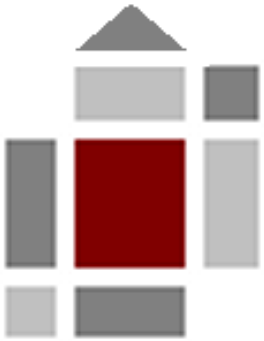

QFDcapture

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Agilent Technologies

Anthem.

Johnson & Johnson

Honeywell

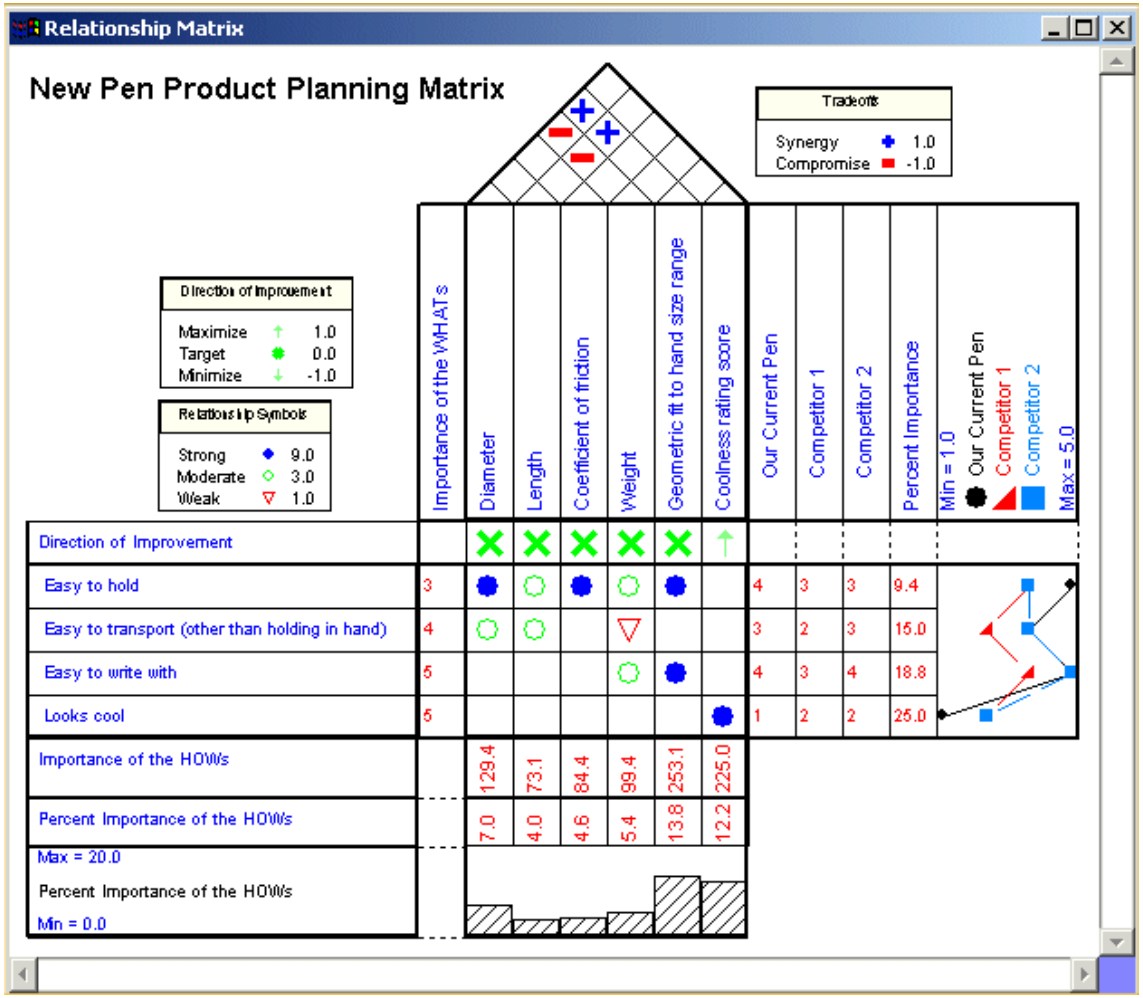
HSBC

Baxter

PHILIPS

Raytheon

QFD Matrix



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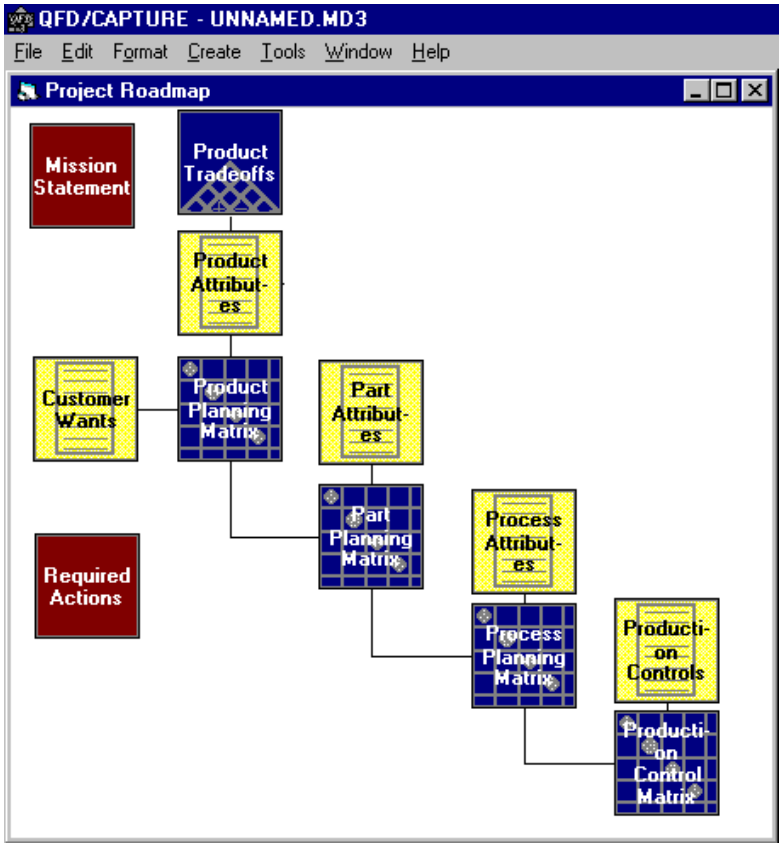
QFDcapture Project Map



Four Phase
Roadmap Template

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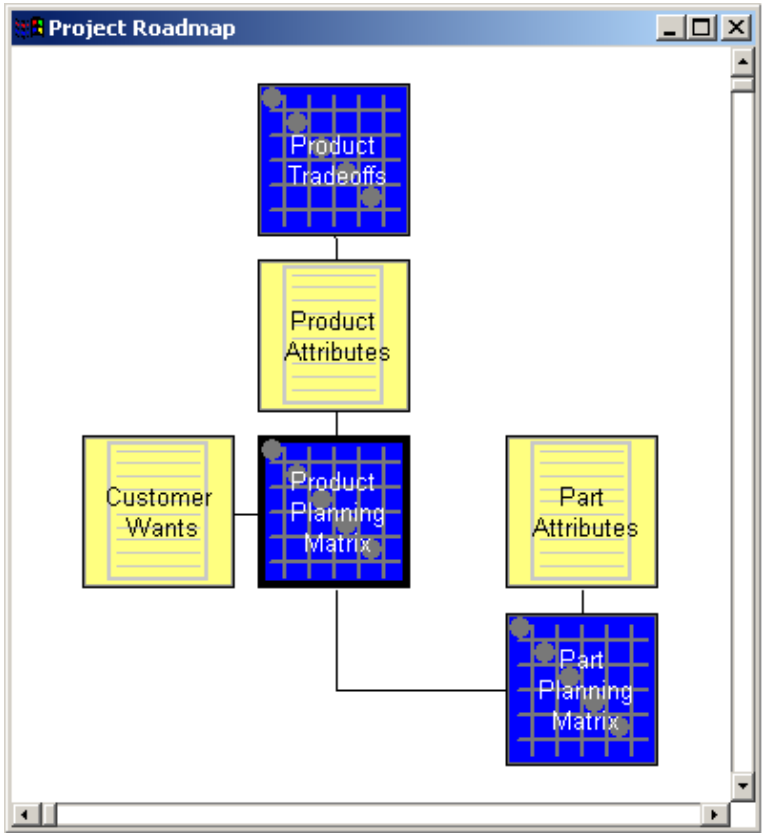
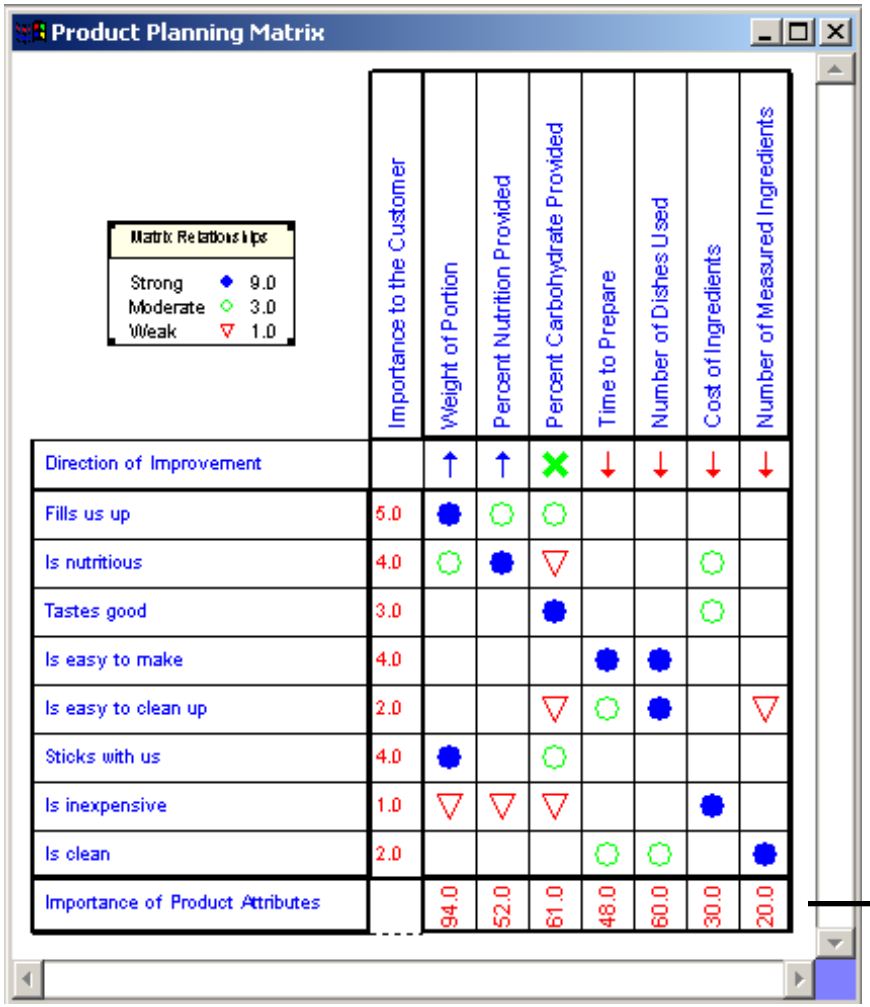
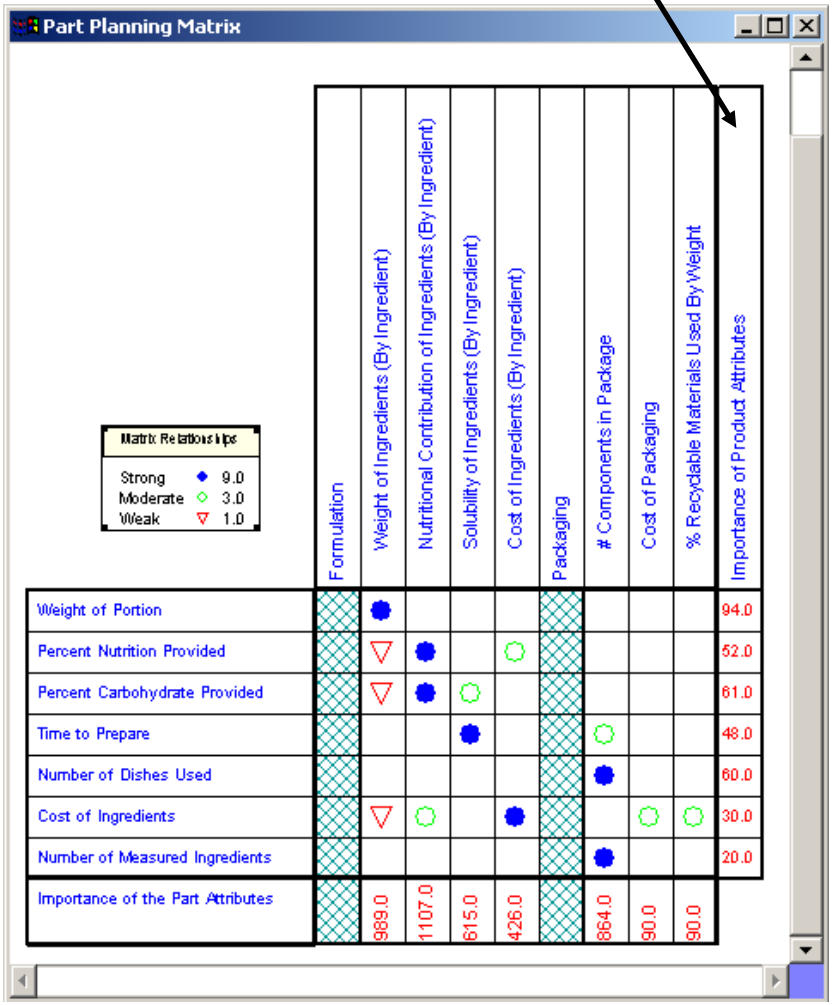
Linking Matrices



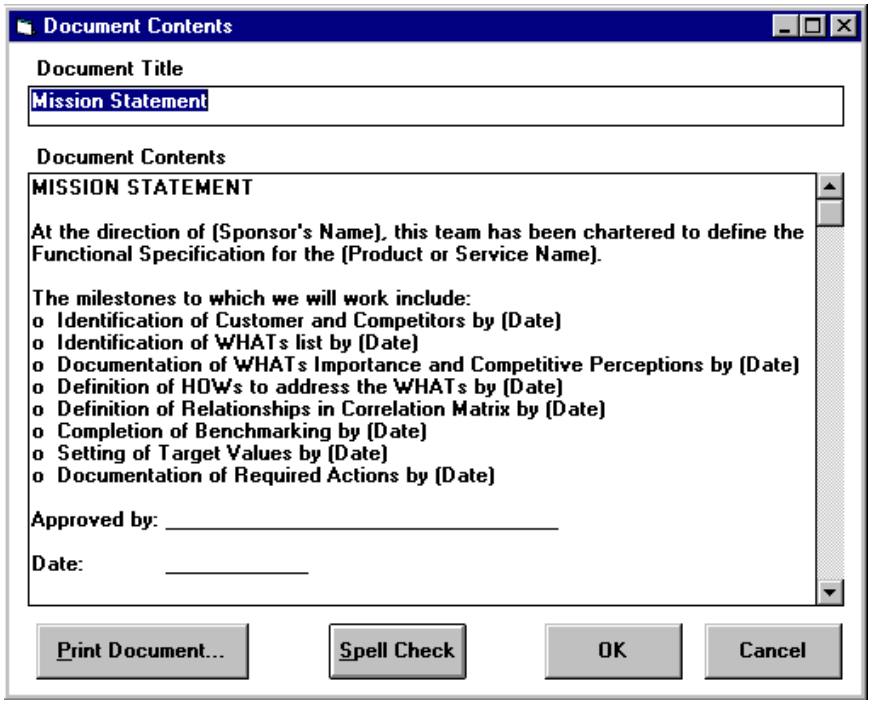
- Matrices are linked when they have a List in common
- Here “Product Attributes” forms the columns of the “Product Planning Matrix”
- It also forms the rows of the “Part Planning Matrix”

Linking Matrices





Text Documents



- Can be used to record general project information
- Document has title which appears in the document block on the roadmap
- The content is unformatted text of unlimited length
- Document is stored in the QFDcapture database

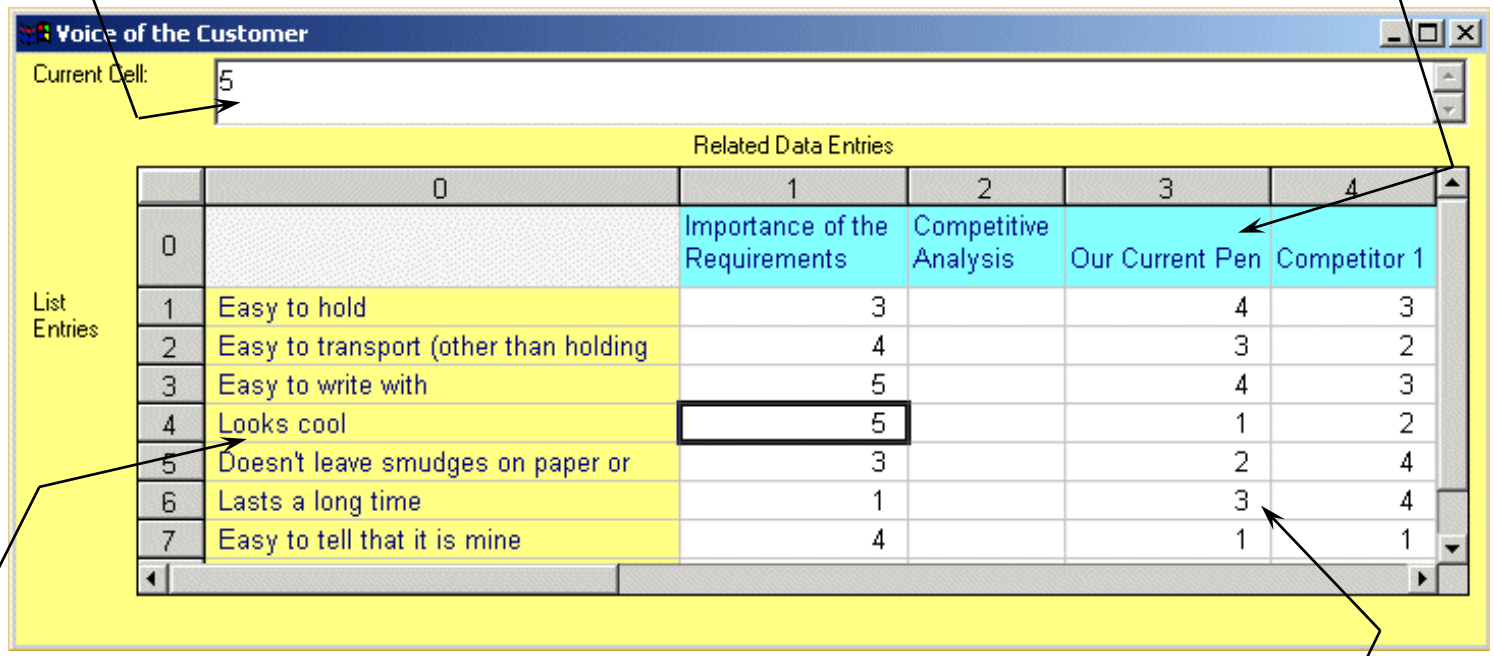
Lists

- Lists are the building blocks of a project
- Types of lists may include:
  - Customer requirements
  - Product characteristics
  - Product concepts/alternatives
  - Product functions
  - Internal business requirements
  - Internal production requirements
  - Part characteristics
  - Regulatory requirements
  - etc…
- Relating one list to another list forms a matrix

List Window

Contents of the currently selected cell.

Each related data entry column contains a particular type of data.



Rows are the members of the list called list entries.

Columns contain data used to prioritize the list entries.

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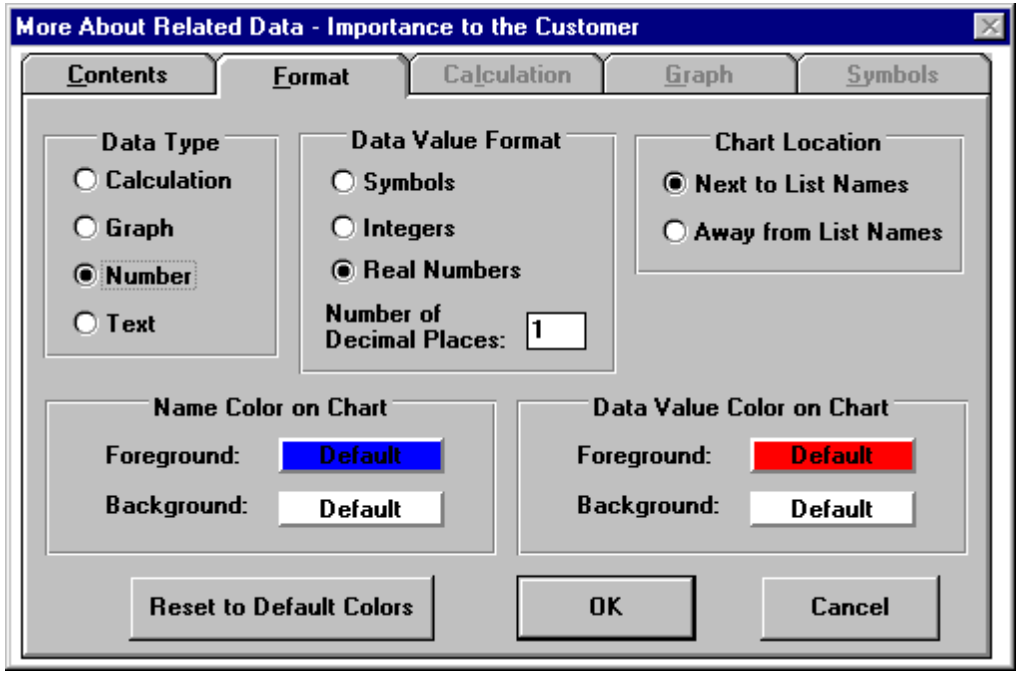
Related Data Columns

- Related Data columns contain data that can be used to prioritize the list entries

- Typical Related Data columns include:
  - Customer importance ratings
  - Ratings of competitive products
  - Level of improvement needed
  - Calculated priority values
  - Direction of optimization
  - Target values
  - Benchmark test results
  - Pareto graphs and Line graphs of other data columns

Formatting Related Data Columns



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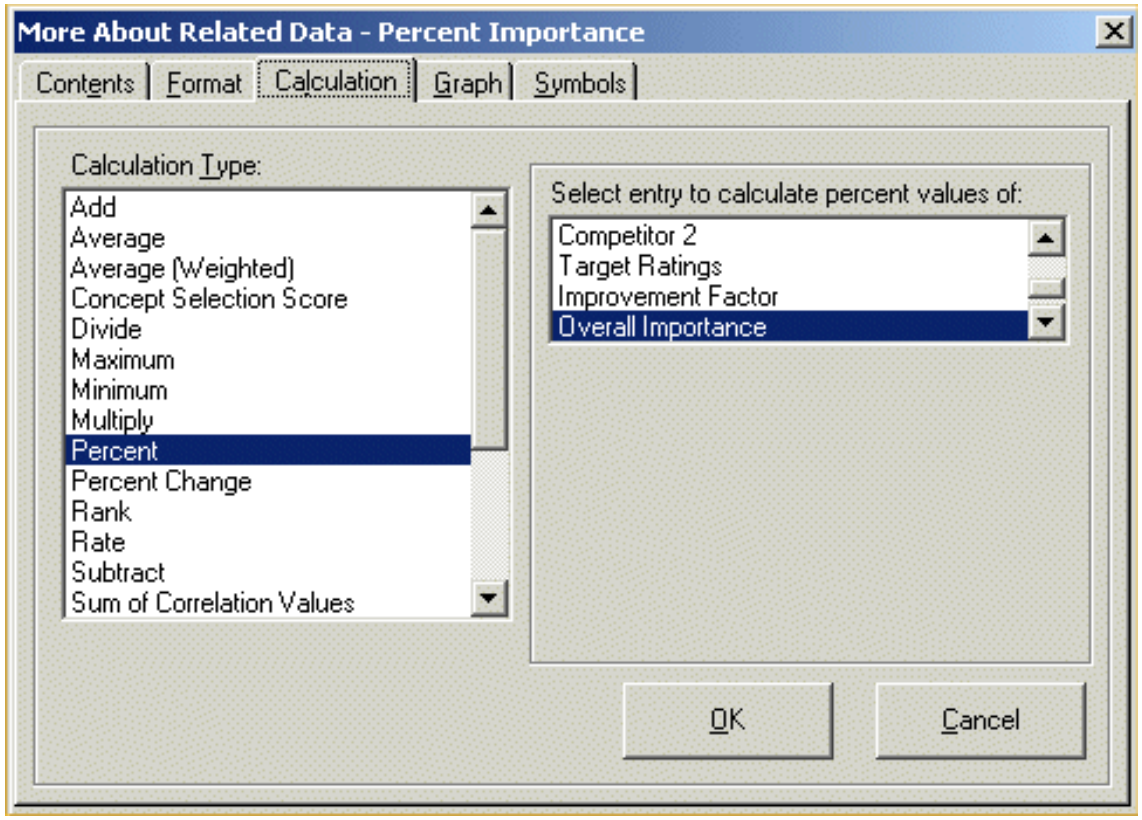
Setting up Calculations



Types of Calculations

- Add
- Average
- Average (Weighted)
- Concept Selection Score
- Divide
- Maximum
- Minimum
- Multiply
- Percent
- Percent Change
- Rank
- Rate
- Subtract
- Sum of Correlation Values
- Sum of Minuses
- Sum of Pluses
- Sum of Sames
- Technical Importance
- User Defined

Technical Importance

Tells how important each characteristic is for satisfying the list of customer requirements.

Example Calculations:

Customer Importance Rating

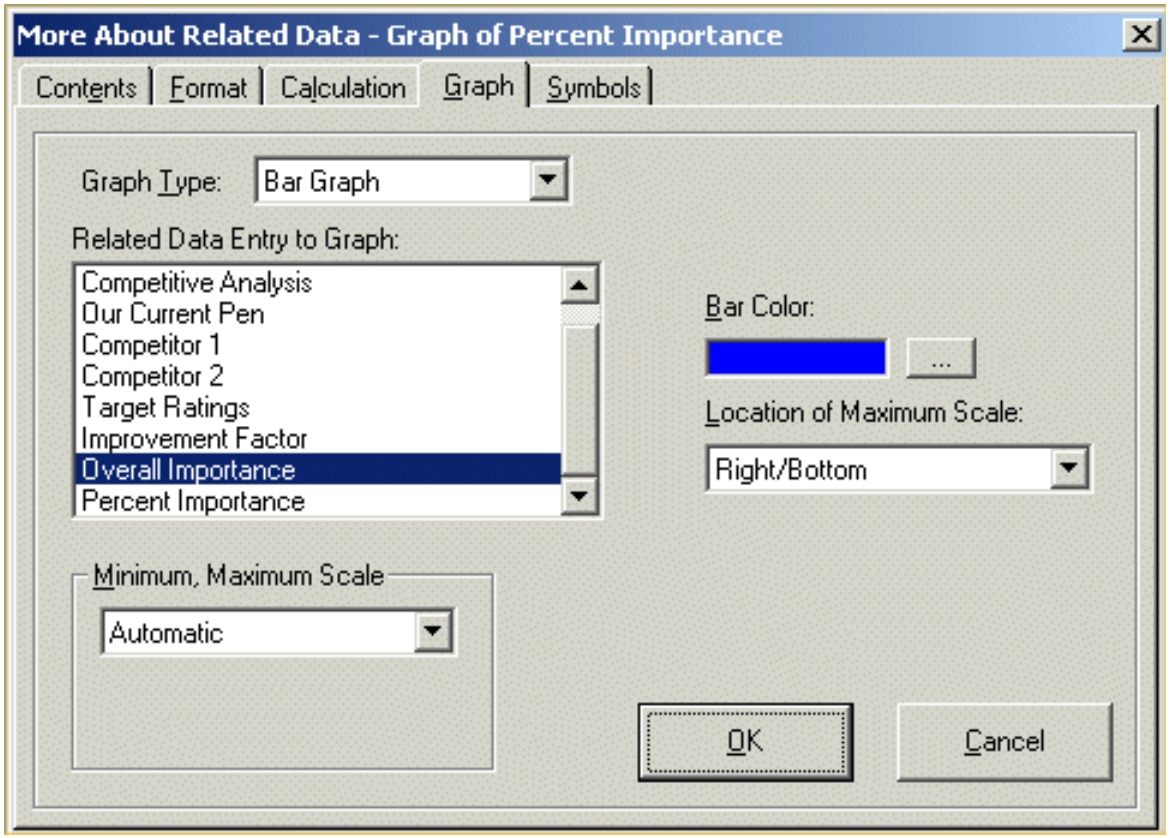
Requirement 1	6.0	△ 6.0		● 54.0	
Requirement 2	9.0		○ 27.0	△ 9.0	● 81.0
Requirement 3	4.0	● 36.0	△ 4.0		
Technical Importance		42.0	31.0	63.0	81.0

● = 9

○ = 3

△ = 1

Setting up Bar Graphs



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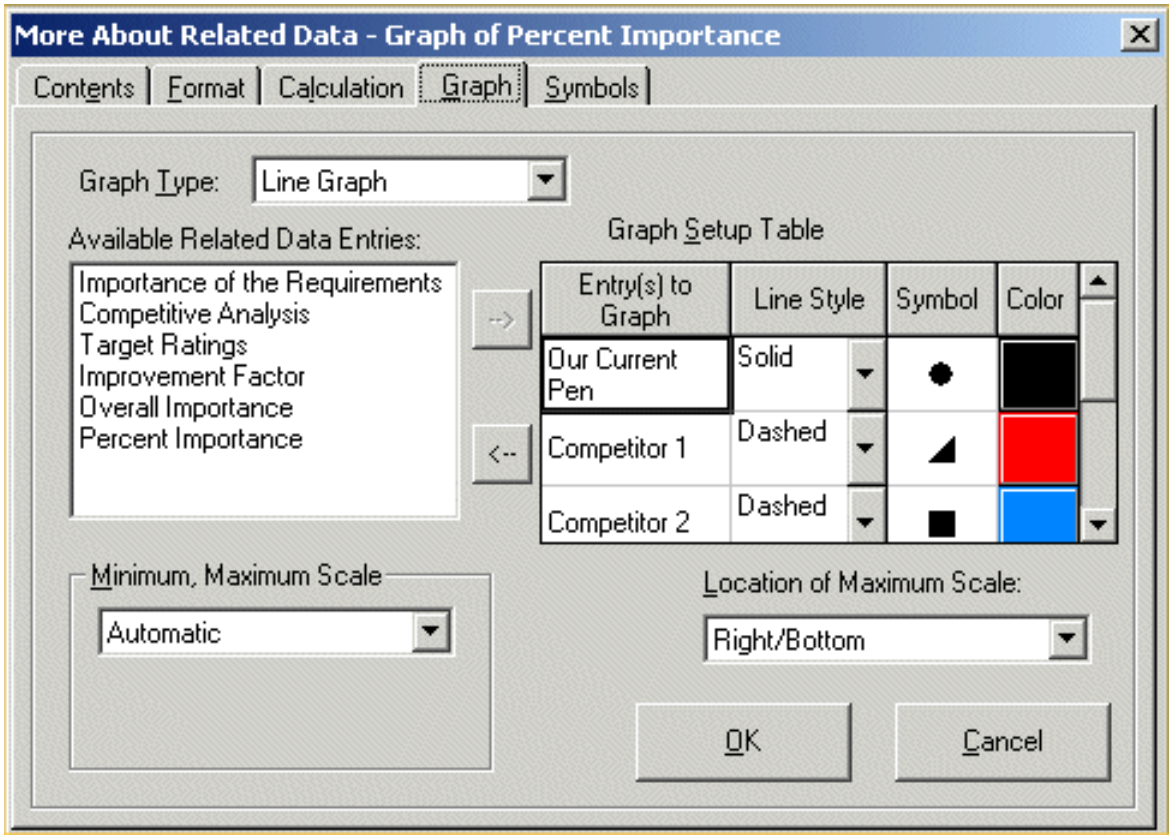
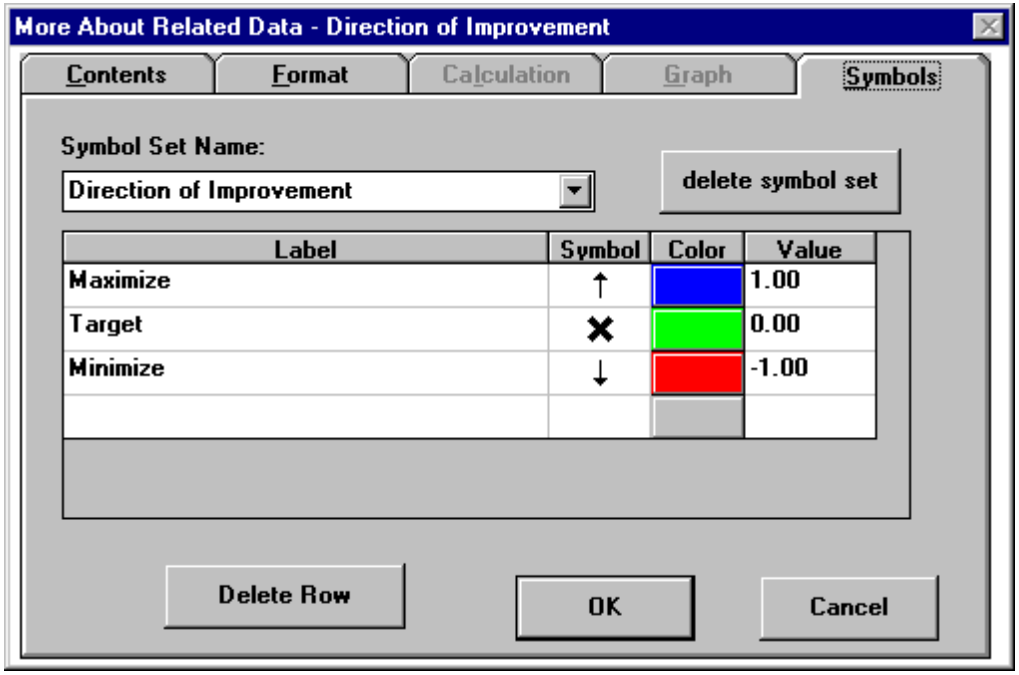
Setting up Line Graphs



Setting up Related Data Symbols



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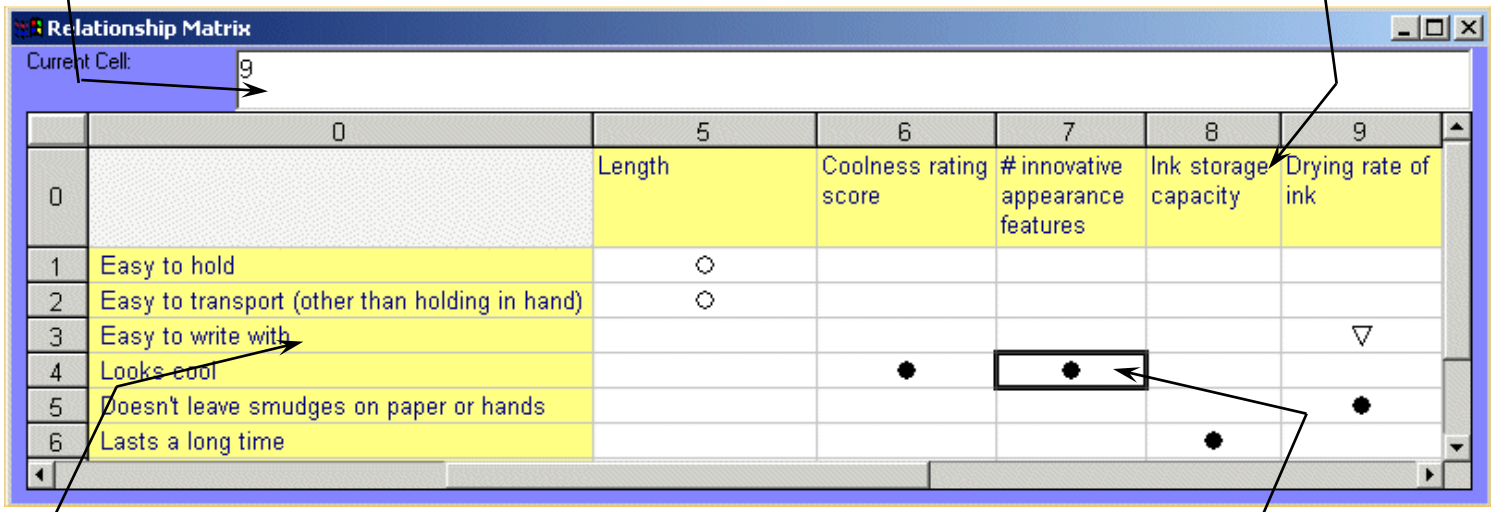
Matrices

- A matrix relates one list to another list
- Types of matrices may include:
  - Customer requirements vs. Product characteristics
  - Product characteristics vs. Product concepts
  - Product characteristics vs. Product functions
  - Internal business requirements vs. Product characteristics
  - Internal production requirements vs. Product characteristics
  - Product characteristics vs. Part characteristics
  - Regulatory requirements vs. Product characteristics
  - etc…

Matrix Window - Spreadsheet View

Contents of the currently selected cell.

Columns are the members of the output list.



Rows are the members of the input list.

Columns contain symbols and/or values representing the relationships between the input entry rows and the output entry columns.

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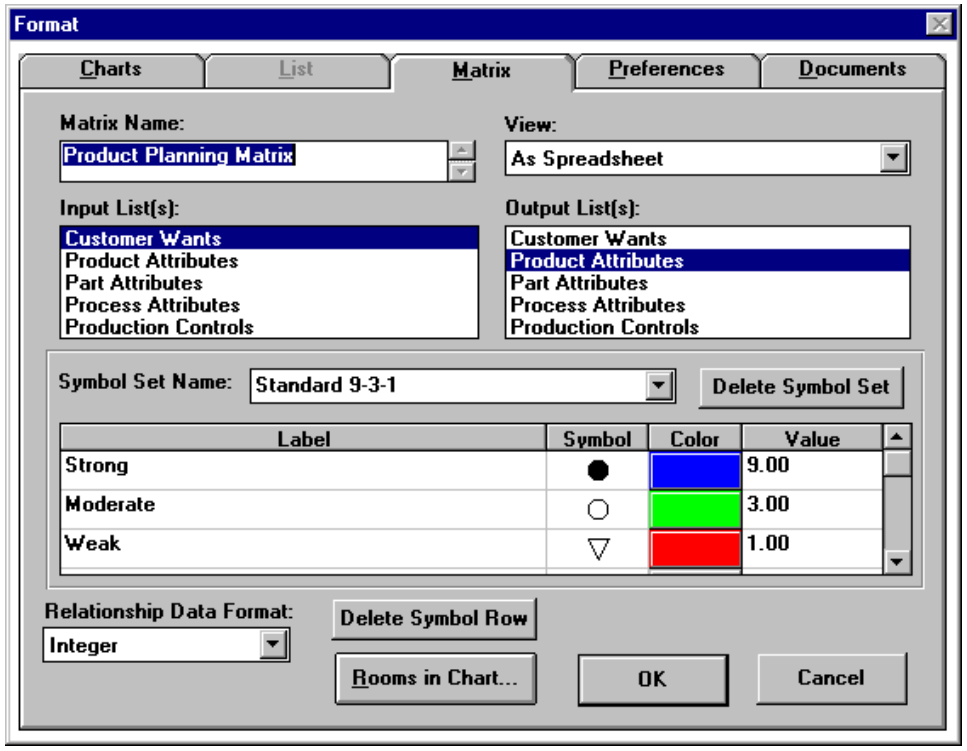
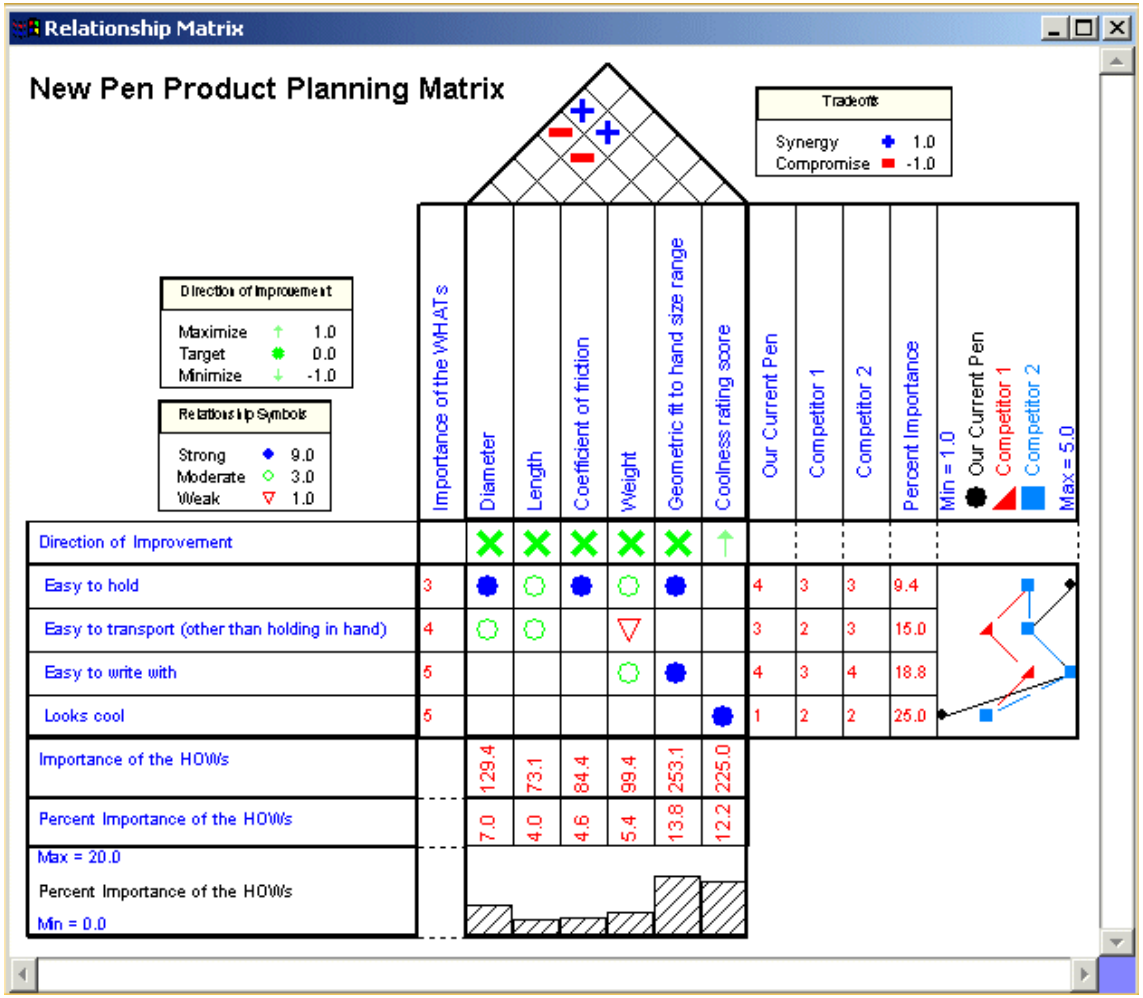
Creating or Modifying a Matrix



- To create a matrix
  - Select Create-Matrix
- To modify a matrix
  - Select the matrix block on the roadmap -or- open the matrix window
  - Select Format-Matrix

Matrix Window - Chart View



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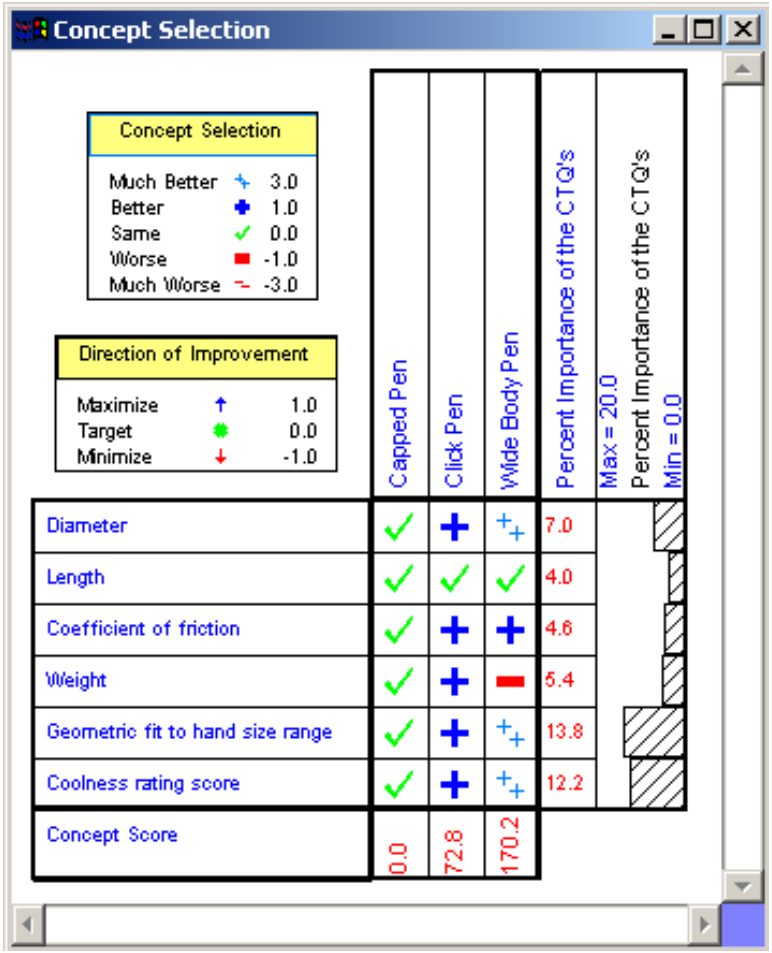
Concept Selection Mechanics



- One concept is used as the "Baseline" concept
- Other concepts are compared to the baseline for each criteria or requirement
- A score is determined by multiplying the importance of the criteria by the relationship values
- The concept with the highest Concept Score is the best fit solution – given the priorities of the criteria

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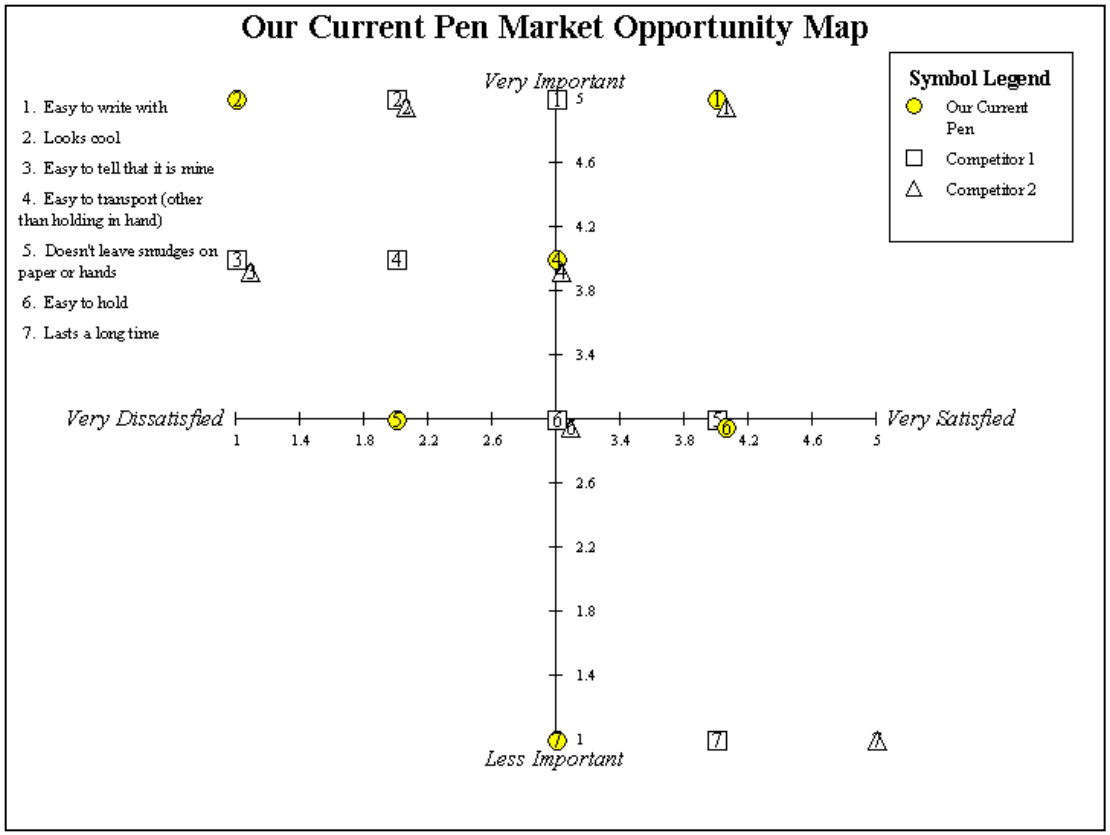
Market Opportunity Map

- Generates pair-wise comparison surveys to gather importance and ratings for requirements



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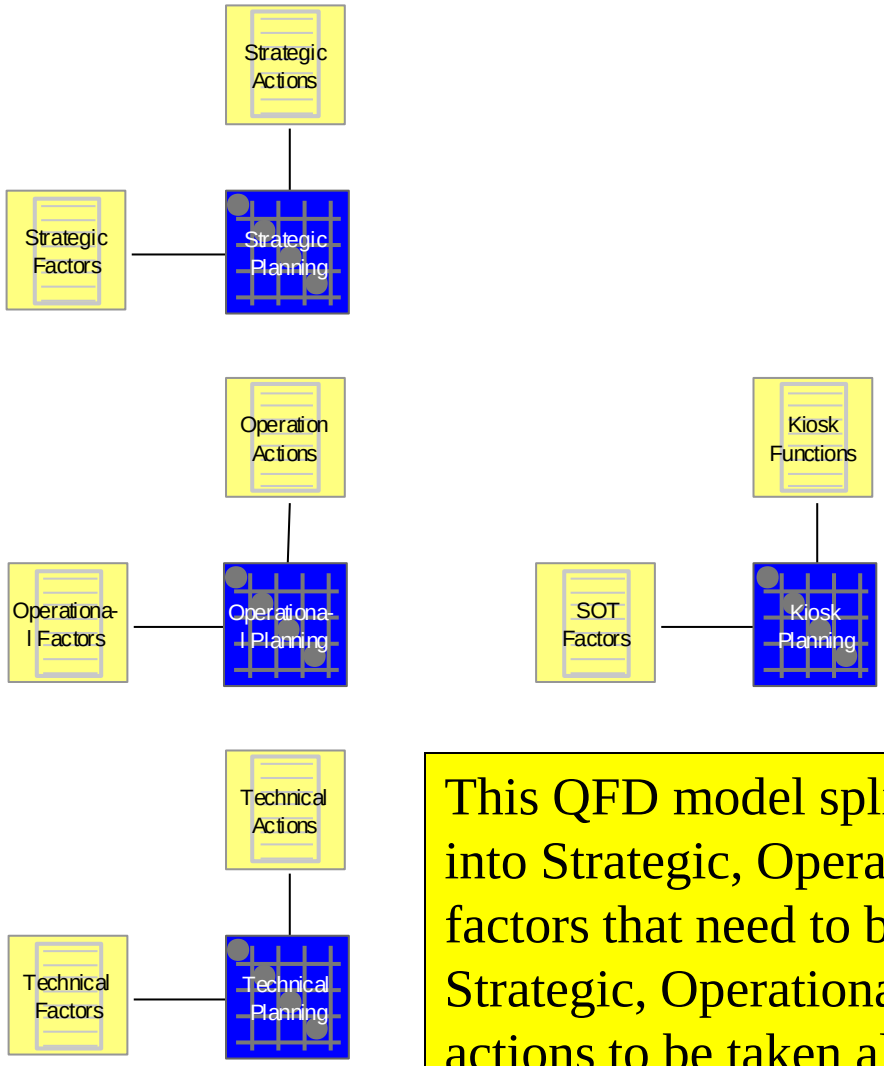
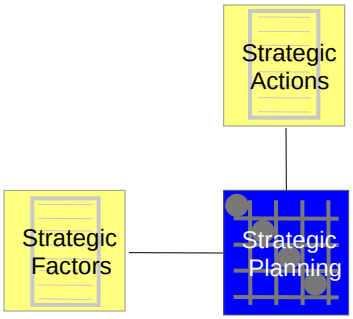
QFD Model



This QFD model splits the Requirements into Strategic, Operational and Technical factors that need to be translated into Strategic, Operational and Technical actions to be taken along with what function should be in the Kiosk.

Strategic Planning



Standard 9-3-1

Strong ● 9.0
Moderate ○ 3.0
Weak ▽ 1.0

Delivery Quality

Very Good 9.0
Good 7.0
Ok 5.0
Bad 3.0
Very Bad 1.0

		1 Treating e-commerce as a business project (not just a technological project)	2 Project team reflecting various related functional areas	3 Cheaper than alternatives	4 Building trust on brand name	5 Integrating different channels	6 Expanding existing markets	7 Business integration	8 New products and services	9 Top management support	10 Re-engineering processes to web-enable them	Importance	1 Brink and Mortar Branch	2 Check Smart	3 Credit Challenged	4 Wal-Mart	5 Max = 5.4 Importance Min = 5.1	
Fast and integrated business processes	1					○		●			○	5.42	◯	−−	−−	++		1
Expansion of current markets	2			●	●		●		●			5.31	−−	◯	−−	++		2
Increasing revenues	3	○		●	●	●	○	○	○			5.29	−−	◯	−−	◯		3
Availability of resources	4	●	●			▽	▽			●		5.28	▬	−−	−−	◯		4
Flexible workforce	5	●	●			▽						5.15	−−	++	−−	◯		5
Flexible organisational structure	6	●	●			▽						5.08	−−	++	−−	◯		6
Importance	1	155.46	139.60	95.38	95.38	79.35	68.94	64.63	63.66	47.56	16.26							
Max = 155.5 Importance Min = 16.3																		
		1	2	3	4	5	6	7	8	9	10							

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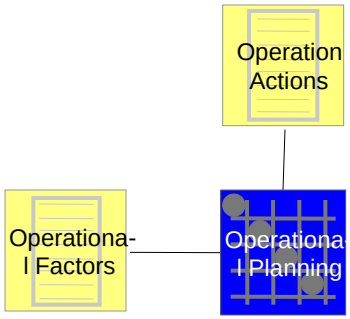
Operational Planning



Standard 9-3-1

Strong	9.0
Moderate	3.0
Weak	1.0

Delivery Quality

Very Good	9.0
Good	7.0
Ok	5.0
Bad	3.0
Very Bad	1.0

		Simplifying and integrating basic services	Good customer service	Understanding customer purchase behaviour	More convenient than the competitors	Easier to purchase than the competitors'	Richness of website contents	Importance	Brink and Mortar Branch	Check Smart	Credit Challenged	Wal-Mart	Max = 5.6 Importance Min = 5.2	
		1	2	3	4	5	6	1	2	3	4	5		
Fast responsive customer service (better than usual)	1	○	●	○				5.60	○	+	−−	++		1
All time availability of services	2	●		▽				5.45	−	○	−−	++		2
Rapid delivery of services	3	○		▽				5.45	−	○	−−	+		3
Information about consumer purchasing behaviour	4			●				5.40	+	−	−−	++		4
Information about customers	5		○		▽			5.26	+	−	−−	++		5
Incentives for customers	6		○		●	●	●	5.22	−−	○	−−	○		6
Importance	1	82.23	81.86	76.28	52.23	46.97	46.97							
Max = 82.2 Importance Min = 47.0														
		1	2	3	4	5	6							

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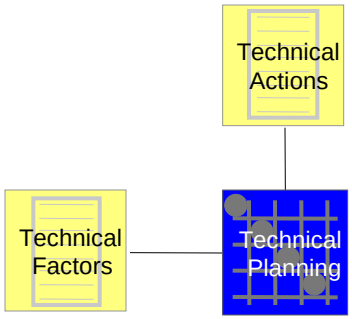
Technical Planning



		Systems security	Integration of technology	User-friendly web-interface	Upgrading existing infrastructur	Personalisation and customisation capabilities	Importance	Max = 6.0 Importance Min = 5.1	
		1	2	3	4	5	1		
User-friendly website	1	○		●		○	5.95		1
Secure website and other related systems	2	●	○		●		5.87		2
IS integration	3		●		○		5.29		3
Personalising services	4		▽	○		●	5.10		4
Importance	1	70.66	70.34	68.81	68.70	63.70			
Max = 70.7 Importance Min = 63.7									
		1	2	3	4	5			

Standard 9-3-1

Strong ● 9.0
Moderate ○ 3.0
Weak ▽ 1.0

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Kiosk Planning

Kiosk Functions

SOT Factors

Kiosk Planning

Standard 9-3-1

Strong	9.0
Moderate	3.0
Weak	1.0

		Internet Banking	New Accounts	Bill Payment	Deposit Acceptance	ATM Cash Dispensing	Payroll Check Put On Debit Card	Payday Loans	Check Cashing	Check Advance	Check Smart	Money Transfers	Overdraft Protection	Priority	Max = 5.9 Priority Min = 5.1	
		1	2	3	4	5	6	7	8	9	10	11	12	1		
User-friendly website	1	●		○	▽	○	○	○	○	▽	○	▽		5.95		1
Secure website and other related systems	2	●												5.87		2
Fast responsive customer service (better than usual)	3	▽	▽	○	▽	○	○	○	○	○	○	▽		5.60		3
All time availability of services	4	●	●	●	●	●	●	●	●	●	●	●		5.45		4
Rapid delivery of services	5	●	●	●	●	●	●	●	●	●	●	●		5.45		5
Fast and integrated business processes	6	○	▽	▽	○	○			○					5.42		6
Information about consumer purchasing behaviour	7		●	●		▽	●	○						5.40		7
Expansion of current markets	8	●	○		●	●			●			○	●	5.31		8
IS integration	9	○	○		▽				▽				○	5.29		9
Increasing revenues	10	○	●	▽	●	○	○	○	▽	○	▽	▽	●	5.29		10
Availability of resources	11	●	▽											5.28		11
Information about customers	12	○	●	●		▽	▽	●		●				5.26		12
Incentives for customers	13						○							5.22		13
Flexible workforce	14	●	▽											5.15		14
Personalising services	15	●	○											5.10		15
Flexible organisational structure	16	●	▽											5.08		16
Priority	1	507	315	239	227	223	218	212	207	184	138	131	111			
Max = 507.1 Priority Min = 111.3																
		1	2	3	4	5	6	7	8	9	10	11	12			

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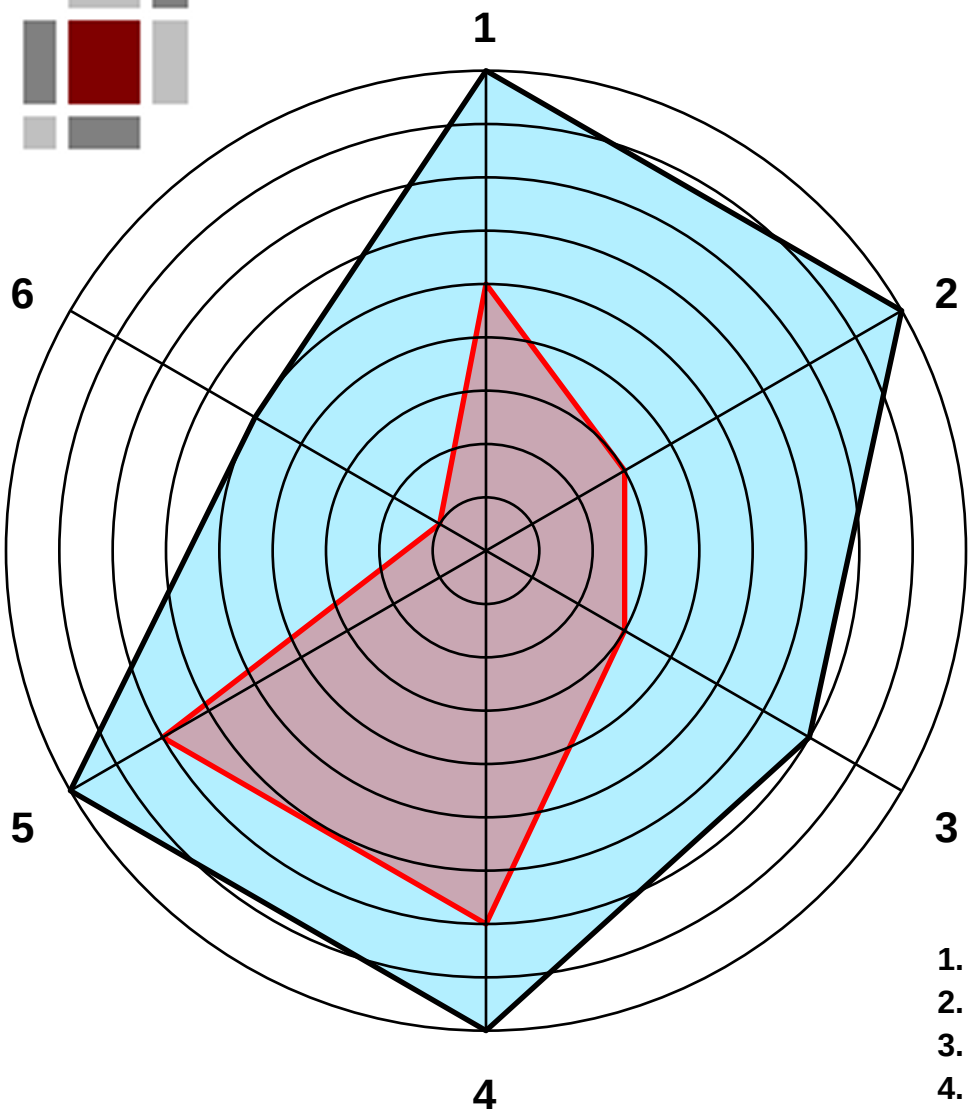
Wal-Mart vs Brick and Mortar

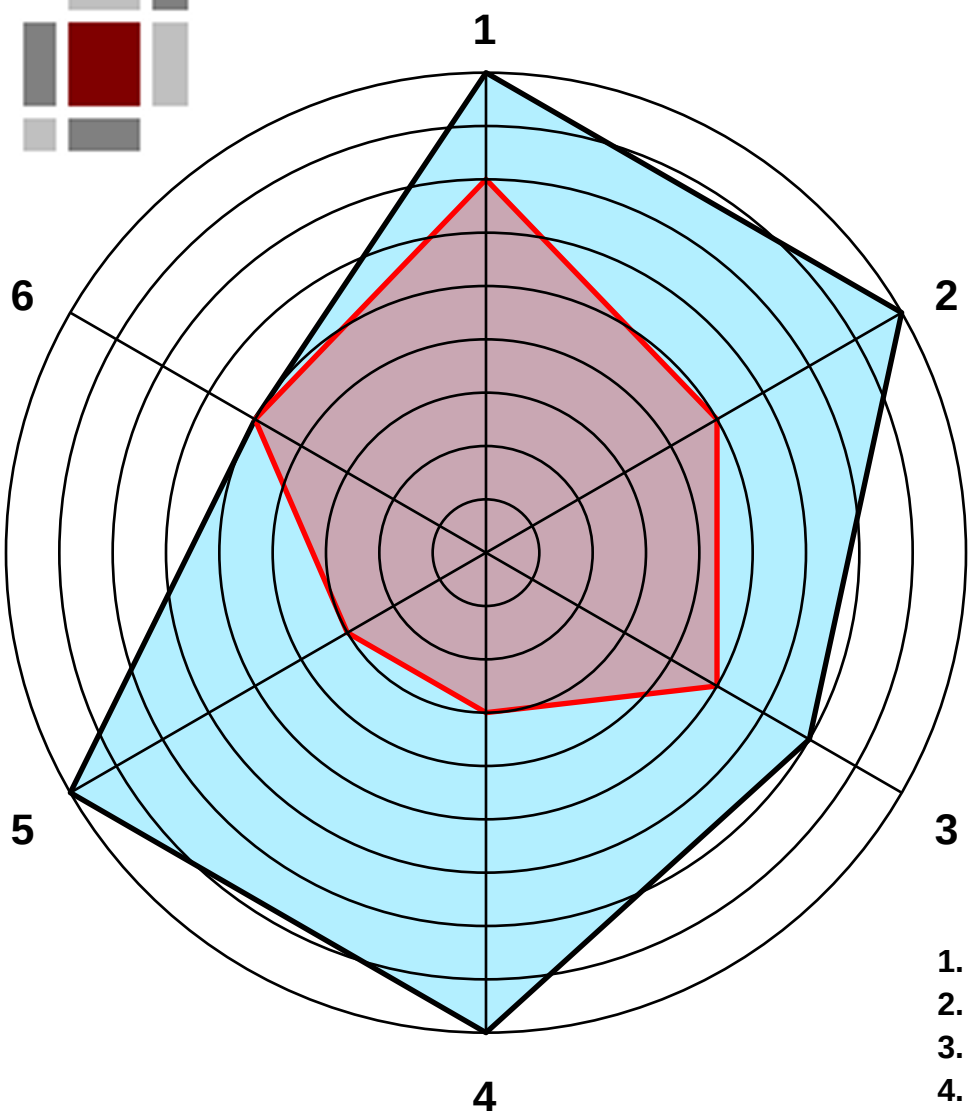


How Wal-Mart competes with a bank branch office.

Selected Related Data
Wal-Mart
Brink and Mortar Branch

1. **Fast responsive customer service (better than usual)**
2. **All time availability of services**
3. **Rapid delivery of services**
4. **Information about consumer purchasing behaviour**
5. **Information about customers**
6. **Incentives for customers**

Wal-Mart vs Check Smart

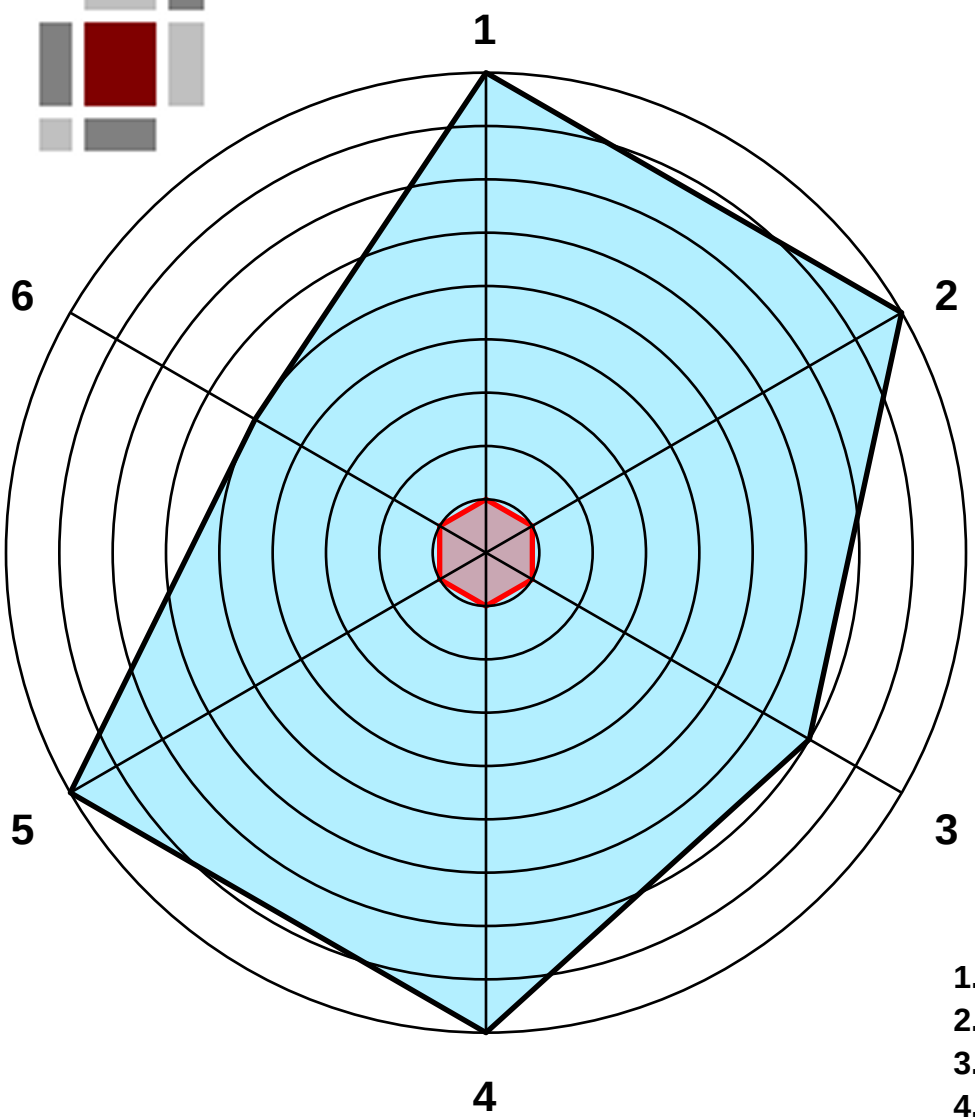


How Wal-Mart competes with a Check Smart office.

Selected Related Data
Wal-Mart
Check Smart

1. **Fast responsive customer service (better than usual)**
2. **All time availability of services**
3. **Rapid delivery of services**
4. **Information about consumer purchasing behaviour**
5. **Information about customers**
6. **Incentives for customers**

Wal-Mart vs Credit Challenged



How Wal-Mart competes with a Credit Challenged Operation like Pay Day Check Cashing.

Selected Related Data
Wal-Mart
Credit Challenged

1. **Fast responsive customer service (better than usual)**
2. **All time availability of services**
3. **Rapid delivery of services**
4. **Information about consumer purchasing behaviour**
5. **Information about customers**
6. **Incentives for customers**