

Because it has to be right



**Custom Display &  
Integration Capabilities**

# Canvys - Visual Technology Solutions

## our capabilities

A team of experts who consult, design, develop and implement the right visual technology solution

Canvys, a division of Richardson Electronics, provides innovative visual technology solutions to companies all over the world. We bring together the engineering and manufacturing expertise of three long-time industry leaders — Pixelink, A.C.T. Kern and Image Systems. Through our combined visual technology experience, application insight and global resources, we offer:

### **Solution Consulting and Custom Engineering, including:**

- Needs assessment and consultation
- On-site technology audits
- Prototyping

### **Product Modification and Integration, including:**

- Mounting solutions
- Upgraded power supplies and controllers
- Custom bezels and enclosures
- Protective, touch and privacy screens
- Specialized finishes and branding

### **Product Sourcing and Manufacturing, including:**

- Domestic and offshore manufacturing plants
- Access to virtually any display brand/component
- Ability to handle large production orders

### **Comprehensive Service and Support, including:**

- 24/7 phone and online support
- On-site installation, training, maintenance and QC/QA
- Total project management



## why work with canvys? because your solution has to be right.

Canvys is committed to understanding your visual technology needs and delivering a solution that exceeds your expectations. This customer-focused approach is just one of the many reasons companies choose to work with us.

They also value our:

### **Expertise and Proven Success**

We have successfully engineered solutions for applications in healthcare, finance, gaming, retail, public information and more. Plus, we know how to bring together all the necessary pieces for your solution — from hardware components and software systems to manufacturing facilities.

### **Superior Vendor Partnerships**

We have strong relationships with leading component and finished-goods manufacturers in the industry to give you access to the technologies you need.

### **State-of-the-Art Facilities**

We maintain ISO 9001-2008-registered technology innovation centers in North America and Europe to ensure we produce the highest quality displays. Our facilities feature class 10,000 clean rooms, Electro-static Discharge (ESD) protection, and environmental testing chambers.

### **Global Distribution System**

No matter where your business is based, Canvys can get you what you need. We have offices strategically located throughout North America, Europe and Asia.

### **Vendor-Agnostic Approach**

We never favor one vendor over another, so you can trust that we're recommending only what's right for you.

### **Full Range of Advanced Products**

We maintain our own comprehensive catalogue of displays, mounts, enclosures, conformance and calibration software and more.

### **System Certifications**

We provide systems with the following certifications: UL, CCC, CE, CSA, CSA60601-1 medical certification, FCC A&B and others upon request.

## Capabilities in Display Integration



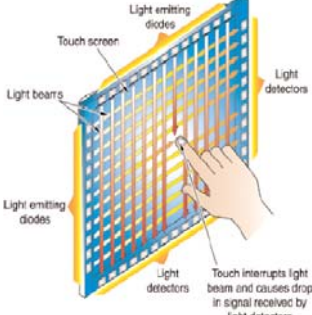


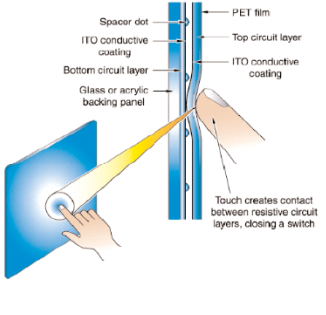
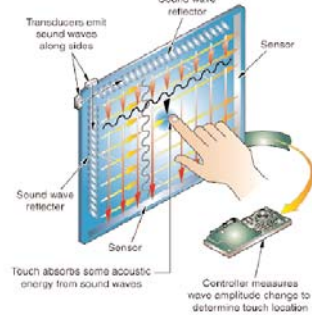
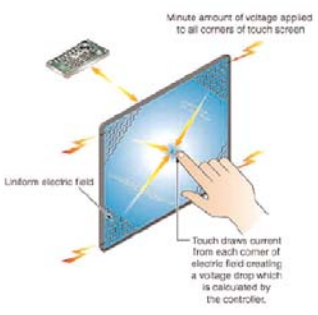
### touch & protective shield integration



Canvys is a global value-added touch screen and protective shield integrator of branded and non-branded LCD displays. With Canvys, customers will deploy a broad range of interactive digital signage solutions that meet the custom design requirements for a variety of venues where demand for these solutions continues to grow, including retail outlets, schools and universities, hotels and healthcare facilities. Canvys also offers installation, post-sales support, maintenance, troubleshooting, calibration and other services.

Discover the Canvys Advantage.

- 25 years of experience integrating displays
- U.S. and European integration facilities for flexibility and quick turnaround
- Access to the latest in touch technology
  - Resistive
  - SAW
  - Optical\*
  - Capacitive
  - Protective Screens
  - Privacy Film
- Clean dust-free product utilizing Class 10,000 Clean rooms for all integration
- Engineering expertise in the design of mounting, cabling, power supply, sealing for highly reliable products
- Software expertise in firmware and drivers for application compatibility
- ISO 9001-2008 approved processes for repeatability
- Agency approvals for safety and compliance
- Close relationships with original display and touch manufacturers for product design and improvement
- Original manufacturer's warranty included along with access to extended warranty services
- Extended warranty and replacement product (Hot Swap) options available
- Access to Canvys service/support program - TekLink®

<p><b>Touch Technologies Overview</b></p> <p>learn more: <a href="http://www.canvys.com/touch-screen-displays.html">http://www.canvys.com/touch-screen-displays.html</a></p> 			
 <p><b>Projected Capacitive Technology</b></p>	 <p><b>Resistive Technology (4, 5, 7, 8-wire)</b></p>	 <p><b>Surface Acoustic Wave (SAW)</b></p>	 <p><b>Surface Capacitive Technology</b></p>



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## Capabilities for Medical and Industrial OEMs

With over 25 years of experience developing and implementing customized display solutions for some of the largest medical and industrial OEMs in the world, Canvys understands the unique challenges facing these customers and their end users — and we tackle them head-on. We are the experts.

### Top Challenges

- Ensuring stable and long-term display availability
- Streamlining OEM workflow Procedures
- Improving and increasing display usability
- Ensuring Display Compatibility

#### Ensuring stable and long-term display availability

Each of our display solutions is engineered, designed and manufactured with the goal of stable and long-term availability. We understand most product life expectancies for OEM systems are 3-5 years or even longer. The system is only as strong as its weakest link. Changes to system components can cause considerable amounts of time and money to re-test, re-certify and re-train users. With this understanding, Canvys contracts with its suppliers to make sure that all components will be available for the duration of the project. During the project, we advise our customers when lower cost components are available in the event that a mid-cycle change makes financial sense. In addition, in extreme situations when a vendor suddenly announces that a component will no longer be available, we are allowed to make last time buys (LTBs). These agreements help bridge the gap between the current product and future product by allowing the OEM to place orders now to meet their longer term forecasts.

#### Streamlining OEM workflow Procedures

Working with the OEM during the consultation phase, Canvys engineers identify opportunities to improve workflow efficiency based on the needs of the environment. With the understanding that the OEM may have to physically handle or "install" the display when they receive it, the display solution is designed in a way such that the end result is a virtual plug and play or drop-in for the OEM. With this being achieved, the setup time is greatly reduced thus eliminating costs. In addition, Canvys further streamlines workflow by offering additional services such as presetting OEM-defined display settings and locking out user controls.

#### Improving and increasing display usability:

As a value-added manufacturer and value-added integrator, Canvys has a vast amount of technology options available. By adding the right touch technology or a protective shield to a display, the end user experience can be greatly enhanced.

#### Ensuring Display Compatibility

Canvys engineers test OEM systems for compatibility in addition to testing touch, display, and peripheral drivers. This testing ensures that conflicts with any of the systems components are avoided.

Canvys leverages our relationships with leading manufacturers and suppliers to have access to the advanced features OEMs want and need. Our expansive product and service portfolio includes:

- Protective panels (easy-to-clean, reducing risk of infection/bacteria)
- Integrated Touch Panels (Resistive and SAW technologies) for use with or without gloves
- Agency approvals including UL60601-1
- Panel pre-selection (lower pixel defect specifications)
- Custom enclosures, labeling, logos, cabling
- Preset functions (disable inputs, user lock out)
- Preloaded OEM defined user settings
- Global manufacturing & sourcing
- Inventory management
- Service/Support options

Canvys' display offering is not complete without our standard medical product line which boasts top of the line features, benefits, and design such as:



- Vast size selection (15 inch – 22 inch WIDE)
- Touch integrateable
- Shortened lead time for product delivery

#### Canvys provides unparalleled service & support to drive performance and maximize return such as:

- Custom engineering
- Comprehensive solution support
- Facility audits to determine display needs
- Development of custom solutions as well as a standard product offering
- Cradle-to-grave management of displays

#### Total Cost of Ownership

Total Cost of Ownership is loosely defined as the total cost of owning a product over its life cycle. At Canvys, our custom medical OEM display solutions include all the components you will need to reduce total cost of ownership.

## Customized Solutions – Because it has to be right

# because we approach each customer challenge as a blank canvas, we're able to create customized display solutions

### 1. LCD Panels

Sizes from 5" up to 70"  
Formats: 4:3 to 16:9 and 16:10

### 2. Mechanical Design & Validation

There is no single standard that can meet every market and/or application requirement. Canvys' mechanical design & validation capabilities allow for custom displays to adhere to customer specifications.

- Development activities to design and develop innovative LCDs
- Optimization of LCD modules
- Generate new approaches to further enhance display performance and design
- Define & implement rigorous validation plan
- Understand the mechanical interface designs, including alignment features, tolerances analysis, and advanced material for the components
- Work with project teams and supply base throughout product development phase and support the initial product ramp

### 3. Touch Solutions

- Resistive
- Surface Capacitive
- Projected Capacitive
- SAW (Surface Acoustic Wave)
- Optical
- DST (Dispersive Signal Technology)



### 4. Protective Shields

- Acrylic or glass
- Protect your investment against physical contact and unstable environments
- Easy to maintain and clean
- Excellent anti-glare characteristics
- Privacy film also available



### 5. Controllers

We offer a wide range of controller solutions (such as standard inputs in several combinations)

- VGA, DVI-D/DVI-I, Composite Video, S-Video
- VGA only, VGA and/or DVI and video

We constantly evaluate controller solutions with new features and/or new input combinations:

- a) HDMI/DP, VGA, CVBS, S-video, Ypbpr; resolution 1920 × 1080 (max.) – (Q1-Q2 2011)

*Special features:*

- HDMI + VGA + S-Video + CVBS + Ypbpr + audio
- 3D comb filter
- De-interlace
- PIP function
- IR sensor
- Max. resolution: 1080p
- Support of 10 bit panel
- Audio subjected change according to input sync.

- b) VGA, DP, HDMI; Resolution 1920 × 1200 (max.) – (Q4 2010 / Q1 2011)

*Special features:*

- VGA+ DP+ HDMI+ audio
- Max. resolution: 1920 × 1200
- Support 10 bit panel
- W/o AV function

### 6. Housings

- Plastic
- Metal
- Open frame
- Panel mount
- Rack mount
- Multiple speakers and OSD options
- Multiple housing colors / sizes / designs
- Brand customization (logo)
- Long-term availability

### 7. Stands / Bases

- Different designs, materials, colors
- Cable management
- Height adjustable
- Tilt / Swivel function
- VESA compliant mounting holes



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## for every market and every application, the right solution begins with expertise

### Solutions for various Markets & Applications



Healthcare

Retail

POI / Kiosk

Digital Signage

Entertainment & Gaming

Transportation

Industrial OEM

Military Defense & Aerospace

## because visual technology is complex, we offer comprehensive service and support

We understand visual technology poses challenges that go beyond acquiring the right solution. That's why we offer comprehensive service and support to ensure your display solution is installed properly and consistently delivers the superior performance you expect. In addition to 24/7 online and phone support, we have visual technology experts who can provide an array of on-site services. They include:

**Custom Product Evaluations**  
For proof of concept, testing and/or compatibility evaluation, we can demonstrate systems at your facility — and leave them with you for up to two weeks.

**QC/QA Quality Control & Quality Assurance Services**  
Many display solutions must be precisely calibrated. Our experts have extensive experience and can ensure that your displays meet or exceed industry conformance and calibration standards.

**Display Solution Audits**  
Our solutions consultants visit your facility, evaluate your visual technology needs and make expert recommendations.

**Installation**  
Our experts install and mount your new displays, perform the initial setup, and train your staff to use them.

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