Mantis is a leading international WMS/logistics software and solutions vendor, addressing the demanding requirements of large enterprises in more than 20 countries in Europe and Russia-CIS and recently in USA/Canada and Middle East.

Established in 1996
8 offices
30 Countries
14 Languages
Insight Technologies offers a single source for your supply chain goals. With a complete portfolio of technology products and consulting services, Insight Technologies can take you from planning to implementation to ongoing management - no matter the size of your operation. With an impressive list of clientele, we have solutions to take your operation to the next level.
Insight products

- Management Consulting
- Warehouse Management
- Transportation Planning
- DC Expert 4.0
- Logistics HealthCheck™
## Products and Services

### Enterprise
- Warehouse Master II WMS
- Global Executive Manager
- DC Expert Integration Module

### Desk Top
- DC Expert
- Transportation Routing & Scheduling

### Strategic
- Strategic Logistics Modeling

### Professional Services
- Consulting
- Health Check
- Implementation
Our Clients

Ace Hardware | Tesco Lotus | Thyssen Krupp | VF Outdoor | Lennox | Kraft | Nissan Canada | Eaton Corp. | Grace Kennedy | Nestle | Bridgestone | Proctor & Gamble | Big C Superstores | Moen | Sobeys | Fruit of the Loom | Johnson and Johnson | Asics | Fosters Group | Spectrum Supply Chain Solutions | Mainfreight International | Unilever | CP All Public 7-11 Stores | Apollo Health and Beauty | CEVA Logistics | Cummins

Logistics Companies

DHL | Metro Canada Logistics | CEVA Logistics | Spectrum Supply Chain | Odyssey Logistics | Protrans | Ryder Logistics | Exel | Mainfreight Intl | Huxloe Logistics | Delamode | Bev Chain – Linfox | Progistix – SCL | Alpha Distribution
DC Expert 4.5

1. Maximize your warehouse facility
2. Increase cubic utilization of the facility
3. Decrease overall travel distance and handling in the facility
4. Apply new or existing models in the warehouse against each other for proof of concept and ROI discussions
5. Increase warehouse flexibility to handle new or seasonal products
6. Quickly react or predict labor requirements
7. Create a standard set of terminology and tool set for the entire supply chain operation
8. Comprehensive warehouse slotting and planning (including zone and work balancing)
Integration of Modules

- WMS SKU Data
- Rack Selection
- Dock Planner
- Benchmark

- Planning Data
- Warehouse Layout
- Slot Master

Data File

DXF/CAD Applications
Microsoft Excel Reports

Reports Data File Export

Data File Exports
Why DC Expert

**DC Expert** is the only product on the market to integrate all aspects of warehouse planning in one tool set. Interface and data requirements for **DC Expert** are simple yet unique. Using Access, Excel or CSV formats, any existing enterprise system can feed **DC Expert** data.

**DC Expert** is the only planning product to combine warehouse design, location coordinates and slotting in one tool.

- Slot Master provides unique ability to slot through logical location or physical location
- Slot Master automatically calculates cube utilization based on SKU analysis by location
- Pre Profiler in Slot Master automatically calculates bay, shelf, bed or location profiles and totals for the facility
- Over 256,000 algorithms in DC Expert
- Benchmark tool allows users to calculate activity KPI’s and then forecast labor and MHE requirements
Data Template
<table>
<thead>
<tr>
<th>Key</th>
<th>Field</th>
<th>Req'd</th>
<th>RS</th>
<th>SM</th>
<th>Example</th>
<th>Default</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Item</td>
<td>Y</td>
<td></td>
<td></td>
<td>AB123</td>
<td></td>
<td>The SKU number/code as a unique item identifier</td>
</tr>
<tr>
<td>2</td>
<td>Supplier</td>
<td>N</td>
<td></td>
<td></td>
<td>ABC Wines</td>
<td>1</td>
<td>Supplier Name or Identifier</td>
</tr>
<tr>
<td>3</td>
<td>Pre_Process</td>
<td>N</td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>ADVANCED: 1 = Yes; 0 = No; Is there a pre-process for this product prior to dispatch? (Kitting, QA etc.)</td>
</tr>
<tr>
<td>4</td>
<td>Description</td>
<td>Y</td>
<td></td>
<td></td>
<td>Merlot</td>
<td></td>
<td>Standard Product Description at the SKU Level</td>
</tr>
<tr>
<td>5</td>
<td>Prod_Fam</td>
<td>Y</td>
<td></td>
<td></td>
<td>Wines</td>
<td></td>
<td>Standard Product grouping field - defined as text - can conform to user generated groupings.</td>
</tr>
<tr>
<td>6</td>
<td>Ave_Activity</td>
<td>Y</td>
<td></td>
<td></td>
<td>18</td>
<td></td>
<td>Number of Pallets (or Pallet Equivalents) picked per week</td>
</tr>
<tr>
<td>7</td>
<td>BOH</td>
<td>Y</td>
<td></td>
<td></td>
<td>72</td>
<td></td>
<td>BOH snapshot - or ideal inventory holdings by SKU (i.e. 2 weeks inventory plus safety stock)</td>
</tr>
<tr>
<td>8</td>
<td>BOH_Percent_In_Place</td>
<td>N</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>ADVANCED: The Percentage of total BOH required in the Physical Pickface</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Min_In_Place</td>
<td>N</td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>ADVANCED: The min amount in the pick face as assigned by the user in cases/units (def=0)</td>
</tr>
<tr>
<td>10</td>
<td>Max_In_Place</td>
<td>N</td>
<td></td>
<td></td>
<td>20</td>
<td>99999</td>
<td>ADVANCED: the max amount in the pick face as assigned by the user in cases/units (def = 99999)</td>
</tr>
<tr>
<td>11</td>
<td>Pickface_Slots</td>
<td>N</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>ADVANCED: The number of allocated pick face slots - manually defined by user</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Pickface_CubeFill_Percent</td>
<td>N</td>
<td>0.55</td>
<td>1</td>
<td>ADVANCED: the Percentage of cube required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>M_Case_Height</td>
<td>Y</td>
<td></td>
<td></td>
<td>5</td>
<td></td>
<td>Master case height in inches or meters</td>
</tr>
<tr>
<td>14</td>
<td>M_Case_Length</td>
<td>Y</td>
<td></td>
<td></td>
<td>10</td>
<td></td>
<td>Master case length (depth) in inches or meters</td>
</tr>
<tr>
<td>15</td>
<td>M_Case_Width</td>
<td>Y</td>
<td></td>
<td></td>
<td>8</td>
<td></td>
<td>Master Case Width in inches or meters</td>
</tr>
<tr>
<td>16</td>
<td>P_Height</td>
<td>Y</td>
<td></td>
<td></td>
<td>6</td>
<td></td>
<td>Height of the pallet in inches or meters</td>
</tr>
<tr>
<td>17</td>
<td>P_Width</td>
<td>Y</td>
<td></td>
<td></td>
<td>40</td>
<td></td>
<td>Width of the pallet in inches or meters</td>
</tr>
<tr>
<td>18</td>
<td>P_Length</td>
<td>Y</td>
<td></td>
<td></td>
<td>48</td>
<td></td>
<td>Length (depth) of the pallet in inches or meters</td>
</tr>
<tr>
<td>19</td>
<td>Stuck_Height</td>
<td>N</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>ADVANCED: If product is floorstack - define height of the stack on the floor including base pallet.</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Crushable</td>
<td>Y</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td>Scale from 1-99999: Based on Fragility of the picked product (higher fragility = higher Crushable value)</td>
</tr>
<tr>
<td>21</td>
<td>Cases_Layer</td>
<td>Y</td>
<td></td>
<td></td>
<td>4</td>
<td></td>
<td>Ti - or Number of cases per layer</td>
</tr>
<tr>
<td>22</td>
<td>Layers_Pallet</td>
<td>Y</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td></td>
<td>Hi - or Number of layers per pallet</td>
</tr>
<tr>
<td>23</td>
<td>Toxicity</td>
<td>Y</td>
<td></td>
<td></td>
<td>7</td>
<td></td>
<td>Scale from 1-99999: Based on hazardous nature of the product or to define product adjacencies</td>
</tr>
<tr>
<td>24</td>
<td>M_Case_Weight</td>
<td>Y</td>
<td></td>
<td></td>
<td>200</td>
<td></td>
<td>House case weight in pounds or KG</td>
</tr>
<tr>
<td>25</td>
<td>Item_Ranking</td>
<td>N</td>
<td></td>
<td></td>
<td>2</td>
<td>1</td>
<td>User entered rank of each product - for manually defined self-building algorithms</td>
</tr>
<tr>
<td>26</td>
<td>Item_Ranking_Expression</td>
<td>N</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>Formulated expressions used as criterion on which to sort each family (SQL Based)</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Case_Pick</td>
<td>Y</td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td>1=Case or Unit Storage Pick, 0= Full Pallet Pick (use smallest unit in assigning this value)</td>
</tr>
<tr>
<td>28</td>
<td>Fam_Ranking</td>
<td>N</td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td>User entered rank of each family group</td>
</tr>
<tr>
<td>29</td>
<td>Fam_Ranking_Expression</td>
<td>N</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>Formulated expression in SQL used as criterion to sort each item within the defined group</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>UPC_Code</td>
<td>N</td>
<td></td>
<td></td>
<td>652145889</td>
<td></td>
<td>Standard UPC Code per User - not required</td>
</tr>
<tr>
<td>31</td>
<td>Toteable</td>
<td>N</td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>1=Yes, 0 = No - is there a flat bin or storage container size for this SKU item</td>
</tr>
<tr>
<td>32</td>
<td>Decantable</td>
<td>N</td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>1=Yes, 0 = No - Can a pallet of this SKU be broken down to the case or unit level?</td>
</tr>
<tr>
<td>33</td>
<td>Casepick</td>
<td>N</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>1=Case or Unit Storage, 0=Full Pallet Storage</td>
</tr>
<tr>
<td>34</td>
<td>Special</td>
<td>N</td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>1=Yes, 0 = No - Special Process - User Defined</td>
</tr>
<tr>
<td>35</td>
<td>Preferred_Zone_Id</td>
<td>Y</td>
<td>Zone 1</td>
<td>1</td>
<td></td>
<td>Advanced zoning ID: by Designated product/family/classification type.</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Location_ID</td>
<td>Y</td>
<td></td>
<td></td>
<td>D1203A1</td>
<td></td>
<td>User’s naming convention or nomenclature</td>
</tr>
</tbody>
</table>
Rack Selection provides the Macro slotting functionality by indicating what type of medium a product should be stored in and picked from.

Looking at both the physical Fixed costs of a medium and the Variable costs around productivity, Rack Selection provides a SKU by SKU analysis of the lowest cost solution.

Rack Selection allows users to compare a multitude of storage mediums and real or forecasted data to create models for actionable management decisions.
## Rack Selection

<table>
<thead>
<tr>
<th>Item</th>
<th>Rack A</th>
<th>Rack B</th>
<th>Rack C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>3</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>4</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>5</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

### Min SKUs

<table>
<thead>
<tr>
<th>Item</th>
<th>Rack A</th>
<th>Rack B</th>
<th>Rack C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Y</td>
<td>Y</td>
<td>NO</td>
</tr>
</tbody>
</table>

### Item Rack Type Rank Variable ($) |

<table>
<thead>
<tr>
<th>Item</th>
<th>Rack Type</th>
<th>Rank</th>
<th>Variable ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>1</td>
<td>1,500</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>2</td>
<td>1,621</td>
</tr>
<tr>
<td>1</td>
<td>C</td>
<td>Fail</td>
<td>711</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1</td>
<td>1,782</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>2</td>
<td>1,972</td>
</tr>
<tr>
<td>2</td>
<td>C</td>
<td>Fail</td>
<td>1,172</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>1</td>
<td>3,287</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>2</td>
<td>3,982</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1</td>
<td>1,224</td>
</tr>
<tr>
<td>5</td>
<td>A</td>
<td>1</td>
<td>1,311</td>
</tr>
</tbody>
</table>

**Calculates fixed and variable costs then ranks each rack type for each item.**

**Removes racking based on minimums.**

**Checks for fit in rack type.**

**Creates a Matrix.**
Dock Planner

Within the Dock Planner module from the menu:

- Select Mode | Settings
- Select General Settings Change Button

The parameters are used to build up:
- Dock area
- Sundry pallet area

![Dock Planner Settings](image)
Dock Planner Simulation
3D Drawing Engine
Warehouse Layout
Warehouse Layout

- **Input Pallet dimensions.**
- **Input Pallet clearance, lift off space, flue space (or use defaults listed).**
- **Software automatically builds the racking to those specifications.**
Slot

- Slotting warehouse in family groups.
- Run different pick sequences in different sections of the warehouse.
- Able to handle product toxicity ratings.
- Thousands of different slotting scenarios to choose from.
- Compare different sort criteria against each other to find optimum slot order.
Slot Master

The user can define pick paths through the warehouse moving from bay to bay:
- Sawtooth
- Z Pick Path
- U Pick Path
- Serpentine

From this, the user can define the vertical component of a multi-level pick path.
Slot Master

- Can support multi-level Picking.
- Multi-levels & multi sections / bay.
- The user can define the pick slot path the size of the shelves.
- Velocity levels can also be defined
  - Green: Fast
  - Gold: Medium
  - Red: Slow
- These profiles can be saved and applied to an individual bay or aisle.
Slot Master allows the user to import existing locations from the ERP or WMS system and use as a baseline to optimize the operation.
Slot Master

Slotting Fundamentals
Slot by SKU Characteristics, order profiles or family group

Slotting supports
- Zone Picking
- Velocity
- Weight
- Cube
- Slot Capacity
- Seasonal
- Custom Algorithms
- Location and Center of gravity models
- Multiple pick Sequencing
Slot Master optimization wizard allows the user to lock or select either SKU or location to eliminate or include in a particular run. This feature is ideal for slotting new or seasonal product into the warehouse.
Slot Master

Cube Utilization

- After slotting the product, Slot Master will produce location and utilization statistics
- Maximize the storage density in your operation with measurable statistics
Zone Slotting and Balancing

- Set up zones easily to apply vertical or horizontal or both assignments
- Balance activity In zones for optimized pick module functionality
- Complete zone reporting and optimization
Benchmark

- Uses 5 industrial engineered data bases to calculate average KPI's within an operation
- Captures 72 measures of information (17 Mandatory) to calculate work levels and performance measure
- Provides a unique comparison to industry averages and target performance
- Provides the basis for activity-based costing in the operation - a key necessity for professional logistics operations

Benchmark Layering

- We use layering to evaluate different parts of the business
- We can make decisions on how to change the operation of certain product groupings and make them more efficient
● Calculate Benchmark standards and overall productivity against a standard.

● Use Benchmark to forecast labor requirements for future activities.

● Measure operation vs. operation KPI’s in a network
Data Integration Module
Benefits

- Integration Module creates an Easy Button approach to the continuous slotting experience.
- Rules are predefined so that both Micro and Macro slotting are performed in sequence on a large amount of data.
- Set up and implementation are very quick and integration can be customized to any ERP or WMS platform.
- All filters back to the WMS can be customized to meet the needs of each particular operation.

Diagram:

```
  ERP       Integration Module       DC Expert Slot Master
    ↓    ▶       ▶                 ↓    ◀       ◀
      WMS       Module
```
Technology

Using an SQL database the Integration unit will receive data from the ERP or WMS and macro slot (order SKU’s) into the most appropriate storage mediums in the building.

Once Macro slotting has been completed, the file will be run in Slot Master to determine the best slot possible based on the rules configured in the Slot Master module.

Results will then be filtered by operator in the integration module to suit the operation prior to moves being uploaded into WMS or Task Management system.

If desired, moves can be printed out for movement sheets.
Thank you!
If you have any questions at all please contact us at 905.829.3514