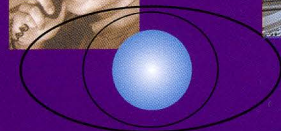
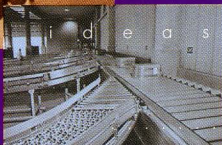


s o l u t i o n s



CHAMP

CHAMP is a PC based, feature rich conveyor control system developed by Tech King Operations. **CHAMP's** features provide you with an array of benefits including proven standard software components, and off the shelf, user friendly hardware allowing for maximum cost savings and quick installation. **CHAMP** combines real time control of material handling equipment with many WCS data handling and interface features. This streamlined approach removes the complexity of the control system architecture and eliminates interface points of failure between multiple controllers.

The base components of **CHAMP** include:

- Picking, receiving and transportation conveyors
- Pick and pass system
- High speed sortation
- Multiple high speed merge configurations
- Motion Control servo product spacing
- WMS/Host interface
- Human Machine Interface (HMI)

The **CHAMP** PC-Based Controller configuration provides real time equipment control functions by interfacing directly with the system I/O. Additionally, **CHAMP** provides access to powerful operator and maintenance information through its user friendly interface and graphical overview screens.

CHAMP's user interface screens provide an excellent HMI to the **CHAMP** controller allowing one to view the following menus:

- System status
- Alarms
- Graphical system overview with drill down details
- Statistical information
- Maintenance access to I/O, timers, counters and devices
- System timing and calibration
- Carton product data and status



CHAMP (CONTINUED)

CHAMP is configured with Windows2000 server to allow multiple users full access to screen information. CHAMP can also be configured to interface with a WCS such as Tech King Operations' SmartMoves or directly to the Host/WMS computer to accept sortation assignment downloads and report diverted carton information. Database functions are handled internally by integrating them into the conveyor controller thus data exchange delays are greatly reduced and the potential for failure of another computer or controller is eliminated. CHAMP's installed base has proven it to be a reliable equipment controller with robust interface and a variety of data handling features.

Induct Report - Microsoft Internet Explorer

Address: http://localhost/champweb/Induct.aspx

Tech King Operations, Inc.
8984 Winson Road
Cincinnati, OH 45268
Phone: (513) 489-4888 Fax: (513) 489-0952

Select Batch To Display

Start Time	Last Update	Update Type
8/2/2004 5:10:57 AM	8/2/2004 6:11:01 AM	Current
8/2/2004 10:33:53 PM	8/2/2004 5:10:57 AM	Complete
8/2/2004 10:00:38 PM	8/2/2004 10:33:53 PM	Complete

Induct Batch Report: <8/2/2004 5:10:57 AM> To <8/3/2004 6:11:01 AM>

Induct No.	No Lane Assignment	No Reads	Read Conflicts	WMS Late	Length Total	Cartons	Length Total
1	0	0	0	0	1147		383575

Sort Lane Report - Microsoft Internet Explorer

Address: http://localhost/champweb/SortLanes.aspx

Tech King Operations, Inc.
8984 Winson Road
Cincinnati, OH 45268
Phone: (513) 489-4888 Fax: (513) 489-0952

Select Batch To Display

Start Time	Last Update	Update Type
8/2/2004 5:10:57 AM	8/2/2004 6:00:01 AM	Current
8/2/2004 10:33:53 PM	8/2/2004 6:10:57 AM	Complete
8/2/2004 10:00:38 PM	8/2/2004 10:33:53 PM	Complete

Sort Lane Batch Report: <8/3/2004 5:10:57 AM> To <8/3/2004 6:06:01 AM>

Sort Lane	Diverts	Diverts Per Hour	Full Aborts	Rate Exceeded	Errors	Time 100%	Time Flow/Stopped
0	0	0	0	0	0	0	0
1	85	93	0	0	0	0	0
2	32	38	1	0	0	66	0
3	36	39	0	0	0	0	0
4	35	39	0	0	0	0	0
5	52	57	0	0	0	0	0
6	43	47	0	0	0	0	0
7	71	77	0	0	0	0	0
8	36	39	0	0	0	0	0
9	38	42	0	0	0	0	0
10	19	20	0	0	0	0	0
11	34	37	0	0	0	0	0
12	95	98	98	0	0	192	0
13	51	56	0	0	0	0	0
14	52	57	0	0	0	0	0
15	36	39	0	0	0	0	0
16	45	49	0	0	0	0	0
17	32	33	0	0	0	0	0
18	37	40	0	0	0	0	0
Totals	808	---	17	0	0	---	---

The above are examples of Tech King Operations' Web based statistical reports. They are clear, accurate and easy to learn and read. They provide real time information for the user.

