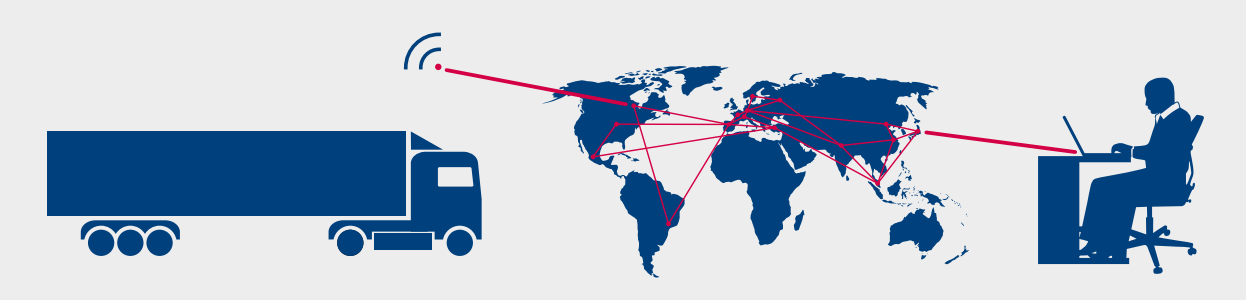
imc LINK

With imc LINK, remote is closer than you think

All test environments face a common challenge: data management. "What is my test doing right now, and what are the results so far?" These are critical concerns for anyone who depends on test results. imc LINK provides the necessary link between the user and the data source, managing the data transfer and test analysis automatically.

By enhancing the networking ability inherent to all imc data acquisition systems, imc LINK is especially useful in environments where the network connection might be unreliable or available only occasionally. Even with reliable network connectivity, imc LINK assists with the collection, processing and storage of data coming from many different concurrent data acquisition sources, such as test stands or fleet vehicle testing.

By automatically transferring data from an imc system's local storage to a data management computer, imc LINK users have the data security of storage local to the acquisition, plus the convenience of fast and reliable data access local to the user.



Gaining independence & security

- Access your data wherever an imc system is used
  - Test bench use with a company network
  - Test track operations with W-LAN connectivity
  - Long distance road tests with intermittent cellular and Wi-Fi service
- Let imc LINK manage and control the data to be transferred independently – even overnight.
- Know what happens. See your data in real time as they are recorded.
- Be secure with imc LINK HTTPS protocol and imc LINK SecureAccess on your imc measurement system.

Saving time

- Don't wait until a flash drive arrives at your office by mail. Get your data instantly right after they're recorded.
- Shorten your development time. Start your data evaluation at the same time you start your test. Automate the process: from data recording to the final report.
- Identify problems before it is too late and have enough time to react.
- Be informed in timely manner. Watch your data online – see results as you go.

Saving money

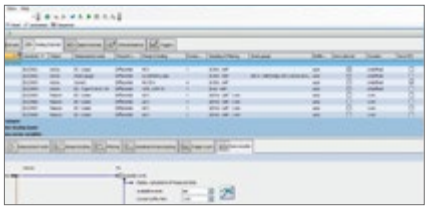
- Spare your travel costs. Let imc LINK pick up your data.
- Prevent repetitive testing because of wrong or implausible data.

Imagine it is one of those Monday mornings...

The moment you arrive in the office the news hits: your team needs to present an update of the ongoing field test program, including a review of this weekend's data collection, all by the 9:00 am staff meeting. What do you do? It would take a full day of work to locate, process, and analyze all that data, not to mention creating the test reports, data graphs, and a presentation. It would seem to be an impossible task given the time available. If only the data could have managed itself... sounds impossible? Since you have been using imc LINK to manage all the data from multiple test systems in parallel, as well as automatically running the daily reports, you have been on top of the entire test program from day one. Plenty of time – why not have a cup of coffee?

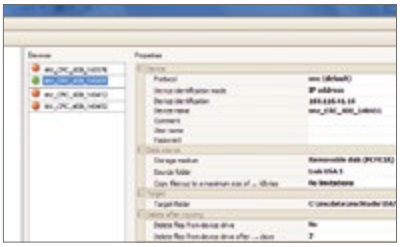
Case Study: Automatic test reports ready and waiting

Our Monday morning test reports have already been created automatically by imc LINK. Here is how it works:



First, when the test engineer prepares his measurement using the imc STUDIO software included with his system, he has access to more than just input channel configuration. He is also able to efficiently configure several pre-processed onboard virtual channels for later use. Combined with GPS signals, local storage is specified and the entire configuration is tested locally and saved to the imc system's flash memory.

Second, because the test is conducted onboard an operating passenger train and incorporates many channels of collected data, it is decided that the cost of a continuous network connection is not warranted; W-LAN for data transfer is sufficient. Since this network is only available when the train is in the station, data is securely stored locally in the imc data acquisition system, which is able to run completely autonomously. Whenever the train is in range, imc LINK manages the data transfer automatically, as well as automatically downloading updated configuration information to the imc system when necessary.



Third, once imc LINK transfers data to the test engineer's PC (or server), imc LINK will use imc FAMOS sequences to further automatically analyze the data, and use the included imc Report Generator to merge new data with the report template.

For tests where real-time information, such as position, is beneficial, imc LINK may also be used for live monitoring of status information, measurement data and GPS signals whenever network connectivity permits. As an added bonus, it was a very productive move of the test engineer to pre-process signals local to the imc system using imc Online FAMOS, thus, reducing bandwidth requirements and post-processing time dramatically. Whichever network path makes sense, our Monday morning test engineer will benefit from the connectivity, productivity, and data security of imc LINK!

In Practice

Data access in mobile testing

Despite having many wireless data networks (3G/4G...), reliable data access on the road can still be hit-or-miss. imc LINK simplifies remote connections by managing data transfer of data files stored directly in the data acquisition system, while also providing real-time GPS position and status information. Coupled with a 3rd party data modem, imc LINK creates a complete remote data solution. Since every imc data acquisition system is already equipped for standalone operation, including a variety of onboard storage options and backup power, operations on the road are never
a problem.

Remote access when testing in the field

As the network area becomes larger (e.g. W-LAN to cellular to satellite), two things conspire against devices which rely on the ability to continuously stream data: connectivity becomes less reliable, and the data transfer speeds are reduced (and the costs are increased). imc LINK overcomes these limitations by allowing data to be stored local to where it is acquired, and transferred asynchronously to the data collection computer: as bandwidth becomes available, all data collected since the previous transfer are automatically uploaded and processed.

Automated data management for test stands

Even when connectivity is continuous and reliable, such as found in a test cell area, the ability of the imc LINK software to gather data from multiple test cells can be a significant time saver for test engineers. Together with the imc FAMOS software's analysis capability, a test cell's data can be automatically compiled into useful results, during the test run or as soon as the test is complete. With imc LINK, the challenge of waiting hours or days for someone to find the time to "crunch the data" can easily be a thing of the past!

Remote data access beyond imc LINK

The simple but important questions: "What is my test doing right now?" and "How do I get all the information to my desk?" can be answered by imc LINK. But what if I want to know the test status on weekends?

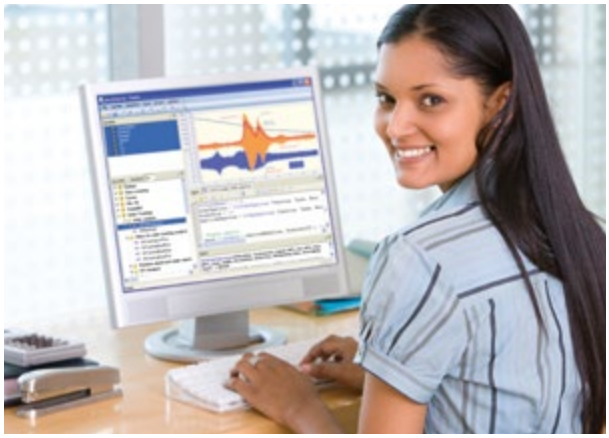
Don't visit your office on Sundays. Just use your smart phone or your tablet's Internet browser together with imc REMOTE technology. An imc REMOTE WebServer, a small program that runs on an imc measurement device, provides online information via the Internet or other network communication infrastructure.

The secure HTTPS website with all measurement data and system information you need can be received by any standard Internet browser.

With imc REMOTE you are always informed. No matter where you are, you will be the first to know.

imc Test & Measurement GmbH – physical measurement engineering

By concentrating on testing productivity, imc has refined an integrated approach to physical test and measurement for more than 30 years. Today, imc produces sophisticated measurement and test control systems which are inspired by our customers' innovation. Our products are well suited for specialized mixed-signal mechanical testing, most often needed by R&D engineers producing complex mechanical systems. This includes ground transportation such as cars, trucks, off-road equipment and trains; as well as aerospace, power generation and civil engineering. In these situations, the demands of test engineers are for flexibility and scalable capabilities, especially when the management understands that the efficient use of testing resources is all about the time-to-test.
And imc systems and software are up to the challenge! In short, imc integrated measurement and control hardware and software is about meeting your development test needs today and tomorrow, when you need to have your results by yesterday.

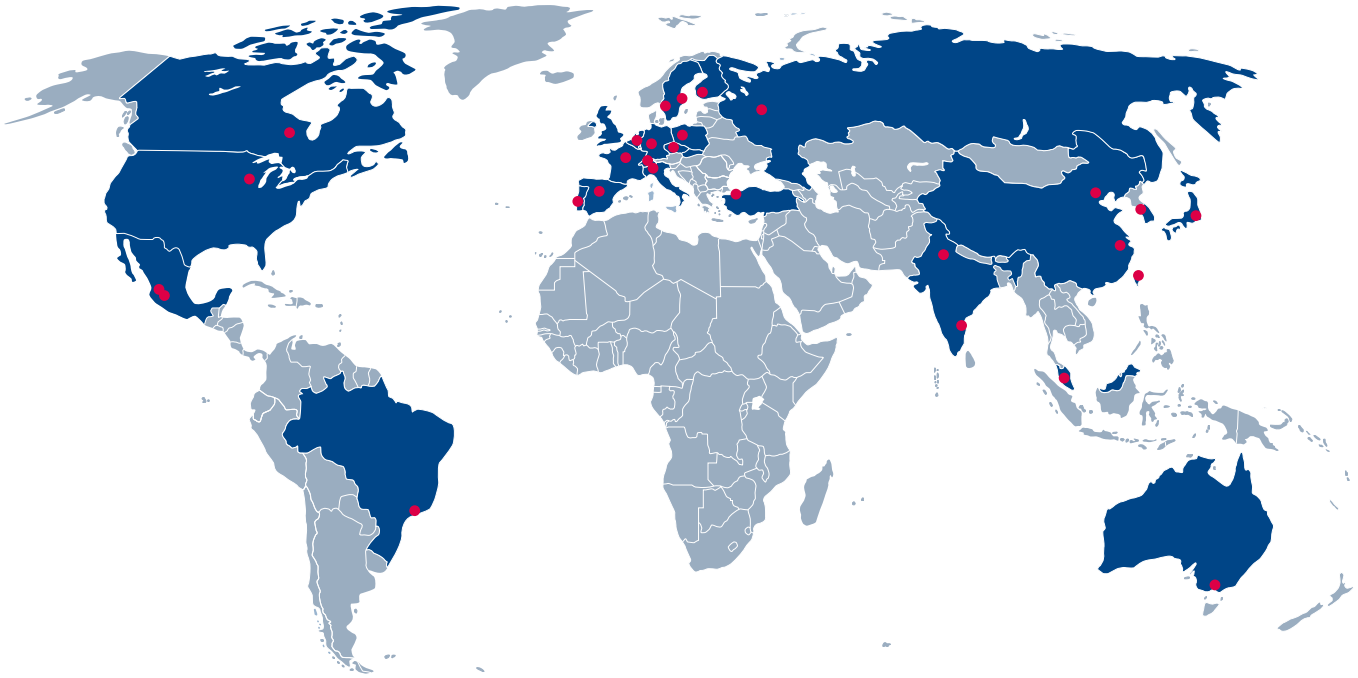


Simply clever

imc LINK is a perfect tool to aid in "unplugged" wireless data acquisition environments. By storing data files local to the measurement, and only transferring when convenient and cost effective, imc LINK can save you both time and money!

Benefit from our international partner network

www.imc-tm.com/distributors



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