



# Diseñando el Flujo del Proceso

PowerPoint uno borrador inicial echo por el usuario.

The screenshot displays a PowerPoint slide titled "video\_WALL final.ppt" showing a complex industrial process flow diagram. The diagram is organized into several vertical columns representing different stages of the process:

- Left Column:** Starts with "gusa" (pig iron) and "Dessulfuração" (desulfurization). It then branches into two parallel paths, each starting with a "Convertedor" (converter) and followed by a "Desgaseificador a Vácuo" (vacuum degasser).
- Middle-Left Column:** Both paths lead to "Forno Painela" (panel furnace) and "Lingotamento Contínuo" (continuous casting).
- Middle-Right Column:** The paths converge into "Pátio Interno AC1" and "Pátio Interno AC2" (internal AC1 and AC2 areas).
- Right Column:** The process continues through "Pátio de Placas" (plate area), "Chuveiro" (shower), and "Escarfigem Automática e Corte Secundário" (automatic and secondary cutting) to "Pátio Interno TQ" (internal TQ area).
- Far Right Column:** The final stages are "Laminador de Chapas Grossas" (thick plate laminator) and "Laminador de Tiras a Quente" (hot strip laminator).

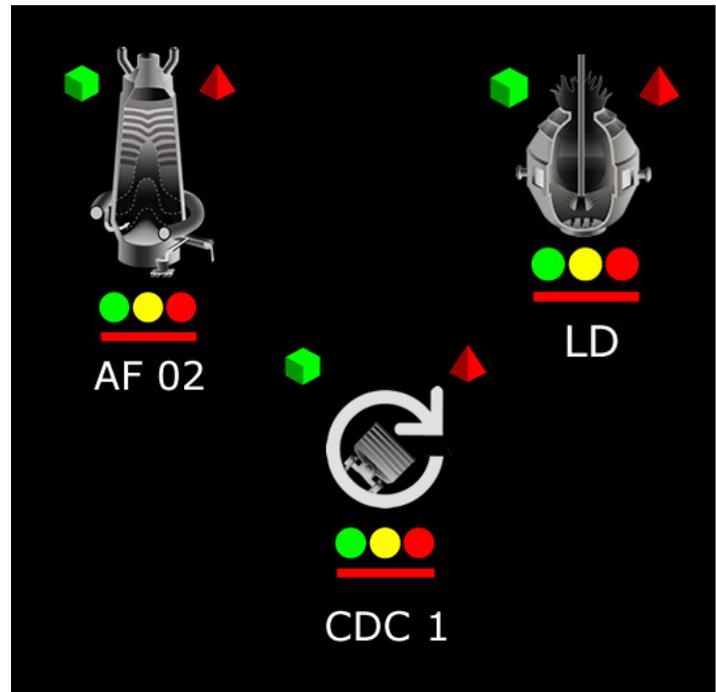
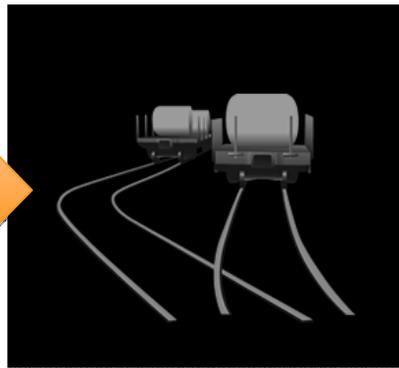
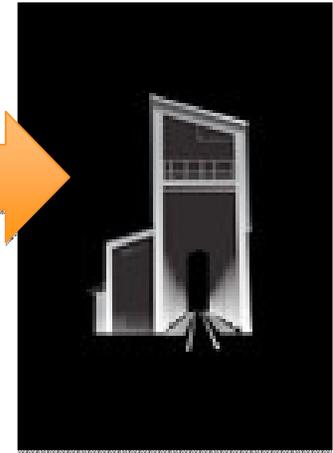
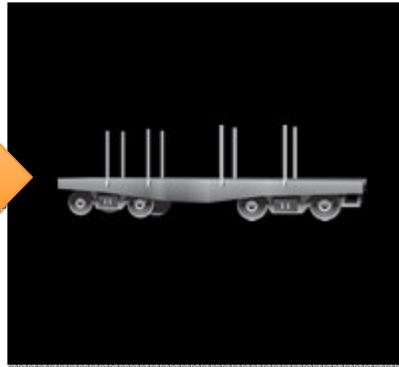
At the bottom of the diagram, there are two status indicators:

- "AG PROGRAMAÇÃO" (AG SCHEDULING) with a progress bar labeled "P1".
- "EM REALIZAÇÃO" (EM REALIZATION) with a progress bar labeled "P1".

The PowerPoint interface includes a menu bar (File, Edit, View, Insert, Format, Tools, Slide Show, Window, Help), a toolbar with various icons, and a slide navigation bar at the bottom showing "Normal View" and "Slide 1 of 1". The system tray at the very bottom contains various application icons.

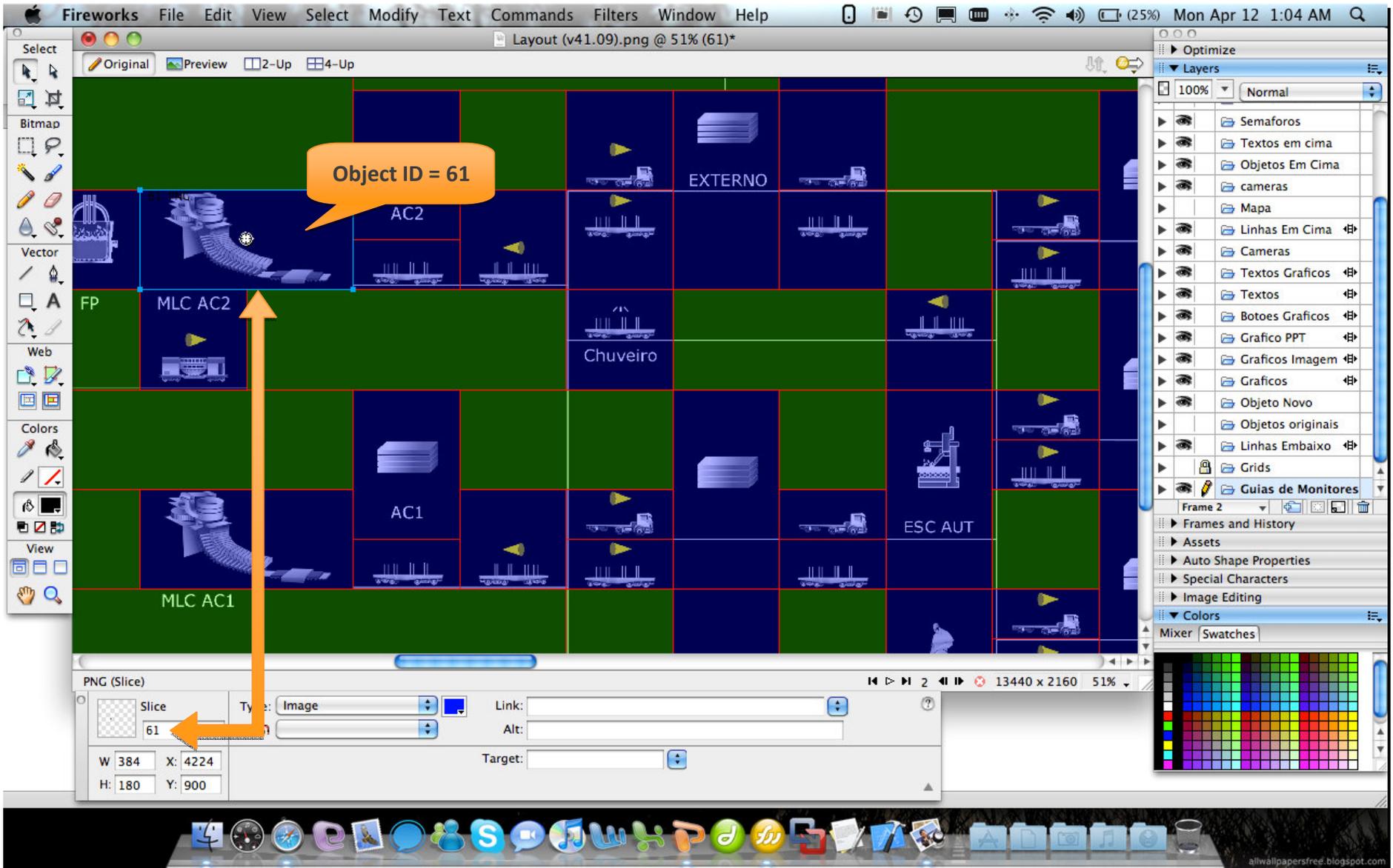
# ▶ Diseñando el Flujo del Proceso

Creación de los iconos de la área de producción (objetos)



# ▶ Diseñando el Flujo del Proceso

## La Utilización de **Adobe Fireworks** para diseñar la pantalla larga

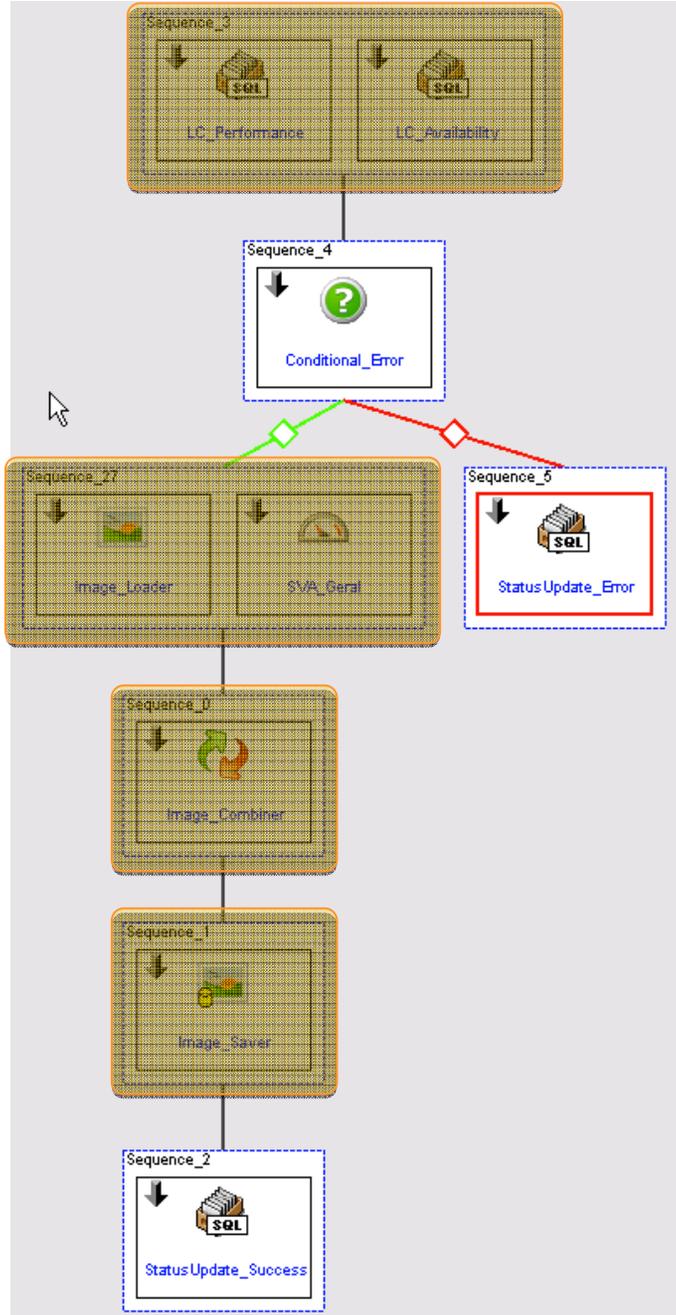


Confidential ■ Adobe Fireworks (formerly Macromedia Fireworks) is a bitmap and vector graphics editor.

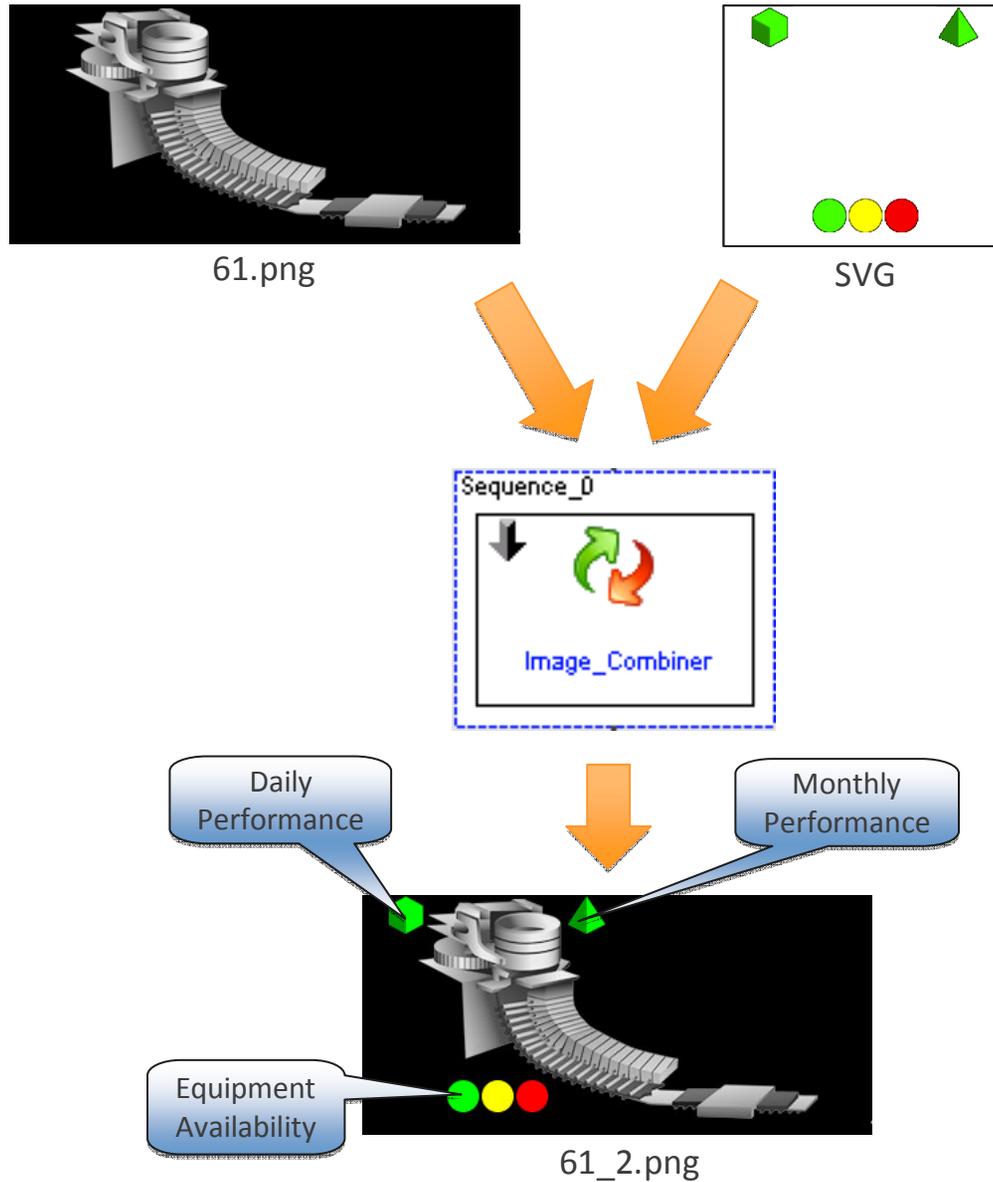
## ▶ Agenda

- Usiminas Video Wall
  - Usiminas
  - Visión General del Proyecto
- Visión General de la Solución
  - Arquitectura
  - Diseño del Flujo del Proceso
  - El motor del Video Wall
  - Administración de los Objetos
  - Integración con Aplicaciones
  - Interfaz del Operador
  - Teste de Performance
  - Pantallas del Monitor del Sistema
  - iPhone y iPod
  - Video Wall para otras industrias
- Preguntas

# Motor del Video Wall



## GENERADOR DE OBJETOS – Example 1





# Motor del Video Wall

## Objects Generator – Scheduler

**Scheduler**

Status	ID	Name	Next Run Time	Transaction	
	1002	ObjectStatusGroup_1	2/28/10 4:40:00 PM	PPCC/Transaction/ObjectStatusTransaction	Objec - Vag
	1003	ObjectStatusGroup_2	4/8/10 5:30:00 PM	PPCC/Transaction/ObjectStatusTransaction	Objec
	1004	ObjectStatusGroup_3	4/8/10 5:30:00 PM	PPCC/Transaction/ObjectStatusTransaction	Objec
	1005	ObjectStatusGroup_4	4/8/10 5:29:00 PM	PPCC/Transaction/ObjectStatusTransaction	Objec
	1006	ObjectStatusGroup_5	4/8/10 5:35:00 PM	PPCC/Transaction/ObjectStatusTransaction	Objec
	1007	ObjectStatusGroup_6	2/28/10 5:01:00 PM	PPCC/Transaction/ObjectStatusTransaction	Objec - Pon Entre
	1013	cameraIntegration	2/28/10 4:39:00 PM	PPCC/Transaction/cameraIntegration/cameraIntegrationTransaction	Verif most
	1014	ClearTempFiles	2/28/10 6:00:00 PM	PPCC/Transaction/ClearTempFiles	Limpe Exce

Last Update 4/12/10 1:34:05 PM

Refresh Stop Scheduler Help

**System Management**

- System Administration
- System Jobs
- Scheduler
- Schedule Editor
- Active Sessions
- Custom Attributes
- Custom Attribute Mapping
- Configurations
- Projects
- Custom Actions
- JDBC Drivers
- Applet Debugging

**Security Services**

**Data Services**

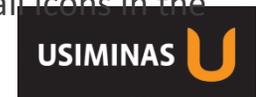
**Message Services**

**Visualization Services**

**Navigation Services**

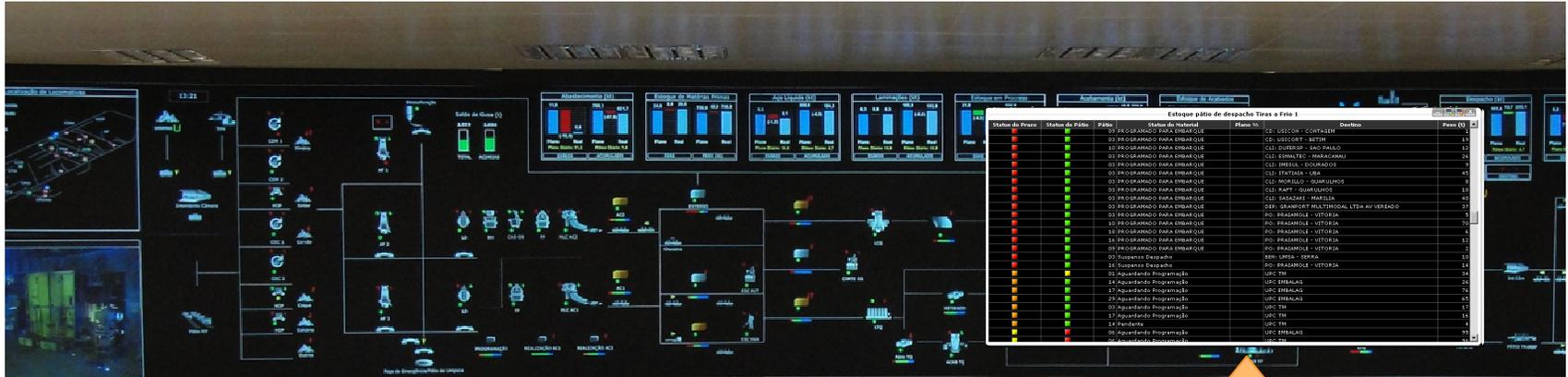
**Support**

- Scheduled transactions that create and update all icons in the Video Wall and Operator's Terminals.



# Motor del Video Wall

Cola de Comandos (para sincronizar o Terminal do Operador com el Video Wall)



xMII Portal - Windows Internet Explorer provided by XP

http://10.11.123.15:50000/xMII/Illuminator?service=Personalization&sniffer=Microsoft Internet Explorer,7,646,1280,

Arquivo Editar Exibir Favoritos Ferramentas Ajuda

Favoritos xMII Portal

USIMINAS U Central de Controle

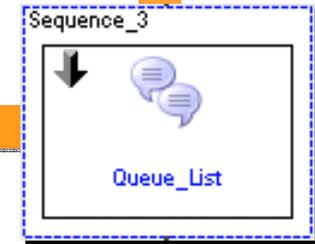
SAP - Milene, Ribeiro Log Off Refresh Documentation

Status do Prazo	Status do Pátio	Pátio	Status do Material	Plano %	Destino	Peso (t)
09	PROGRAMADO PARA EMBARQUE	CD: USICON - CONTAGEM				1
03	PROGRAMADO PARA EMBARQUE	CD: USICORT - BETIM				19
10	PROGRAMADO PARA EMBARQUE	CLI: DUFERSP - SAO PAULO				12
03	PROGRAMADO PARA EMBARQUE	CLI: ESMALTEC - MARACANAU				26
03	PROGRAMADO PARA EMBARQUE	CLI: IMESUL - DOURADOS				9
03	PROGRAMADO PARA EMBARQUE	CLI: ITATIAIA - UBA				45
03	PROGRAMADO PARA EMBARQUE	CLI: MORILLO - GUARULHOS				8
03	PROGRAMADO PARA EMBARQUE	CLI: RAFT - GUARULHOS				10
03	PROGRAMADO PARA EMBARQUE	CLI: SASAZAKI - MARILIA				40
03	PROGRAMADO PARA EMBARQUE	DEP: GRANPORT MULTIMODAL LTDA AV VEREADO				37
03	PROGRAMADO PARA EMBARQUE	PO: PRAIAMOLE - VITORIA				5
10	PROGRAMADO PARA EMBARQUE	PO: PRAIAMOLE - VITORIA				70
10	PROGRAMADO PARA EMBARQUE	PO: PRAIAMOLE - VITORIA				6
16	PROGRAMADO PARA EMBARQUE	PO: PRAIAMOLE - VITORIA				12
09	PROGRAMADO PARA EMBARQUE	PO: PRAIAMOLE - VITORIA				2
03	Suspensao Despacho	BEN: UMSA - SERRA				10
16	Suspensao Despacho	PO: PRAIAMOLE - VITORIA				14
01	Aguardando Programação	UPC TM				34
14	Aguardando Programação	UPC EMBALAG				26
17	Aguardando Programação	UPC EMBALAG				76
29	Aguardando Programação	UPC EMBALAG				65
03	Aguardando Programação	UPC TM				17
17	Aguardando Programação	UPC TM				16
14	Pendentes	UPC TM				4
06	Aguardando Programação	UPC EMBALAG				95
06	Aguardando Programação	UPC TM				96

Applet ExcelExport started

Intranet local 100%

17:26



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# Pantalla de Administración de los Objetos

Adicionar, alterar y borrar objetos en el Video Wall

The screenshot displays the SAP xMII Portal interface. The main window shows a table of object configurations for plant US01. A callout bubble highlights the 'Object ID = 61' for the object 'Lingotamento Aciaria 2'. Below the table, there are sections for 'Configurações do Objeto' and 'Configurações da Janela'. Two 'Config Status Search' dialog boxes are open. The first dialog shows a list of object transactions, with 'LC\_Aciaria\_11.iprt' selected. The second dialog shows a list of window objects, with 'LC\_Aciaria\_11.iprt' selected. A third dialog box in the bottom right corner displays a pie chart and a table of object status data.

**Object ID = 61**

Planta	Id Local Controle	Camada	Status	Posição
US01	58	1	2	4-22
US01	59	1	2	6-23
US01	60	1	2	4-25
US01	61	1	2	6-24
US01	72	1	2	1-21
US01	73	1	3	4-24
US01	74	1	2	1-23

**Config Status Search -- Caixa de diálogo**

Transaction do Objeto

- Default
- getMapaTransaction
- LC\_Abastecimento\_09\_VW
- LC\_Abastecimento\_09
- LC\_Abastecimento\_1\_2
- LC\_Abastecimento\_10
- LC\_Abastecimento\_192x540
- LC\_Aciaria\_03
- LC\_AltoFornoTotal
- LC\_Caminhoes\_Vagoes\_Sinalizados
- LC\_colorBar\_192X270
- LC\_colorBar\_192X360
- LC\_colorBar\_384X360
- LC\_colorBar
- LC\_Dessulfuracao

**Config Status Search -- Caixa de diálogo**

Arquivo da Janela

- Blank.iprt
- LC\_Abastecimento\_01.iprt
- LC\_Abastecimento\_03.iprt
- LC\_Abastecimento\_05.iprt
- LC\_Abastecimento\_08.iprt
- LC\_Abastecimento\_09.iprt
- LC\_Abastecimento\_10.iprt
- LC\_Abastecimento\_PFMP.iprt
- LC\_Aciaria\_02.iprt
- LC\_Aciaria\_03.iprt
- LC\_Aciaria\_04.iprt
- LC\_Aciaria\_06.iprt
- LC\_Aciaria\_08.iprt
- LC\_Aciaria\_10.iprt
- LC\_Aciaria\_11.iprt

**Disponibilidade**

Estoque

Orientação de Disponibilidade e Estoque

Prazo Cumprido

Prazo Orientativo

CRITICO (1,43%)

ATRASADO (62,39%)

TENDENCIA DE ATRASO FORTE (4,06%)

TENDENCIA DE ATRASO MEDIO (4,48%)

PRAZO (17,35%)

ANTECIPADO (10,19%)

Objeto do Plano	Objeto do Plano	PRazo	Status do Material	Plano de	Descrição	Prazo (h)
03	03	03	03	03	03	03
02	02	02	02	02	02	02
04	04	04	04	04	04	04
05	05	05	05	05	05	05
06	06	06	06	06	06	06
07	07	07	07	07	07	07
08	08	08	08	08	08	08
09	09	09	09	09	09	09
10	10	10	10	10	10	10
11	11	11	11	11	11	11
12	12	12	12	12	12	12
13	13	13	13	13	13	13
14	14	14	14	14	14	14
15	15	15	15	15	15	15
16	16	16	16	16	16	16
17	17	17	17	17	17	17
18	18	18	18	18	18	18
19	19	19	19	19	19	19
20	20	20	20	20	20	20

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# Integración con otras aplicaciones

## Mauell Software (Cameras)

The image shows a large wall-mounted display in a control room, displaying a complex network diagram with various data panels and charts. Two specific areas are highlighted with yellow boxes and labeled "Camera 1" and "Camera 2".

In the foreground, a computer window titled "e.Tool Wall op client" is open, showing a configuration interface for Mauell software. The interface includes a menu, IP address fields, a list of cameras, a grid of camera icons, and detailed settings for "Camera 10".

Two dashed orange arrows point from the "Camera 1" and "Camera 2" labels on the wall to the corresponding camera icons in the software window.

**Programas cadastrados**

- Camera 10
- Camera 11
- Camera 12
- Camera 13
- Camera 14
- Camera 15
- Camera 5
- Camera 6
- Camera 7
- Camera 8

**Camera 10**

C:\Program Files (x86)\Helmut Mauell\ve.Tool Wall axvic\ve.Tool Wall axvic.exe  
-url-rtp://@239.255.12.10:65000 -args=rtp-caching=100 -name="Camera 10" -border=no

Tamanho: 1186 X 1010 Y Intervalo de troca: 15  
Posição: 56 X 1154 Y

Top Most  
 Maximizado  
 Minimizado

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# Interfase del operador

## Lista de alertas activas y comentarios

The screenshot displays the 'Central de Controle' interface for USIMINAS. The browser window title is 'xMII Portal - Windows Internet Explorer provided by XP'. The address bar shows the URL: `http://10.11.123.15:50000/xMII/Illuminator?service=Personalization&mode=refresh`. The interface includes a navigation menu with 'Arquivo', 'Editar', 'Exibir', 'Favoritos', 'Ferramentas', and 'Ajuda'. The main content area features a large process flow diagram with numerous equipment icons and status indicators. A sidebar on the left lists active alerts, and a 'Comentar Alerta' dialog box is open in the foreground.

**Alertas Activas:**

- Acabamento de CG
  - Equipamento OCIOSO
  - Equipamento PARADO
- Acabamento de tiras a quente
  - Equipamento OCIOSO
  - Equipamento PARADO
- Acabamento TF
  - Equipamento OCIOSO
  - Equipamento PARADO
  - Equipamento secundário OCIOSO
- Alto Forno 1
  - Equipamento PARADO
- Alto Forno 3
  - Equipamento PARADO
- Caminhão em carregamento no pátio de despacho CFQ
  - O tempo do caminhão ultrapassou o máximo previsto no local

**Comentar Alerta Dialog:**

HSP

Alarme: Equipamento OCIOSO

Responsável: OP\_CENTRAL

Acionamento: 30/09/2009 14:39:50

Comentarios

Gravar

`http://10.11.123.15:50000/xMII/CM/PPCC/Control.irpt#`

Iniciar xMII Portal - Window...

Intranet local

100%

02:03



# Interfase del operador

## Controle Remoto para Zoom-in and Zoom-out

The screenshot displays the xMII Portal interface within a Windows Internet Explorer browser window. The browser address bar shows the URL: `http://10.11.123.15:50000/xMII/Illuminator?service=Personalization&mode=refresh`. The interface is titled "Central de Controle" and includes a user profile for "SAP - Milene, Ribeiro".

The main dashboard features several key components:

- Dessulfuração:** A control panel with a lamp icon and a green indicator light.
- Saldo de Gusa (t):** Two bar charts showing inventory levels for "TOTAL" (1.134) and "ACIARIAS" (1.034).
- Abastecimento (kt):** A comparison chart for "DIÁRIO" and "ACUMULADO" metrics, showing "Plano" and "Real" values with variances.
- Estoque de Matérias Primas:** A comparison chart for "DIAS" and "PESO (kt)" metrics, showing "Plano" and "Real" values with variances.
- Process Flow:** A sequence of icons representing production stages: LD, RH, CAS-OB, FP, and MLC AC2, followed by an "AC2" unit and an "EXTERNO" unit.

The bottom of the browser window shows a taskbar with the "Iniciar" button and an open window for "xMII Portal - Window...". The system tray displays "Intranet local" and the time "02:30".



# Interfase del operador

Un grid para posicionar la ventana de drill-down

The image displays a complex control room interface for USIMINAS. The main dashboard is a grid of data points, each representing a specific process or machine. Several windows are open, showing detailed views of selected data points. These windows include pie charts and tables of data. A browser window in the foreground shows the 'Central de Controle' interface, which is a grid of data points. Dashed orange arrows indicate the drill-down process from the grid cells to the detailed windows.

The browser window shows the following URL: <http://10.11.123.15:50000/UMI/Diluminator?service=Personalization&mode=refresh>

The browser window title is 'USIMINAS Central de Controle'. The browser window also shows the following text: 'SAP - A. Iene, Ribeiro', 'Log Off | Refresh | Documentation', and 'Applet ExcelExport started'.

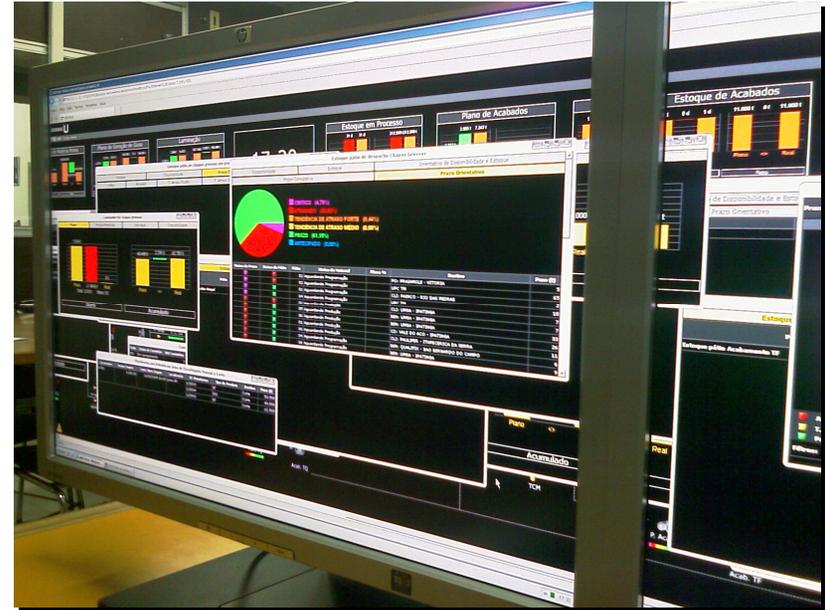
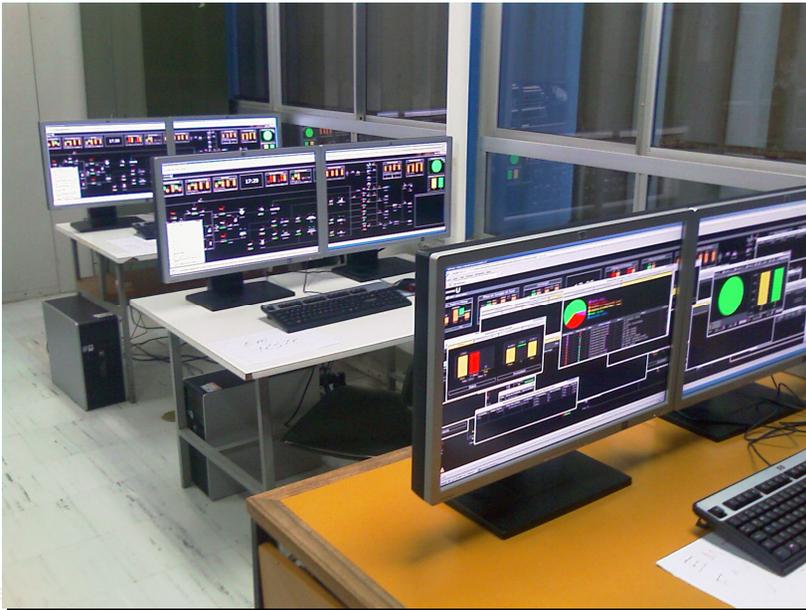
9	1-20	1-21	1-22	1-23	1-24	1-25	1-26	1-27	1-28	1-29	1-30	1-31	1-32	1-33	1-34	1-35	1-36	1-37	1-38	1-39	1-40	1-41	1-42
9	2-20	2-21	2-22	2-23	2-24	2-25	2-26	2-27	2-28	2-29	2-30	2-31	2-32	2-33	2-34	2-35	2-36	2-37	2-38	2-39	2-40	2-41	2-42
9	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	3-32	3-33	3-34	3-35	3-36	3-37	3-38	3-39	3-40	3-41	3-42
9	4-20	4-21	4-22	4-23	4-24	4-25	4-26	4-27	4-28	4-29	4-30	4-31	4-32	4-33	4-34	4-35	4-36	4-37	4-38	4-39	4-40	4-41	4-42
9	5-20	5-21	5-22	5-23	5-24	5-25	5-26	5-27	5-28	5-29	5-30	5-31	5-32	5-33	5-34	5-35	5-36	5-37	5-38	5-39	5-40	5-41	5-42
9	6-20	6-21	6-22	6-23	6-24	6-25	6-26	6-27	6-28	6-29	6-30	6-31	6-32	6-33	6-34	6-35	6-36	6-37	6-38	6-39	6-40	6-41	6-42
9	7-20	7-21	7-22	7-23	7-24	7-25	7-26	7-27	7-28	7-29	7-30	7-31	7-32	7-33	7-34	7-35	7-36	7-37	7-38	7-39	7-40	7-41	7-42
9	8-20	8-21	8-22	8-23	8-24	8-25	8-26	8-27	8-28	8-29	8-30	8-31	8-32	8-33	8-34	8-35	8-36	8-37	8-38	8-39	8-40	8-41	8-42
9	9-20	9-21	9-22	9-23	9-24	9-25	9-26	9-27	9-28	9-29	9-30	9-31	9-32	9-33	9-34	9-35	9-36	9-37	9-38	9-39	9-40	9-41	9-42
19	10-20	10-21	10-22	10-23	10-24	10-25	10-26	10-27	10-28	10-29	10-30	10-31	10-32	10-33	10-34	10-35	10-36	10-37	10-38	10-39	10-40	10-41	10-42
19	11-20	11-21	11-22	11-23	11-24	11-25	11-26	11-27	11-28	11-29	11-30	11-31	11-32	11-33	11-34	11-35	11-36	11-37	11-38	11-39	11-40	11-41	11-42

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# Teste de Performance

Ejecución del teste de capacidad con 50 usuarios simultáneos



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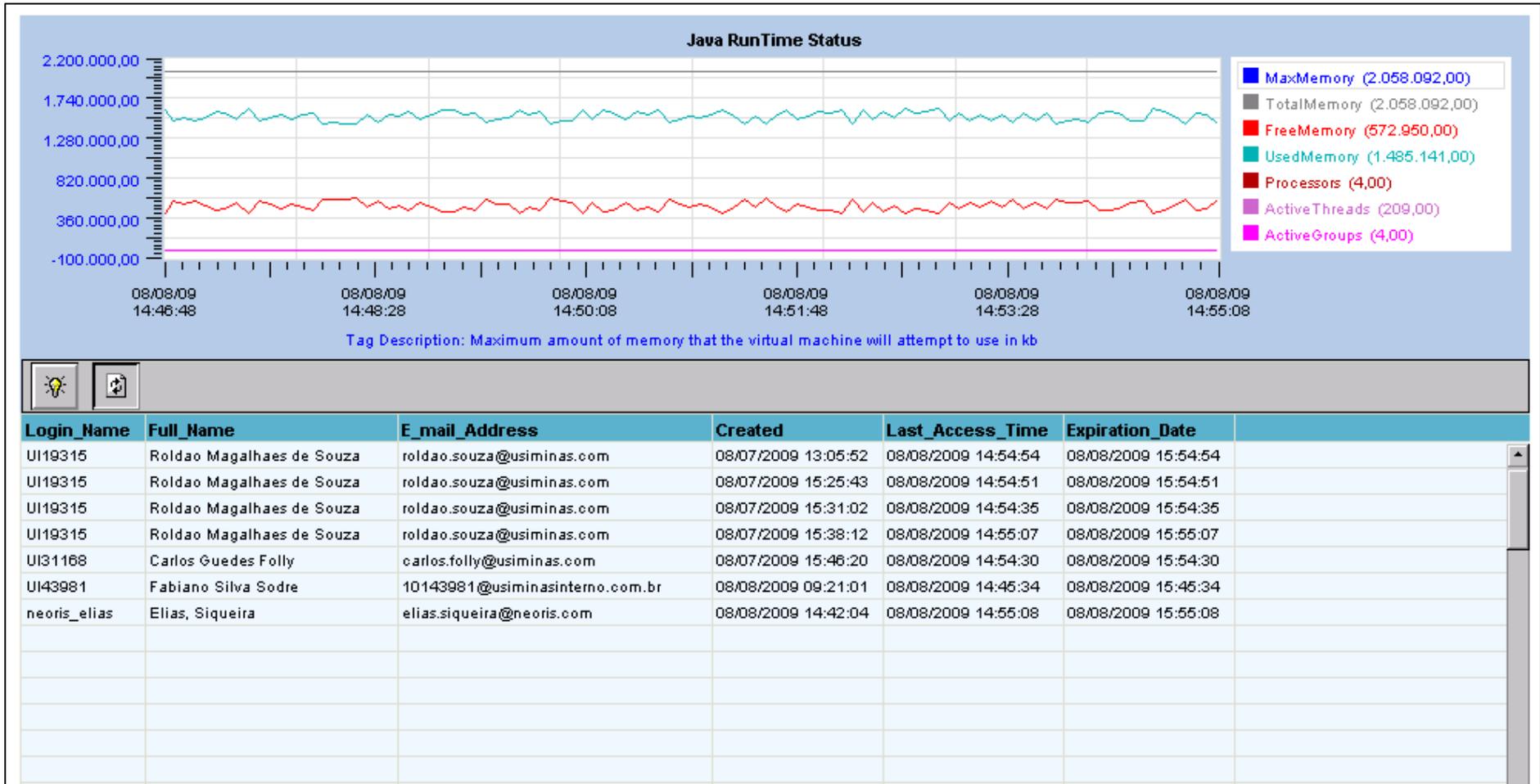
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# Interfase del operador

## Memoria utilizada y usuarios conectados



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# iPhone Access

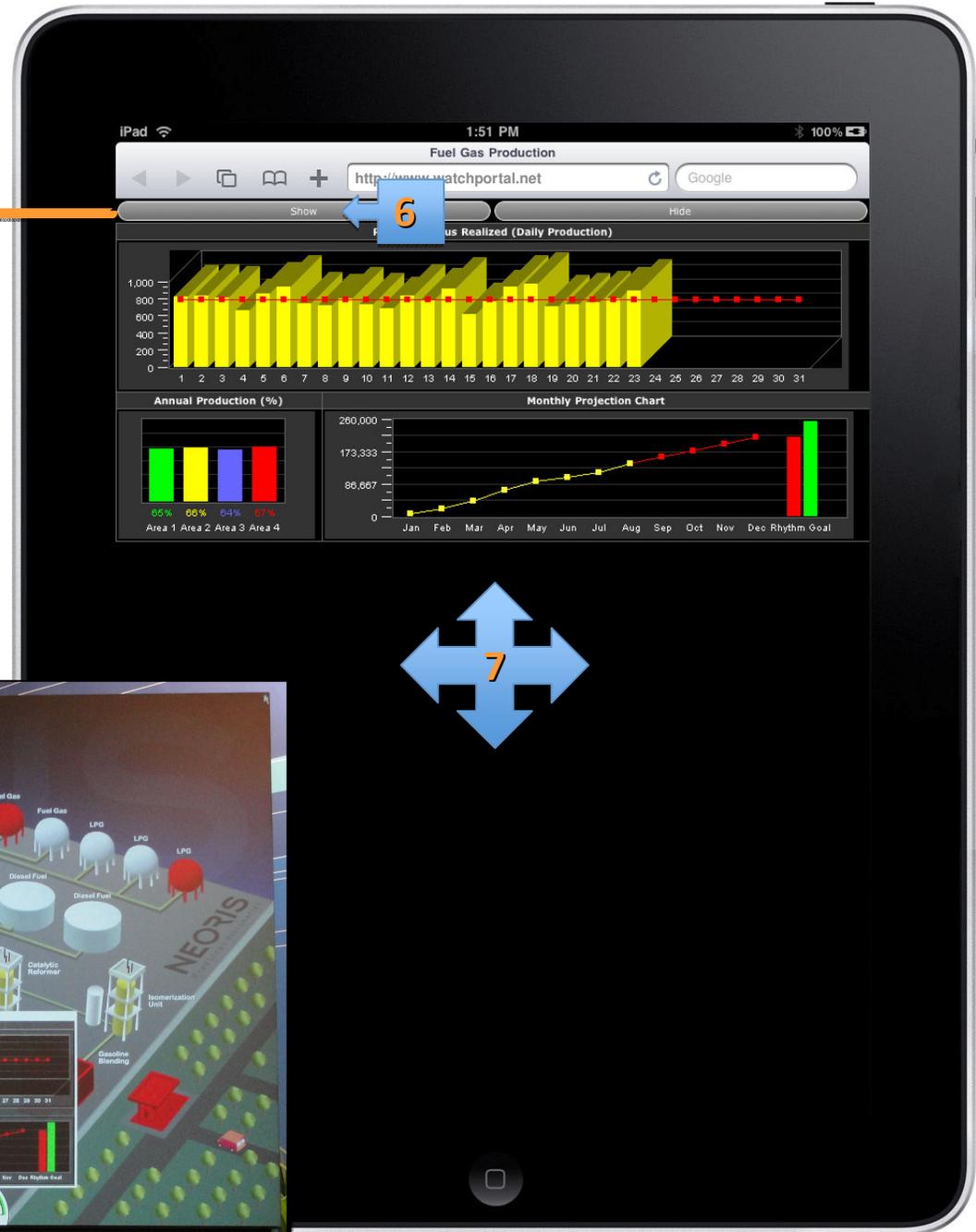
Oil & Gas



# Video Wall Mobile

## Object Details

- 6. Click on the "show" button to publish the desired details into the Video Wall screen.
- 7. Use two fingers to zoom in and out.



# Video Wall Mobile

## Object Details

- 8. Click on the “pages” icon to view all opened pages in the browser.



# Video Wall Mobile

## Production Process Full View



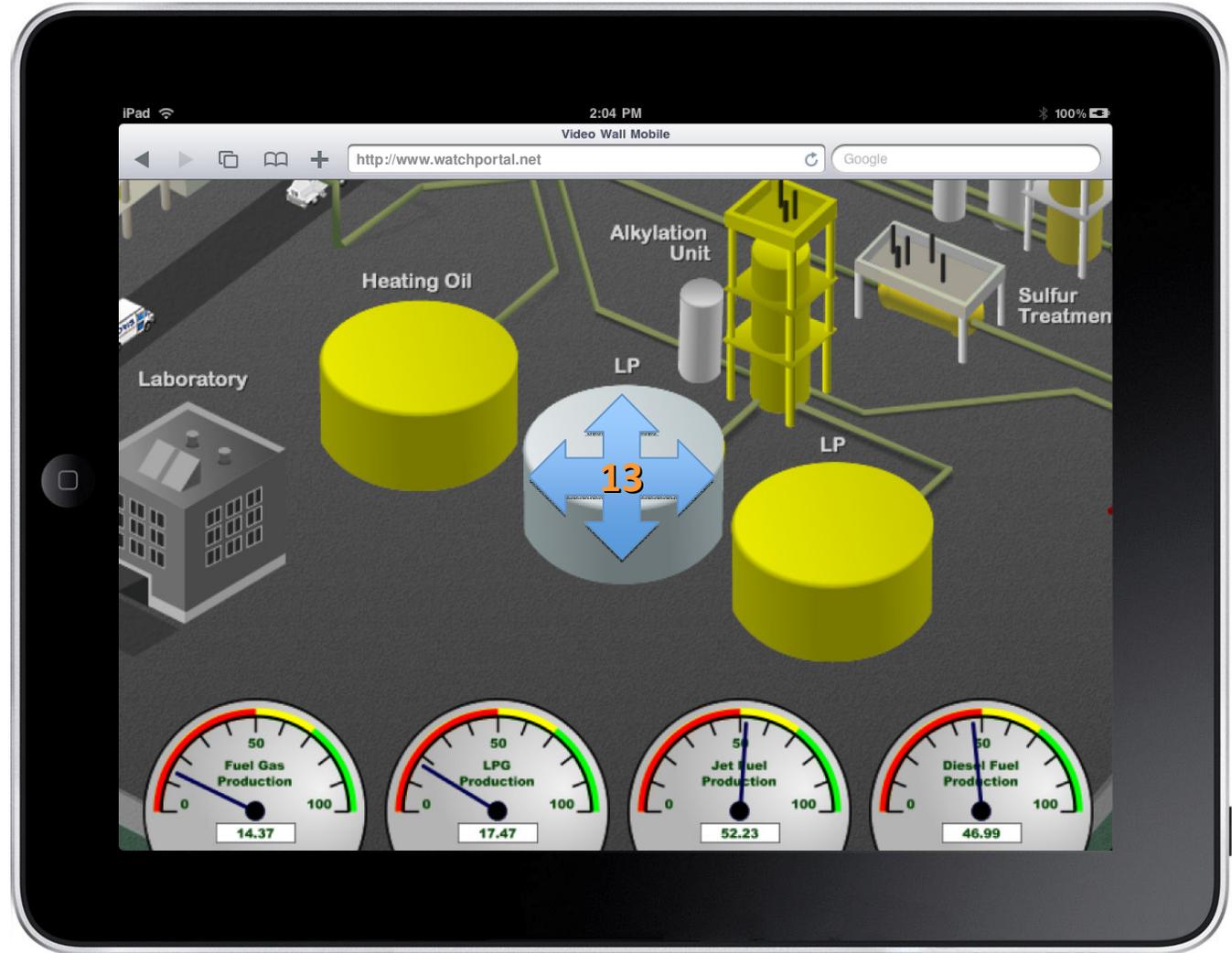
- 11. Rotate de iPad to have a full view of the production process status.



# Video Wall Mobile

## Production Process Full View

- 13. Use two fingers to zoom in and out.



## ▶ Agenda

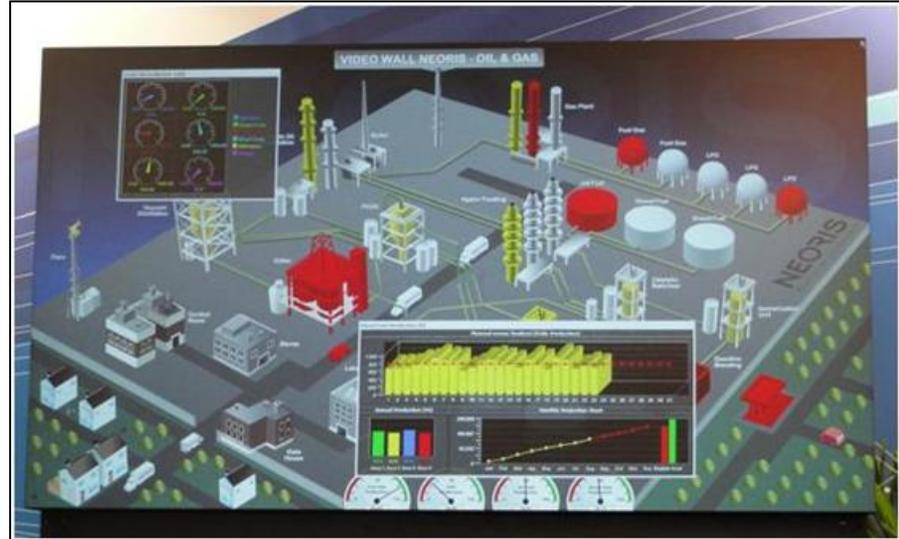
- Usiminas Video Wall
  - Usiminas
  - Visión General del Proyecto
- Visión General de la Solución
  - Arquitectura
  - Diseño del Flujo del Proceso
  - El motor del Video Wall
  - Administración de los Objetos
  - Integración con Aplicaciones
  - Interfaz del Operador
  - Teste de Performance
  - Pantallas del Monitor del Sistema
  - iPhone y iPod
  - Video Wall para otras industrias
- Preguntas

# ▶ Video Wall para otras industrias

Demos



Agribusiness / Ethanol



Oil & Gas



Utilities

Confidential // Neoris



CPG

## ▶ Agenda

- **Usiminas Video Wall**
  - **Usiminas**
  - Visión General del Proyecto
- **Visión General de la Solución**
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  - El motor del Video Wall
  - Administración de los Objetos
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- **Retornos**

- 
- Mayor integración de los procesos productivos
  - Mejora del flujo de material y reducción de los inventarios intermedios
  - Surgimiento de nuevos puntos de control
  - Completa Integración de los colaboradores actuando en los diversos procesos productivos
  - Capacidad de tomar acciones pro activas con visión integrada de los resultados esperados y aliñadas a los objetivos estratégicos de la empresa
  - Padrón visual de fácil entendimiento por todos los usuarios
  - Reducción del inventario de productos intermedios y en proceso.
  - Mejora acentuada en el índice de cumplimiento de órdenes



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USIMINAS U

Thank you

**NEORIS**  
Practical Visionaries

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