

CUSTOM SHAPED HOTSPOT EDITOR

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ABSTRACT

SkavaSTUDIO is an expandable experience creation platform for building commerce-enabled digital experiences. It allows to visually author experiences for deployment on Web, Mobile, Tablet, and Native environments. It is also a visual authoring tool that allows retailers to create digital marketing and commerce enabled experiences. SkavaSTUDIO's Drag and Drop functionality allows to build and deploy rich and dynamic pages for tablet, mobile and desktop in a short period of time. In Studio there is a feature called "Hotspot". Hotspot normally in the shape of rectangle or square. By using Hotspot editor retailer can customize the shape which makes image in a website more informative. With these hotspot can achieve Timely Dynamic Ad-Based on the environment, the user and other factors. Regional Specific Ad-Target ads to customers in certain countries, regions or cities or within a set distance from shop. Personalized Ad -With our smart, easy ads, can reach more relevant customers within budget

I. INTRODUCTION

SkavaSTUDIO can create new application, building interactive web pages, uploading media assets and more. There is a feature in SkavaSTUDIO called Hotspot which makes website into more attractive. For Hotspot providing an event called "Area specific". Without creating separate buttons or anchor tags for linkable areas makes it possible with the help of Hotspot editor. In a single image can create multiple hotspot which makes site more attractive and meaningful.

The Hotspot in general, is square or rectangle shaped. But, in website, all the linkable area not only in square or rectangle. It can be in any shape.

Most of the business websites, almost all of them, have the irregular shapes as linkable areas because they wanted to

set objects inside the image as linkable areas. So the square or rectangle shapes won't work for these kinds of situations. The paper focuses on the hotspot editor which is used to edit the shape of the hotspots.

With this editor the retailer can change their linkable area for irregular shape and also can edit that irregular shape area to another shape.

The Customer of this software have irregular shaped objects that are sale-able objects, and maps which have cities and states that are not in the regular shape. In their websites, the customer expects that they should keep those areas as linkable areas that can be possible with this editor.

II. SKAVA ONE

SkavaONE platform shown in fig:1 is a state-of-the-art technology platform that allows rapid development, integration and deployment of mobile commerce and omni-channel solutions. Our state-of-the-art platform is designed to allow retailers and brands to reach and engage with their consumers quickly and seamlessly across multiple channels and devices. Whether want to build a full e-commerce presence or want to quickly launch a holiday mobile-shopping campaign, the Skava platform can help get there.

A. Performance

- Scalability and Security
- Black Friday scalability for the largest retailers.
- Advanced optimizations for fast performing sites.

- PCI Level 1, EU Safe Harbor and more.

B. Flexibility in Integration

- Maximum flexibility in enterprise e-commerce integration with support for APIs, feeds, raw-data, adaptors, site-crawling and a variety of other approaches and combinations thereof.
- Future proof integration that adapts as the retailer’s e-commerce platform evolves.
- Little or no IT involvement needed.
- Existing integrations with leading third party vendors.

C. Freedom in Design

- Create unique, fully custom designed websites and applications.

- No cookie-cutter templates; No creative restrictions.
- Push boundaries of mobile and tablet
- UX and UI design with custom platform widgets.
- Use SkavaSTUDIO to quickly build, launch and manage solutions.

D. Tools for Innovation

- Use APIs, SDKs and visual authoring (SkavaSTUDIO) to develop on the Skava platform
- Create custom new solutions or customize ready-to-use solutions
- Sophisticated and advanced retail- focused API optimized for multi-channel deployments.
- Advanced analytics capabilities to help provide insights and improvements.



Fig:1 SKAVA ONE Platform

III. SKAVA STUDIO

SkavaSTUDIO has been designed to bring digital retailer’s marketing[1] pages to life in much less time than ever before. There are countless types of pages can build. Below are some of the most popular examples.

A. Marketing Microsite:

Creating a Microsite [4] that works on mobile, tablet and desktop browsers for a particular marketing event. It is a website that companies use to promote their individual products, events, or campaigns [5].

B. Flash sales

Flash sales[2] are limited time sales with specific start and end times. Create marketing campaigns with timers to introduce the flash sale and add countdown clocks when the sales begin and end. Flash sales are a win-win for both consumers and retailers. With a limited time and high discounted products, flash sales[3] help drive traffic to a site and increase consumer loyalty. Setting up a flash sale requires custom coding.

C. Wishbooks

Wishbooks are user generated catalogs containing a consumer's favorite items. Wishbooks require custom coding to allow consumers to select the products of their choice from anywhere within the site and save those items in one visual catalog. Wishbooks allow consumers to create catalogs of products to refer to when shopping.

D. Thumbnail Browser

A thumbnail browser is a collection of thumbnail sized images that consumers can browse inside a scrolling box. This feature is another form of an image gallery.

IV. HOTSPOT

SkavaSTUDIO has Hero and PXP widgets. In these widget images, linkable areas can be created. That is, button or anchor is not needed to create the links. Without buttons, linkable areas can be created in image itself. Those kind of linkable areas are called as "Hotspot". But normally the hotspot is in the shape of rectangle or square. All of the business websites are having linkable areas which are not in regular rectangle or square. Because those kinds of websites there will be catalogs maps and some other real world object as links. In these kind of situations only "Custom Shape Hotspot Editor" is coming into act.

V. CUSTOM SHAPED HOTSPOT EDITOR

Custom Shape Hotspot Editor is a plug-in used to change the shape of the hotspot. HTML has the area tag to have custom shaped linkable areas. But no editors have the feature to change the shape of the hotspots. So, to change the shape of the hotspot, an editor plug-in is written using HTML5. By using this, the hotspot's shape can be changed to whatever shape needed. And also the shape can be switched back to regular.

VI. TECHNOLOGIES

- a. Server Side Technology JSP, J2EE- for Enterprise Applications
- b. Client side Technology JavaScript
- c. MySQL

MySQL is an open source relational database management system (RDBMS). It has been a common option for the storage of information in databases used for financial records, manufacturing and logistical information, personnel data, and other applications.

d. ZooKeeper

Apache ZooKeeper is a service used by a cluster (group of nodes) to coordinate between themselves and maintain shared data with robust synchronization techniques. ZooKeeper is itself a distributed application providing services for writing a distributed application.

e. Redis

Redis is an open source, advanced key-value

store for building the scalable web applications. Redis holds its database entirely in the memory, using the disk only for persistence.

f. JSON

JavaScript Object Notation (JSON) is a syntax for storing and exchanging data. JSON is text, written with JavaScript object notation.

g. Apache Tomcat

It is a Web Server to host the micro services.

h. Editor

STS is an eclipse development environment developing Spring applications. It is freely available for development and internal business operations use with no time limits, fully open-source and licensed under the terms of the Eclipse Public License.

VII. MODULES

A. Change to Edit Mode

SkavaSTUDIO normally provides draggable hotspots. Those hotspots are in the shape of rectangle or square. The hotspot's width and height can be resized.

This module is to change the state of that hotspot to edit mode. Here editor can be created to edit the shape of that hotspot. Editor is created with the eight points, and there will be lines between all of the points.

B. Editor

Fig 2 Shows the creation of Custom Hotspot editor

- 1) *Creating New Points:* New points can be created by clicking on the line. Create as many hotspots on a widget
- 2) *Remove Existing Points:* The points can be removed by right clicking on the points.
- 3) *Moving the Points:* The points can be moved by clicking on the points and dragging it.

C. Creating Movable Custom Shape Hotspot

When the developer finishes editing the hotspot, he can either fix it or discard it. When the developer discards it, the editor is removed and the hotspot is made as movable.

From that movable object the shape of that object can be changed using editor or that object can be changed to regular rectangle or a square.

D. Handling Custom Shape Hotspot with SkavaSTREAM API.

The websites designed using SkavaSTUDIO are published using the API's in SkavaSTREAM. So the hotspots are also should be handled by the SkavaSTREAM. In this module the hotspot object is handled in SkavaSTREAM API for SkavaSTUDIO.

E. Rendering Custom Shape Linkable Areas in Websites.

This module renders the linkable areas for custom shape hotspots in websites. Here the basic html and objects for events are got from SkavaSTREAM API. The website which was designed in the SkavaSTUDIO is rendered with the help of those data. The main purpose of this module is to render

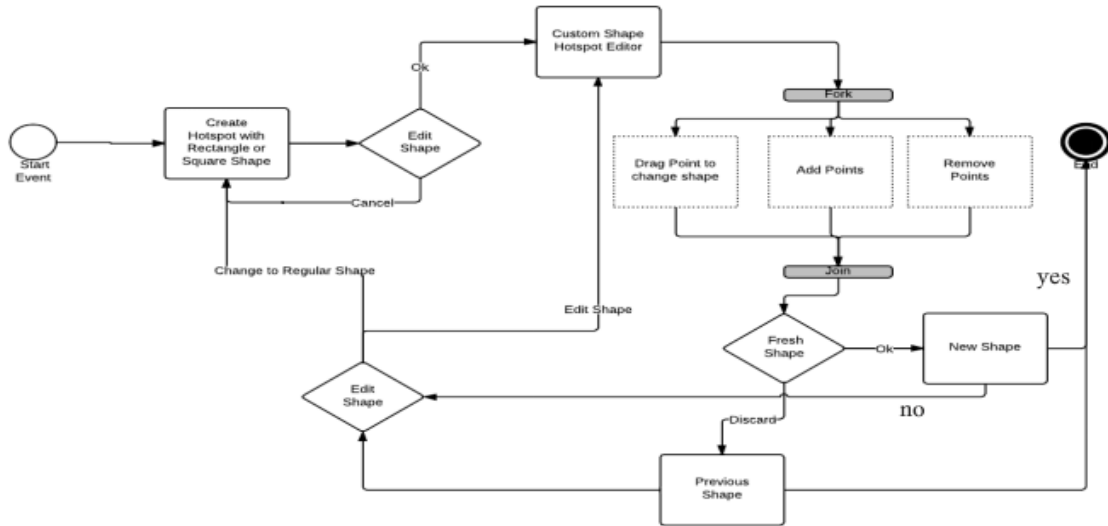
the linkable areas with the objects which are got from SkavaSTREAMAPI.

Regular Hotspot in the shape of rectangle or square having four co-ordinates (i.e Top, Left, Right, Bottom position). For irregular shaped is not like that, need to apply business logic.

VIII. COMPLEXITY INVOLVED

Normally, Hotspot can be achieved by calculating area.

Fig 2: Creating Custom Hotspot



IX CONCLUSION AND FUTURE ENHANCEMENT

So far it is ‘only’ possible to add Rectangle and Squares. For many applications it would be useful to add free hand shapes. Custom shaped hotspot is intending to use it, for example to map regions in satellite image. Dynamic hotspot can achieve to the next level.

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