HIRSCH ™
E L E C T R O N I C S

Product Data Sheet

Administration Server · Badging Workstation · Guard Workstation · Wireless Workstation

HIRSCH **VELOCITY**
Security Management System ™

Velocity is management software for access control and security operations. Seamless integration of door control, alarm monitoring, credential enrollment, photo badging, video, dynamic graphics, database management and tutorials yields an easy to use and easy to install system suitable for a single door or an enterprise. Velocity utilizes Hirsch's DIGI*TRAC controllers in a distributed processing architecture to ensure system reliability for the simplest to the most mission critical applications.

Features

- Interoperability - XML/API Enabled
- AES (Rijndael) Encryption Options
- DVR Interface
- Optimized for Windows® Server 2003/XP/Vista
- MS SQL Server 2005 Database
  - Runtime version included
- Multi-Monitor Support
- Controller Communications
  - TCP/IP (AES with SNIB2)
  - Serial Port
  - Dial-in/Dial-out
- Dynamic Status Viewer with Control
- Dynamic Graphic Objects
  - For Status, Alarm & Control
  - By Point or By Zone
  - Imported Map Drawings
- Photo Capture, Photo Badging and Photo/Data Call-Up
- International Language Options
- Online Diagnostics
- Scheduling Wizard
- Email/XML/RSS Alarms & Events
- Data Import/Export Wizard
- Multiple Credentials
  - Legacy Reader Migration
- FIPS 201 Compliant

Description

Velocity runs on Microsoft® Windows Server 2003, XP or Vista operating systems and can reside on a local area network (LAN) or wide area network (WAN). XP Pro and Vista are used for the Single User and Client Workstations, and Windows Server 2003 is used for the Server. Velocity uses Microsoft SQL Server 2005 database.

The following modules make up the User Interface:

- Administration (Explorer format)
- Velocity Configuration
- DIGI*TRAC Configuration
- Interfaces Configuration
- Alarm Viewer
- Video Explorer
- Badge & Graphics Designer
- CCTV Camera Viewer
- Customization Manager
- Enrollment Manager
- Event Viewer
- Graphics
- Report Manager
- Status Viewer
- Who's Inside
- SQL Manager
- Scheduling Agent
- Tutorials & Help
- Diagnostics

The Graphical User Interface (GUI) is user configurable by the Operator and returns at log-on to the screen layout left at log-off. Many modules and components can be docked (top, bottom, left or right), or floated to another monitor in a multiple monitor configuration.
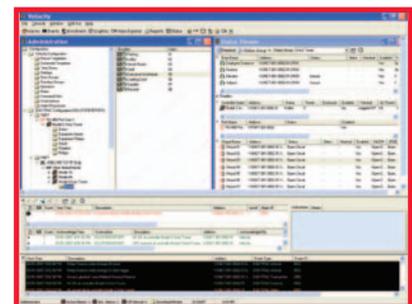
Operator Management

Velocity uses Windows Active Directory and RBAC (Role Based Access Control) for initial Operator Authentication. The Name & Password used to log onto the operating system also assigns operator privileges within the Velocity application. Privileges are "partitioned" to specific Roles. Roles establish what an operator can do or can see, and what workstation they can access when. Role partitioning includes data, system topology, persons, credentials, and Routing Groups for alarms & events.
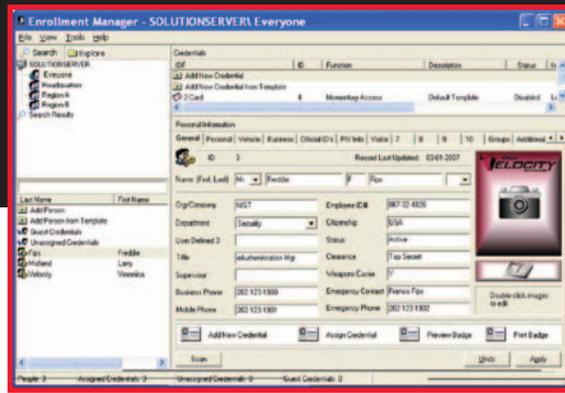
Enrollment Manager

The Enrollment Manager consists of three panes: Personnel, Personal Information, and Credentials. The Personnel Pane is used to add, delete, or navigate to Persons or Person Groups. Person Groups are used to partition Personnel into logical units, viewed only by specific Operator Roles.

The Credential Pane is used to assign Credentials to a Person. Each Credential in the Pane displays Function, Status, Expires On, Last Access Time, Last Door, Tag Status, Alert Status and the card Hot Stamp Reference Number.

The Personal Information Pane contains the person's name (Salutation, First, Middle, Last, Suffix), Photo, Signature, 999 User Defined Fields (UDFs, assignable to 10 role-restricted tabs), a Person Groups tab, and Additional Image Fields. The user can define the labels, their color, and whether a field is mandatory or can support standard text entry, or enforced drop-down list of entries, or a drop-down list of entries with the ability to enter text.

UDFs can be used for address, phone number, hair color, medical information, training statistics, emergency contact, company, expiration date, etc. User defined fields can be populated from scanners such as business card, driver's license, passport and PIV smart card scanners. Or, they can be inherited from a Person Template populated with predefined UDF data. The Multi-Person Edit feature changes specific UDF values across a selection of Personnel.

One or more Credentials can be assigned to a Person, with the option to use a linked or unlinked Credential Template. A Credential Template is used to create a new Credential using predefined parameters. A change in a parameter of a Linked Credential Template will change all the parameters of linked Credentials. Each Credential can be a different technology such as: Wiegand, ScramblePad®, Proximity, Magnetic Stripe, Bar Code, Biometric, or Smart Card (MIFARE, DESFire, PIV).

Credential parameters include:
- Linked Credential Template
- Badge Template
- Activation & Expiration Dates
- Card, Code, Dual, Code+Card, Code+Dual, Card+Dual, All
- Functions (Access, Relay, Alarm, Password, Special) with associated Door Group or Control Function
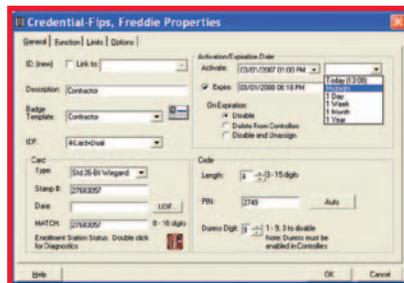
- Limits (including global) for Day, Use, and Absentee - with Auto-Delete Option
- Two Person Rule with A, B, and Executive Designations
- Threat Authority Level
- User Tagging & Alerts
- Duress Operation
- Special Needs Time Extension

A Door Group is a global list of authorized readers with associated Time Zones. Control Functions for Relay and Alarm also provide for time based control functions such as Trigger, Force On, Lock Down, Mask, Start Exit Timer – even a Special Function to set the Threat Level in designated controllers. Control functions can be used for security measures or for control of elevators, HVAC, lighting, etc. A credential can perform multiple functions, but only one function per controller.

The Enrollment Manager allows the operator to capture images such as photos, signatures, fingerprints or driver's licenses from a file, a TWAIN device (e.g., a scanner) or a video camera for use with a printed badge. The photo can be used with Photo Call-Up on selected doors or alarms to display who is going through the door.
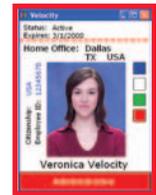
Data Import/Export Wizard

The Data Import Wizard takes supplied data from a delimited file (.txt or .csv) and inserts new people and photos into the personnel database, builds credentials from templates, and automatically downloads credentials to the controllers. Personnel data, credential information, and images are easily exported to a delimited text file (flat file) with the Data Export Wizard.

XML & API Interoperability

The Velocity Web Server is XML enabled to accept a variety of Velocity commands from 3rd party applications and to return responses and lists to those applications. The XML Writer can route selective or all alarms and events over designated TCP/IP ports. Velocity can also utilize Microsoft Message Queue for encrypted, guaranteed delivery of the XML datastream. An Application Programming Interface (API) allows exchange of Person and Credential information with a 3rd party application. The XML/API Software Development Kit (SDK) is ordered separately.

Alarm Monitoring

Velocity presents alarms in both the Alarm Viewer and Graphics. From either, an operator can acknowledge an alarm and enter notes or select a predefined response for accountability and a permanent record. The user may define the alarm priority (99 levels), as well as
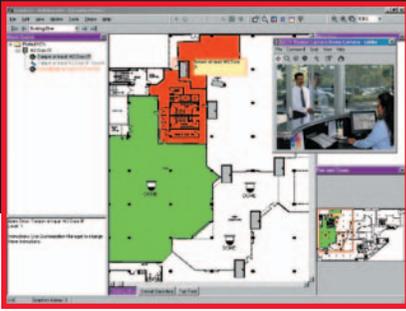
text and/or audio (WAV) instructions by Alarm Type or Alarm Point.

The Alarm Viewer has dedicated panes for new and Acknowledged Alarms with columns for Description, Acknowledged Time, Workstation Acknowledged From and Who Acknowledged. Each alarm entry has an icon to indicate the current alarm/normal status, available DVR clips, and a counter to indicate multiple instances.

Active and Acknowledged Alarms, with counts, are shown in the status bar at the bottom of the main window. The Alarm Viewer can be configured to pop up on a new alarm or to be launched by double clicking the counters.

Status Viewer
The Status Viewer provides dynamic information for user selected groups of points. Status, alarm, masking and other data are available for every point in the system. Control functions are also available.

Graphics and Badging
For consistency, Velocity uses the same integrated tools to create badges and Photo Call-up templates, or construct graphic pages, such as floor plans.

Badge and Photo Call-Up templates are created by dragging Objects from the Object Library onto a "canvas." Objects include photos, signatures, and text which are linked to the User Defined Fields and Images in the Personnel database. Rich customization options include fonts, colors (text, line and fill), grouping, justification and resizing.

Graphics supports imported drawings using file formats (dxf, bmp, wmf, emf, jpg, gif) typically available as exports from AutoCAD, Visio and other drawing packages. Objects for status and control, embedded onto the drawings, represent Ports, XBoxes, Modems, Controllers, Doors, Readers, Inputs, Relays, DVRs, Cameras, Control Zones, Graphic Links and Command Sets. Objects are dragged and dropped from the Topology Tree in the Object Library onto discrete layers in a Graphic. The user is able to edit or create

their own "integrated" objects. Custom embedded links for AXIS IP cameras and HTML web pages are also supported.

Velocity uses Distributed Processing so that all control functions are controller resident.

Operator Control
An operator can issue commands from the Graphics window, the Status Viewer or the Administration window by right clicking an object and selecting from a pop-up menu. Commands include:
- Momentary Access, Unlock or Relock
- Trigger
- Mask, Unmask, or Momentary Mask
- Force On, Force On Release
- Force Off, Force Off Release
- Lock Down, Lock Down Release
- Lock Open, Lock Open Release
- View Cameras

Event Viewer
Velocity provides real-time and historical event monitoring from the Event Viewer. The Event Viewer has columns for the Host Date and Time, the Description of the Event and the system address of the source of the event. The Controller Date and Time can be added when the controller is in a different time zone than the Host (server).

Custom Event Filters can be created with criteria for Port, XBox, Controller, Point and Event. Hundreds of predefined events include: operator activity, alarms, changes of state, system initiated changes and system status changes.

Report Manager
Velocity has more than 75 standard reports under the following groups:
- Customization Reports
- DIGI*TRAC Configuration
- History Logs
- Person Information
- Velocity Configuration

By default, Velocity has a wide-open criteria and ascending sort order by most significant field. Custom criteria and sort parameters can also be selected to create virtual custom reports. Custom reports can be derived from standard reports or created using Crystal Reports® (V 10.0).

Once generated, a report may be previewed, printed, sent via email or saved in a variety of file formats (CSV, PDF, RPT, XLS, RTF, XML, TXT, etc.).

The Administration Window
The Administration Window presents the software (Velocity Configuration) and the hardware (DIGI*TRAC Configuration) in an expandable/collapsible Windows Explorer-type display. Control and Edit functions are available by right clicking an item and selecting from a pop-up menu. Each tier in the system – Server/Workstation, Port Type, Port, XBox (if present), Controller, Devices (Inputs, Relays, Readers, Doors, etc.) – has tabbed property sheets available for setup and configuration. The Add New Controller wizard provides for a quick setup of the DIGI*TRAC controllers by populating the database with default parameters and allocating the full complement of Readers, Inputs, Relays, and Doors. Alternatively, the setups may be uploaded or cloned from an existing controller or exported in XML for import into a controller in another Velocity system. The "Add New" function is used throughout Velocity to go directly to another program element and back which makes it easy to add a new Time Zone, Door Group, etc., without having to "back out" of your current dialog.

Scheduling Agent
The following tasks can be scheduled to run one time or on a recurring basis: archive history logs, back-up database, dial-up remote controllers, print or email reports, import/ export data, execute command sets, and more.

CCTV & DVR Integration
Velocity interfaces with CCTV matrix switchers and Digital Video Recorders. Both are launched for live viewing by an icon on the main tool bar. Matrix switcher cameras can also be launched from Graphic objects. The Viewers provide for Pan, Tilt, Zoom, Iris, Focus and AutoPan control from a mouse or keyboard. For live viewing of DVR cameras, a unique Video Explorer

supports multiple View Groups created by drag and drop of cameras to a grid of 1, 4, 9, or 16 cameras.

Trigger/Action support allows selection of a device (e.g., a door) and associated event (e.g., Access Denied, Unescorted Visitor) to trigger a resulting Action. For matrix switcher cameras, Actions could Invoke camera Preset # 3, or call camera 1 to monitor 2.

For DVR cameras, Actions set a flag in the DVR for later playback. Stored video can be accessed from the Alarm Viewer, an alarm list in the DVR, or the Event History Viewer. Search and retrieval of alarm clips can be done by camera, and by start and end date/time. Selected alarm clips can be uploaded to Velocity for permanent storage and local playback. The Play Video Window supports frame selection, variable speed, pause, image enhancement tools, print and export to AVI and JPG files.

Specifications

PC Minimum Requirements
- Pentium 4, 2GHz, 40GB hard drive, CD-ROM, sound card and speaker for AVI or WAV options, SVGA (XGA recommended) monitor
- RAM: Client or workstation: 512MB for XP; 1GB plus 128MB video card for Vista. Server: 1GB plus 40MB per active client

Operating System
- 32 or 64 bit Platforms
- Velocity single-user workstation or client: Windows XP Pro SP2 or Windows Vista (Business/Enterprise/Ultimate)
- Velocity server: Windows Server 2003 SP1 or Windows Server 2003 R2
- Redundant Servers supported

Database
- MS SQL Server 2005 Express (included) or MS SQL Server 2005 (not included)
- Velocity supports splitting the database and application servers
- Server to Server data encryption

Communications
- Communication Ports: 1024
- LAN/WAN: Ethernet TCP/IP, Wireless Ethernet (802.11 b/g)
  - LAN I/F to XBox or SNIB
  - Direct to SNIB2 (includes XBox functionality): X*NET2 AES encryption
- Serial Port: RS-232
  - X*NET to XBox
  - S*NET SCRAMBLE*NET™ encryption to SNIB
  - X*NET2 AES encryption to SNIB2
- Dial-up: RS-232 Serial Port to modem. S*NET protocol to SNIB
- Enrollment Station: RS-232
- Email: SMTP for Alarms and Events in text or HTML
- Parallel Printers: Report (page), Alarm/Event (line) and Photo Badging

(Magicard Turbo, Rio, Tango, Rio2, Tango2, Tango+L; Zebra P420i, P520i)
- Video capture via Video Capture Card or USB TWAIN device
- CCTV: RS-232 Serial Port to Matrix Switcher: Pelco 6700/6800/9740, Vicon 1300/1400, AD 2150, Burle TC8100, Panasonic 550
  - Video Input: Video Capture Card
- DVR: TCP/IP for video and control to DVR: AD DV16000/8000 Ultra, or NDVMS. 8 live or playback clients.
- Network cameras: AXIS for Live Video

DIGI*TRAC Controller Support
- CCM: Version 7.4 or later
- Downloadable firmware
- 63 controllers/channel
  - NET*MUX4 required for > 16
- Credentials: 132,000
- Passback: 65 nested zones
- Models supported: M1N, M2N, M2N2, M8N, M8N2, M16N, M16N2, MSPN, MSPN2, M64N and M64N2
- Globalization for I/O, passback, and user limits via XBox or SNIB2. User limits include absentee limits, use count limits and day limits

Listings & Approvals
- UL 1076 Proprietary Burglar Alarm Systems, Grade AA FIPS197: NIST #482

Ordering Information

Model #	Description	Comments
VEL	Velocity Software – For Server and Remote Clients	Velocity Server and Client application software. CD installs Single User, Server, or Client. Server supports up to 999 clients, also included. For networks of DIGI*TRAC controllers (CCM-F Version 7.4, or higher). Enrollment, Photo Badging, Dynamic Graphics, Alarms, Events, Control, History, Who's Inside, Programming and Editing. Runs on Windows XP Pro/Vista (Single User or Client mode), or Windows Server 2003 (Server mode). Single User or Server modes require SQL Server 2005 (not included) or SQL Server 2005 Express (included). Includes CD-ROM, Install Guide & NET*ADAPT. SDK for XML/API not included.

Note: Add "-230" to model number for 230VAC NET*ADAPT. Support for Windows Vista, Organizational Units, and 64bit platforms requires and utilizes the Velocity "update" feature.

Centra Security Systems Centra Hse STANSTED Essex CM24 8PL UK
Tel:+44(0)1279 816485 Fax ++44(0)1279 813989 www.centrasecurity.co.uk

Global Headquarters
1900 Carnegie Ave., Building B
Santa Ana, CA 92705 USA
Tel: +1 949-250-8888, Fax: +1 949-250-7372
E-mail: info@hirschelectronics.com
Web: www.HirschElectronics.com

Hirsch EMEA
Via San Carlo, 117
20017 Rho (MI), Italy
Tel: +39 02 9318 0878, Fax: +39 02 930 5803
E-mail: info@hirschemea.com
Web: www.HirschEMEA.com

HIRSCH ELECTRONICS

PDS014-607