



# 3º SEMINÁRIO NACIONAL DE DESAPROPRIAÇÃO E REASSENTAMENTO

2023



# Sistemas

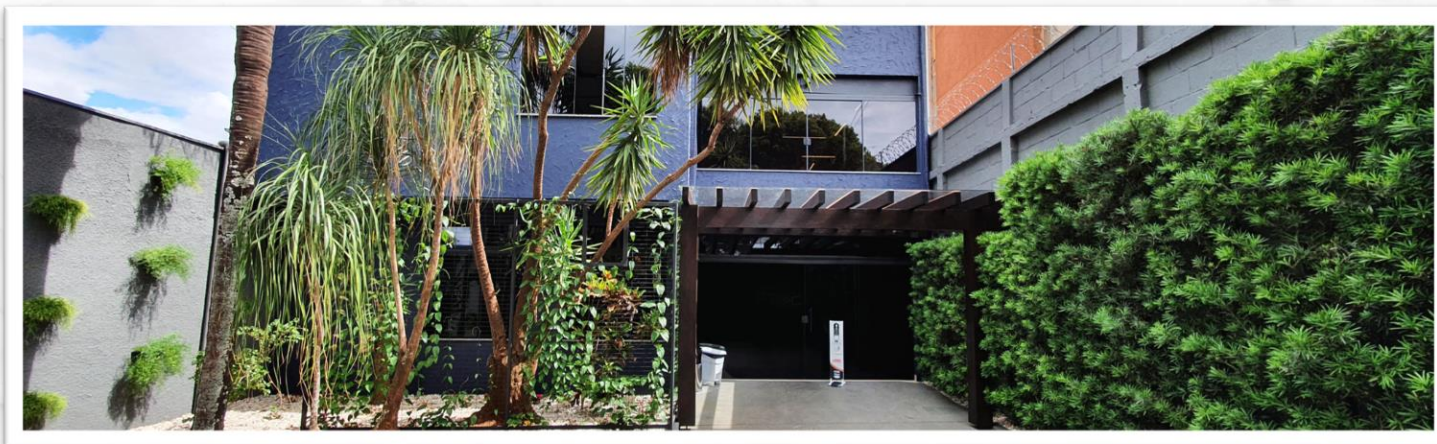


**engemap**  
ENGENHARIA E AEROLEVANTAMENTO



# Quem SOMOS?

Com ideias e tecnologias inovadoras a mais de **34 anos** a Engemap oferece ao Brasil e toda América Latina, serviços de **engenharia, mapeamento e aerolevanteamento**, contando com uma infraestrutura completa estrategicamente distribuída pelo país, sendo operada e dirigida por **profissionais altamente qualificados e especializados** em fazer o seu negócio ganhar novos caminhos.



# UNIDADES

ASSIS



BRASÍLIA



SÃO PAULO

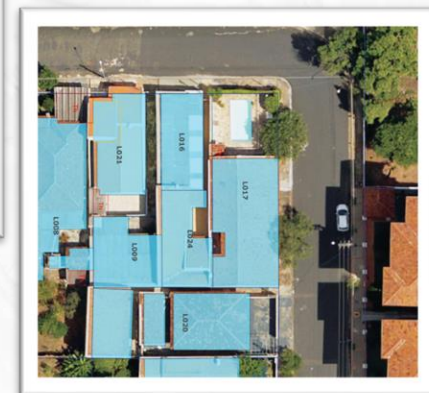
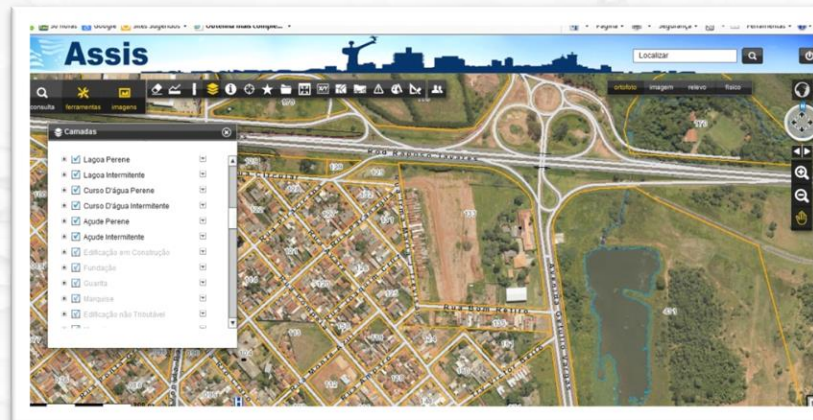




# Principais Serviços

## Aquisições, Integrações e Cadastros

- Aquisições de dados Remotos (**Tripulados e Não Tripulados**)
- Aquisições de dados Terrestres (**Topografia e MMT**)
- Cadastros
- Integração de **Sensores Aerofotogramétricos e LiDAR** Aéreos e Terrestres
- Desenvolvimento e Implantação de **SIG** (Sistemas de Informações Geográficas)



# Principais Serviços

## Engenharia e Infraestrutura

- Gerenciamento
  - Supervisão
  - Elaboração de projetos
  - Assessoramento técnico
  - Estudos de traçados de rodovias e ferrovias
  - Fiscalização de Operação Rodoviária
- Estudos geotécnicos
  - Ensaios laboratoriais de solos e pavimentos
  - Cadastro técnico nas áreas de infraestrutura e saneamento
  - Cadastro e desapropriação de faixas de domínio
  - Gerenciamento de obras de artes especiais
  - Implementação do conceito BIM na infraestrutura transportes
  - Avaliação Funcional das Rodovias Funcionais



## Levantamentos e Desenvolvimento de Sistemas para Gestão de Ativos e Passivos de Rodovias

- Elaboração e atualização de **Inventário Rodoviário**
- **Vídeo Registro 360** com sistema de precisão
- Recobrimento **Aerofotogramétrico e Laser** para Corredores
- Levantamento **Planialtimétrico**
- **Monitoramento** de Faixas de Domínio
- Criação de **Banco de Dados SIG**
- Desenvolvimento e Implantação de **Sistemas SIG**





# SISTEMA DE AQUISIÇÃO

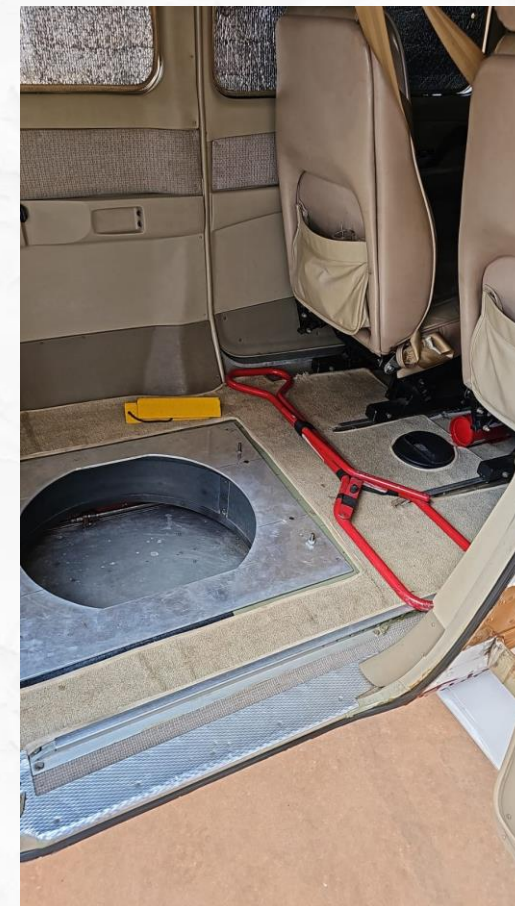
## Aeronaves





# SISTEMA DE AQUISIÇÃO

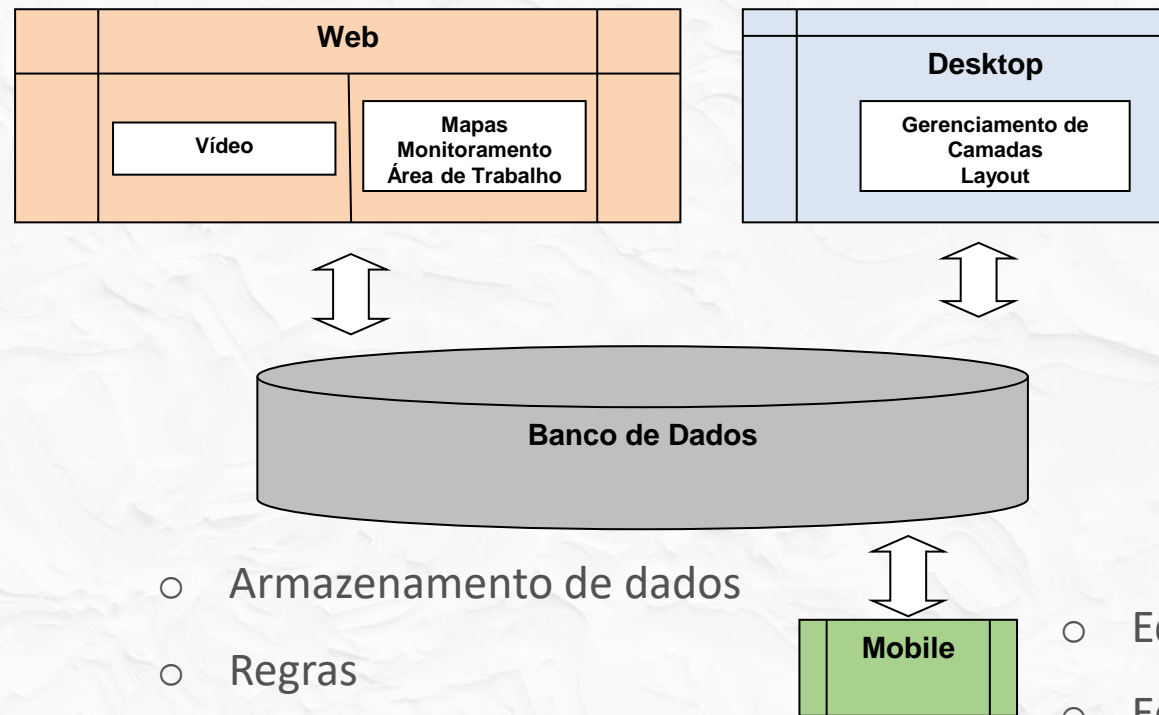
## Sistemas



# SISTEMA WEB ENGEMAP

## Arquitetura Básica

- Gerenciamento de Usuários
- Visualização de Mapas
- Área de Trabalho
- Vídeo 360 (histórico de coletas)



- Importação/Exportação de dados
- Ferramentas de Processamento
- Simbologias

- Armazenamento de dados
- Regras

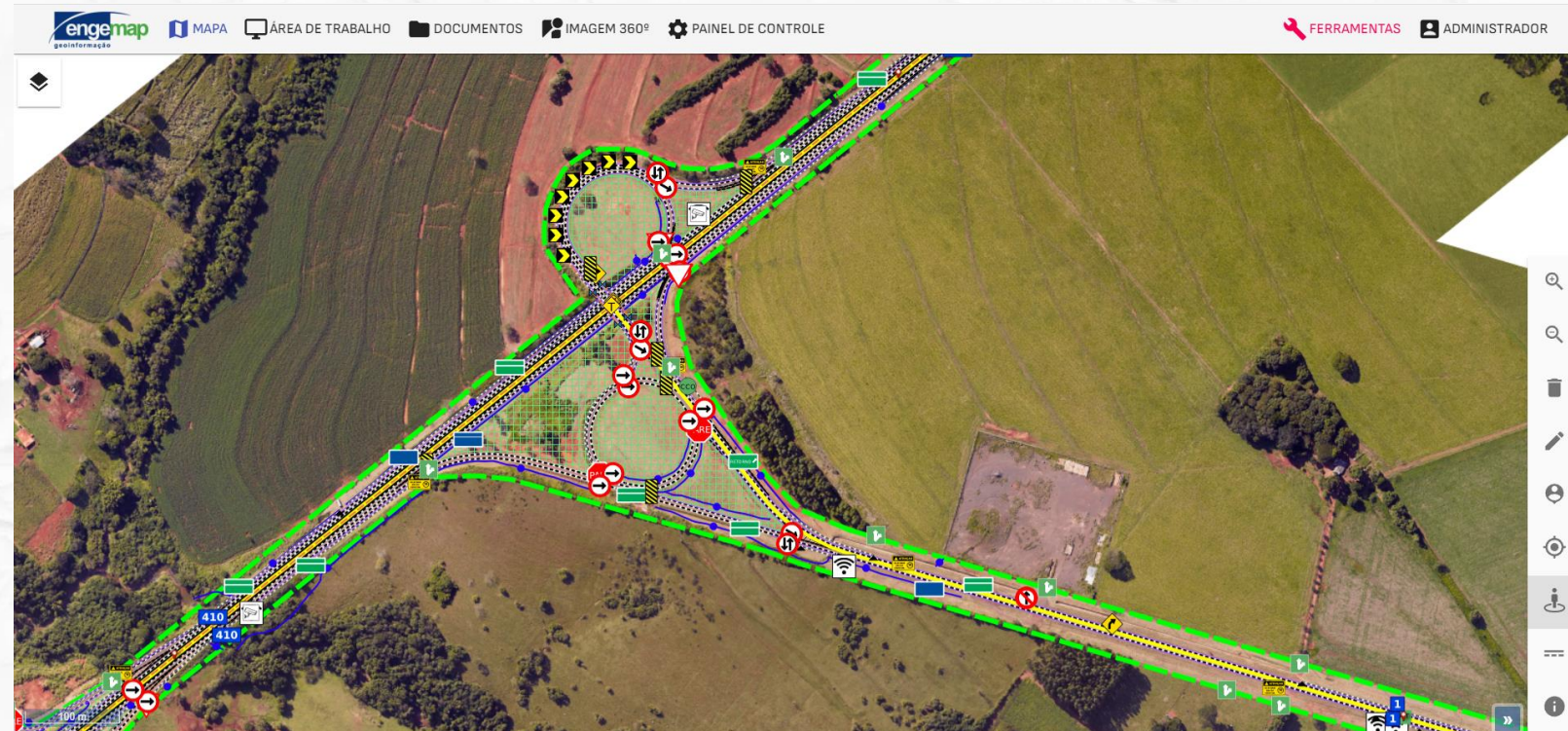
- Edição em tempo Real
- Edição off-line



# SISTEMA WEB ENGEMAP

## Características

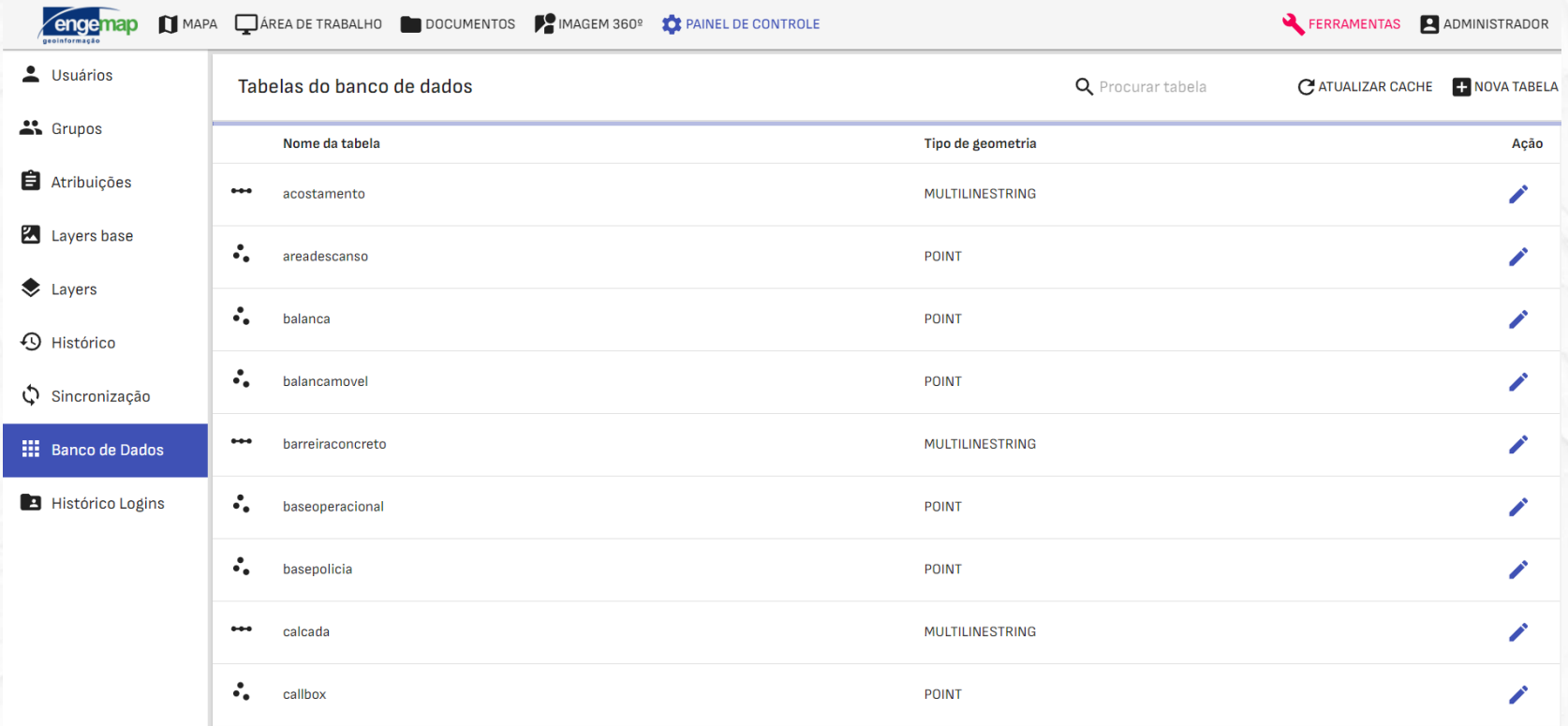
- Desenvolvido com tecnologia de Software Livre
- Aderente aos Padrões OGC (Padrões Open Geospatial Consortium)
- Rápida Navegação
- Fácil Navegabilidade
- Escalabilidade
- integrabilidade



# SISTEMA WEB ENGEMAP

## Painel de Controle

- Gestão de Usuários
- Perfis de Grupos
- Visualização de layers Externos
- Histórico de Atividades
- Gestão de Banco de Dados
- Histórico de Logins



The screenshot displays the Engemap web application interface. At the top, there is a navigation bar with the Engemap logo and several utility icons: MAPA, ÁREA DE TRABALHO, DOCUMENTOS, IMAGEM 360°, and PAINEL DE CONTROLE. On the right side of the navigation bar, there are links for FERRAMENTAS and ADMINISTRADOR.

The main content area is titled 'Tabelas do banco de dados' (Database Tables). It features a search bar labeled 'Procurar tabela' and two action buttons: 'ATUALIZAR CACHE' and 'NOVA TABELA'. Below this is a table listing the database tables with their names, geometry types, and action icons.

Nome da tabela	Tipo de geometria	Ação
acostamento	MULTILINESTRING	
areadescanso	POINT	
balanca	POINT	
balancamovel	POINT	
barreiraconcreto	MULTILINESTRING	
baseoperacional	POINT	
basepolícia	POINT	
calcada	MULTILINESTRING	
callbox	POINT	



# SISTEMA WEB ENGEMAP

## Mapa

The screenshot displays the Engemap web application interface. At the top, there is a navigation bar with the Engemap logo and several menu items: MAPA, ÁREA DE TRABALHO, DOCUMENTOS, IMAGEM 360°, and PAINEL DE CONTROLE. On the right side of the navigation bar, there are links for FERRAMENTAS and ADMINISTRADOR.

On the left side, there is a sidebar titled "Layers disponíveis" (Available Layers) with a search bar. The sidebar lists several layers with their respective icons and symbols:

- Balança
- Balança Móvel
- Barreira de Concreto
- Base Operacional
- Base Polícia
- Calçada
- Callbox
- Canteiro Gramado
- CCO
- CFTV

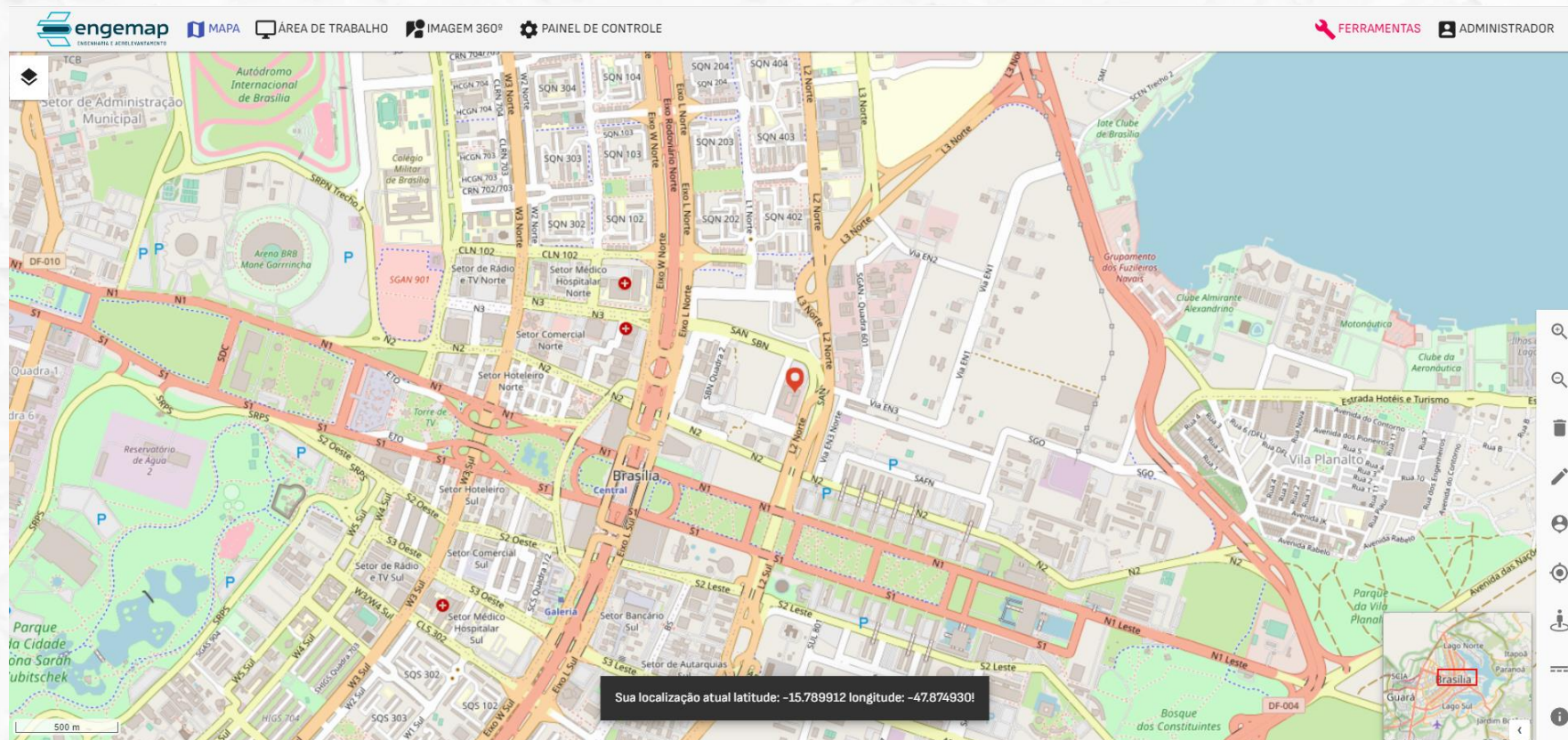
The main map area shows an aerial view of a road construction site. The map is overlaid with various engineering layers, including road boundaries, construction areas, and safety zones. The map is zoomed in on a specific area, showing a road with a curve and several construction elements. The map interface includes standard navigation controls like zoom in/out, pan, and a search bar on the right side.



# SISTEMA WEB ENGEMAP

## Ferramentas

☐ Pré-localização no Mapa





# SISTEMA WEB ENGEMAP

## Ferramentas

Edição Gráfica na Web

The screenshot displays the Engemap web application interface. At the top, there is a navigation bar with the Engemap logo and several menu items: MAPA, ÁREA DE TRABALHO, IMAGEM 360º, and PAINEL DE CONTROLE. On the right side of the navigation bar, there are links for FERRAMENTAS and ADMINISTRADOR. The main area shows an aerial map of Rio Brilhante with various colored overlays representing different layers. A scale bar at the bottom left indicates 100 meters. On the right side, there is a vertical toolbar with icons for search, zoom, and other map functions. A dropdown menu titled 'Editor de geometria' is open, showing a list of layers to select: Seleccione uma layer, Benfeitorias não Reprodutivas, Cercas, Eixo existente, Faixa de Domínio Proposta, IBGE Brasil, IBGE Limites Centro-Oeste, IBGE Limites Norte, km, Limite Municipal, LIRL - INCRA, Muros, PA 01 DNIT MS RODOVIAS, and Quadras.

# SISTEMA WEB ENGEMAP

## Ferramentas

☐ Informações rápidas



Infoclick	
Layer	Qtde.
Limite Municipal	1
IBGE Brasil	1
IBGE Limites Centro-Oeste	1
Eixo existente	1
Faixa de Domínio Proposta	1



# SISTEMA WEB ENGEMAP

## Área de Trabalho

Busca

engemap geoinformação MAPA ÁREA DE TRABALHO DOCUMENTOS IMAGEM 360º PAINEL DE CONTROLE FERRAMENTAS ADMINISTRADOR

BUSCA x

Layer Acostamento

SINCRONIZAR VER NO MAPA RELATÓRIO BUSCAR

FILTROS RESULTADOS (1077)

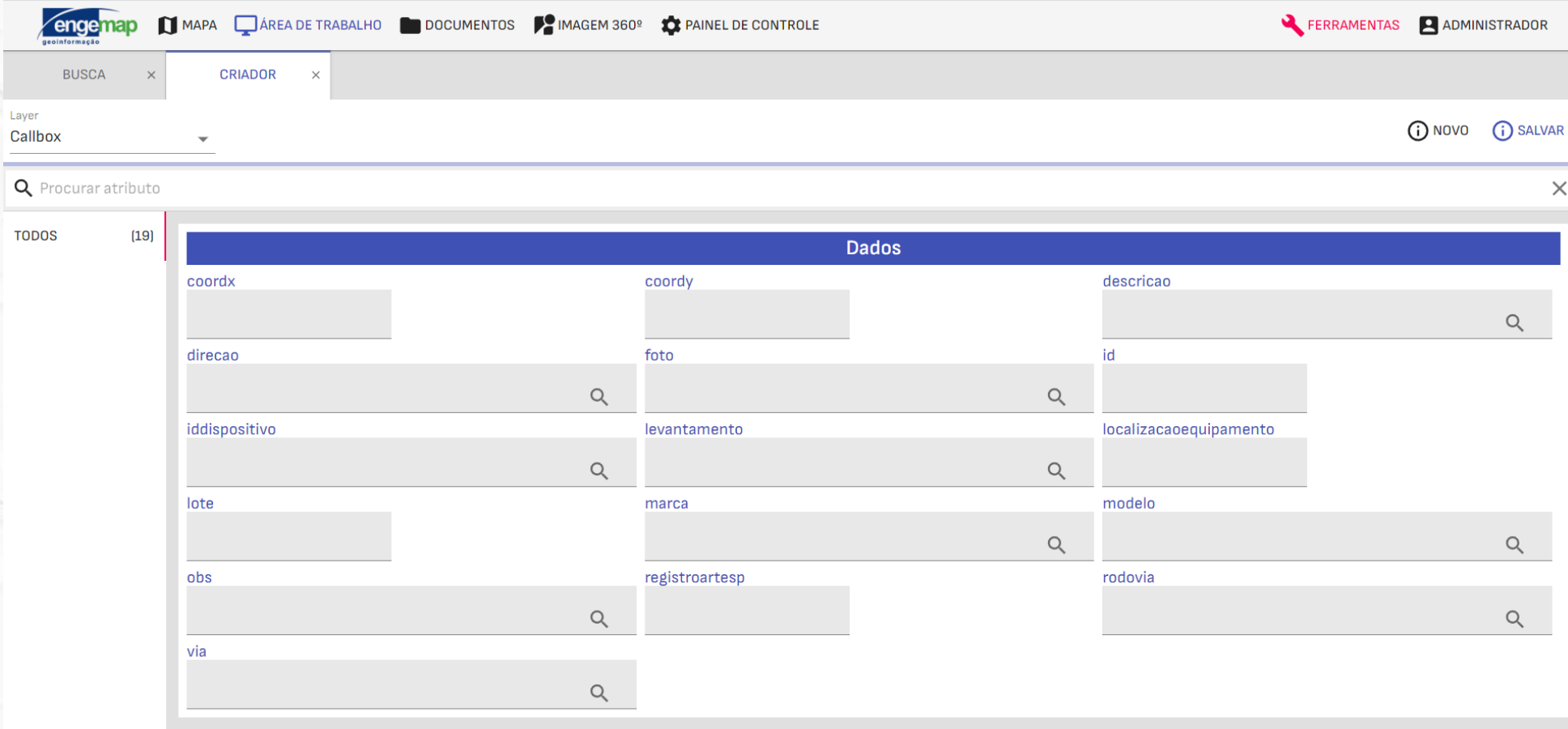
<input type="checkbox"/>	id	codativo	lote	rodovia	descricao	direcao	medidainicial	medidafinal	extensao	largura	municipio	obs	foto
<input type="checkbox"/>	369	0				0	434.12	435.39	1.27	2.5			C:\Users\and
<input type="checkbox"/>	370	0				L	436.11	437.95	1.84	2.5			C:\Users\and
<input type="checkbox"/>	371	0				L	439.32	440.77	1.44	2.5			C:\Users\and
<input type="checkbox"/>	372	0				0	322.68	323.32	0.66	2.5			C:\Users\and
<input type="checkbox"/>	373	0				0	321.87	322.07	0.21	2.5			C:\Users\and
<input type="checkbox"/>	374	0				0	319.5	321.77	2.28	2.5			C:\Users\and
<input type="checkbox"/>	375	0				L	318.05	318.56	0.52	2.4			C:\Users\and
<input type="checkbox"/>	376	0				0	436.86	437.97	1.11	2.5			C:\Users\and
<input type="checkbox"/>	377	0				L	435.61	435.95	0.35	3			C:\Users\and

Linhas por página 20 1-20 de 1077

# SISTEMA WEB ENGEMAP

## Área de Trabalho

- Adição de novos elementos



The screenshot displays the 'ÁREA DE TRABALHO' (Work Area) of the Engemap system. The interface includes a top navigation bar with options like 'MAPA', 'ÁREA DE TRABALHO', 'DOCUMENTOS', 'IMAGEM 360°', and 'PAINEL DE CONTROLE'. Below this, there are tabs for 'BUSCA' and 'CRIADOR'. A 'Layer' dropdown menu is set to 'Callbox'. A search bar labeled 'Procurar atributo' is present. The main content area shows a list of attributes for a selected layer, with a 'Dados' header. The attributes are organized in a grid:

Dados		
coordx	coordy	descricao
direcao	foto	id
iddispositivo	levantamento	localizacaoequipamento
lote	marca	modelo
obs	registroartesp	rodovia
via		



# SISTEMA WEB ENGEMAP

## Área de Trabalho

### Auditoria

engemap geoinformação | MAPA | ÁREA DE TRABALHO | DOCUMENTOS | IMAGEM 360° | PAINEL DE CONTROLE

FERRAMENTAS | ADMINISTRADOR

BUSCA x CRIADOR x AUDITOR x

FILTROS | RESULTADOS (5603)

Q BUSCAR

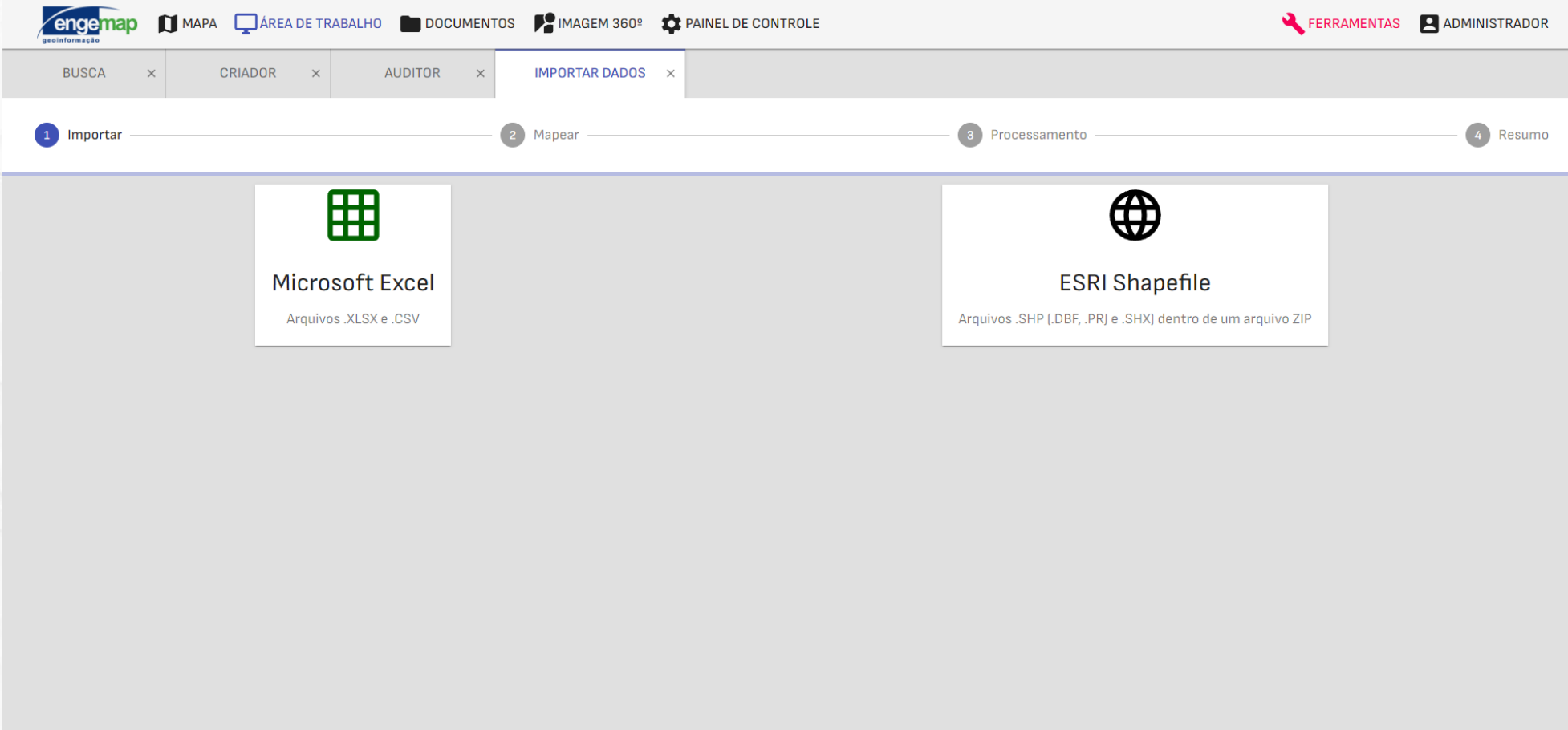
Registro	Layer	Id	Usuário	Data ↓	Ação	IP	Porta	Aplicação
337168	Defensas Metálicas	3285	administrador	14/05/2021 16:51:37	Inserção	127.0.0.1	33658	WebGisServer
309754	Defensas Metálicas	1082	postgres	16/03/2020 15:58:55	Atualização	10.14.90.245	54770	pgAdmin 4 - CONN:9946994
309753	Defensas Metálicas	1080	postgres	16/03/2020 15:58:55	Atualização	10.14.90.245	54770	pgAdmin 4 - CONN:9946994
309752	Defensas Metálicas	1079	postgres	16/03/2020 15:58:55	Atualização	10.14.90.245	54770	pgAdmin 4 - CONN:9946994
309751	Defensas Metálicas	1078	postgres	16/03/2020 15:58:55	Atualização	10.14.90.245	54770	pgAdmin 4 - CONN:9946994
309750	Defensas Metálicas	1077	postgres	16/03/2020 15:58:55	Atualização	10.14.90.245	54770	pgAdmin 4 - CONN:9946994
309749	Defensas Metálicas	1076	postgres	16/03/2020 15:58:55	Atualização	10.14.90.245	54770	pgAdmin 4 - CONN:9946994
309748	Defensas Metálicas	1075	postgres	16/03/2020 15:58:55	Atualização	10.14.90.245	54770	pgAdmin 4 - CONN:9946994
309747	Defensas Metálicas	1074	postgres	16/03/2020 15:58:55	Atualização	10.14.90.245	54770	pgAdmin 4 - CONN:9946994
309746	Defensas Metálicas	1073	postgres	16/03/2020 15:58:55	Atualização	10.14.90.245	54770	pgAdmin 4 - CONN:9946994

Linhas por página 20 | 1-20 de 5603

# SISTEMA WEB ENGEMAP

## Área de Trabalho

### Importações de Dados



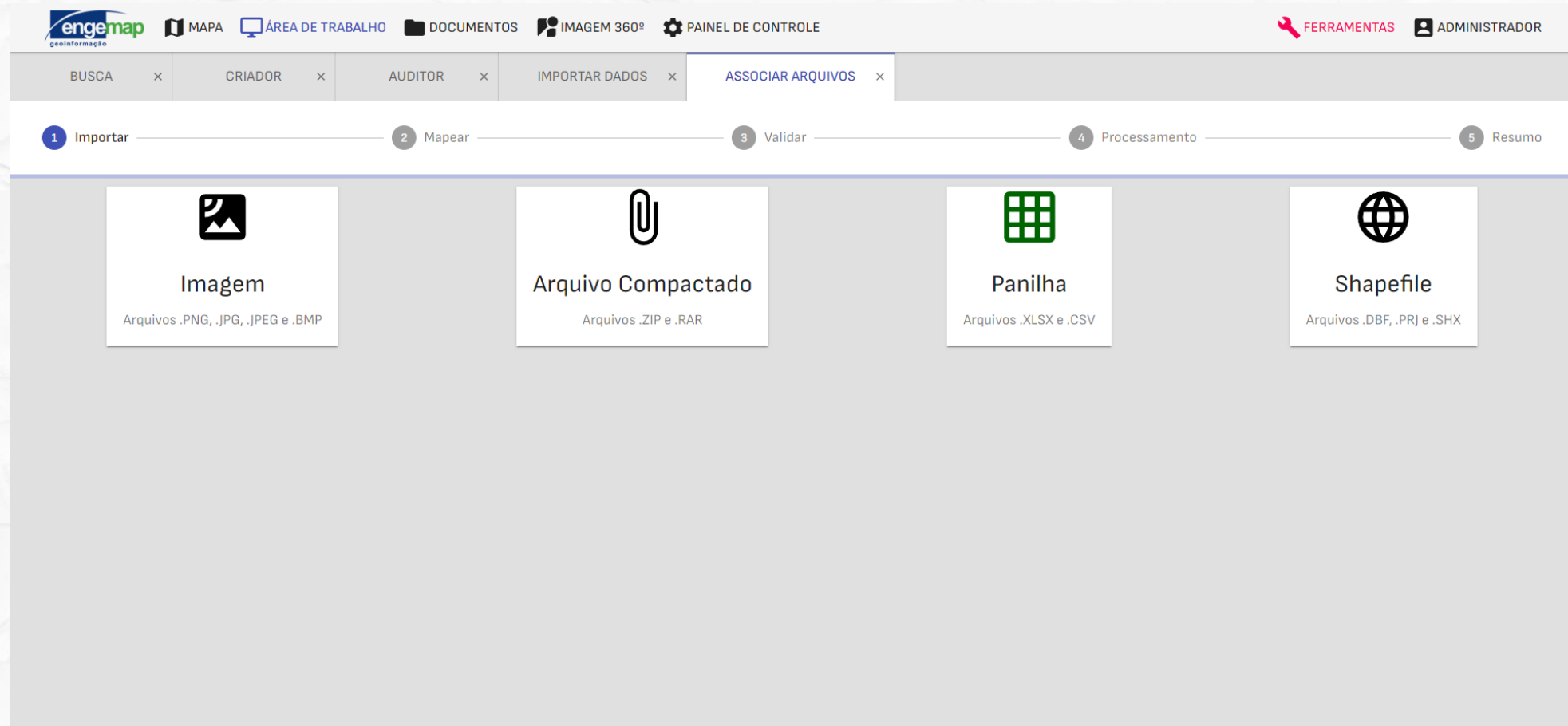
The screenshot displays the Engemap web application interface. At the top, there is a navigation bar with the Engemap logo and several menu items: MAPA, ÁREA DE TRABALHO, DOCUMENTOS, IMAGEM 360°, and PAINEL DE CONTROLE. On the right side of the navigation bar, there are links for FERRAMENTAS and ADMINISTRADOR. Below the navigation bar, there is a breadcrumb trail: BUSCA > CRIADOR > AUDITOR > IMPORTAR DADOS. A progress indicator shows four steps: 1 Importar, 2 Mapear, 3 Processamento, and 4 Resumo. The main content area is divided into two columns. The left column features a green grid icon and the text 'Microsoft Excel' with the note 'Arquivos .XLSX e .CSV'. The right column features a globe icon and the text 'ESRI Shapefile' with the note 'Arquivos .SHP (.DBF, .PRJ e .SHX) dentro de um arquivo ZIP'.



# SISTEMA WEB ENGEMAP

## Área de Trabalho

### Associação de Arquivos



The screenshot displays the Engemap web application interface. At the top, there is a navigation bar with the Engemap logo and several menu items: MAPA, ÁREA DE TRABALHO, DOCUMENTOS, IMAGEM 360º, and PAINEL DE CONTROLE. On the right side of the navigation bar, there are links for FERRAMENTAS and ADMINISTRADOR. Below the navigation bar, there is a breadcrumb trail: BUSCA > CRIADOR > AUDITOR > IMPORTAR DADOS > ASSOCIAR ARQUIVOS. A progress bar below the breadcrumb trail shows five steps: 1 Importar, 2 Mapear, 3 Validar, 4 Processamento, and 5 Resumo. The main content area features four large, white, rounded rectangular buttons, each with an icon and text describing a file type and its supported formats:

- Imagem**: Represented by a mountain icon. Supported files: Arquivos .PNG, .JPG, .JPEG e .BMP.
- Arquivo Compactado**: Represented by a paperclip icon. Supported files: Arquivos .ZIP e .RAR.
- Panilha**: Represented by a grid icon. Supported files: Arquivos .XLSX e .CSV.
- Shapefile**: Represented by a globe icon. Supported files: Arquivos .DBF, .PRJ e .SHX.

# SISTEMA WEB ENGEMAP



## Área de Trabalho

### Relatórios



# SISTEMA WEB ENGEMAP



## Área de Trabalho

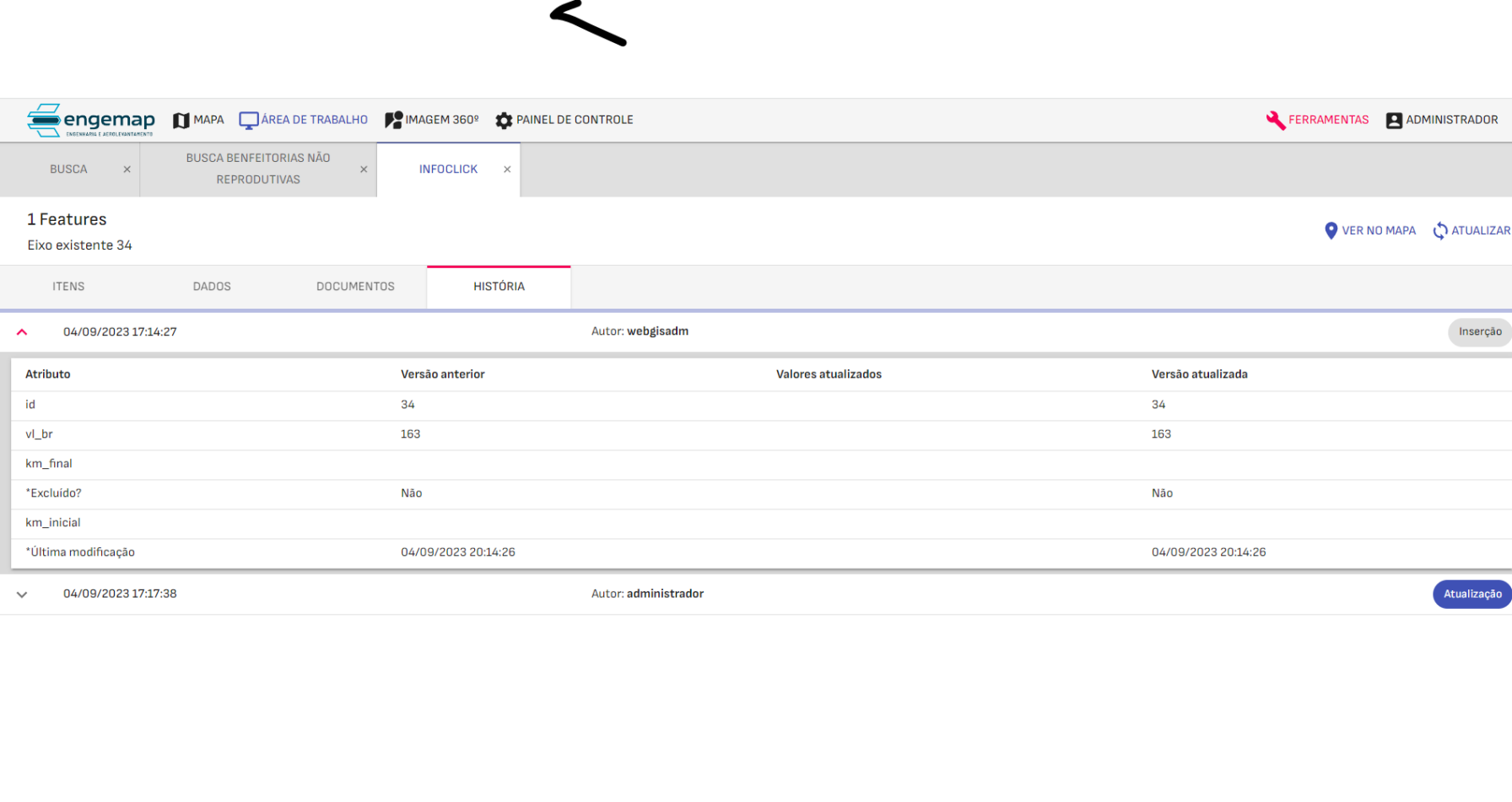
 Multitarefa

The screenshot displays the Engemap web application interface. At the top, there is a navigation bar with the Engemap logo and several menu items: MAPA, ÁREA DE TRABALHO, DOCUMENTOS, IMAGEM 360°, and PAINEL DE CONTROLE. On the right side of this bar are links for FERRAMENTAS and ADMINISTRADOR. Below the navigation bar is a row of tabs: BUSCA, CRIADOR, AUDITOR, IMPORTAR DADOS, ASSOCIAR ARQUIVOS, RELATÓRIO, and APROVAÇÕES. A 'Layer' dropdown menu is set to 'CCO'. To the right of the layer menu are buttons for SINCRONIZAR, VER NO MAPA, RELATÓRIO, and a search button labeled 'BUSCAR'. Below this is a section for 'FILTROS' and 'RESULTADOS (0)'. A 'Combinador' section shows a dropdown menu with 'E' selected and three icons: a plus sign, a list icon, and a trash can. The main workspace area is currently empty.

# SISTEMA WEB ENGEMAP

## Área de Trabalho

### Gestão de Histórico de Edições



The screenshot displays the Engemap web interface. At the top, there is a navigation bar with the Engemap logo and menu items: MAPA, ÁREA DE TRABALHO, IMAGEM 360°, and PAINEL DE CONTROLE. On the right side of the navigation bar, there are links for FERRAMENTAS and ADMINISTRADOR. Below the navigation bar, there are three tabs: BUSCA, BUSCA BENFEITORIAS NÃO REPRODUTIVAS, and INFOCLICK. The main content area shows '1 Features' and 'Eixo existente 34'. There are two buttons: 'VER NO MAPA' and 'ATUALIZAR'. Below this, there is a tabbed interface with 'ITENS', 'DADOS', 'DOCUMENTOS', and 'HISTÓRIA' tabs. The 'HISTÓRIA' tab is active, showing a table of edit history. The table has columns for 'Atributo', 'Versão anterior', 'Valores atualizados', and 'Versão atualizada'. There are two entries in the table, one for '04/09/2023 17:14:27' and another for '04/09/2023 17:17:38'. The first entry is expanded to show the details of the edit.

Atributo	Versão anterior	Valores atualizados	Versão atualizada
id	34		34
vl_br	163		163
km_final			
*Excluído?	Não		Não
km_inicial			
*Última modificação	04/09/2023 20:14:26		04/09/2023 20:14:26



# SISTEMA WEB ENGEMAP

## Monitoramento 360

2017



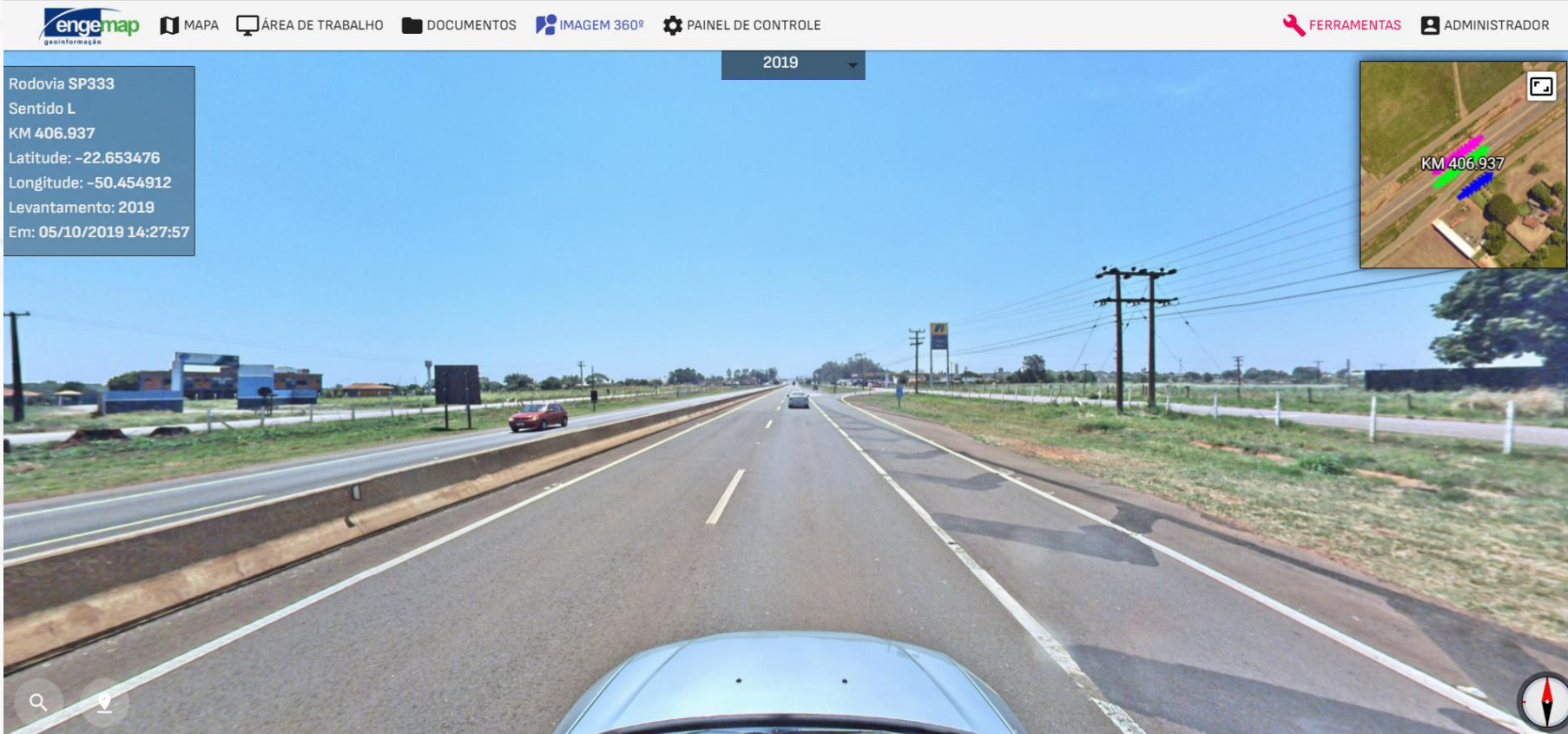
The screenshot displays the Engemap web interface. At the top, there is a navigation bar with the Engemap logo and several menu items: MAPA, ÁREA DE TRABALHO, DOCUMENTOS, IMAGEM 360°, and PAINEL DE CONTROLE. On the right side of the navigation bar, there are links for FERRAMENTAS and ADMINISTRADOR. Below the navigation bar, a dropdown menu shows the year 2017. On the left side of the main content area, there is a metadata box containing the following information: Rodovia SP333, Sentido L, KM 406.95, Latitude: -22.653467, Longitude: -50.454906, Levantamento: 2017, and Em: 06/10/2017 15:23:28. The main content area features a large 360-degree panoramic image of a road. In the top right corner of the panoramic view, there is a small inset map showing the location of the road with a green line and the label KM 406.950. At the bottom left of the panoramic view, there are search and location icons. At the bottom right, there is a compass icon.



# SISTEMA WEB ENGEMAP

## Monitoramento 360

2019



The screenshot displays the Engemap web application interface. At the top, there is a navigation bar with the Engemap logo and several menu items: MAPA, ÁREA DE TRABALHO, DOCUMENTOS, IMAGEM 360°, and PAINEL DE CONTROLE. On the right side of the navigation bar, there are links for FERRAMENTAS and ADMINISTRADOR. Below the navigation bar, a dropdown menu shows the year 2019. On the left side, a blue information box contains the following details: Rodovia SP333, Sentido L, KM 406.937, Latitude: -22.653476, Longitude: -50.454912, Levantamento: 2019, and Em: 05/10/2019 14:27:57. The main area of the interface shows a 360-degree panoramic view of a road, with a car visible in the distance. In the top right corner, there is a small inset map showing the location of the road. The bottom right corner features a compass icon.



# SISTEMA WEB ENGEMAP

## Monitoramento 360

2022



The screenshot displays the Engemap 360 web interface. At the top, there is a navigation bar with the Engemap logo and several menu items: MAPA, ÁREA DE TRABALHO, DOCUMENTOS, IMAGEM 360º, and PAINEL DE CONTROLE. On the right side of the navigation bar, there are links for FERRAMENTAS and ADMINISTRADOR. Below the navigation bar, a dropdown menu shows the year 2022. On the left side, a grey box contains the following information: Rodovia SP333, Sentido, KM 406.938, Latitude: -22.653492, Longitude: -50.454914, Levantamento: 2022, and Em: 05/09/2022 00:00:00. The main area of the interface shows a 360-degree panoramic view of a road. In the top right corner, there is a small inset map showing the current location on a road network, with a blue marker and the text 'KM 406.938'. At the bottom of the main view, there are search and location icons on the left and a compass icon on the right.

# SISTEMA WEB ENGEMAP



## Gestão de Documentos

enge map geoinformação | MAPA | ÁREA DE TRABALHO | DOCUMENTOS | IMAGEM 360° | PAINEL DE CONTROLE | FERRAMENTAS | ADMINISTRADOR

Raíz

+ NOVA PASTA | CARREGAR | ATUALIZAR

Teste	i	+
Teste 2	i	+
TP 099.2021-20_09_2021-	i	+



# SISTEMA WEB ENGEMAP

## Precisão Posicionamento

The screenshot displays the Engemap web interface. At the top, there is a navigation bar with the Engemap logo and menu items: MAPA, ÁREA DE TRABALHO, DOCUMENTOS, IMAGEM 360º, and PAINEL DE CONTROLE. On the right side of the navigation bar, there are links for FERRAMENTAS and ADMINISTRADOR. A date dropdown menu is set to 2022.

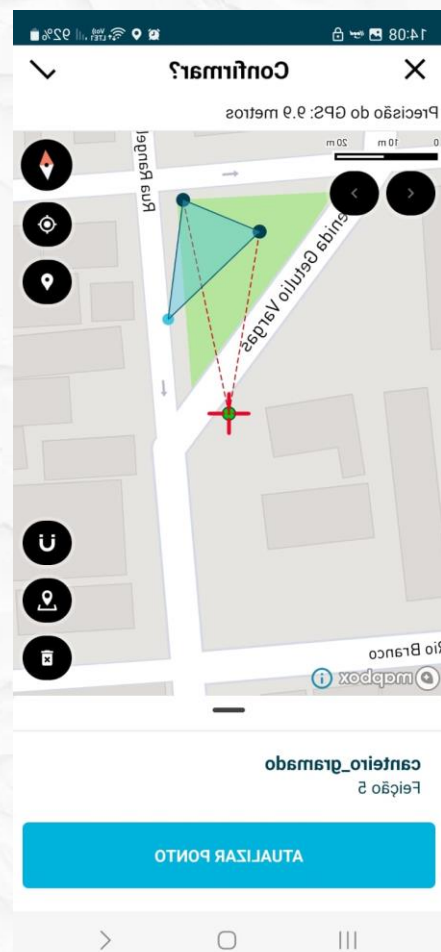
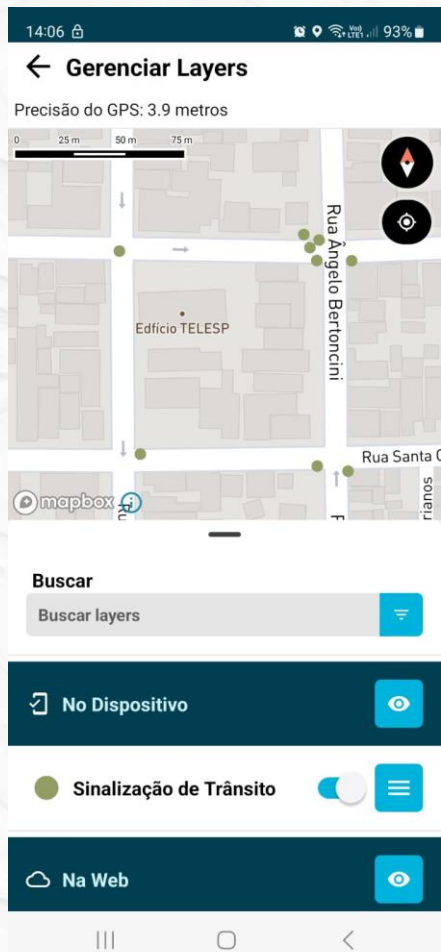
On the left, a 3D map view shows a road with yellow and white lane markings, flanked by green fields and a brown dirt area. A blue person icon is positioned on the road. A scale bar at the bottom left indicates 10m. A vertical toolbar on the right side of the map contains various icons for navigation and editing.

On the right, a 360-degree photo shows a landscape with a tall utility pole, trees, and a field. A small inset map in the top right corner of the photo shows the current location on a larger map, labeled KM 414.728.

A data panel on the left side of the photo provides the following information:  
Rodovia SP333  
Sentido  
KM 414.728  
Latitude: -22.697281  
Longitude: -50.514202  
Levantamento: 2022  
Em: 05/09/2022 00:00:00



# SISTEMA MOBILE ENGEMAP





# SISTEMA WEB DNIT

engemap ENGENHARIA E AEROLEVANTAMENTO MAPA ÁREA DE TRABALHO IMAGEM 360º PAINEL DE CONTROLE FERRAMENTAS ADMINISTRADOR

The screenshot displays a web-based map interface for DNIT. The map shows the outline of Brazil with several project areas highlighted in yellow and green. These areas are labeled with numbers: 419, 463, 487, 163, 267, and a series of 158s along the coast. The interface includes a top navigation bar with icons for 'engemap', 'MAPA', 'ÁREA DE TRABALHO', 'IMAGEM 360º', and 'PAINEL DE CONTROLE'. On the right side, there are icons for 'FERRAMENTAS' and 'ADMINISTRADOR'. A vertical toolbar on the right side of the map contains icons for search, zoom, pan, and other map controls. A scale bar at the bottom left indicates 100 km.

# SISTEMA WEB DNIT

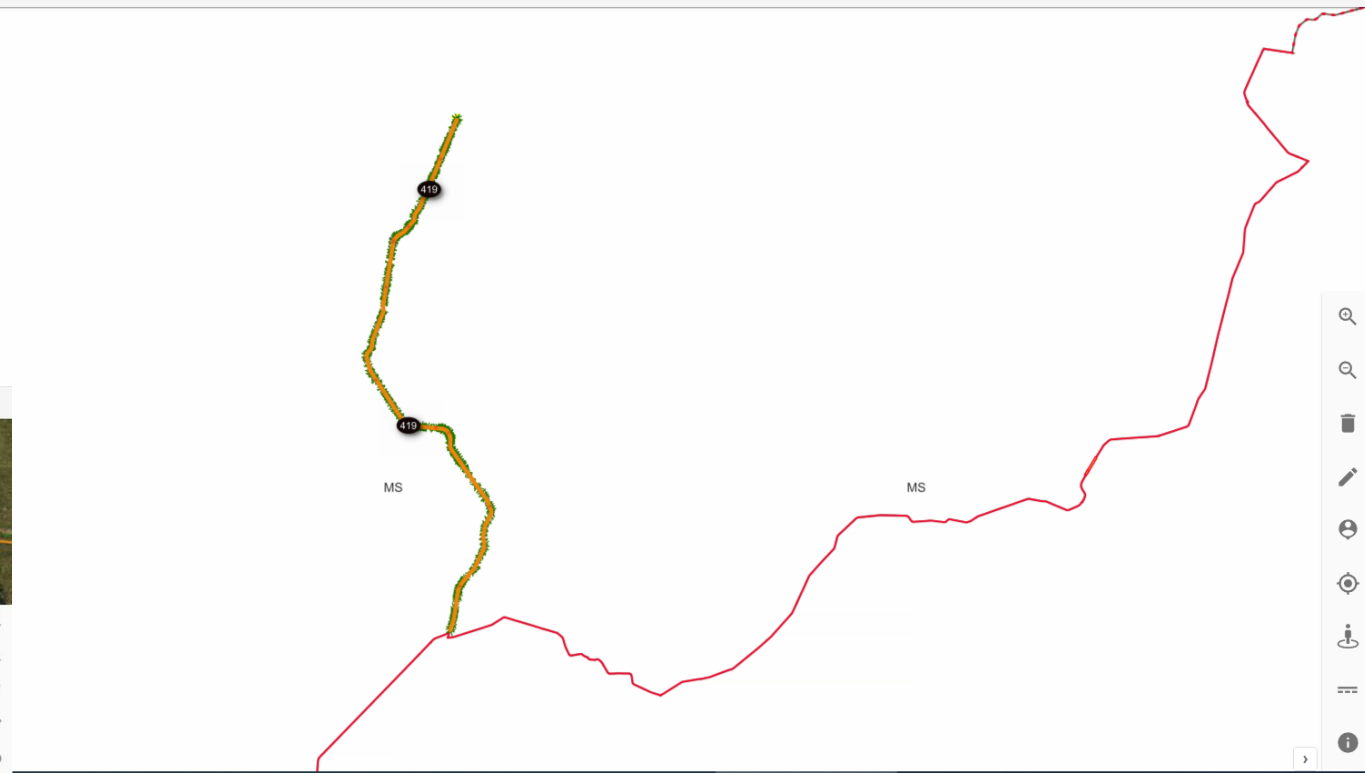
BR-487

The screenshot displays the 'engemap' web interface. At the top, there is a navigation bar with the 'engemap' logo, 'MAPA', 'ÁREA DE TRABALHO', 'IMAGEM 360º', and 'PAINEL DE CONTROLE' buttons. On the right side of the bar are 'FERRAMENTAS' and 'ADMINISTRADOR' links. The main map area shows a road network with cyan outlines and a highlighted orange path. The state 'MS' is labeled in several locations. A vertical toolbar on the right contains various map navigation and tool icons. In the bottom-left corner, there is a 360-degree image view showing an aerial perspective of the road with cyan lines overlaid on the terrain. The interface also includes a search bar and a scale bar in the bottom-left of the 360-degree view.



# SISTEMA WEB DNIT

BR-419  
Anastácio



# SISTEMA WEB DNIT

BR-419  
Coxim

engemap ENGENHARIA E AEROLEVANTAMENTO

MAPA

ÁREA DE TRABALHO

IMAGEM 360º

PAINEL DE CONTROLE

FERRAMENTAS

ADMINISTRADOR

MS

MS

MS

Rio Negro

Rio Negro

Rio Negro

50 m



# SISTEMA WEB DNIT

BR-463



The screenshot displays the engemap web interface for BR-463. At the top, there is a navigation bar with the engemap logo, a 'MAPA' button, and menu items for 'ÁREA DE TRABALHO', 'IMAGEM 360º', and 'PAINEL DE CONTROLE'. On the right side of this bar are 'FERRAMENTAS' and 'ADMINISTRADOR' options. The main map area shows a road route highlighted in orange, with several points marked '463'. A zoomed-in inset map on the left shows a detailed view of a road intersection in Dourados, MS, with orange and yellow dashed lines indicating specific areas. A vertical toolbar on the right side of the main map contains various icons for map interaction, including search, zoom, and layer management. The background of the interface has a crumpled paper texture.

# SISTEMA WEB DNIT

## BR-158

The screenshot displays the Engemap web interface. At the top, there is a navigation bar with the Engemap logo, a 'MAPA' button, and menu items for 'ÁREA DE TRABALHO', 'IMAGEM 360°', and 'PAINEL DE CONTROLE'. On the right side of the top bar, there are links for 'FERRAMENTAS' and 'ADMINISTRADOR'. The main map area shows a road network with BR-158 highlighted in yellow. A small inset map in the top left shows the location of the main map area within a larger region. A detailed aerial view of a road intersection is shown in a bottom-left window, with yellow dashed lines indicating the project boundaries. The interface includes a search bar, zoom controls, and other standard map navigation tools.



# SISTEMA WEB DNIT

BR-163

The screenshot displays the engemap web interface. At the top, there is a navigation bar with the following elements: the engemap logo, a 'MAPA' button, 'ÁREA DE TRABALHO', 'IMAGEM 360°', and 'PAINEL DE CONTROLE'. On the right side of the navigation bar, there are 'FERRAMENTAS' and 'ADMINISTRADOR' buttons. The main map area shows a satellite view of Rio Brilhante with a red and orange highlighted road segment. A search bar is visible on the right side of the map. Below the main map, there is a zoomed-in view of the highlighted road segment, showing detailed satellite imagery and road markings. This zoomed view also includes a search bar and a scale bar (50m).

# SISTEMA WEB DNIT

BR-163

The screenshot displays the 'engemap' web application interface. At the top, there is a navigation bar with the 'engemap' logo and several menu items: 'MAPA', 'ÁREA DE TRABALHO', 'IMAGEM 360º', and 'PAINEL DE CONTROLE'. On the right side of the top bar, there are links for 'FERRAMENTAS' and 'ADMINISTRADOR'. The main area of the interface is a map of 'Mundo Novo'. A large, detailed inset map is shown in the lower-left quadrant, connected to the main map by a black line. This inset map shows an aerial view of an industrial or commercial area with several large white buildings, parking lots filled with vehicles, and roads. The inset map also has its own navigation bar with the 'engemap' logo and the same menu items as the main map. On the right side of the main map, there is a vertical toolbar with various icons for map interaction, including search, zoom, and layers. The text 'Mundo Novo' is visible in several locations on the map.



# SISTEMA WEB DNIT

BR-267

The screenshot displays the engemap web interface. At the top, there is a navigation bar with the engemap logo and menu items: MAPA, ÁREA DE TRABALHO, IMAGEM 360°, and PAINEL DE CONTROLE. On the right side of this bar are links for FERRAMENTAS and ADMINISTRADOR. The main map area shows a route along BR-267, with segments highlighted in red, yellow, and orange. The state of Mato Grosso do Sul (MS) is labeled in several locations. A vertical toolbar on the right contains icons for search, zoom, pan, and other map functions. In the bottom-left corner, there is an inset satellite map showing a detailed view of a road interchange, with yellow lines indicating the project's footprint. This inset map also includes a scale bar and a north arrow.

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# Obrigado(a)!



3º SEMINÁRIO  
NACIONAL DE  
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