

St. Albert Corporate GIS
Proposed Priority-Setting Methodology

Background

One of the most important tasks to be tackled in proceeding forward with a Corporate Geographic Information Systems (GIS) implementation is that of setting the priorities for what gets done first. In most organizations, demand for services far outstrips technical resources. Awareness of the use and potential of GIS is pervasive throughout the entire organization. A case of both good news and bad news, what this really means is that there is a strong demand for access to GIS services across the entire organization. This demand means that the requirements list to be addressed by the implementation is considerable. Proper prioritization is a must.

Outcome Goals

Outcome Goal: An implementation that meets business needs.

Operational Strategies

- Stakeholder input is directly solicited.
- GIS requirements are phrased in terms of business functions to be addressed.
- City Council Outcome Goals and Priorities are considered.
- Front-line staff are consulted.
- Priorities will be subject to review and revision on a regular schedule.
- Priorities will be flexible to deal with changing business needs.
- Priorities are set by a Committee representing the business areas.

Outcome Goal: Resources are used effectively.

Operational Strategies

- GIS work is coordinated to ensure no overlaps or duplication.
- GIS staff will recommend which positions are best assigned certain tasks.

Outcome Goal: A clear guide for the GIS implementation team.

Operational Strategies

- A clearly prioritized list of business requirements to be met.
- The GIS Coordinator is responsible for translating business function needs into GIS technical requirements.
- Top priorities will be clearly researched for detailed requirements discovery.

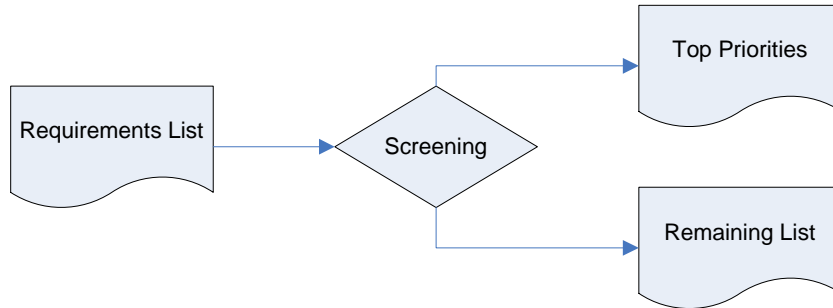
Outcome Goal: Acceptance of the priority list by all stakeholders.

Operational Strategies

- Prioritization criteria are clearly identified.
- A defensible process is followed.
- The prioritization process is clearly communicated to stakeholders.
- The priorities are set by stakeholder representatives, not imposed upon them.

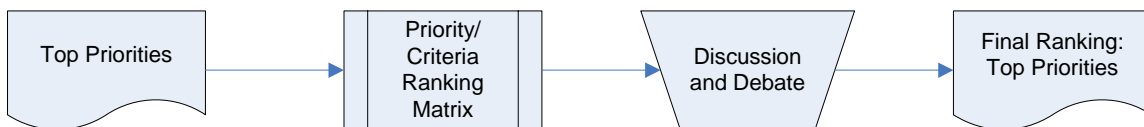
General Process

It is suggested that the GIS Steering Committee use a two-pronged approach to setting priorities where a screening process uses a set of benchmark criteria to divert the request either into the “top priority” list or into the remainder list. The GIS Steering Committee will then use one method and set of criteria for ranking the top priorities and another for generally ranking the rest.

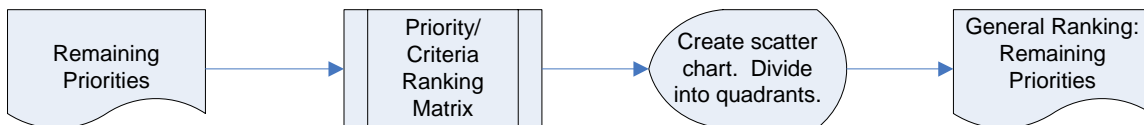


One advantage of this approach is that there is a set of criteria that can be used to instantly identify a new request as a top priority. Another is that the top priorities will be clearly identified and separated from the rest of the wish list. In this way, the GIS Steering Committee can focus the majority of their ranking efforts on items that are deemed most important.

First, information about the items on the Top Priorities will be gathered from the submitter. The information gathered should include information directly related to the scoring criteria selected by the GIS Steering Committee. All items in the list will then be scored against the measurement criteria and this information entered into a spreadsheet. Scores will be added up to provide an initial ranking of the items. This ranking will then be discussed and debated by the GIS Steering Committee to produce a final ranked list.



Once the Top Priorities list has been dealt with the remaining list of requirements can be addressed. Using a small set of general criteria, each requirement is scored and charted into quadrants indicating a general ranking.



Priority lists will be revisited on a regular schedule to ensure that changing business needs and priorities are reflected in the ranking. Progress will be tracked on all items.

Screening Criteria

There are many criteria that can be used to screen and rank requests. The following list is suggested as a starting point for the City of St. Albert. If requests meet one or more of these criteria then they are promoted to the Top Priorities list.

Criteria	Description
LEGISLATIVE OR REGULATORY	Is the business function required by provincial or federal legislation or regulation? Is the business function required by professional associations?
COUNCIL PRIORITY	Is the request driven by current Council Priorities?
PUBLIC COMMITMENT	Has a public commitment been made to complete the request?
URGENT	Is there an urgency to address the request? Is there a high risk of maintaining the status quo?
IMPORTANT	Is the item generally considered to be important?
HIGH IMPACT / COMMON NEED	Addressing the request will have a high impact throughout the organization.
FOUNDATION	The item forms the foundation upon which others will be built/addressed.
SAFETY	The item is required in order to address immediate public and/or employee safety concerns.

Top Priorities: Ranking Criteria

Rank each criteria on a scale from 0 (not applicable) to 5 (fully met).

Criteria	Description
REQUIRED OR MANDATED	Is the business function required by legislation or regulation and/or a part of department/City mandate? 0 = no requirement 3 = indirectly required 5 = directly required
URGENCY / DEADLINE	How urgent is the item? 1 = not required for 2007 4 = required by the end of 2007 5 = required before the end of 2007
TIME TO COMPLETE	How quickly can the item be addressed? 1 = 6-12 months. <i>Look at breaking down into smaller tasks!</i> 3 = 2-4 months 5 = less than 1 month

Criteria	Description
OVERALL IMPACT	How many stakeholders benefit from this requirement? How many datasets does it address? 1 = Impacts only one stakeholder or dataset. 3 = Impacts a moderate number of stakeholders or datasets. 5 = Impacts all stakeholders or a large number of datasets.
AVAILABILITY OF SOLUTIONS	Are there ready solutions available? How easy is it to address? 1 = no solutions exist 3 = partial solutions exist 5 = ready solution available
DEPENDENCY	Is this item dependent on other items being done first? Is this item required before other items can be actioned? 1 = This item cannot be actioned until other items are completed. 3 = This item is not a foundation item, but is required for at least one other top priority item. 5 = This is a foundation item upon which most other items will be built.

Top Priorities: Ranking Matrix

Using the criteria identified in the section above, each request should be scored for each criteria. Scoring will range from 0 (not applicable) to 5 (fully meets criteria). A sum total for each request will give a general indication of potential ranking. This ranking should be then examined for logic to produce a final ranking.

EXAMPLE:

Request	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Total	Estimated Ranking
Request 1	0	1	3	5	9	2
Request 2	3	2	5	0	10	1
Request 3	5	0	0	1	6	3

Remaining Priorities: Ranking Criteria

Rank each criteria on a scale of 0 (not applicable) to 5 (fully met).

Criteria	Description
FEASIBILITY: TECHNICAL	How easy is it to address this request? 1 – Will have to acquire the required skills or infrastructure. Task is difficult and/or

Criteria	Description
CREATIVE/CONTENT	<p>complex.</p> <p>3 – Have some of the required skills or infrastructure in place. Task is only moderately difficult or complex.</p> <p>5 – Have all of the required skills and infrastructure in place. Task is simple and easy to complete.</p> <p>Do we have the content and skills?</p> <p>1 – Will have to acquire or capture the required data or information.</p> <p>3 – Have some of the required data or information in place.</p> <p>5 – Have all the required data or information available.</p>
<p>IMPORTANCE: USER</p> <p>BUSINESS</p>	<p>How important is it to the nominee?</p> <p>1 - low 3 - moderate 5 - high</p> <p>How important is it to the entire business?</p> <p>1 - low 3 - moderate 5 - high</p>

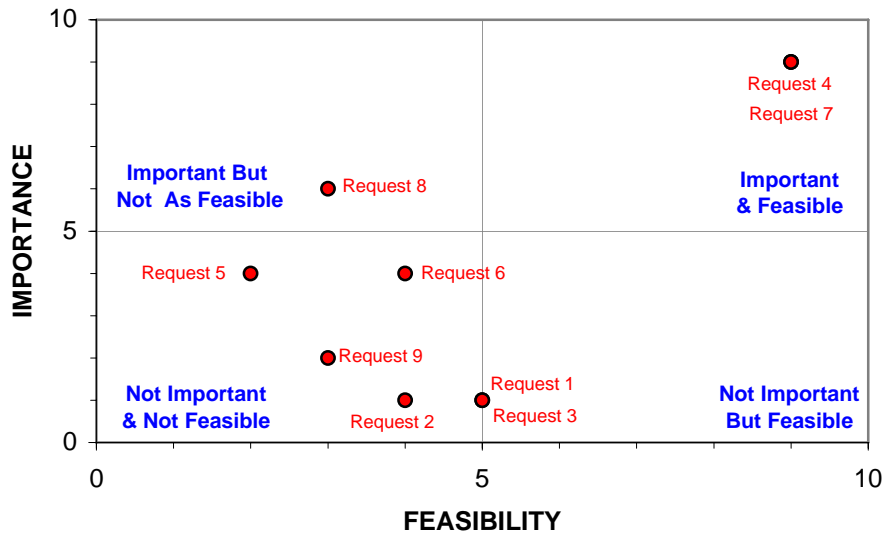
Remaining Priorities: Ranking Matrix

Using the criteria identified in the section above, each request should be scored for each criteria. Scoring will range from 0 (not applicable) to 5 (fully meets criteria). A sum total for each request will give a general indication of potential ranking.

EXAMPLE:

Request	Feasibility		Total Feasibility	Importance		Total Importance
	Technical	Content		User	Business	
Request 1	0	1	1	3	5	8
Request 2	3	2	5	5	0	5
Request 3	5	0	5	0	1	1

Once a total has been calculated for each request, use Excel to create a scatter chart of the totals. [Use FEASIBILITY as one axis and IMPORTANCE as the other.] Divide the scatter chart into quadrants for an indication of which are the highest priorities and which are the lowest.



QUADRANTS:

- **IMPORTANT & FEASIBLE –**
 - These items should be done first.
- **IMPORTANT, BUT NOT FEASIBLE –**
 - These items are important, but feasibility is uncertain.
 - These items should be discussed and debated.
 - These items should also be revisited over time as changes in technology and resources may make them easier to address.
- **NOT IMPORTANT, BUT FEASIBLE –**
 - These items should be skipped until there is time to slip them in.
- **NOT IMPORTANT AND NOT FEASIBLE –**
 - Don't spend much effort on these items.
 - File them away for information.

Tracking and Measuring Progress

Once the priorities have been set and work is proceeding, it will be necessary to track and communicate progress to stakeholders and management. It is suggested that a simple stop light system be used. This system again utilizes a spreadsheet where each row contains one item. There should be columns that track priority number, deadline, estimated time for completion, start date, end date, final completion time, and status. The stop light system comes into play in the status field. This field, in addition to containing standardized status codes, will also be color-coded for quick views. An additional field for comments may also be added.

Stop light status codes:

Roadblock – Activity has hit a roadblock.

Alert – Something is causing difficulties or delays. Something may have been spotted which may halt progress in the near future.

- No Issues** – Everything is good. Progress is smooth.
- Complete** – Activity is complete.
- Pending** – Activity is in the queue for action.
- On Hold** - Activity has been put on hold pending changing needs or priorities.

EXAMPLE:

<i>Activity</i>	<i>Priority</i>	<i>Status</i>	<i>Est. Days</i>	<i>Start Date</i>	<i>End Date</i>	<i>Total Time</i>	<i>Comments</i>
Google Earth deployment	1	Complete	10	15-Mar-07	20-Mar-07	5	
Municipal Election 2007	2	No Issues	20	15-Jul-07			Needs to be complete by Aug.30.
Tempest Inform replacement	3	Alert	50	01-Apr-07			Parcel data errors found.
City GIS portal	4	Roadblock	30	15-May-07			ArcServer problems.
Parks & Open Spaces Plan	5	Pending	100				
Cemetary data & application	6	On Hold	15				Cemetary is full.

City of St. Albert GIS Requirements Prioritization Process

Thursday, February 01, 2007

