

## System Design Process in the Rogers Communications Centre

The purpose of this document is to set the standards and expectations, along with identifying the process and steps involved in designing facilities, for the Rogers Communications Centre.

### Step 1 – Specification

A specification for a facility at Ryerson may evolve in a variety of ways;

1. From a prototype model developed by a student, staff or faculty member.
2. From a need defined by Academics that has become a requirement for their program
  - a. it may be an evolution of an existing system
  - b. it may be a new system from which no prototype exists
  - c. it may be a sudden donation that was put forward as a necessary concept to either University Advancement, as part of long term departmental planning, the Deans committee(s) or the Operations Committee(s) of the Rogers Communication Centre.
3. An initial specification for the RCC installations is usually arrived at via a combination of interactions between Lead Academics or RCC Directors, Operations staff and/or Technical Support staff.
4. Based on discussion and the reasonable expectation that the project will be funded where a decision is made by the School Management or RCC Management to proceed to rough design stage.

### Step 2 – Rough Design

From the initial specification a rough design is created. Its purpose is to identify the components required to build the facility. It need not be fancy and as such is most often hand drawn. From the rough design the following information should be able to be deciphered;

1. Ergonomic design of the facility.
2. Workstation, desktop and equipment rack layouts
3. Major component identification for budget purposes
  - a. estimates of kinds of wiring required
  - b. estimates of power requirements
  - c. estimates of custom connectors required
  - d. estimates of furniture/rack requirements
  - e. estimates of interconnect to facility

- f. specifications and cost estimates of technology required
  - g. lighting/air requirements
4. Manpower estimates for more detailed design and installation

Another point of input and approval will occur at the end of the Rough Design process.

Step 3 - Detailed Requirement List

Based on the approval of the Rough Design a detailed requirement list is drawn up. It is to include the following;

1. All electrical, electronic, furniture and technical components required for the facility and the actions required to obtain and install them
  - a. Identify existing vs. new components and develop cost estimates/quotations
  - b. Identify what can be done using RCC departmental personnel and develop any cost estimates
    - i. Digital Media Systems Technology Group
    - ii. Computer Systems Technology Group
    - iii. Operations Group
    - iv. Management Group
  - c. Identify what can be done using university service and develop cost estimates.
    - i. Associated FCAD technical staff
    - ii. University Interior Designers
    - iii. Computer and Communications Services Staff
    - iv. Physical Plant Staff
      - Painters
      - Security
      - Electricians
  - d. Identify any external staff or services required and develop cost estimates.
2. Develop a detailed and complete list (including purchase information) of components, parts, furniture, tools, time estimates and services required to complete the facility installation.

This step is concluded once RCC management or Academic School management places orders for required technology and/or services in order to build the facility.

#### Step 4 – Facility Build and Formal Documentation

Facility build is defined as the process of installing or upgrading a facility. Formal documentation means CAD based documentation that is housed in the department's electronic vault of systems designs that is maintained by the Digital Media Systems Group. The software used at the time of this documents creation is Visio.

A build normally begins

1. Once components arrive on-site
2. The facility being built or upgraded is available to start the installation
3. The installation of new components –even if it's a partial build- in off hours will not affect the Academic operation of the facility being upgraded in any way shape or form other than its nuisance component.

Formal design documentation can be created in two ways;

1. In advance of a build especially when time permits for complex installations such as audio and video patch bays, tight rack layouts and to communicate with people performing services outside of the Rogers Communications Centre workgroup.
2. During or immediately after an installation as either “as built” documentation allowing for a development build of a facility or because time did not permit a formal plan in advance of the build.

A facility will be recognized as completed once all of the elements funded on the Detailed Requirements list have been completed and the formal documentation, outlining all elements in the Detailed Requirements, is turned into the Audio Media Systems Technologist who is responsible for their proper storage.