

Software Development and Release Management of ICIS

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Outline

- Stages of Software Development
- ICIS Development
- ICIS Release Management

Stages of Software Development

- Gathering of User Requirements
- Specifications
- Design
- Implementation
- Testing
- Documentation
- Maintenance

ICIS Development

- Gathering Users Requirements
 - ICIS Workshop
 - User's Training & Workshop
 - Crop forge feature requests
 - Meetings/discussion
- Specifications
 - Summary of feature requests to be implemented for the release to be developed.

Feature Request Site

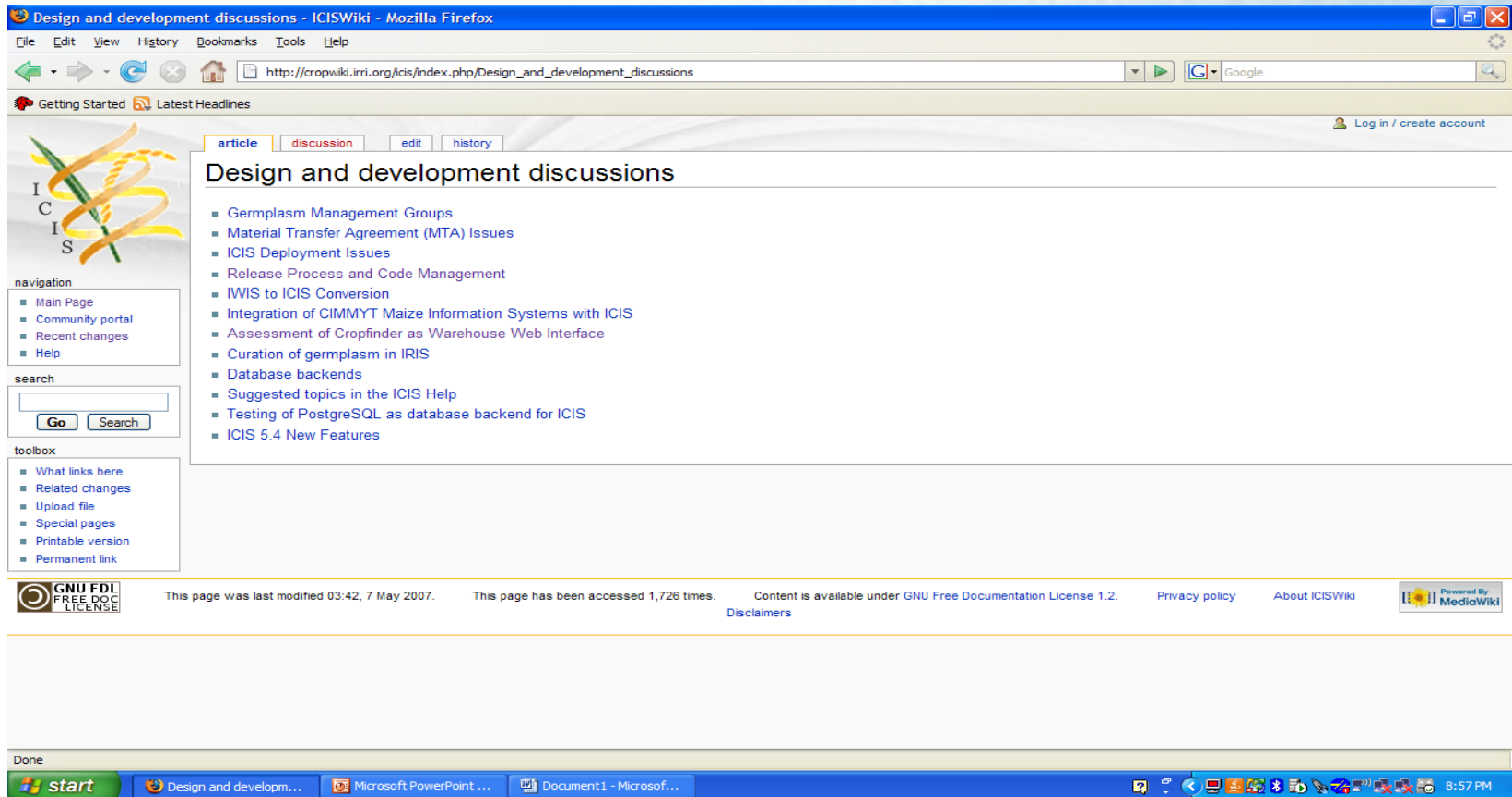
The screenshot shows a web browser window displaying the CropForge ICIS Communication website. The page features a navigation menu with options like Home, My Page, Project Tree, and ICIS Communication. Below the menu, there are tabs for Summary, Admin, Forums, Tracker, Lists, Docs, Surveys, News, and Files. The main content area displays a list of feature requests with columns for ID, Summary, Open Date, Assigned To, and Submitted By. The list includes various requests such as 'User defined list for limiting cross expansions' and 'Launcher functionalities'.

ID	Summary	Open Date	Assigned To	Submitted By
<input type="checkbox"/> 28	User defined list for limiting cross expansions	* 2005-09-08 14:22	Graham McLaren	Russell Reinke
<input type="checkbox"/> 58	Launcher functionalities	* 2005-12-08 21:36	Arlet Portugal	Casper aan den Boom
<input type="checkbox"/> 113	Fill with germplasm's MGID name	* 2006-03-16 18:02	Arlet Portugal	Roniela Herrera Prantilla
<input type="checkbox"/> 125	Header behaviour Setgen for SaveAs the same as for fill with	* 2006-03-31 22:35	Arlet Portugal	Casper aan den Boom
<input type="checkbox"/> 160	Data validation checks	* 2006-05-21 20:06	Nobody	Ruaraidh Sackville Hamilton
<input type="checkbox"/> 177	Requested changes to GUI GMSSearch	* 2006-06-20 13:34	Arlet Portugal	Ruaraidh Sackville Hamilton
<input type="checkbox"/> 184	Load/Unload Study to Central Database	* 2006-07-12 02:59	Warren Constantino	Shawn Yates
<input type="checkbox"/> 187	Study download from Web Interface	* 2006-07-21 09:01	Nobody	Sandra Micallef
<input type="checkbox"/> 355	Scale type (For SCALECON and SCALEDIS tables)	* 2006-12-08 18:20	Warren Constantino	Sebastien Frade
<input type="checkbox"/> 356	References in ICIS	* 2006-12-13 00:39	Nobody	Shawn Yates
<input type="checkbox"/> 396	Feature Requests based on the 2006 Annual Workshop and IRRI Users & Developers Workshop	* 2007-02-23 10:05	Arlet Portugal	Arlet Portugal
<input type="checkbox"/> 421	Show which INI file is current	* 2007-03-15 14:12	Nobody	Jesper Norgaard Welen
<input type="checkbox"/> 422	Increase Length of NVAL to 255	* 2007-03-20 14:49	Nobody	Arlet Portugal
<input type="checkbox"/> 427	Add more permanent column(s) to Lists	* 2007-03-27 06:25	Graham McLaren	Casper aan den Boom
<input type="checkbox"/> 428	Possibility to change default order of columns in SetGen List per database/per user	* 2007-03-27 06:27	Arlet Portugal	Casper aan den Boom
<input type="checkbox"/> 429	Possibility to change default column headers per user (via ini-file setting)	* 2007-03-27 06:28	Arlet Portugal	Casper aan den Boom
<input type="checkbox"/> 430	Investigate possibility of having also names in lowercase in ICIS	* 2007-03-27 06:29	Graham McLaren	Casper aan den Boom

ICIS Development ...

- Design
 - Minutes of discussion among developers and collaborators
 - Scribbled design in scrap paper 😊
- Implementation
 - Team meeting, seminar and code review
 - Prioritization of implementation is based on general request of the ICIS community, legal obligation of the developer team and urgency of need.
 - Codes are posted in the cropforge CVS for every release

Design/Implementation Site



ICIS Development ...

- Testing
 - Tests done by users
 - Tests done by fellow developers
 - Tests done by IRIS technical support staff following the ICIS Training materials
- Documentation
 - Developers documenting the technical manual
 - Vivay writing the user's manual

Documentation in cropwiki

The screenshot shows a Mozilla Firefox browser window with the address bar displaying `http://cropwiki.irri.org/icis/index.php/ICIS_Technical_Documentation_5.4`. The page title is "ICIS Technical Documentation 5.4 - ICISWiki". The browser's menu bar includes File, Edit, View, History, Bookmarks, Tools, and Help. The address bar contains navigation icons and the URL. Below the address bar, there are links for "Getting Started" and "Latest Headlines".

The main content area displays the title "ICIS Technical Documentation 5.4" with tabs for "article", "discussion", "edit", and "history". The page is organized into several sections:

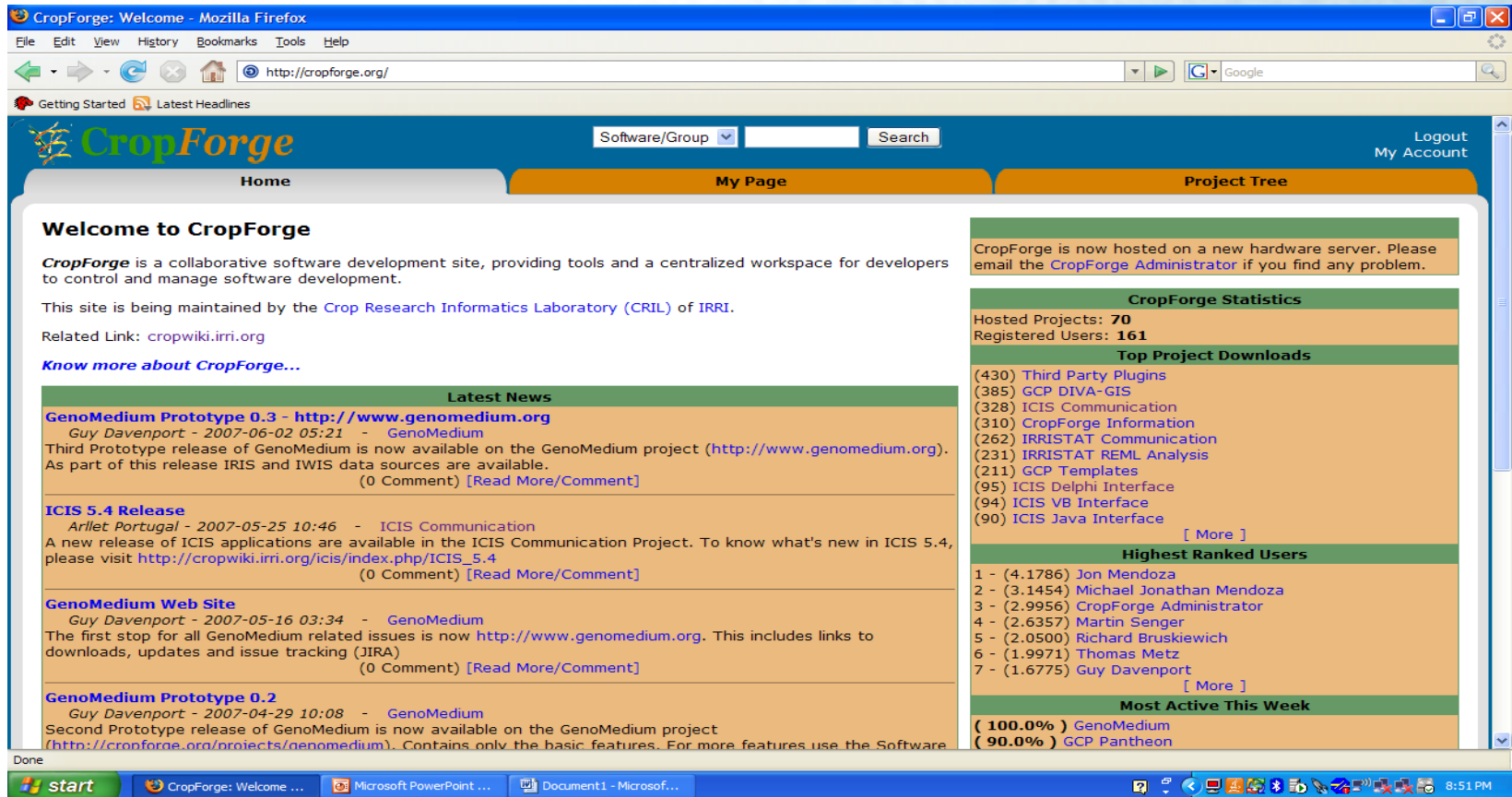
- Overview**
 - Introduction
- Users Manual and Training Material**
 - ICIS Help
 - Application Programs
 - Web Interface
 - Breeders' Training Course
- Administration**
 - Use-Cases Data Models and Schemata
 - Ontologies and Controlled Vocabularies
 - Administrating ICIS Implementations
- Technical Development**
 - Windows Application Programming Interface
 - Web Architecture

The left sidebar contains a navigation menu with links to Main Page, Community portal, Recent changes, and Help. Below the navigation menu is a search box with "Go" and "Search" buttons. At the bottom of the sidebar is a toolbox with links for What links here, Related changes, Upload file, Special pages, Printable version, and Permanent link.

ICIS Development ...

- Deployment
 - Release in the ICIS Communication of cropforge and ftp site
- Maintenance
 - Bug fixing as reported in cropforge/email

Cropforge



Bug Tracking Site

The screenshot shows the CropForge bug tracking site. The browser window title is "CropForge: ICIS Communication: - Mozilla Firefox". The address bar shows the URL: http://cropforge.org/tracker/?atid=109&group_id=58&func=browse. The page features a search bar with "Bugs" selected and a "Search" button. Navigation tabs include "Home", "My Page", "Project Tree", and "ICIS Communication". Below these are sub-tabs for "Summary", "Admin", "Forums", "Tracker", "Lists", "Docs", "Surveys", "News", and "Files".

The main content area displays a list of bugs with the following table:

ID	Summary	Open Date	Assigned To	Submitted By
<input type="checkbox"/> 27	Finding crosses that already exist	* 2005-08-30 13:18	William Eusebio	Russell Reinke
<input type="checkbox"/> 69	Installation of ICIS5.2 error	* 2005-12-14 10:58	William Eusebio	Sandra Micallef
<input type="checkbox"/> 185	Backcross Parsing	* 2006-07-13 09:43	Arlet Portugal	William Eusebio
<input type="checkbox"/> 222	Some frames missing from GMS-Search window	* 2006-10-06 11:08	Nobody	Ruaraidh Sackville Hamilton
<input type="checkbox"/> 229	.FCR function assumes order	* 2006-10-20 15:13	Graham McLaren	Arlet Portugal
<input type="checkbox"/> 233	Bug when importing a list of already existing germplasm into SetGen	* 2006-10-26 07:17	Arlet Portugal	Sandra Micallef
<input type="checkbox"/> 272	Unicode display errors	* 2006-11-02 10:19	Nobody	Ruaraidh Sackville Hamilton
<input type="checkbox"/> 358	SETGEN error - when doing pedigree corrections	* 2007-01-11 07:27	Arlet Portugal	Sandra Micallef
<input type="checkbox"/> 369	Date fields being changed	* 2007-02-01 21:40	Warren Constantino	Shawn Yates
<input type="checkbox"/> 432	Launcher 5.0.0.0. NOT always minimizes when it starts an Application	* 2007-03-27 17:27	William Eusebio	Casper aan den Boom

Below the table, there are controls for "Resolution" (No Change), "Category" (No Change), and "Priority" (?). An "Admin" note states: "If you wish to apply changes to all items selected above, use these controls to change their properties and click once on 'Mass Update'." The Windows taskbar at the bottom shows the Start button and several open applications, including CropForge: ICIS Com..., Microsoft PowerPoint, and Document1 - Microsof... The system clock shows 8:53 PM.

Release Management

- Types of releases :
 - major
 - candidate releases
- Location of releases
 - cropforge-ICIS communication
 - individual projects
 - icis ftp site

Cropforge Site for Main Release

The screenshot shows the CropForge website interface. At the top, there is a navigation bar with the CropForge logo and a search bar. Below the navigation bar, there are several tabs: Home, My Page, Project Tree, and ICIS Communication. The ICIS Communication tab is active, showing a sub-menu with Summary, Admin, Forums, Tracker, Lists, Docs, Surveys, News, and Files. The Admin section is selected, displaying a list of files for the project. The list is organized into two main categories: ICIS Applications and ICIS Schema. Each category contains a table of files with columns for Package, Release & Notes, Filename, Size, D/L, Arch, and Type. The ICIS Applications section lists releases from ICIS 5.4 down to ICIS 5.0, with associated file names, sizes, and download dates. The ICIS Schema section lists files for ICIS DB 5.4, including full-mdb-template and full-sql files.

Package	Release & Notes	Filename	Date			
			Size	D/L	Arch	Type
ICIS Applications						
ICIS 5.4						2007-05-25 11:00
icis-application-5.4.1-exe.zip			20.16 MB	8 i386	.zip	
ICIS 5.3						2006-04-28 17:04
icis-application-5.3.0.exe			3.82 MB	14 i386	Other	
icis-application-5.3.1-exe.zip			5.39 MB	4 i386	.zip	
ICIS 5.2						2005-09-14 15:52
icis-application-5.2.0-exe.zip			3.48 MB	7 i386	.zip	
icis-application-5.2.1-exe.zip			4.23 MB	7 i386	.zip	
ICIS 5.1						2005-05-09 15:54
icis-application-5.1.0-exe.zip			2.75 MB	4 i386	.zip	
ICIS 5.0						2005-04-01 10:12
icis-application-5.0.1-exe.zip			2 MB	5 i386	.zip	
ICIS Schema						
ICIS DB 5.4						2007-05-21 15:36
icis-schema-5.4-full-mdb-template-central.zip			922 KB	1 i386	.zip	
icis-schema-5.4-full-mdb-template-local.zip			65 KB	2 i386	.zip	
icis-schema-5.4-full-sql.zip			8 KB	7 Any	.zip	

Cropforge Site for Candidate Release (Delphi Application)

The screenshot shows the CropForge website interface in a Mozilla Firefox browser window. The page title is "CropForge: ICIS Communication: Project Filelist". The browser address bar shows the URL "http://cropforge.org/frs/?group_id=5". The website header includes the CropForge logo, a search bar, and navigation tabs for Home, My Page, Project Tree, and ICIS Communication. Below the header, there are sub-tabs for Summary, Admin, Forums, Tracker, Lists, Docs, Surveys, News, and Files. The "Admin" tab is selected, displaying a list of files for the project. The list is organized into sections: "ICIS Applications" and "ICIS Schema". Each section contains a table of files with columns for Package, Release & Notes, Filename, Size, D/L, Arch, and Type. The "ICIS Applications" section lists releases from ICIS 5.4 down to ICIS 5.0, with their respective file names, sizes, and download dates. The "ICIS Schema" section lists three files for ICIS DB 5.4, including full-mdb-template files and a full-sql file.

Package	Release & Notes	Filename	Date			
			Size	D/L	Arch	Type
ICIS Applications						
ICIS 5.4				2007-05-25 11:00		
icis-application-5.4.1-exe.zip			20.16 MB	8	i386	.zip
ICIS 5.3				2006-04-28 17:04		
icis-application-5.3.0-exe			3.82 MB	14	i386	Other
icis-application-5.3.1-exe.zip			5.39 MB	4	i386	.zip
ICIS 5.2				2005-09-14 15:52		
icis-application-5.2.0-exe.zip			3.48 MB	7	i386	.zip
icis-application-5.2.1-exe.zip			4.23 MB	7	i386	.zip
ICIS 5.1				2005-05-09 15:54		
icis-application-5.1.0-exe.zip			2.75 MB	4	i386	.zip
ICIS 5.0				2005-04-01 10:12		
icis-application-5.0.1-exe.zip			2 MB	5	i386	.zip
ICIS Schema						
ICIS DB 5.4				2007-05-21 15:36		
icis-schema-5.4-full-mdb-template-central.zip			922 KB	1	i386	.zip
icis-schema-5.4-full-mdb-template-local.zip			65 KB	2	i386	.zip
icis-schema-5.4-full-sql.zip			8 KB	7	Any	.zip

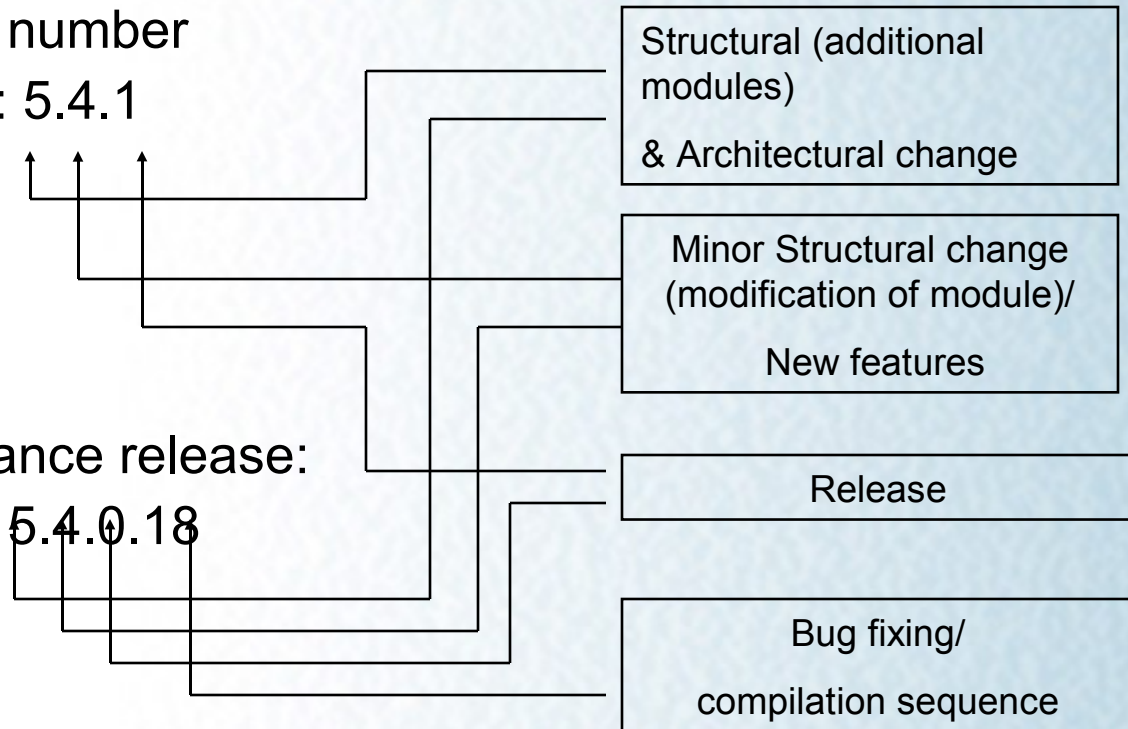
Version Number

- Release version number

Major release: 5.4.1

candidate/maintenance release:

5.4.0.18



Major Release

- Structural change, architectural change and implementation of considerable number of new features.
- Available in the ICIS Communication Project in Cropforge
- Version number has three sections (Ex. 5.3.1, 5.4.1 etc)
- Corresponds to a **Branch** of the codes in CVS repository
- The third section of the version number will always be 1
- Patch to the major release will have version number 2 and above in the third section (Ex. 5.3.2, 5.3.3, 5.4.2 etc)
- Patch to the major release corresponds to a **Tag** of Codes in CVS

Candidate Releases

- Available in the individual project in Cropforge
- Usually released for user's testing and evaluation
- Version number has four sections (Ex. SetGen 5.3.0.5, Workbook 5.3.1.10, InTrack 5.4.0.14 etc)
- Corresponds to a **Tag** of Codes in CVS
- A stable candidate release will be recompiled to 3 section-version number and be part of the major release
- The third section of the version number will be the succeeding number of the third section of the candidate release (e.g. SetGen rc 5.4.0.39 can be released in ICIS Communication as 5.4.1)