



Extending value through greater integration with the product lifecycle

Key directions for OSLC for PLM

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Solution Architect
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Software Group
IBM



Agenda

- What is the Open Services for Lifecycle Collaboration community ?
- Why is this important ?
- Focus around PLM
- Contacts



What is the Open Services for Lifecycle Collaboration community ?

An open community to enable process integration along the lifecycle



Open Services for Lifecycle Collaboration

Lifecycle integration inspired by the web

[Home](#) [Learn](#) [Adopt](#) [Participate](#)



Learn Adopt Participate

Open Services for Lifecycle Collaboration (also known as OSLC or Open Services) is an open community dedicated to breaking down the barriers between the tools in the product and application lifecycle by making it easier to use lifecycle tools in combination.

[Keep in touch!](#)

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[+1](#) [9](#)

[Gefällt mir](#) [68](#) „Gefällt mir“-Angaben. Registrieren, um sehen zu können, was deine...

Open Services for Lifecycle Collaboration (OSLC)



WHY BROKE THE BUILD? REQUIREMENTS SILENCE CHANGE HAPPENS PROJECT PLANS R US TEST OR FAIL! LOTS OF TOOLS FROM LOTS OF PLACES

0:00 / 4:26

Open Services for Lifecycle Collaboration

- What is OSLC ? ([video](#) 4:20 min) ⇨ <http://open-services.net>

Aimed at simplifying tool integration across the product delivery lifecycle

Barriers to sharing resources and assets across the software lifecycle

- ▶ Multiple vendors, open source projects and in-house tools
- ▶ Private vocabularies, formats and stores
- ▶ Entanglement of tools with their data

Open Services for Lifecycle Collaboration

- ▶ Community Driven – specified at <http://open-services.net>
- ▶ Specifications for ALM and PLM Interoperability
- ▶ Inspired by Internet architecture
 - Loosely coupled integration with “just enough” standardization
 - Common resource formats and services
- ▶ A different approach to industry-wide proliferation

OSLC and Open Community

A Snapshot In Time

- Eleven workgroups operating
 - ▶ Across a variety of lifecycle domains
 - ▶ With a Core/common OSLC workgroup
 - ▶ And special interests from PLM/ALM constituents

- Community
 - ▶ 430+ registered community members
 - ▶ Individuals from 30+ different companies have participated in OSLC workgroups



Accenture	Northrop Grumman
APG	Oracle
BigLever	QSM
Black Duck	Rally Software
Boeing	Ravenflow
BSD Group	Shell
Citigroup	Siemens
EADS	Sogeti
Emphasys Group	SourceGear
Galorath	State Street
General Motors	Tasktop (Eclipse Mylyn)
IBM	Tieto
Institut TELECOM	TOPIC Embedded Systems
Integrate Systems	UrbanCode
	WebLayers

OSLC PLM community homepage

Main

Log In or Register

Main Web

- Create New Topic
- Index
- Search
- Changes
- Notifications
- RSS Feed
- Statistics
- Preferences

Webs

- Main
- Sandbox
- TWiki

TWiki > Main Web > PlmHome (13 Sep 2011, GrayBachelor) Edit Attach

Product Lifecycle Management and Application Lifecycle Management Integration

Welcome to the PLM Workgroup

Find a summary of links and activities below, more are available from the panel on the right.

Roadmap published for 4Q2011

The OSLC PLMWorkgroup has published a roadmap for 4Q2011 to refine and propose an initial set of PLM extensions.

Your contribution, review or feedback, is especially welcome.

[Overview of the roadmap.](#)

Next meetings

The next Main PLM Workgroup meeting is scheduled for Sept 27th 11 am ET / 5 pm CET

[Minutes for Aug 30th main meeting and draft PLM workgroup loaded here.](#)

Working meetings schedule

The workgroup will meet as usual Tuesdays at 11am ET see [note](#)

Participants

Rainer Ersch (Siemens, lead)
Gray Bachelor (IBM, organizer)
Andreas Keis (EADS)
Brenda Ellis (Northrop Grumman)
Dave Johnson (IBM)
Mike Loeffler (General Motors)
Pascal Vera (Siemens)
Roch Bertucat (ENEA)
Kartik Kanakasabesan (IBM)
Keith Collyer (IBM)

...and others :-)

Background



Why OSLC ?

OSLC is an initiative to promote open loosely couple integration using a web style architecture based upon Linked Data



Tim Berners-Lee's no mug !

<http://www.w3.org/DesignIssues/LinkedData>

- Provides
 - Link and query style, information centric approach
 - Wrapping of legacy data using Resource Description Framework (RDF)
 - Path to semantic web via Web Ontology Language (OWL)
- Benefits
 - Easier to mashup information to provide process support
 - Faster to respond to changing circumstance and needs

 **Open Services for Lifecycle Collaboration: workgroups and specifications**

OSLC Core and Common:

- OSLC Core
- Reporting
- Indexing/Change Log

Application Lifecycle Management:

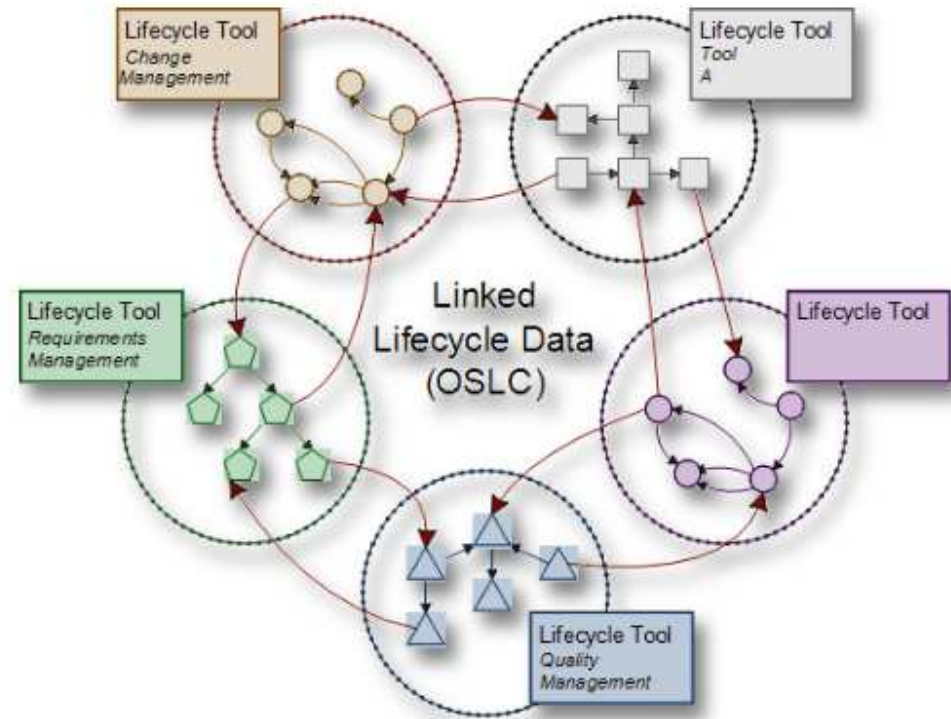
- Change Management
- Quality Management
- Requirements Management and Definition
- Asset Management
- Architecture Management
- Software Configuration Management
- Automation (build/deploy)

Software Project Management:

- Estimation and Measurement

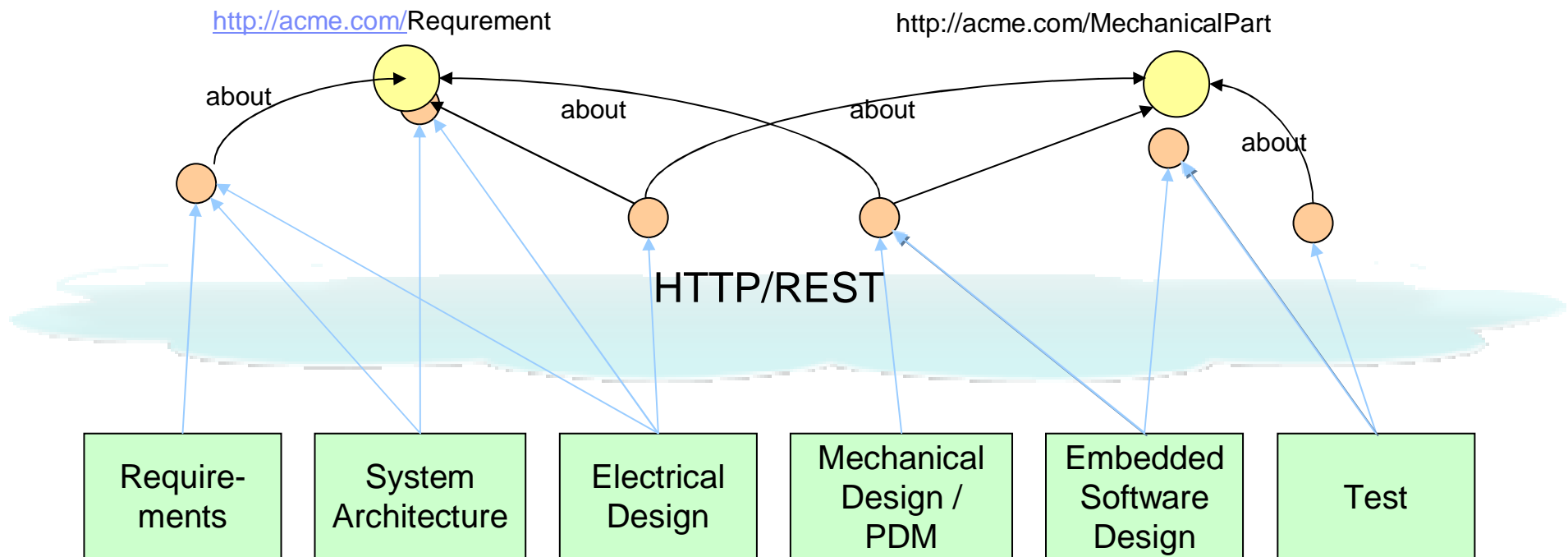
Product Lifecycle Management:

- PLM & ALM



OSLC: Leveraging the ;inked data concepts of Web Technology

The Web has proven to be the most **scalable**, **open**, and **flexible** integration technology!





Focus around PLM

OSLC PLM workgroup summary

- Chair: Rainer Ersch, Siemens Research
- Organiser: Gray Bachelor, IBM
- Leading contributor: Mike Loeffler, GM
- Additional contributions from
 - Siemens
 - General Motors
 - IBM
 - Northrup Grumman
 - EADS
 - Thales
 - KTH
 - ENEA
 - and other organisations

The OSLC PLM workgroup has published its 4Q roadmap

Timing of Spec extensions for product versions and views

Week ending >>>>>	02-Sep	09-Sep	16-Sep	23-Sep	30-Sep	07-Oct	14-Oct	21-Oct	28-Oct	04-Nov	11-Nov	18-Nov	25-Nov	02-Dec	09-Dec	16-Dec
OSLC roadmap																
OSLC PLM scenario updates	█	█	█	█	█											
Refine the 1st PLM extension proposal with prototyping in Lyo			█	█	█	█	█	█	█							
Review and finalise the 1st OSLC PLM extension										█	█	█	█	█		
Sample milestones																
OSLC WG meetings	Main	Wkg	Wkg	Wkg	Main	Wkg	Wkg	Wkg	Main	Wkg	Wkg	Wkg	Main	Wkg	Wkg	Main

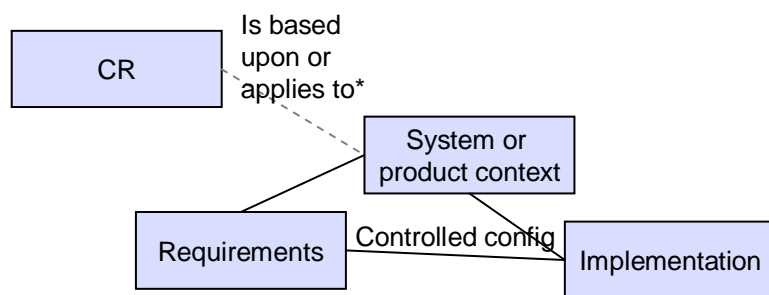
◆
Scenarios detailed

◆
Extensions prototyped

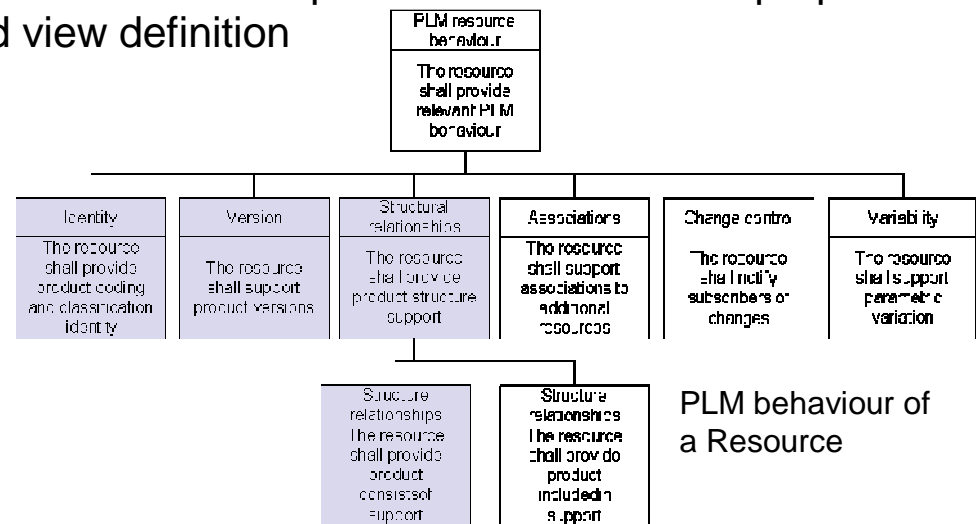
◆
Extensions as draft Spec

OSLC PLM Workgroup mission and overview

- The OSLC PLM workgroup aims to *promote use of existing* OSLC specifications in ALM/PLM settings and *contribute towards extension* or new OSLC specifications base upon need for ALM/PLM collaborations
- Our current focus is on a typical industry scenario an existing product is updated via its requirements and design implementation a.k.a “a Systems Engineer responds to change in requirements (for an existing product)”
- This scenario relies upon the change in association between CRs, Requirements, Products and the Design Implementation
- We have identified typical PLM behaviour needed and published the first draft proposals and prototypes for product version and view definition



Scenario concerns



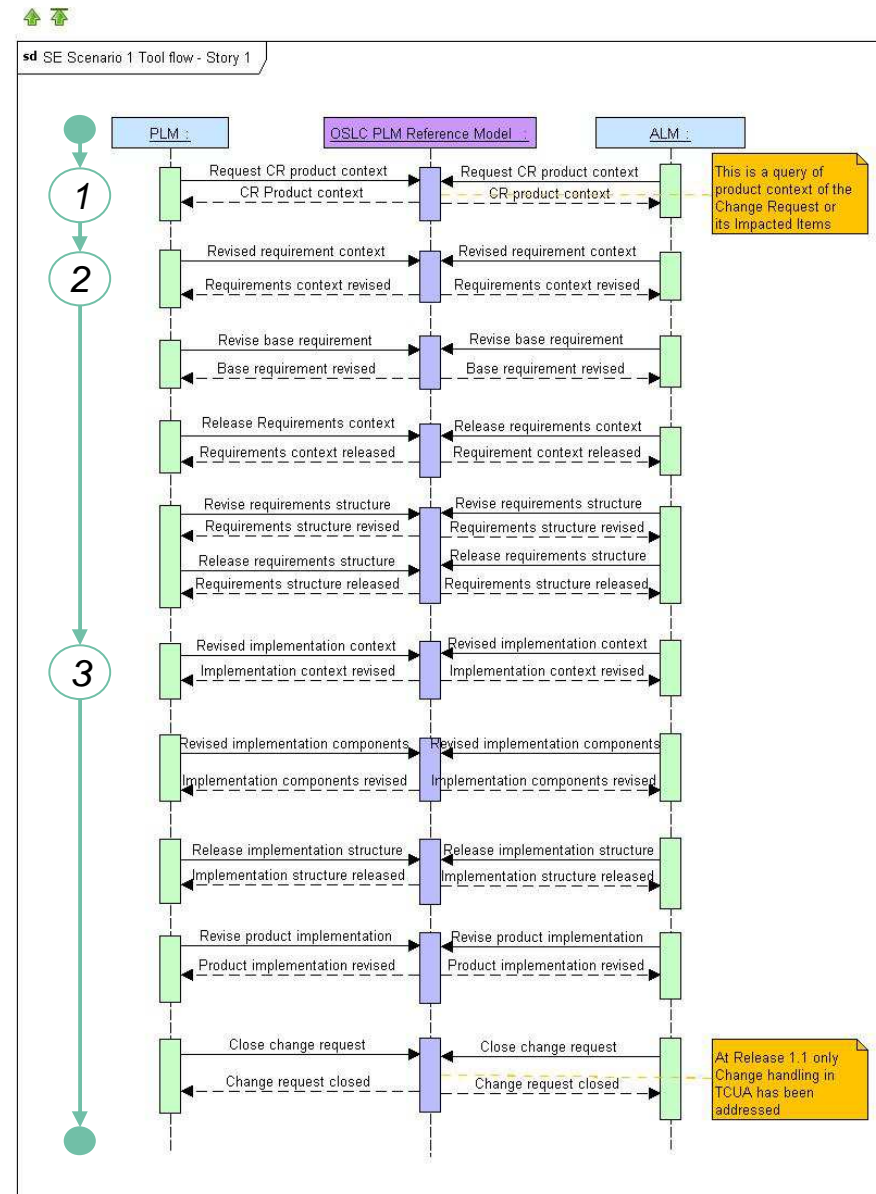
PLM behaviour of a Resource

Summary of the main target scenario for OSLC PLM

A system responsible, i.e. a Systems Engineer, in a Business unit, needs to respond quickly and accurately to requests for product and system changes to meet responsiveness and cost objectives

- 1 assess the full impact of a change on the system definition, which is a combination of the relevant agreed requirements, specifications and implementation descriptions
- 2 prepare an update to the system requirements to fully specify the change request, working on the appropriate areas, re-using relevant requirements and calling upon other contributors, as needed, to meet the business objectives
- 3 prepare and oversee an update of the full system definition as an implementation of a solution to the change request, working on the appropriate areas, re-using or designing relevant content and calling upon other contributors, as needed, to meet the system objectives

Diagram SE Scenario 1 Tool flow - Story 1



Packaging of the OSLC PLM Reference Model 1.1



OSLC PLM Reference Model 1.1

1. Explore the whole Reference Model through the Scenario sequence diagram

[Launch the html explorer](#)

2. Directly explore the Reference Model for the Requirements change stages

[Launch the html explorer](#)

3. Directly explore the Reference Model for the Implementation change stages

[Launch the html explorer](#)

4. View the OSLC PLM Reference Model 1.1 release Readme

[Launch the readme text file](#)

The model can be accessed in the following ways

1. Through the html launcher index.html
2. By importing the whole zip archive into a project in a topcased workspace

- New in Release 1.1
 - extended the scenario to include the Implementation change phase
 - provided a sequence diagram and navigator
 - included sample ALM and PLM tool support
 - provided a clickable html navigator to explore the models
 - provided additional ALM and PLM tool generated files
- Using the sequence diagram navigator it is possible to
 - understand the collaborations needed for the ALM and PLM tools
 - explore the PLM Reference Model at each evolution of the scenario through SysML, STEP and ALM and PLM
- Additional files available
 - XML and OWL representations of the STEP file
 - Generated PLM XML files
- The tools applied have been
 - topcased 3.4.1
 - IBM Rational DOORS 9.3
 - Siemens Temacenter Unified Architecture 8

Exploring the needed PLM behaviour using our reference model – available on the PLM workgroup wiki

Diagram SE Scenario 1 Tool flow - Story 1

sd SE Scenario 1 Tool flow - Story 1

Participants: PLM, OSLC PLM Reference Model, ALM

Messages:

- Request CR product context (circled in red)
- CR Product context (circled in red)
- Revised requirement (circled in red)
- Requirements context revised (circled in red)
- Revise base requirement
- Base requirement revised
- Release Requirements context

Annotations:

- 1**: [Model] main > [Package] Sequence diagramPackage > [Collaboration] Sequence diagramCollabo > [Interaction] SE Scenario 1 Tool flow - Story 1
- 2**: Revised requirement
- 3**: View PLM Reference Model as SysML
- 4**: View PLM Reference Model in STEP

Scenario action

Onclick documentation update

PLM reference model view

Tool examples

Example view in an ALM Tool IBM Rational DOORS 9.3

Example view in a PLM Tool Siemens TeamCenter 8

Documentation

documentation for current BehaviorExecutionSpecification (BehaviorExecutionSpecification2) :

SLC PLM Reference Model Pre-condition

ep 00 pre-condition

1 HSIIV Specification

1.1 Performance

The request SIV shall have the loading, acceleration and offset capabilities of a typical SIV, but have statistically improved fuel economy.

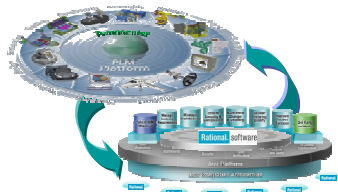
1.2 Eco-Friendliness

The request SIV shall be eco-friendly.

1.3 Ergonomics

The request SIV shall utilize good ergonomic design.

Applying today's OSLC Specs in a PLM context - examples

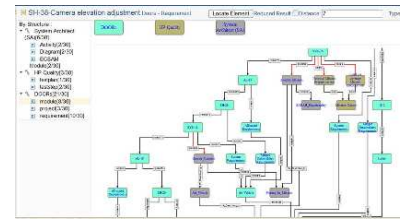


**Siemens TCUA
Rational Team Concert**

Enterprise change handling

Research project to expose, link and navigate relationships across lifecycle artefacts

Showcases Siemens Teamcenter, Rational Team Concert and ClearQuest



Relationship Hub

Research project to expose, link and navigate relationships across lifecycle artefacts

Showcases DOORS, Siemens Teamcenter, System Architect and HP Quality Center

AM, CM, RM 2.0



Product Collaboration portal demonstrates tailoring of an Enterprise Collaboration Platform using IBM's Product & Service Framework

Uses CM1.0 and CM2.0 to provide views and mash-ups across, product planning in Focal Point, feature development in RTC, PDM, ERP (SAP) and Sales Catalog



Customer modification request feedback to development

Customer and service partner project to validate usage of OSLC to reduce time and cost for integration of enterprise application with new Quality Management platform

Showcases In-house, CQ, RQM



All are welcome

- The PLM workgroup meets regularly
 - Monthly main meetings
 - Last Tuesday in the month at 11am ET
 - Weekly detailed workings
 - Other Tuesdays at 11am ET

- <http://open-services.net/bin/view/Main/PlmHome>

- During 4Q we follow the roadmap and invite additional feedback on the first PLM extensions to the OSLC Specs

- Contacts:
 - [Rainer Ersch, Siemens](#)
 - [Gray Bachelor, IBM](#)

धन्यवाद

Hindi

多謝

ขอบพระคุณ

Спасибо

Gracias

شكراً

Thank

Obrigado

You

Danke

Grazie

多谢

Merci

நன்றி

Tamil

감사합니다

ありがとうございました