

Advanced Technologies

ANALYSIS

INDUSTRY OVERVIEW 6 Overview of companies profiled

INDUSTRY SUPPORT 78 Business & research support, associations

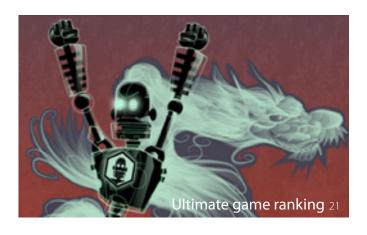
ELECTRONICS MANUFACTURING 86

Where to go for hardware design & manufacturing

Successful Exits 90

Alberta companies created and sold





CONSUMER ELECTRONICS & APPS COMPANIES

Music

bubtobud (music sharing) 15 Dillinger Labs (wireless portable speakers) 15 Eleven Engineering (SKAA wireless audio) 16 HSTi (wireless media sharing) 16 iConnectivity (music networking) 17 PK Sound (concert sound systems) 17 Q Sound Labs (mobile voice/music) 18





AUGMENTED REALITY (AR)

4iiii Innovations (heads-up sports data) 18 POSH View (multi-touch screens) 19 Preciseley (augmented reality component) 19 Scope Technologies (AR programming) 20

MEDIA & MORE

Baseband (consumer electronics GPS) 20 Empire Avenue (social media influence) 21 **EZ-Robot** (chip for robots and M2M) 21 Mobovivo (second screen TV apps) 22 NavNet (home automation) 22 Peregrine/Iron Will (keyboard glove) 23 Pyxwise (reverse phonics spelling apps) 23 Transformana (financial understanding) 24 Wireless Dynamics (electronic wallet) 24

VIDEO GAMES

Fluik Entertainment (casual games) 25 Games Cafe (social/mobile games) 25 **Neojac** (massively multiplayer games) 26 Overhaul Games (roleplaying games) 26 Robots & Pencils (iPhone/iPad apps) 27 XGen Studios (casual games) 27

Related companies: 3D Interactive 69, 3DInternet 57, C4i Consultants 66, Christie 42, Culture Connectivity 42, Pyxwise 23, ShirWin 43, Transformana 24, Xpan 44







INDUSTRIAL APPLICATION COMPANIES

Transportation

Absolute Trac (mobile asset monitoring) 59 CDL Systems (unmanned vehicle control) 59 FLYHT Aeromechanical (aircraft data) 60 Intelligent Imaging/Drivewyze (road safety) 60 Mechatroniq (security robotics) 61 Optessa (scheduling for manufacturers) 61 Titan Logix (truck liquid levels) 62

Related companies: 3D interactive 71, Willowglen 75, Xpan 44, XSENSOR 32

ENVIRONMENT & AGRICULTURE

AgVance (fertilizer/propane distribution) 62 BOREAL Laser (emission monitors) 63 Hemisphere GPS (tractor steering) 63 OPIsystems (grain management) 64 PIVOT (building/community evaluations) 64 Synodon (gas emissions monitoring) 65



INFRASTRUCTURE & SECURITY

3DInternet (industrial 3D visualization) 65 ASAT Solutions (smart grid substation) 66 C4i Consultants (emergency planning) 66 dTechs (smart grid inefficiencies) 67 IntelliView (critical event detection) 67

Related companies: Willowglen 75, DraxWare 72, CDL Systems 59, Mechatroniq 61



WIRELESS

Alta Industrial Automation (data modem) 68
EMSCAN (electronics & wireless testing) 68
Nexteq Navigation (satellite positioning) 69
TEKTELIC (small wireless cell stations) 69
Teletics (legacy substations go to internet) 70
Times Three Wireless (large volume M2M) 70
Trusted Positioning (everywhere navigation) 71

Related companies: 4iiii 18, AgVance 62, ASAT 66, Blackline GPS 46, BOREAL 63, Cleankeys 33, Dillinger Labs 15, dTech 76, Eleven Engineering 16, FLYHT 60, Hemisphere GPS 63, HSTI 16, InfoChip 73. OPISystems 64, Orpyx 30, Mechatroniq 33, 61, Scanimetrics 74, Synodon 65, Titan Logix 62, Willowglen 75, Wireless Dynamics 24, VitalSignal 34, Zedi 75





ENERGY & CONSTRUCTION

3D Interactive (3DI) (equipment safety training) 71

Acceleware (discover hard-to-find oil) 72

DraxWare (large project costing) 72

Evoco (retail project construction) 73

InfoChip (RFID asset tracking) 73

Scanimetrics (equipment monitoring) 74

Seljax (estimating software for lumber) 74

Willowglen (industrial controls) 75

Zedi (oil & gas production operations) 75

Related companies: *Titan Logix 62, Synodon 65*

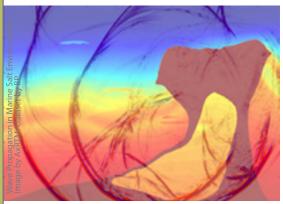


Industrial Applications

Acceleware

High performance computing for advanced software used to discover hard-to-find oil

It used to be that GPU cards (Graphics Processing Unit) were mainly used in high end gaming computers to drive high quality graphic displays. Realizing the GPUs highly parallel architecture could process data significantly



faster than the average CPU, Acceleware pioneered applying GPUs to business applications and has now become a market leader in this space. One application requiring this intense computing power is seismic exploration in the oil and gas industry. Not too long ago, finding oil underground was simpler—but today the easy oil is gone and future oil reserves are buried deep beneath the surface in complex geological structures. Acceleware offers a sophisticated approach that can meet this challenge. Using GPUs and its software library to power advanced algorithms that were previously too computer-intensive, Acceleware helps oil companies process seismic data into high definition maps of the subsurface geology of potential oil fields. Acceleware's 2011 revenue was \$2.76 million.

Company: Acceleware Ltd., www.acceleware.com, 25 employees, founded 2004, Market Leader, 95% exports worldwide, publicly traded on TSX-V:AXE, 435 - 10th Avenue SE, Calgary, Alberta T2G 0W3, 403.249.9099

PRODUCTS: High performance software for complex algorithms

GROWTH STRATEGIES: Seek more clients worldwide

CONTACT: Robert Miller, Chief Marketing & Sales Officer, robert.miller@acceleware.com, 403.249.9099

DRAXware

New possibilities in cost and productivity management for large construction companies

Traditionally, the construction industry accepted that capturing field data—labour, equipment and materials—was a slow and manual, inefficient process. But recent technology advancements have automated field data collection, and this can eliminate paperwork bottlenecks and create simple new efficiencies. DRAXware's software for the construction industry is designed from the business perspective to deliver process and cost data based on updated field data and to enable and enhance faster and more accurate decision-making. DRAXware allows its clients to have the software configured to their specific business processes without the need for additional source code changes, which translates to very fast return on investment. There are modules for managing subcontractors, quality



control, document management and payroll that are all interoperable so companies can access their information through a single user experience. DRAXware also incorporates leading edge technology developed by Dr. Jianfei Xu, of the Civil and Environmental Engineering faculty at the University of Alberta.

Company: DRAXware Solutions Inc. (DXi), www.draxwaresolutions.com, 22 employees, founded 2007, High Growth Stage, 20% exports primarily to US, revenue/grant funded, Suite 4-122, 10230 Jasper Avenue, Edmonton, Alberta 4P6, 780.487.9668

PRODUCT: Large scale project cost and productivity management

GROWTH STRATEGIES: Seek more clients, resellers and partners in construction industry

CONTACT: Scott Cuthbert, President & Co-Founder, scuthbert@draxware.com, 780.221.6737