**Graphics Design Software Package**

Data Flow Diagram Document

* **Level 0:** Context Diagram shows the System as a Single Process and its interaction with external Entities like User, Clipboard and Previously Saved Files.

**Level 0 DFD Breakdown:**

1. **Entities:**
   * **User:** Interacts with the Software to Create or Manipulate Graphics.
   * **Saved Files:** Load a Previously saved File or import a Bitmap Image into the Project.
   * **Clipboard:** Paste a Previously Copied Graphic Element.
2. **Single Process:**
   * The **Graphics Design Software** interacts with the aforementioned Entities to successfully render the Graphics created by the User, sometimes Inheriting from the Clipboard or Previously saved Files.

**User**

User Action in GUI

Graphics File

**Context Diagram**

**Saved Files**

Bitmap Image

**Clipboard**

Graphic Image (Shape, Text, Gorup

* **Level 1:** Level 1 DFD shows the Decomposition of the GDS Bubble (0) into several distinct processes, each handling certain functionalities required in the Software.

**Level 1 DFD Breakdown:**

1. **Processes:**

* **Draw Shape:** Insert shape or Bitmap Image into the Project and access the Shape Identity from the “Shape List” Data Structure. The user Directly interacts with it to select the desired Shape. The shape is then Rendered.
* **Write Text:** Insert Text into the Project as typed-in by the User and Render it on the Screen.
* **Select Graphic:** Receive the Object ID fro the user in form of a Mouse Click and Highlight the Selected Object.
* **Modify Graphic:** Receive the Selected Object ID from 0.4 and Modification specifications from the User to Modify the selected Graphics and render it on the Screen.
* **Copy To Clipboard:** Takes the Object ID of the Selected Item and Copies them to Clipboard for future Use.

1. **Data Stores:**

* **Shape List:** The list of all the types of Shapes available to insert.
* **Clipboard:** List of atmost 10 copied Items.

Object ID

Text ID

Object ID

User Click

**Shape List**

Shape ID

Object Rendered

Position, Rotation Factor, Size, Colour, Line Style, Line Size

Object ID

Object ID

Object ID

**Clipboard**

**Level 1 DFD**