

Instrowest was established in 2006 to provide quality instrument and electrical contracting services to the mining and mineral processing industries. Instrowest can provide a comprehensive installation, maintenance, calibration, and repair service to all sites within Western Australia. Instrowest can also help in solving any instrument or control related problem that you may be facing.

At Instrowest we are committed to providing reliable, high quality sales and service while maintaining respect, integrity and trust to our clients and those within our organisation. We aim to provide this service by understanding our client's needs, wants and constraints while finding a solution that is fit for purpose.

At Instrowest we will always maintain an innovative approach that sets us apart from others; if a traditional method is not suitable or ineffective, we will endeavor to find an alternative or innovative approach to achieve our client's goals.

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EC 8070

## Wiluna Gold Radar Level Supply, Install and Commission

In June 2016 Instrowest visited Wiluna Gold to discuss and offer Practon Group any possible instrumentation help that they may require on their full plant refurbishment. Multiple instruments were in need of replacement and multiple upgrades and new installations were also discussed. Soon after, Instrowest was asked to quote, supply and install a range of different instruments required to improve the plants quality control and provide accurate and trustworthy monitoring for operations.

In August 2016, the Instrowest "Shutdown and Project Support Trailer" was on the road to Wiluna, filled with brand new instrumentation to install and configure. Upon arrival the trailer was set up ready to commence work the following morning. We had multiple different installations and scoping work ahead of us, one of which was the installation and configuration in the crushing circuit radar level transmitters. This included bin level measurement and throat measurement to control the choke feed to the crushers.

Instrowest recommended the Siemens LR260 radar level transmitters because of our proven experience using them in similar dusty applications. The LR260 is a k-band radar operating at 25Ghz and utilizing the full suite of Siemens "Process Intelligence" features. The transmitters can be configured for their specific location and application using either a hand held programmer or Simatic PDM. Utilizing Simatic PDM software Instrowest completed the aiming and false echo suppression, this was set up to suit each location. This allows the transmitter to ignore any false echoes it is receiving which aren't directly related to the target process being measured.



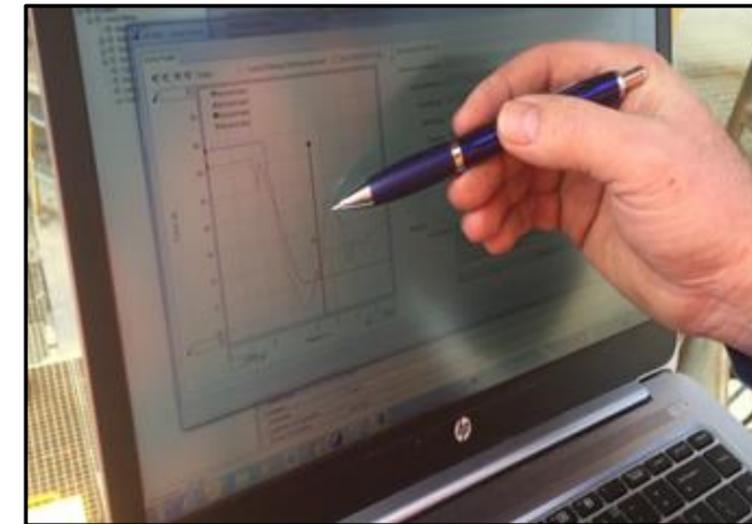
The radar level transmitters were installed and aligned without the plant being ready to run. Upon plant start up, it was found that the rock shelves within the hoppers were causing major process related issues, introducing problems that no level transmitter could overcome, mainly, product stacking up in the bin and resulting in only 20% of volume being live load.

After observing these problems Instrowest worked with the sites process and maintenance team and requested the removal of the rock shelves from the hoppers to allow correct filling and improve process flows. Once this was completed, product flow into the hoppers became a straight forward drop and fill, with dust and occasional rock scatter as expected.

Alignment and set up of the radars was completed with the plant running to achieve the best results and set true levels using the Siemens PDM software to remove false echo's and give greater signal to noise ratios for better reliability.

It should be noted that after commissioning, all the hoppers had better than expected operation, including the operation of the choke feed which now maintains a full choke thereby increasing crusher life and crushing efficiency, reducing wear and improving rock on rock crush.

As an added bonus, the use of the PDM software means there is a copy of our original set up and commissioning parameters on file which can be referred to at any point in the future should it be needed.



### Results:

In the 2 months since the final commissioning of these level transmitter's site has experienced no issue with their operation. Site is now optimizing their crushing circuit to gain and increase in plant throughput and these transmitters will no-doubt be integral in achieving these goals.

Level measurement is something that many sites struggle with. At Instrowest we have the knowledge, experience and access to the products and technologies to assist you in achieving the best level measurement possible, be it in solids, liquids or slurries.

**If you have a level or instrument application and would like assistance, please contact Instrowest.**

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