



Effectively Engaging Operational Business Areas to Maximise the Benefits of the PI System

Presented by **Alan Lark**



Contents

- Context
 - Company
 - Plant Operational Information Program
- Engaging the Business – Keys to Success
 - Bringing together IT and OT
 - Empowering Staff
 - Sharing Information
- Example Initiative: Controllable Losses Online Calculations
- Where to next?
- Conclusion

About Synergy

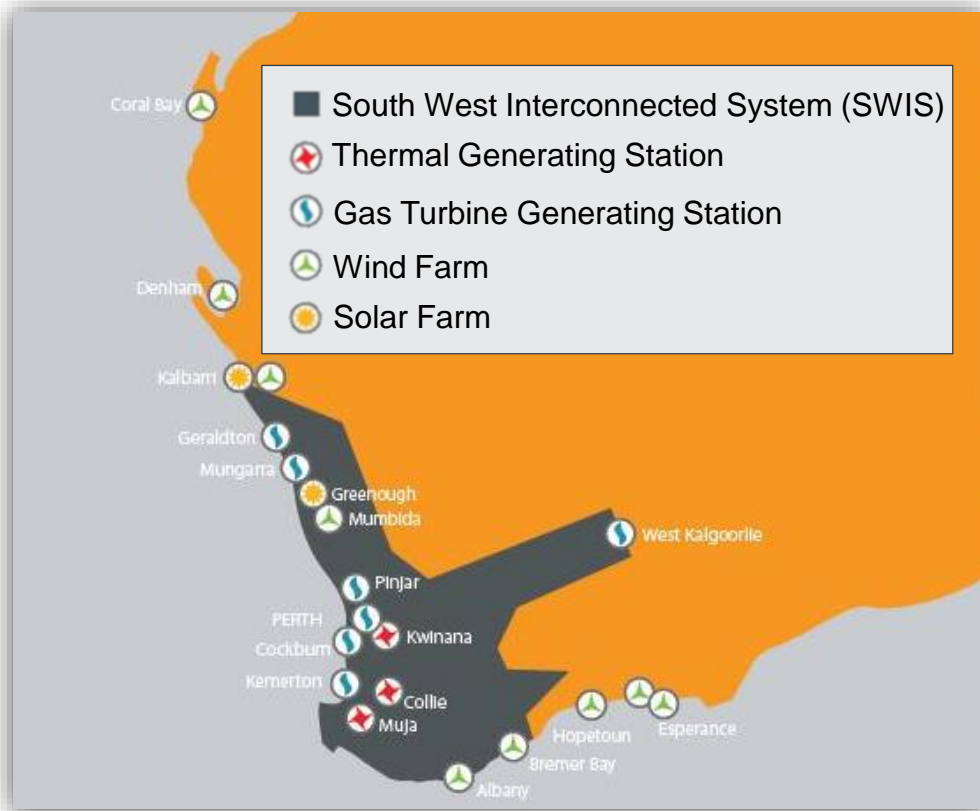
Synergy is the largest provider of gas and electricity in Western Australia.

- We participate in the Wholesale Energy Market (WEM) as both a retailer and a generator:
 - Our fleet includes coal, gas and renewables (total capacity is approximately 2700 MW);
 - Our retail business supplies electricity and gas to over one million customers.
- We are currently going through a business transformation following the merger of Synergy and Verve Energy in 2014.



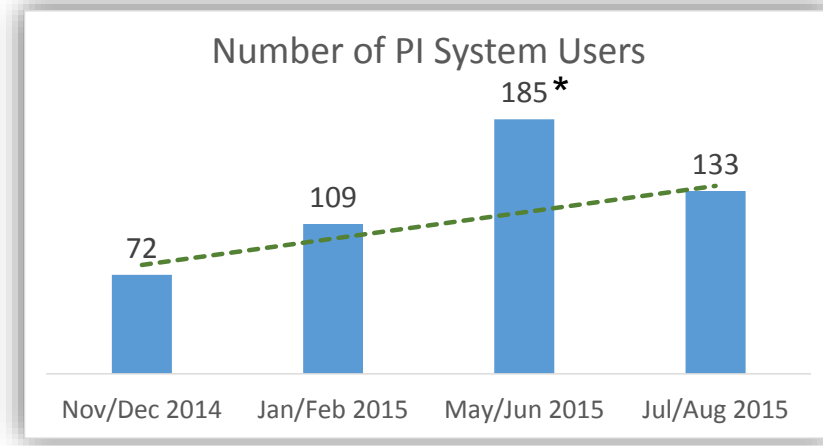
About Synergy – Our Generation Portfolio

- We have quite a diverse portfolio: both in technology and geography
- All major thermal and gas turbine sites feed into PI System
- Our larger renewable sites are also captured



Context - Plant Operational Information Program

- The Synergy PI System was the main deliverable
- Purpose:
 - Increase visibility and usability of all operational data through standard toolsets
 - “Stop smart people doing stupid work”
- A support model and Centre of Excellence were established
- The program officially closed in May 2015 (we are now operating BAU).
- Demand is still increasing and we continue to deliver benefits realisation initiatives



For further information please refer to Francois Mevis' presentation:

<http://www.osisoft.com/Templates/item-abstract.aspx?id=11518>

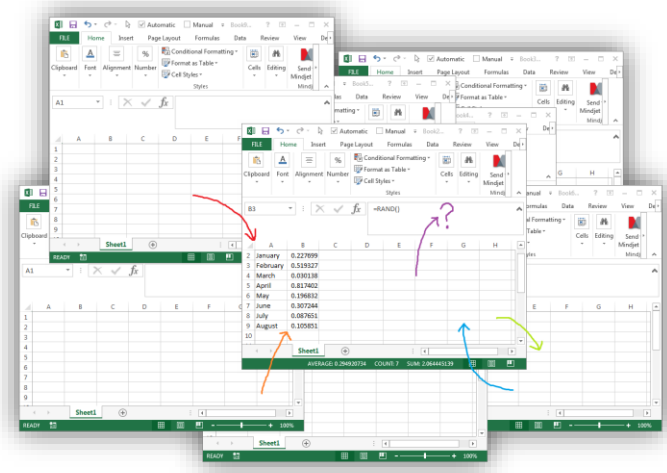
*Sudden increase was due to an article in our "PI-Lights" Newsletter

Engaging the Business – Keys to Success

Bringing together IT and OT

The challenges:

- Understanding operational requirements
- Breaking the spreadsheet culture
- Avoiding rework
- The business may not be aware of what can be achieved through effective use of IT resources (or how to engage IT)



Engaging the Business – Keys to Success

Bringing together IT and OT

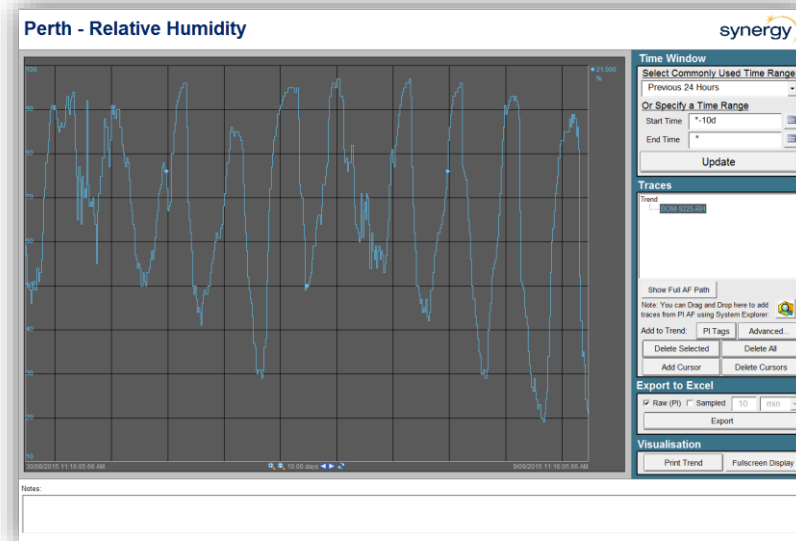
Key Activities:

- Develop cross-functionality in IT and OT roles
 - Embed operational/technical capability within the PI Support team
 - Position IT to work closely with Operations
- Invest time understanding the business
 - Bring people on site, engage face to face
- Establish a Centre of Excellence to drive Benefits Realisation Initiatives
 - Must be accessible, visible

Engaging the Business – Keys to Success

Empowering Staff

- Decide when to do and when to show:
 - For less complex problems; show/teach
 - For more complex problems; work together
- Provide templates for PI ProcessBook and PI Datalink
 - Promotes consistency
 - Provides a starting point
- Encourage users to approach SMEs or other users for help
- Make use of the OSIsoft training material



“Quick Analysis” ProcessBook template

Engaging the Business – Keys to Success

Sharing Information

Make it Visible!

- Newsletters
- Intranet articles
- Visualisation tools
 - PI Coresight
 - PI Web Parts

PI-Lights Newsletter February 2015 synergy

Introduction

Welcome to PI-Lights newsletter for February 2015. As this is our first monthly newsletter, we would like to provide some background information, particularly for people who may be less familiar with PI.

What is PI?

- A centralised source of historical and real-time operational data
- A means of structuring and transforming data into information
- A toolset for presenting this information and informing decisions which add value to the business

Why have we created this newsletter?

- To provide awareness of the PI System and any new or upcoming developments
- To showcase examples of how users are innovating with PI and to drive collaboration

How can this benefit me (and Synergy)?

- By sharing ideas and "tips and tricks"
- By providing a forum for feedback from users

New User Tools

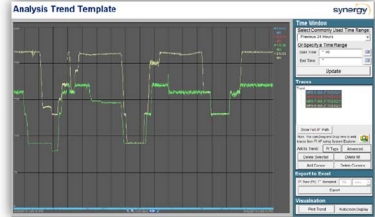
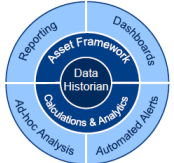
We will soon be rolling out new versions of PI Processbook and PI Datalink (estimated within the next month).

The new PI Datalink includes a number of interface improvements. In particular the tag search dialogues have been redesigned to allow for more flexible search criteria.

PI Processbook includes a new home page containing a number of standard Synergy templates and a general purpose trending tool to assist users in ad-hoc analysis.

Existing users will not be forced to upgrade, however the previous versions will no longer be available for installation from the Application Catalogue.

We will be showcasing some of the new features in future newsletters.



The new trending template for Processbook

Our Monthly “PI-Lights”

Engaging the Business – Keys to Success

Sharing Information

Directly Engage different areas of the business

- Establish a key user group
 - Include representatives from operations, corporate, finance etc
- Actively share initiatives from one business unit which may have wider application

Example: Controllable Losses Online Calculations

The Problem

Where are our plant performance shortfalls and what is the cost?

- How is each system performing?
- How should each system be performing?
- What is the impact (cost)?
- Where should we focus our attention?



How can we process available information to:

- Develop consistent models across multiple units/stations
- Produce tangible results (i.e costs due to efficiency losses)
- Present a single source of truth, available across the business
- **Empower our staff (e.g station operators) to make informed decisions**

Example: Controllable Losses Online Calculations

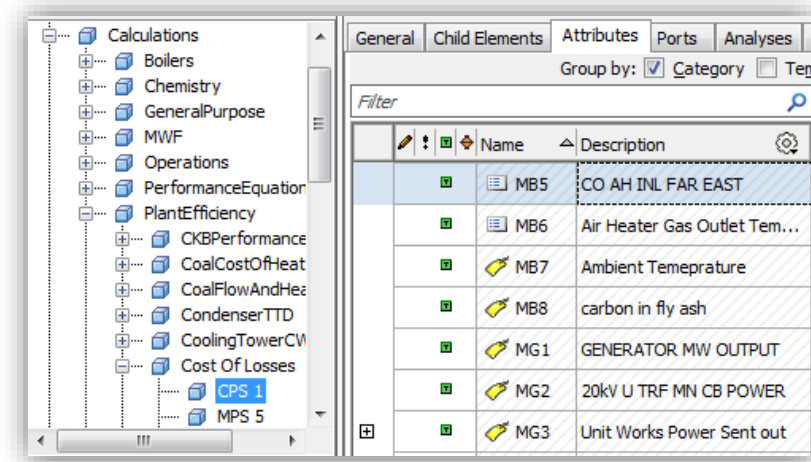
The Solution - Design

- We took a collaborative approach when designing the calculation model
 - Asset Optimisation group (engineering team) developed a prototype model for each unit
 - We incorporated thermal performance models built using RWE TEMPplus
 - Site operators, engineers and analysts were consulted throughout the design

Example: Controllable Losses Online Calculations

The Solution – Building the Calculation

- The calculation was implemented using PI ACE and PI Asset Framework
 - All Inputs/outputs were mapped through Asset Framework templates
 - This is a modular approach



Decoupling calculation inputs using
PI Asset Framework

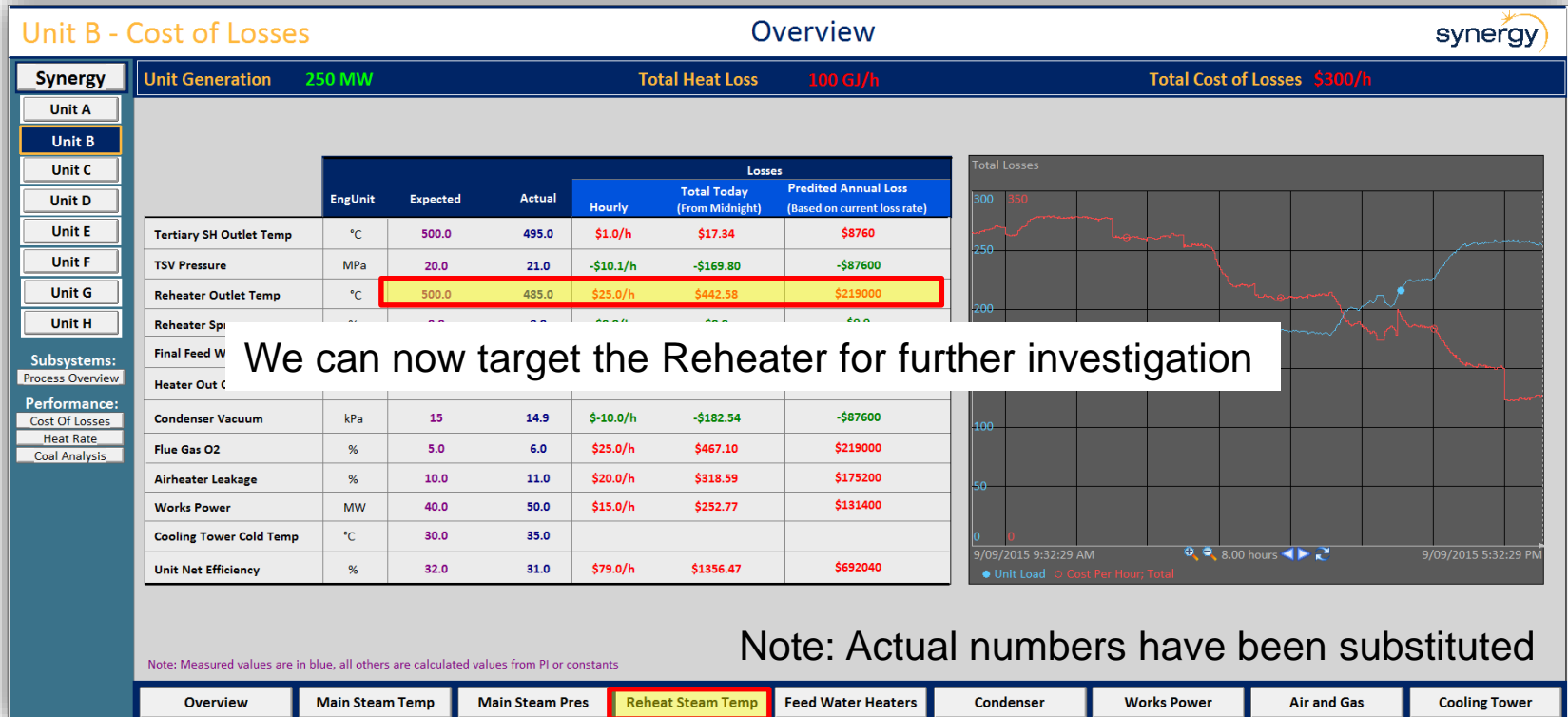
Example: Controllable Losses Online Calculations

The Solution – Presenting the Results

- Existing PI ProcessBook templates were used to ensure a consistent look and feel
- PI Datalink was used to create daily reports which were incorporated into the daily shift meetings

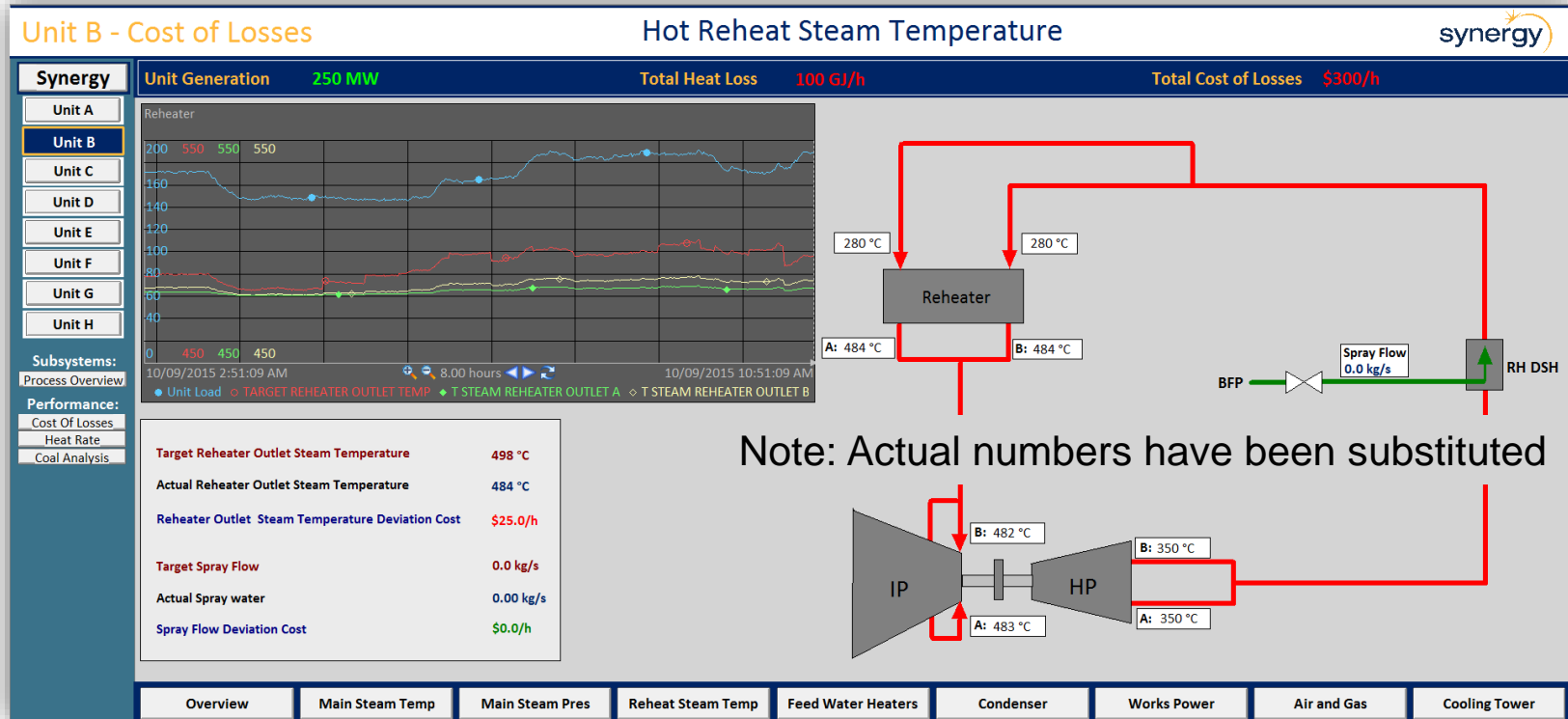
Example: Controllable Losses Online Calculations

The Result



Example: Controllable Losses Online Calculations

System Display – Focusing on an area of plant for further investigation



Example: Controllable Losses Online Calculations

Getting Support from the Business

- We made the business aware of the initiative:
 - We wrote a feature article in the PI-Lights newsletter
 - The displays were included in a business efficiency program initiative which provided justification
 - Feedback was very positive and demonstrated what was possible with the PI System

Where to Next?

- Continue to refine existing performance models and develop new models for other stations
- Utilise the increased capabilities of PI Coresight for increased visibility (and mobility)
- Continue to develop “power users”
- Incorporate model results into the Asset Management System
- Work towards migrating BAU end-user support to the IT desktop support team

Summary

- How we engage operational areas of the business is critical to the success and value of the PI System.
- Effective communication is key:
 - IT/OT must be on the same page
 - Broadcast initiatives
- We must build trust with the business (with both management and end users)



BUSINESS CHALLENGES

- A. Understanding operational requirements
- B. Breaking the spreadsheet culture and avoiding repetition of work
- C. Building trust and awareness of IT capabilities

SOLUTION

- A. Establish a centre of excellence
- B. Work closely with both end users and IT to build cross capabilities
- C. Effectively communicate initiatives, especially successes

RESULTS AND BENEFITS

- Operators have increased visibility of the performance impact in how our plant is run
- Significant cost savings in increased performance are anticipated
- Asset managers are better positioned to optimise maintenance

Contact Information

Alan Lark

alan.lark@synergy.net.au

PI System Specialist

Synergy



Questions

Please wait for the **microphone** before asking your questions



State your **name & company**

Please don't forget to...

Complete the Survey
for this session



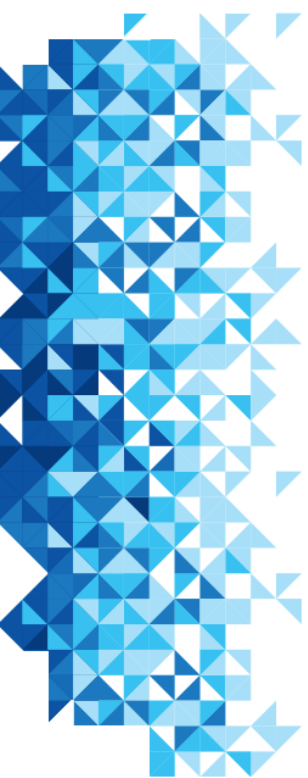
The Power of Data
DECISION READY IN REAL-TIME

Evaluation Form (Seminar Location - Date)

Name: _____ Company: _____

Email: _____

Quality and content of the presentations	Poor	Good	Excellent	N/A
Welcome	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Journey To Real-Time Operational Intelligence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Power of Connection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tank Level Management System	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using the FI System to Aid in Troubleshooting Operational Aspects of Oil and Gas Well Drilling and Completion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unleash your Infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information on the Spot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wrap-up/Seminar Conclusion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality and organization of the seminar				
Choice of date	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time allowed for lunch/breaks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Choice of presentations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Break time allowed for the presentation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



감사합니다

谢谢

Danke

Merci

Gracias

Thank You

ありがとう

Спасибо

Obrigado