ORACLE

Integra Codebase 4.2 SP1 Implementation Overview

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Contents

About this guide

Intended audience

This guide is primarily addressed to those who will:

- Plan, staff, and manage the implementation of Integra Codebase
- Plan the installation of Integra Codebase
- Prepare environments for management by Integra Codebase
- Manage environments with Integra Codebase

Documents about Integra Codebase 4.2 SP1

Release Notes provides a quick overview of the features offered in this release.

Implementation Overview describes installation requirements, prerequisites, and other considerations. It also discusses business decisions that can affect installation, configuration and use.

Installation Guide gives step-by-step installation instructions.

Administration Guide explains how to configure and administer Integra.

User Guide shows how to perform day-to-day tasks.

Terminology

Using Integra Codebase

Codebase Home schema	Database schema that stores all Codebase configuration data, and the information needed for comparing and versioning your files and database objects. Codebase can share this database with other applications. The schema resides in an Oracle database. The database, in turn, can reside on any server (including the Codebase Server). Codebase users and the Codebase Server access the schema using SQL*Net.
Codebase Server	Runs the Codebase application, including its automated processes (Automated Versioning, Automated Publishing, Automated Change Finder and Automated Generation).
Environment	Database instance monitored by Integra Codebase, and a set of files associated with that instance. Example: an Oracle E-Business Suite database instance, and the collection of programmatic files used by the Suite.
Module	A single piece of programmatic content, such as a file or a database object (including Oracle E-Business Suite forms, reports, menus, libraries, and PL/SQL code).
Project	Collection of Environments that are part of a code promotion hierarchy (e.g., Development, Test, and Production), and a set of user permissions and other configuration information. Projects are usually used to represent logical units of work as well as groups of Environments. The Project Administrator must create projects before anyone can use Codebase.

Installation

Integra Installer	Platform-independent software for installing Integra components.
Installing computer	Computer where the Integra Installer is run.

Contact us

If you have questions about the use of this product after reading this guide, please contact Oracle Support.

If you would like information about new applications, functionality, or fixes, please contact your Account Manager or Oracle Sales.

Start Here

Already familiar with Integra Codebase? See "If you've used Integra Codebase before" below.

If you're using Integra Codebase for the first time

What is Integra Codebase?

Integra Codebase provides change tracking, impact analysis, and versioning of both files and database objects, including Oracle E-Business Suite forms, reports, menus, libraries, and PL/SQL code. A component of Oracle Configuration Controls Governor, Codebase provides superior tracking and reporting of changes – planned as well as executed.

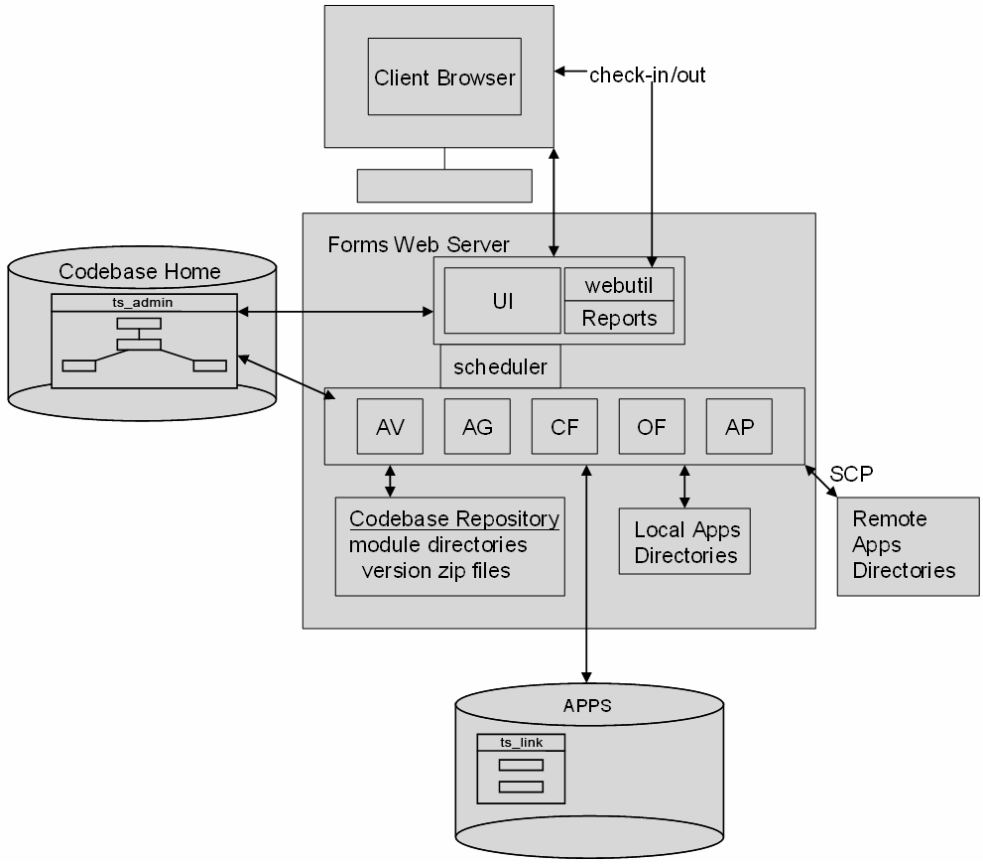
Integra Codebase increases the effectiveness of development efforts while minimizing the challenges that cause project overruns and production downtime. Whether applying a patch, upgrading to a new release, or extending Oracle to meet specific business requirements, Codebase dramatically reduces the time and resources required to identify changes, dependencies, and impact on your environment.

Integra Codebase's unique functionality provides the industry's deepest level of impact analysis. Using binary code comparison and dependency recognition, Codebase delivers robust documentation and analysis of your business applications' programmatic content.

Integra Codebase has eight major components:

Maintain Versions	Interactive version reporting, comparison, and control, (including check-out/in, labeling, and restore), for all programmatic content types, including files, forms, reports, menus, libraries, and PL/SQL.
Automated Versioning	Automatically versions files and database objects whenever they change. Populates Maintain Versions.
Automated Generation	Migration process that promotes files, creates executables, and installs database objects in an Environment.
Change Finder	Interactive component that finds differences in files, database objects and database schemas.
Automated Change Finder	Monitors files and schemas for changes.
Publish	Creates documentation of programmatic content on demand.
Automated Publishing	Automatically creates documentation of programmatic content.
Object Finder	Interactive component that lets you search for procedures, files, database object dependencies, subclassed forms, or attached libraries.

The following diagram depicts a typical installation managing an Oracle E-Business Suite environment:



To get started

Proceed to “Integra Codebase Implementation” below.

If you've used Integra Codebase before

Integra Codebase 4.2 offers many advantages over previous releases. It uses a new Java architecture that provides robust support for both Unix/Linux and Microsoft Windows Environments. It also has an improved user interface that's more reliable and easier to use.

The following chart summarizes the most significant differences between Codebase 3.9, 4.1, and 4.2:

	Codebase 4.2	**Codebase 3.9 and 4.1**
Operating System	Unix/Linux and Microsoft Windows	Microsoft Windows only
Usability	Streamlined and simplified user interface	
Performance	Standard J2EE processes replace Oracle Forms background processes, providing increased stability and reliability	
	Improved performance for all automated processes	
	Generation performance based on number of files generated	Performance related to number of files monitored
Environments and Objects	SCP allows management of unmounted directories; directory mounts are still supported	Managed file directories must be mounted on Codebase server
	Defining a promotion hierarchy is as simple as entering a list of Environments	A two-dimensional array of "Environments" and "Stages" must be configured
	Assets can be promoted to any environment in the hierarchy	Assets must be promoted to each environment in the hierarchy, in the hierarchical order

	Codebase 4.2	Codebase 3.9 and 4.1
	Same file name can appear in any number of directories	File name must be unique across all versioned directories
	Support for versioning and generating more database object types	
Generation	Generates only files marked for promotion	Unexpectedly generates files not marked for promotion (to match destination environment to internal image, which can be out of sync with actual source)
	Improved logic to determine whether generation succeeded for User Defined Extensions (UDEs)	
	Expanded set of UDE substitution variables	
	Support for more object types	
	Command logs available within generation logs	Command logs available on server only
Creating documentation	New Publishing component provides documentation on demand	Documentation must be generated using Automated Publishing

	Codebase 4.2	Codebase 3.9 and 4.1
Reports	Reports are available on the workbenches that generate them, ready for decision support and troubleshooting	To view reports, you must leave your current workbench and navigate to other windows
	New reports: *Environment* - Module versions promoted to an environment *Unpromoted Content* - Modules never promoted to an environment *Comparison* of modules promoted to two different environments *Audit* of files promoted to an environment vs. actual file system contents *Change Finder Summary* *Job Summary*	
Jobs	More flexible scheduling options	
	Schedule any series of automated processes in a single step using the Schedule window	
	No browser required on Codebase server	Must run an Oracle Form in a browser window on Codebase Server
	A single summary email message is sent describing all changes made during a job	Separate email messages sent for each file acted upon
	The View Inside Jobs window's Log window replaces the Action Summary window, consolidating job status and results	Job status and results are displayed in two different windows

	Codebase 4.2	Codebase 3.9 and 4.1
Workstation	Web browser	*3.9 only:* Oracle Forms client
Application server	10gAS Release 2	3.9 - 6i Forms client/server; 4.1 - 10gAS Release 1

See the *Integra Codebase 4.2 SP1 Release Notes* for a complete list of new features.

As mentioned above, reports are now available on relevant workbenches:

Codebase 4.1	Codebase 4.2 SP1
View Reports > View Automated Change Finder Reports >	
View Customizations	Maintain Versions: Compare To...
View Version Changes	Maintain Versions: Compare To... Change Finder
View Oracle Changes	Change Finder: Compare Time Periods
View Error Summary	View Inside Jobs: View Log
View Schema Changes	Change Finder: Compare Specific Modules
View Reports > View Automated Publishing Reports >	
View Document	Automated Publishing
View Error Summary	View Inside Jobs: View Log
Installation Status >	
View File Status Print Environment	Environment report
Reprocess File	Maintain Versions: Promote to (promote again to the same Environment)
View Errors	View Inside Job: View Log

Integra Codebase Implementation

The time needed for a complete implementation of Integra Codebase at your organization depends on both your availability and Oracle Client Services' calendar. If your organization gives the Integra Codebase implementation high priority, Oracle can work with your team to implement Integra Codebase within one to two months.

A typical Integra Codebase implementation consists of the following stages:

Integra Codebase Overview Presentation
An Oracle Integra Codebase Consultant conducts this one to two hour presentation, to you and your Integra Codebase key decision makers, via web conference. The consultant explains Integra Codebase terminology and functionality. You use this overview to decide which Integra Codebase components to implement at your organization.

When: Approximately one to two weeks after we have received your purchase order.

Pre-Installation Questionnaire
You and your key Integra Codebase decision makers must fill out this questionnaire based on both the Integra Codebase Overview Presentation and the information contained in this document. Using your answers, Oracle's Integra Codebase Consultant recommends how to implement Integra Codebase.

When: The Oracle Integra Codebase Consultant sends you this questionnaire after the Integra Codebase Overview Presentation. You and your key decision makers must answer this questionnaire and return it to your implementation consultant ***within five business days****. Once we receive the answered questionnaire, you can schedule installation and training dates with Oracle's Implementation Manager.*

Pre-Installation Call

You and your Integra Codebase key decision makers attend this call with your Oracle Integra Codebase Consultant, to review the requirements for the software installation. We also review our implementation recommendations, and tailor them to meet your needs.

When: This call occurs three to five business days after we receive the answers to your Pre-Installation Questionnaire, which allows our consultants time to formulate recommendations tailored to your organization's needs.

Installation

Your Oracle Integra Codebase Consultant works with your DBA and/or key administrative personnel to install Integra Codebase, and complete the implementation that was reviewed during the Pre-Installation Call. Please note that the efficiency of installation depends on the amount of detail you provide in the Pre-Installation Questionnaire.

When: Installation occurs after the Pre-Installation Call, on the scheduled dates confirmed with your Oracle Implementation Manager. Prior to installation, your organization must meet all hardware and software requirements in the "Requirements" section below. A typical installation takes approximately five business days.

Training

Your designated Oracle trainer arrives onsite for training. The first day consists of administrator training, and the second day is developer training (see the sample training agenda below).

When: Training occurs approximately two weeks after installation, to ensure that the Integra Codebase installation and all initial automated processes have completed successfully.

Sample Integra Codebase Training Agenda

Day 1: Administrator Training

Introduction and Overview (1 hr)
User Interface, Terminology
Components, Projects
HANDS-ON REVIEW

Automated Versioning (1 hr)
Configuration Forms
Running Automated Versioning
HANDS-ON REVIEW

Automated Publishing (1 hr)
Configuration Forms
Running Automated Publishing
HANDS-ON REVIEW

– Lunch –

Automated Change Finder (1 hr)
Configuration Forms
Running Change Finder
HANDS-ON REVIEW

– Break –

Automated Generation (2 hrs)
Configuration Forms
Running Automated Generation
Change Finder (approx. ½ hour)

Day 2: Developer Training

Introduction and Overview
User Interface, Terminology
Components, Projects
Customer Setup/Design

Development (2 hrs)
Maintain Versions
Link Custom Modules
Action Summary

Tools (2 hrs)
View Reports
Change Finder
Object Finder

– Lunch –

Deployment (1 hr)
Maintain Versions
Installation Status

Implementation roles and responsibilities

Oracle personnel

Oracle's Implementation Manager	Works with your organization's Integra Codebase Project Manager, and is responsible for all initial communications between your organization and Oracle, as well as any questions, concerns, or issue escalation during Oracle's engagement.
Oracle's Integra Codebase Consultant	Acts as the day-to-day interface between your organization and Oracle during the Integra Codebase implementation. Works with your organization's DBA prior to arriving onsite, to ensure the Environments are prepared for the installation. Educates your organization about using Integra Codebase, and provides onsite support during the initial stage of the project.

Your organization's personnel

Your Integra Codebase Project Manager	Mobilizes technical resources, designates functional team members, facilitates required logistics, and generally serves as liaison between your organization and Oracle's personnel. Needed during all phases of the implementation project to ensure the project remains on schedule and achieves its stated goals.
Your Integra Codebase Administrator	Works with Oracle's Integra Codebase Consultant during installation, to configure Codebase.
Your Integra Codebase User	Trained by Oracle's Integra Codebase Consultant to perform all required Codebase tasks. Should be either a developer, DBA, IT employee who supports your developers, or another individual designated by your organization's Integra Codebase Project Manager.
Your Database Administrator (DBA)	Responsible for the Environments. Works with Oracle's Integra Codebase Consultant before the latter arrives onsite, to ensure that the Environments are prepared for installation. Works with Oracle's Integra Codebase Consultant during installation.

Requirements

The following business application and database environment requirements are necessary for Integra Codebase. If any requirement does not apply to your environment or project, please review it with Oracle's Integra Codebase Consultant.

System requirements

To successfully install and use Integra Codebase 4.2 SP1, your systems must satisfy the following requirements. Do not attempt installation until they are met.

If you are upgrading from Codebase 3.9 or 4.1: During the upgrade process, you will install Codebase 4.2 SP1. All installation requirements below apply.

All requirements below are mandatory, unless otherwise stated. Do not attempt installation until all requirements have been met. Failure to do so will lead to errors and delays.

Installing computer

- One of the following operating systems:

  Microsoft Windows

  Unix/Linux with X Client

- SQL*Plus and IMP (Oracle Import utility):

  Both must be part of the same Oracle client, and stored in the same directory. The Oracle client must satisfy this requirement:

If the Integra Home instance is…	The Installing computer's Oracle client must be…
Oracle 9i database	Oracle 9i
Oracle 10g database	Oracle 9i or 10g

  Both must have SQL*Net connectivity to the Integra Home instance (which requires an entry in the Oracle client's **network/admin/tnsnames.ora** file for the Integra Home instance).

  Unix/Linux users: You must have **Read** and **Execute** permissions for both.

- Java Runtime Environment **J2SE 1.4.2_05 JRE** or newer (downloadable from http://java.sun.com/j2se/1.4.2/download.html).

- ***If you are installing onto a Unix/Linux computer:*** **scp capability** to transfer files from the installing computer to the Codebase Home schema.

  We recommend that you test the scp capability by using an scp client to transfer a file (of your choice) from the installing computer to the server that hosts the Codebase Home schema. Any errors generated by the scp client must be resolved before using the Integra Installer. Work with your system administrator to find resolutions before continuing.

- The file **classes12.jar** or **classes12.zip** (delivered in Oracle's database installation, downloadable from http://www.oracle.com/technology/software/index.html).

- The file **jacob_18.zip** (a COM-to-Java bridge, downloadable from http://prdownloads.sourceforge.net/jacob-project/jacob_18.zip). For information about this file, visit prdownloads.sourceforge.net/jacob-project.

- The file **xapool-1.4.2.jar** (an open-source utility package, downloadable from http://download.forge.objectweb.org/xapool/xapool-1.4.2.jar). For information about this file, visit xapool.experlog.com.

- The file **jasperreports-1.2.8.jar** (an open-source reporting engine, downloadable from http://downloads.sourceforge.net/jasperreports/jasperreports-1.2.8.jar?modtime=1163544934&big_mirror=0). For information about this file, visit www.sourceforge.net/projects/jasperreports.

- The file **birt-runtime-2_1_1.zip** (an open-source reporting engine, downloadable from http://www.eclipse.org/downloads/download.php?file=/birt/downloads/drops/R-R1-2_1_1-200609260959/birt-runtime-2_1_1.zip). For information about this file, visit www.eclipse.org/birt.

- 100MB of disk space for temporary storage of installation files.

Codebase Home schema

Choosing an instance

- The Codebase Home schema can reside in a new or existing database instance. The database can contain non-Integra schemas, and Codebase 3.9/4.1 schemas, but we recommend choosing an instance that does not contain business application schemas.

Platform

- Any of the following operating systems: AIX, HP/UX, Linux, Microsoft Windows, Solaris.

Software

- Database

  Oracle 9i database version 9.2.0.3 or higher

  …or:

  Oracle 10g database

- SQL*Plus
- SQL*Net connectivity to each instance managed or used by Integra
- ***If you are upgrading from Codebase 3.9 or 4.1 with a Home schema running in a Windows environment to Codebase 4.2 with a Home schema running in a Unix/Linux environment:*** The 3.9/4.1 environment must have an ssh server. The Integra Installer will use this server when transferring data from the 3.9/4.1 schema to the 4.2 schema.

Database

Once you choose the database that will house the Codebase Home schema, complete the following requirements.

- **Disk space:** Verify that you have adequate disk space for these tablespaces:

Tablespace name	Minimum size for EACH Oracle E-Business Suite instance	Minimum size for EACH other instance
COD_DATA	3 GB	800 MB
COD_INDX	2 GB	500 MB

  * The Integra Installer will create these tablespaces, and will create one datafile for each tablespace. If you require more than one datafile per tablespace, create the tablespaces and datafiles before running the Installer. We recommend using the names shown above; in any event, make note of the names you use, because the Installer will ask you for them.

  If you are upgrading from Codebase 3.9 or 4.1: If tablespaces with these names already exist in the database that will house the 4.2 Home schema, you will create new tablespaces with different names (e.g., COD_421_DATA), and must have adequate disk space for the new tablespaces.

- **Database parameter file:** Set the following values in **INIT.ora**:

Parameter	Value
_complex_view_merging	`FALSE`
cursor_sharing	`EXACT`
global_names	`false`
java_pool_size	`= 65000000` *or greater*
open_cursors	`4096`
undo_retention	`10800`

- SYSTEM passwords

- ***If you are upgrading from Codebase 3.9 or 4.1:*** The Integra Installer will create a DB link between this database and the one that houses your current Codebase Home schema (in order to transfer data from the latter to the former). The environments housing the two databases must allow creation of this link.

Environments

Platform

- Any of the following operating systems: AIX, HP/UX, Linux, Microsoft Windows, Solaris.

Software

To version and manage database objects:

- Database

  Oracle 9i database version 9.2.0.3 or higher

  …or:

  Oracle 10g database

- SQL*Plus
- SQL*Net connectivity to each instance managed or used by Integra
- SYSTEM password

Database

- A tablespace with at least 10MB available. The tablespace can be shared with other applications, or dedicated to Codebase. Codebase uses the table to temporarily store data.

  If you are upgrading from Codebase 3.9 or 4.1: This space requirement is in addition to 3.9/4.1's needs.

Codebase Server

This server performs all Codebase actions, including all logic, automation, and serving of the Codebase user interface. It may reside on any computer other than those serving the Environments, and must meet these requirements:

Platform

- Any platform that supports the required application server specified below. Consult the database vendor's documentation for information about supported platforms.

Software

- The following components of **Oracle Application Server 10gAS Release 2**, installed from Oracle Corporation media to a new Oracle home directory:

  Apache web server

  J2EE container

  Oracle Forms service

Configuration

- The OC4J_BI_Forms **Java** startup parameters must include:

  ```
  -Xx:+AggressiveHeap
  ```

- ***Unix/Linux only:*** The BC4J_Forms **DISPLAY** variable must be set to `XTerm`. (This variable can be set using the Oracle Enterprise Manager.)

- ***Unix/Linux only:*** The application server's login user must have an environment file that specifies the full path to the `ls` and `env` commands.

- ***Windows only:*** The Codebase Server must have access to the files and databases on each Environment that will be managed. The typical way to provide this access is by creating NFS mounts; an alternative is to enable ssh and scp capabilities.

Database

- Adequate disk space to store all versions. At the outset, we recommend allocating at least 10GB. If you plan to version all Oracle E-Business Suite database objects, we recommend allocating 20GB.

User workstations

Platform

- Computer with network connection
- Any of these operating systems: AIX HP/UX; Linux; Windows NT 4.0, 2000 or XP; Solaris

Software

- Any of these web browsers: Firefox 1.5 or higher, Microsoft Internet Explorer 5.5 or higher, Mozilla 1.7.12 or higher, Netscape 7 or higher
- Adobe Reader 5.0 or higher

Personnel requirements

The following personnel from your organization will be needed either before or during installation:

- Database administrator