SmartPlant Instrumentation 2013 Upgrade Procedure Via Oracle

How to upgrade to
SmartPlant Instrumentation
2013 and Oracle 11g

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Assumptions

♦ These instructions are intended for Project Data Integrators, Project Automation Specialists and Discipline Application Specialists

♦ There were significant improvements in SPI 2009 from SP1 to SP2. Enough so that the upgrade routine in 2009 SP4 requires a database be at 2009 SP2 as a minimum to upgrade. It is assumed that SPI 2013 also requires at least 2009 SP2.

♦ This procedure has been tested using SPI 2009 SP3 HF2 and SPI 2009 SP4 HF14

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Upgrade Challenges

♦ SPI 2009 not supported on Oracle 11g

♦ SPI 2013 not supported on Oracle 10g

♦ Upgrade across SPI and Oracle versions

♦ Upgrade in a timely manner to minimize project downtime

♦ Maintain data integrity

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Intergraph's Recommendation

Option 1 – Upgrade Oracle 10g DB to Oracle 11g

Replace SPI installation

Initialize new Oracle 11g from upgraded 11g

Con – requires coordination with Oracle DBA

Option 2 – Backup Oracle 10g to Watcom

Initialize Watcom with old SPI SA version

Replace SPI SA version keeping database

Upgrade standalone database to SPI 2013

Backup standalone database

Initialize SPI SA 2013 backup in SPI 2013 11g

Con – requires SPI SA licenses for 2 versions

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Pre-Requisites

♦ A machine with the existing SmartPlant Instrumentation version installed on Oracle 10g

♦ New Oracle 11g Instance to host the new database

♦ A machine with the existing SmartPlant Instrumentation version installed on Oracle 11g

♦ Installation files for SmartPlant Instrumentation 2013

The same machine may be used in the upgrade process by uninstalling and installing software as needed. Separate machines were used to develop this procedure to reduce complications.
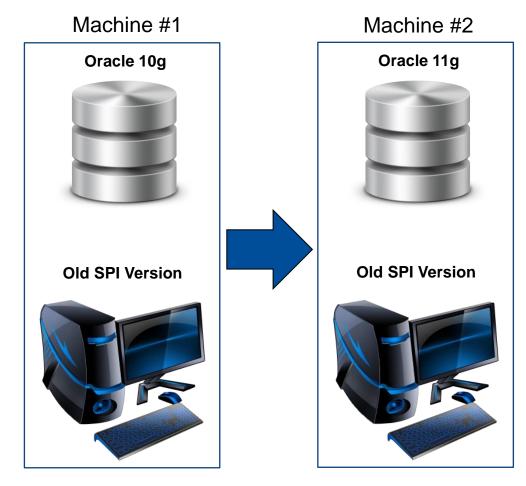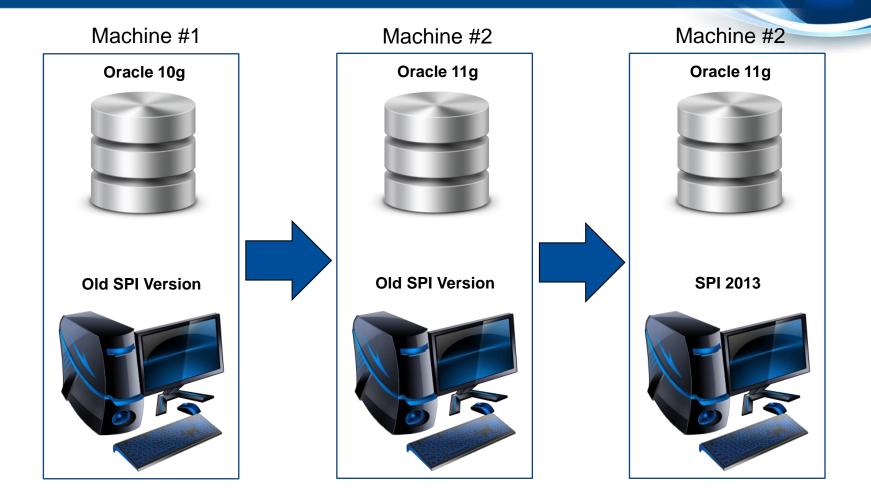
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Upgrade Process Overview

Machine #1

Oracle 10g

Old SPI Version

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Upgrade Process Overview

Machine #1

Oracle 10g

Old SPI Version

Machine #2

Oracle 11g

Old SPI Version

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Upgrade Process Overview

Machine #1		Machine #2		Machine #2
Oracle 10g		**Oracle 11g**		**Oracle 11g**
Old SPI Version	→	**Old SPI Version**	→	**SPI 2013**

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Work Instruction Summary – Part 1 Transfer SPI 2009 SPx

- ♦ Create backup of old SPI with a Watcom dump
- ♦ Run CheckDB and resolve issues
- ♦ Create second backup of old SPI with a Watcom dump
- ♦ Restore Watcom to new production system
- ♦ Regenerate Stored Procedures and Views, Re-index
- ♦ Apply SQL fix with SYSTEM user.

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Work Instruction Summary – Part 2 Upgrade to SPI 2013

♦ Create backup (just in case)

♦ Upgrade instance to SPI 2013

♦ Run CheckDB and resolve issues

♦ Apply Process Data fix

♦ Test and Confirm Upgrade

♦ Upgrade User local installations (Oracle, SPI, SPF comp)

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