



# Healthcare Data Solutions

Using technology to enhance safety & productivity since 1990

[Ann Arbor, Michigan PO Box 130322](#)    [734-717-4040](#)    [www.hcdat.com](#)

*White Paper* >>>>>>>>>    Clinical Solutions - Web Kiosk

The kiosk interview process is increasingly being used in the clinical setting by patients, physicians, nurses and administrative staff to improve health history quality, redesign clinical workflow and minimize redundant efforts. Judiciously used, the kiosk interview process can contribute to a safer, more pleasant workplace and an improved bottom line.

Kiosks offer a supportive environment for gathering data for a specific task. They streamline the process, asking only the relevant questions and are tailored for the specific audience, eliminating the need for user training. Presentation is

sequenced with a defined start and end point even though the questions asked may branch along individualized paths based on prior knowledge and real-time responses.

This app note briefly describes components of a successful kiosk project to help clinical decision-makers in guiding the implementation process:

1. **User experience,**
2. **Knowledge base & Screen generation logic,**
3. **Data interface,**
4. **Workstation Security & Control,**
5. **Analysis and summary report**

[Healthcare Data Solutions](#) has working healthcare interfaces operating on every continent. A leader in web services HCDat was a leader drafting the HL7/ASTM Electronic Health Record (EHR) messaging, vocabulary and semantic inter-operability standards which are in their way to becoming ANSI and ISO inter-operability standards.

Focusing exclusively on the Healthcare Market HCDat stays abreast of technology trends adapting them to the changing scientific, regulatory and financial realities of healthcare.

Phil Barr MPH, BSIT, EEET, president and technical director of Healthcare Data Solutions is available to speak and consult on industry trends affecting your organization.

The first three, **User experience, Knowledge base & Screen generation logic** and **Data Interface** are described below. Workstation Security & Control will be discussed in a future paper.

**Analysis and summary reporting** is project specific but always has some components of

**Trend analysis – where are you going?**  
**And**  
**Benchmarking - how do you compare?**

**Trending and benchmarking** are used to ensure that a one page summary report gives visibility to critical alerts and areas



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of concern. Reporting is the topic of another paper.

User Experience: Consistent color, font, audio readings and images to ensure that no user training needed. Voice recognition, touch screen and large input buttons enable elderly and visually impaired operate with comfort. Image and color can be used for example to register location and intensity of pain. Built-in multi-lingual capabilities enable targeting to specific ethnicities and education levels. Intuitive navigation and progress bars prevent the user from feeling trapped or lost.

Knowledge Base: Good kiosk design allows non-technical administration of the interview process. Questions can be freely added and the order of presentation changed. Answers ranges can be set of modified. T/F, selected from a list, free text, check box, etc... Image and color can be used, for example, to register location and intensity of pain. As question logic is changed the kiosk instantly generates the new screens steps and branches of the interview process.

Data Interface extends the Kiosk into the integrated information space of your organization. Data flows into the kiosk and back out in the 100-millisecond time domain. Kiosk object level programming maintains all updates and interactions with other system databases and minimizes database calls.

For additional info on kiosks and offter HCDat integration solutions call 734-418-8550 or visit the [Healthcare Data Solutions](http://www.hcdat.com) Website.