

# GEOAddres: An environment integrated with the company process.

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## **Project**

This project proposed the implementation of a corporation system for address management, named GEOAddress. It is integrated with other systems to management of customers and electric networks, and is supported by the street centerline and cartographic feature classes.

It was designed with integration to three systems: SAP Customer Care and Service (CCS), using the XI broker of SAP, Operation and Dispatch System and Cadastre/Designer (GIS/Designer), using web services and ESRI replication technology.

The cadastre and queries environment is available on the intranet, through web services and ArcGIS Server technology. This strategy was elaborated for optimization and dissemination of the spatial information through a unique GIS data source, to support business and technical processes of the company.

For quality assurance of the cadastre and updating process of the addresses, and to avoid inconsistent data insertion, business rules were implemented to make verification between dependents systems.

## Past

For fifteen year the company used the system based on main frame for register, update and control of the your assets.

After 2000, the company change the technical systems on main frame for ESRI platform connected with tools Miner & Miner for Electricity.  
Then born the GIS for Cadastre.

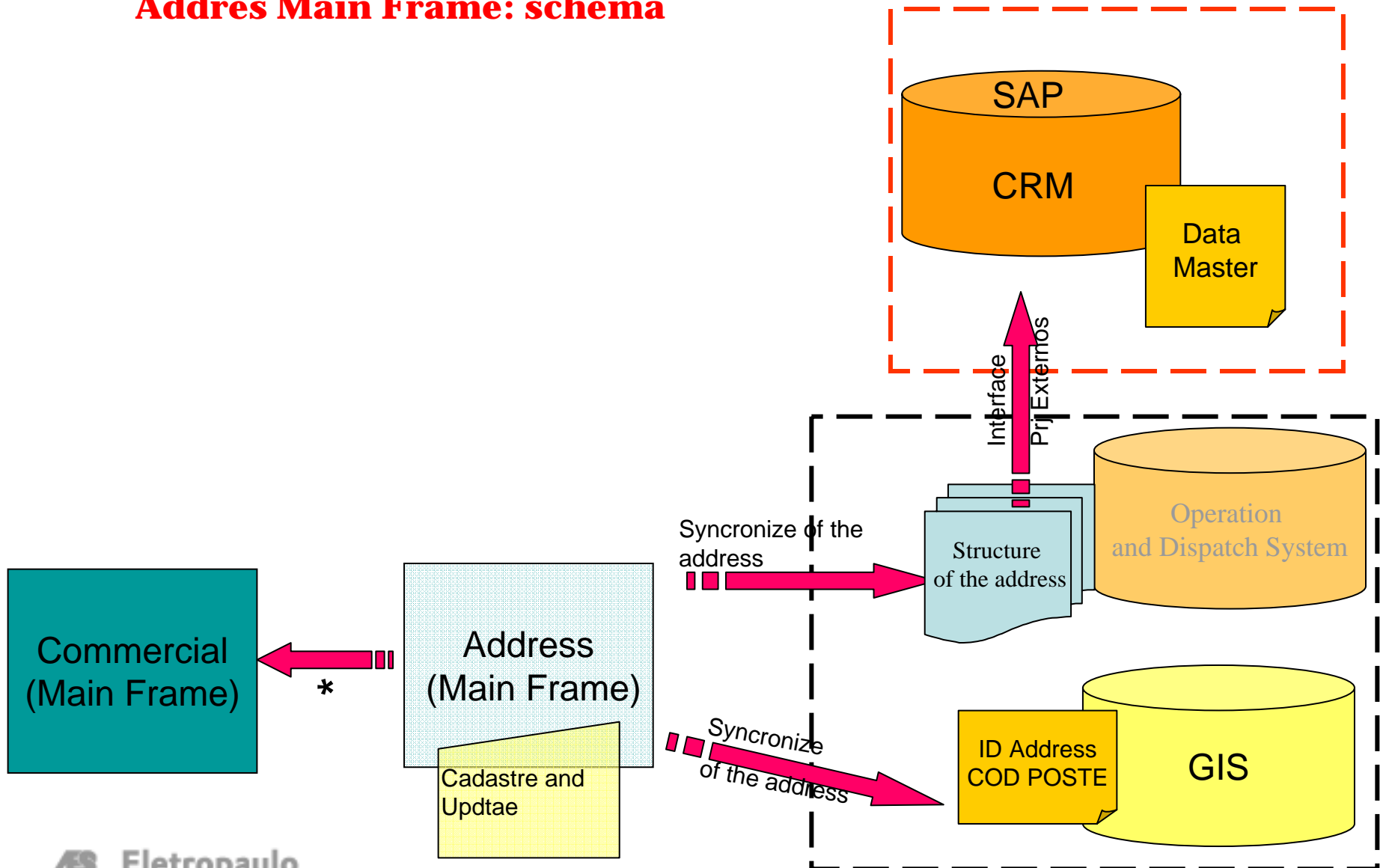
In 2006, the company worked for implementation the tool for designer.

But, users continued creating and updating register of the address inside de main frame.

This fact was due to GIS don't have the rules for cadastre and updating for street centerline. And, GIS don't have all tables for relationships (City, District, segments of the address etc).

Then, the users needed to use two technical environments for maintenance the business of the company (GIS and Address Main Frame).

# Address Main Frame: schema



# Cadastre on Main Frame

Sessão B - [24 x 80]

Arquivo Editar Transferir Aparência Comunicação Assistência Janela Auxílio

Inpr. Tela Copiar Colar Enviar Receber Monitor Cor Mapa Registro Encerrar Play Sair Área Transf. Suporte

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ELETROPAULO LG - SISTEMA DE LOGRADOUROS 23/06/2008
M533479 17:30:39
S.I.D. CONSULTA --> LOGRADOURO LG120000
-----
LOGRADOURO.....: 456977 LOGRADOURO POSTE...: 6880 CEP...: 4547 - 100
TIPO.....: R MUNICIPIO.....: 000 - SAO PAULO
TITULO.....: LOCALIDADE COML...: 453 - JARDIM PAULISTA
NOME.....: LOURENCO MARQUES
ATIVADO.....: SIM INCLUIDO/ALTERADO POR.: M198092
NOME LOGRADOURO.: (REFERENCIA INICIAL)
NUM. DO IMOVEL...: (REFERENCIA INICIAL)
NOME LOGRADOURO.: (REFERENCIA FINAL)
NUM. DO IMOVEL...: (REFERENCIA FINAL)
NUM. DA PLANTA...: 3280 - 3890
BAIRRO.....: 9954 - VL OLIMPIA
TIPO ANTERIOR.:
TITULO ANTERIOR.:
NOME ANTERIOR.:
OBSERVACOES.....: PAG GUIA: 206-T-06
-----
<MENSAGEM>
-----
MA b 01/001
  
```

01/001

Aparência Comunicação Assistência Janela Auxílio

Color Enviar Receber Monitor Cor Mapa Registro Encerrar Play Sair Área Transf. Suporte

```

ELETROPAULO LG - SISTEMA DE LOGRADOUROS 23/06/2008
M533479 17:32:54
S.I.D. SEGMENTOS DE UM LOGRADOURO LG250000
-----
456977 - R LOURENCO MARQUES
-----
SEGM. LADO INICIO FIM CEP POSTE BAIRRO MUNICIPIO
-----
1 M 1 99999 04547 6880 VL OLIMPIA SAO PAULO
-----
'I' - VOLTA AO INICIO 'V' - VOLTA PAGINA 'M' - VOLTA AO MENU
FINAL... SELECCIONE OPCAO: _
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MA b 23/073
  
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23/073

## **Project's Proposal**

### **Data Model**

From the feature class street centerline was elaborated the data model that have reciprocity with main frame's data model.

This is necessary because all data contained inside address main frame were migrated for GEOAddress.

### **User Interface**

User interface was projected to GIS environment.

This form the users view the spatial information by street centerline and the attributes available inside de related tables.

For cadastre and update data, GEOAddress had form for fill by users, however with business rules.

# Project's Proposal

## Interface with other Systems

GIS interface uses the two ways:

1. Integration with wire devices that they use the address information by auto updaters.
2. Replication street centerline data for view inside de GIS.

### Operation and Dispatch System

This case was projected an interface to send files with de registers from GEOAddres to database of the Operation and Dispatch System.

### SAP (CRM)

An store procedure was projected to send register from GEOAddres to database of the CRM by XI.

# GEOAddress

The screenshot displays the ELETROPAULO software interface. At the top, there is a menu bar with options: Arquivo, Editar, Exibir, Favoritos, Ferramentas, Ajuda. Below the menu is a toolbar with various icons for navigation and editing. The main window is titled "Editar Logradouro" and is divided into two main sections: "LOGRADOURO" and "SEGMENTOS".

**LOGRADOURO**

- Tipo Logradouro: RUA
- Titulo Logradouro: [Empty]
- Nome: LOURENCO MARQUES
- Nome Público: [Empty]
- Código LG MainFrame: 456977
- Situação: Oficial
- COD LOG: 501773
- Observação: PAG GUIA: 206-T-06

**SEGMENTOS**

- Bairro: VILA OLIMPIA
- SubBairro: 1311
- Localidade Comercial: 453
- Localidade Técnica: 251
- Número Inicial: 0
- Número Final: 42

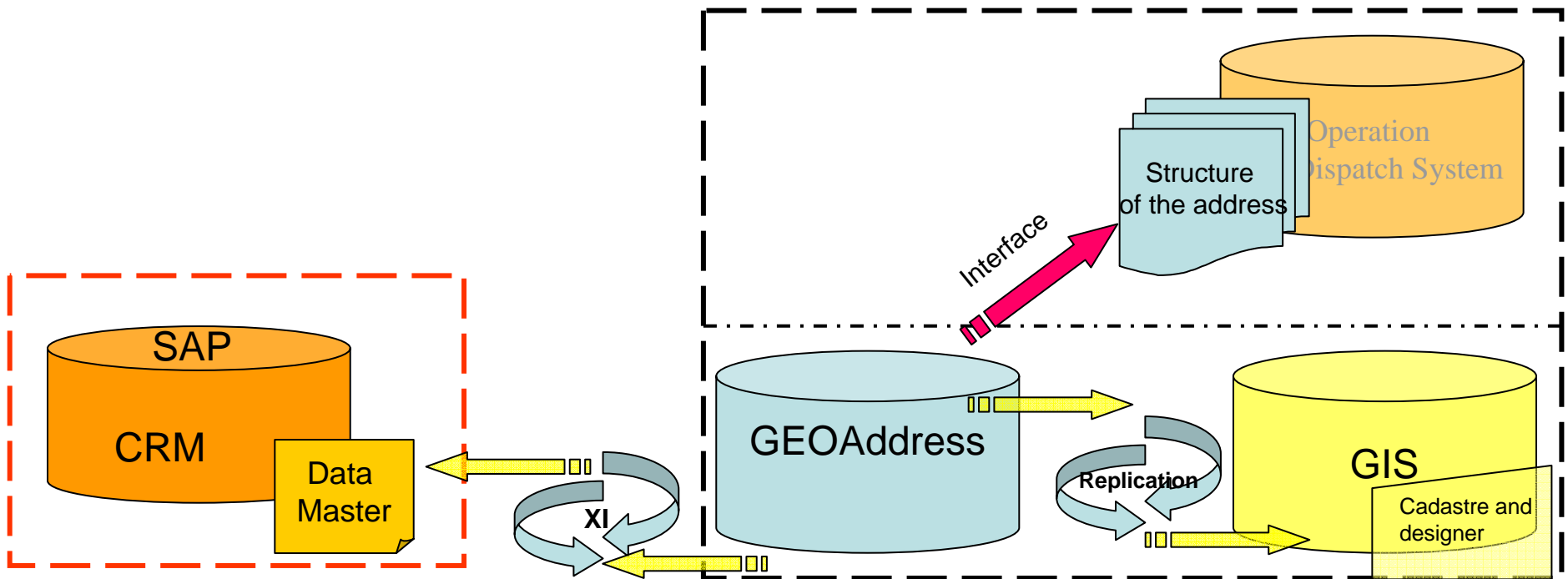
The map on the right shows a grid of streets with a red line indicating the selected segment. The street names visible include R SENEGAMBIA, R HELENA, R ROCIO, R CHILON, R ELVIRA FERRAZ, R FIANDEIRAS, R JUSTINA, R OLIMPIADAS, R VICENTE PIZON, R CASA DO ATOR, R QUATA, R NOVA CIDADE, AV HELIO PELLEGRINO, R ROSA GAETA LAZARA, R TENERIFE, R BRAMANTINO, R GOMES DE CARVALHO, AV CARDOSO DE MELO, R BUGIO, R ALVORADA, R RIBEIRO CLARO, R VAHA DE ABREU, R GUARANIUVA, R ROSA GAETA LAZARA, R ASA BERRI, R SOBERANA, R CAPIMIRIM, R BREJO ALEGRE, R RIBITONGA, R R CARNEIMA, R VERONICA, R CASCAIS, R GUARAPUVA, R TEXAS, R RIBEIRO DO VALE, R VERDE, R BALLARTE, R BALTINGA, R IRAUNA, R MARTINS, R QUINTANA, R GUARARAPES, R FURNAS, R GRAFECICA, R TOMÉ, R FIDENCIO RAMOS, R OLIMPIADAS, R CHILON, R ELVIRA FERRAZ, R FIANDEIRAS, R JUSTINA, R QUATA, R NOVA CIDADE, AV HELIO PELLEGRINO, R ROSA GAETA LAZARA, R TENERIFE, R BRAMANTINO, R GOMES DE CARVALHO, AV CARDOSO DE MELO, R BUGIO, R ALVORADA, R RIBEIRO CLARO, R VAHA DE ABREU, R GUARANIUVA, R ROSA GAETA LAZARA, R ASA BERRI, R SOBERANA, R CAPIMIRIM, R BREJO ALEGRE, R RIBITONGA, R R CARNEIMA, R VERONICA, R CASCAIS, R GUARAPUVA, R TEXAS, R RIBEIRO DO VALE, R VERDE, R BALLARTE, R BALTINGA, R IRAUNA.

At the bottom right, there is a vertical sidebar with the following labels: LOGRADOURO, MUNICIPIO, BAIRRO, DISTRITO, LOCALIDADE TÉCNICA, LOCALIDADE COMERCIAL, RELATORIOS.

At the top right of the map area, there is a welcome message: Bem-vindo [a] m198901 ao ambiente GEOLogradouro Perfil: cadastrador.



# GEOAddress: schema



## **Technologies involved**

- ARC GIS Server
- SDE Replication
- JBOSS
- XI
- Program language: JAVA

## Products

- Tools for cadastre and update of the geo-address.
- Tools for view and select of the address and wire devices.
- Integrations:
  - GIS
  - Operation and Dispatch System
  - SAP (CRM).

## Profits

- Integrated Systems
  - GIS by SDE Replication and rules connections;
  - SAP by XI;
  - Operation and Dispatch System by rules connections.
- Adaptation the same match coding used on SAP, Operation and Dispatch System and GIS.
- Environment by WEB
  - All users have access for information inside of company;
  - Update for cadastre has more completed: street centerline with attributes.
  - The update by web, then the information for user is update faster.