Web Curator Tool Project
Data Dictionary for WCT 1.3

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Document Control

Purpose of the document

The purpose of this document is to explain the database in the Web Curator Tool version 1.3.

Revision History

Version	Date	Author	Version Notes
1	16 January 2007	Gordon Paynter	Initial draft. Derived from Data Model Diagram (see website) and data model documentation from design stage.
1A	20 February 2007	Brett Beaumont	Resolved outstanding issues, re-wrote section on generating primary keys.
2	24 August 2007	Brett Beaumont	Updated for version 1.2.7.
3	12 February 2008	Kevin Urwin	Updated for version 1.3.

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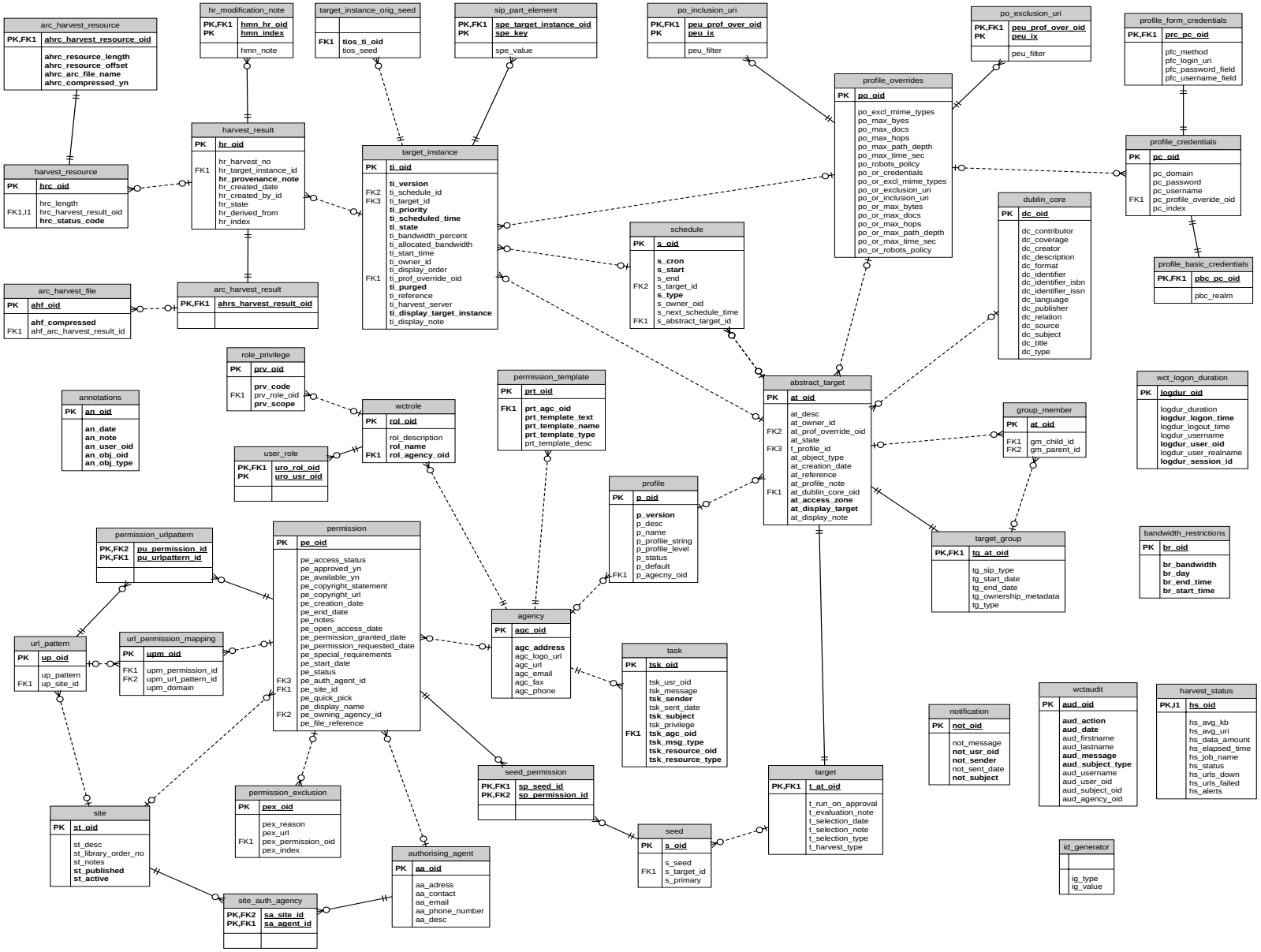
1. INTRODUCTION

1.1. Purpose of this document

The purpose of this document is to document the database used by the Web Curator Tool (WCT) version 1.3.

2. DATA MODEL DIAGRAM



Note: This diagram excludes the WCTUSER table for the sake of clarity. The WCTUSER table is joined to many of these tables through the ownership links.

3. DATA DESCRIPTIONS

3.1. Overview

This section describes the tables in the WCT database.

3.1.1. Field types

Field types in this document are indicative only, and may depend on the implementation.

The types used are:

- Boolean: a Boolean value (true or false, or 0 or 1, depending on implementation).
- Text: a free text field.
- Constrained text: a text field whose contents are constrained to a limited set of values by the application (see Section 3.1.2 below).
- Timestamp: a timestamp encoding a date and time.
- Primary key: a unique internal identifier (see Section 3.3).
- Secondary key: a key from another table.
- Float: a floating-point number.
- Number: an integer number.

3.1.2. Constrained text fields

Some tables have fields that are constrained to a fixed set of values.

These fields will be implemented in the database as Text fields, but will appear to users as enumerations (usually in a drop-down menu).

In most cases, the set of possible values can be set in a configuration file (to support different requirements at different institutions).

In each case, a single value can be assigned.

3.2. Database description

3.2.1. Targets, Groups and Schedules

ABSTRACT_TARGET		
The ABSTRACT_TARGET table is used to store information that is common to both Targets and Groups. The table is needed because the WCT can be instructed to "harvest" an entire Group at once, as though it were a Target. This means that the ABSTRACT_TARGET is used to contain or manage all profile and scheduling information.		
Name	**Type**	**Description**
AT_OID	Primary key	
AT_DESC	Text	An internal description of the Target or Group.
AT_NAME	Text	The name of the Target or Group.
AT_OWNER_ID	Foreign key	The owner of the Target or Group.
AT_PROF_OVERRIDE_OID	Foreign key	The key of the profile override information for this Target or Group.
AT_STATE	Integer	The state of the Target or Group. Values will be different for Targets than for Groups. Target values correspond to: Pending, Nominated, Rejected, Approved, Completed, Cancelled, Reinstated.
AT_PROFILE_ID	Foreign key	Reference to the profile information for this Target.
AT_OBJECT_TYPE	Integer	Identifies whether this is a Target (1) or a Group (0).
AT_CREATION_DATE	Timestamp	The date and time the ABSTRACT_TARGET was created.
AT_REFERENCE	Text	An external reference number (e.g. catalogue number).
AT_PROFILE_NOTE	Text	Records notable aspects of the site that relate to the choice of harvest profile and overrides.
AT_DUBLIN_CORE_OID	Foreign key	Reference to the Dublin Core metadata for this Target.
AT_ACCESS_ZONE	Integer	Access Zone (enumerated field) 0 – Public (default), 1 – On Site, 2 - Restricted.
AT_DISPLAY_TARGET	Boolean	Display this Target.
AT_DISPLAY_NOTE	Text	Records an explanation of the Access Zone and Display Target choices.
TARGET		
TARGET contains information specific to Target objects. Each Target is based on an ABSTRACT_TARGET, and takes its primary key from the ABSTRACT_TARGET primary key.		

Name	Type	Description
T_AT_OID	Primary key (Foreign key)	Reference to ABSTRACT_TARGET corresponding to the Target.
T_RUN_ON_APPROVAL	Boolean	If true, then an additional Target Instance will be scheduled to begin one minute after the Target state is set to Approved.
T_EVALUATION_NOTE	Text	Records notable aspects of the site that relate to its evaluation.
T_SELECTION_DATE	Timestamp	The date the Target was formally selected. This should be set automatically to the date and time the Target state first changed to *Approved*.
T_SELECTION_NOTE	Text	Records information relating to the selection process, in particular reasons for the selection decision.
T_SELECTION_TYPE	Constrained text	Records the type of schedule that has been applied to the site. Example values: *one-off, ad hoc, regular.*
T_HARVEST_TYPE	Constrained text	Records type of selective harvest approach has been applied to the site. Example values: *subject*, *event*, *theme*.
SEED		
SEED contains the set of seed URLs corresponding to a Target..		
Name	**Type**	**Description**
S_OID	Primary key	
S_SEED	URL	The seed URL.
S_TARGET_ID	Foreign Key	The key of the Target the key belongs to.
S_PRIMARY	Boolean	Records whether the URL is marked as a primary URL in the user interface.
TARGET_GROUP		
TARGET_GROUP contains information specific to Group objects. Each Group is based on an ABSTRACT_TARGET, and takes its primary key from the ABSTRACT_TARGET primary key. Groups can usually act as logical groupings that indicate that a set of Targets share some property. For example, a set of Targets in the “Elections 2005” Group might all be relevant to a particular general election. They can also act as functional groupings that simplify the management of Targets by allowing all the Targets in a Group to have a crawl scheduled for specific time. This means they share much of the functionality of a Target (specifically, the ability to schedule a harvest, with all the profile and scheduling data required). Group membership is recorded in the GROUP_MEMBER table.		
Name	**Type**	**Description**
TG_AT_OID	Primary key (Foreign key)	Reference to ABSTRACT_TARGET corresponding to the Group.
TG_SIP_TYPE	Boolean	Controls whether the members are crawled as separate jobs or as a single combined job when the Group is crawled.

TG_START_DATE	Date	The date on which the Group becomes relevant to its members.
TG_END_DATE	Date	The date after which the Group ceases to be relevant to its members.
TG_OWNERSHIP_METADATA	Text	Additional information describing the ownership of a Group, particularly for Groups that have multiple owners.
TG_TYPE	Constrained text	Records the type of Group. Example values: collection, subject, thematic, event, functional.
GROUP_MEMBER		
GROUP_MEMBER records Group membership information		
Name	**Type**	**Description**
AT_OID	Primary key (Foreign key)	
GM_CHILD_ID	Foreign key	The key of the child (member) Target or Group.
GM_PARENT_ID	Foreign key	The key of the parent (containing) Group.
SCHEDULE		
A SCHEDULE contains information about the times that a harvest will be run.		
Name	**Type**	**Description**
S_OID	Primary key	
S_CRON	Text	The cron pattern this schedule is based on.
S_START	Timestamp	The date the harvests are to commence.
S_END	Timestamp	The date the harvests are to end.
S_ABSTRACT_TARGET_ID	Foreign key	ID of the AbstractTarget to which this schedule belongs.
S_TYPE		The type of the schedule. This is 0 for a custom schedule, or the ID number of a SchedulePattern from the wct-core.xml.
S_OWNER_OID	Foreign key	The key of the User who is the owner of this schedule.
S_NEXT_SCHEDULE_TIME	Timestamp	The date of the next harvest initiated by this schedule.
S_ABSTRACT_TARGET_ID		The key of the Target or Group this schedule is part of.

3.2.2. Target Instances and Harvest Results

TARGET_INSTANCE		
TARGET_INSTANCE contains information specific to the Target Instances. Target Instances represent the harvests that have occurred, are occurring, or will occur for a Target		
Name	**Type**	**Description**
TI_OID	Primary key	

TI_VERSION	Number	Internal version number for optimistic locking.
TI_SCHEDULE_ID	Foreign key	The key of the schedule that initiated this harvest.
TI_TARGET_ID	Foreign key	The key of the ABSTRACT_TARGET that this Target Instance is derived from.
TI_PRIORITY	Number	0 = High Priority; 100 = Normal Priority; 1000 = Low priority.
TI_SCHEDULED_TIME	Timestamp	The date and time the harvest is (or was) scheduled to begin.
TI_STATE		The current state of the Target Instance. Values correspond to: Scheduled, Running, Paused, Aborted, Harvested, Rejected, Endorsed, Archived.
TI_BANDWIDTH_PERCENT		The proportion of the total available bandwidth that has been manually assigned to this crawl job (empty if the default bandwidth allocation has not been overridden).
TI_ALLOCATED_BANDWIDTH	Number	The actual amount of bandwidth assigned in Kilobytes per second.
TI_START_TIME	Timestamp	For harvests that have started, the date and time the harvest actually did begin.
TI_OWNER_ID	Foreign key	The key of the User who is the owner of this schedule.
TI_DISPLAY_ORDER	Number	A number to assist with the ordering of results in the Target Instance search results screen. This number is tied to the state of the target instance.
TI_PROF_OVERRIDE_OID	Foreign key	The key of the profile override information for this harvest.
TI_PURGED	Boolean	True if the Harvest Results have been purged from the Digital Asset Store.
TI_ARCHIVE_ID	Text	The ID returned by the Archive when the Harvest Result is “Submitted to Archive”, if any.
TI_REFERENCE	Text	Duplicate of the TI_ARCHIVE_ID field.
TI_HARVEST_SERVER	Text	The name of the harvest agent that ran this Target Instance.
TI_DISPLAY_TARGET_INSTANCE	Boolean	Display this Target Instance.
TI_DISPLAY_NOTE	Text	Records an explanation of the Display Target Instance choice.
HARVEST_RESULT		
A HARVEST_RESULT is a set of files that represent the result of a harvest of a Target Instance. Note there can be several harvest results for each Target Instance (the first created by the crawler, the rest by QR tools).		
Name	**Type**	**Description**

HR_OID	Primary key	
HR_HARVEST_NO	Number	The sequence number of the result. Harvest Result #1 is always the original harvest. Harvest Result #2 can be created through the prune tool.
HR_TARGET_INSTANCE_ID	Foreign key	The key of the Target Instance this harvest result belongs to.
HR_PROVENANCE_NOTE		The provenance note of this Harvest Result.
HR_CREATED_DATE	Timestamp	The date the harvest result was created.
HR_CREATED_BY_ID	Foreign key	The key of the User who created the Harvest Result.
HR_STATE	Number	The endorsement state of the Harvest Result. Values correspond to: 1 = Endorsed; 2 = Rejected
HR_INDEX	Number	An internal number for list management, this is mandatory for a Hibernate List.
HR_DERIVED_FROM	Number	The list index of the harvest result that this harvest result is derived from. This is used in the case of a pruned harvest result.
ARC_HARVEST_RESULT		
ARC_HARVEST__RESULT associates each ARC file (ARC_HARVEST_FILE) with a Harvest Result (HARVEST_RESULT). This allows for flexibility in the future, despite having no data at present.		
Name	**Type**	**Description**
AHRS_HARVEST_RESULT_OID	Primary key	
HR_MODIFICATION_NOTE		
This table holds a record of the modifications made to a harvest through the Prune Tool.		
HMN_HR_OID	Foreign key	The key of the Harvest Result that this belongs to.
HMN_INDEX	Number	The list index number (used to keep the order of the list).
HMN_NOTE	Text	The text describing the modification.
ARC_HARVEST_FILE		
ARC_HARVEST_FILE contains information describing a single ARC file that is part of an ARC_HARVEST_RESULT.		
Name	**Type**	**Description**
AHF_OID	Primary key	
AHF_COMPRESSED	Boolean	Specifies whether the ARC file is compressed.
AHF_NAME	Text	The ARC file name.
AHF_ARC_HARVEST_RESULT_ID	Foreign key	The key of the ARC_HARVEST_RESULT this file belongs to.
HARVEST_RESOURCE		

HARVEST_RESOURCE contains information about each resource harvested.		
Name	**Type**	**Description**
HRC_OID	Primary key	
HRC_LENGTH	Number	The length of the resource in bytes.
HRC_NAME	Text	The URI of the resource.
HRC_HARVEST_RESULT_OID	Foreign key	The key of the HARVEST_RESULT this file belongs to.
HRC_STATUS_CODE	Number	The HTTP status code of the resource (e.g. 200 = OK, 500 = Internal Server Error, etc.)
ARC_HARVEST_RESOURCE		
ARC_HARVEST_RESOURCE contains information about a harvested resource that is particular to the ARC format.		
Name	**Type**	**Description**
AHRC_HARVEST_RESOURCE_OID	Primary key	
AHRC_RESOURCE_LENGTH	Number	Not used – we currently rely on the HarvestResource's length attribute.
AHRC_RESOURCE_OFFSET	Number	The offset of this resource in the ARC file.
AHRC_ARC_FILE_NAME	Text	The ARC file that contains this resource.
AHRC_COMPRESSED_YN	Boolean	True if the ARC file is compressed; otherwise false.
SIP_PART_ELEMENT		
The SIP_PART_ELEMENT table is used internally to store parts of the SIP that must be created when a target instance's harvest is started. This ensures that the details in the SIP remain consistent, even if the target instance's data is changed between harvest and archive.		
SPE_KEY	Text	A key indicating what part of the SIP this row represents.
SPE_TARGET_INSTANCE_OID	Foreign Key	The key of the Target Instance to which this belongs.
SPE_VALUE	Text /CLOB	The value of this part of the SIP.
TARGET_INSTANCE_ORIG_SEED		
This table holds the seeds of a target instance at the time the harvest was started. This is used internally to the WCT to ensure that the seeds stated in the SIP represent those at the time of the harvest, rather than those at the time of archiving (for example, if the seeds of the Target were changed after the harvest had started).		
TIOS_TI_OID	Foreign key	The key of the Target Instance to which this belongs.
TIOS_SEED	Text	The seed at the time of harvest.

3.2.3. Harvest Authorisations

SITE

The SITE table contains high-level information about a Harvest Authorisation, and is used to group all the information applying to a specific harvest authorisation.[1]		
Name	**Type**	**Description**
ST_OID	Primary key	
ST_TITLE	Text	The name of the Harvest Authorisation record.
ST_DESC	Text	A description of the authorisation record.
ST_LIBRARY_ORDER_NO	Text	An external Order Number (e.g. Library Order Number).
ST_NOTES	Text	
ST_PUBLISHED	Boolean	Records whether the “Published” checkbox is ticked.
ST_ACTIVE	Boolean	Records whether the harvest authorisation (and all associated permissions) is enabled or disabled.
URL_PATTERN		
The URL_PATTERN table contains a URL or URL pattern. The scope of each harvest authorisation (SITE) is defined by a set of URL patterns.		
Name	**Type**	**Description**
UP_OID	Primary key	
UP_PATTERN	Text	The URL or URL pattern.
UP_SITE_ID	Foreign key	The key of the SITE this URL_PATTERN belongs to.
AUTHORISING_AGENT		
The AUTHORISING_AGENT table contains information about an entity contacted in relation to harvesting a website.		
Name	**Type**	**Description**
AA_OID	Primary key	
AA_NAME	Text	The name of the authorising agent.
AA_ADRESS	Text	The full address of the authorising agent.
AA_CONTACT	Text	The name of the individual contact for an organisation.
AA_EMAIL	Text	The email address of the authorising agent.
AA_PHONE_NUMBER	Text	The phone number of the authorising agent.
AA_DESC	Text	A description of the authorising agent.
SITE_AUTH_AGENCY		
The SITE_AUTH_AGENCY table links each site with its list of authorising agencies. (Note this is a many-to-many relationship.)		
Name	**Type**	**Description**

[1] The SITE table is badly named through historical accident.

SA_SITE_ID	Primary key, Foreign key	The key of the SITE.
SA_AGENT_ID	Primary key, Foreign key	The key of the AUTHORISING_AGENT.
PERMISSION		
The PERMISSION table contains information about a single permission that has been granted by an AUTHORISING_AGENT for a SITE.		
Name	**Type**	**Description**
PE_OID	Primary key	
PE_ACCESS_STATUS	Constrained	The access status of the permission. This value is constrained by the *accessStatusList* list in wct-core-lists.xml.
PE_APPROVED_YN	Boolean	Not used.
PE_AVAILABLE_YN	Boolean	Not used.
PE_COPYRIGHT_STATEMENT	Text	A passage of text that the publisher requires be displayed with the harvested material.
PE_COPYRIGHT_URL		A URL (linking to a copyright statement) that the publisher requires to be displayed with the harvested material.
PE_CREATION_DATE	Timestamp	The date and time the permission record was created.
PE_END_DATE	Timestamp	The date the permission information stored in this record expires (i.e. this permission only applies to harvests that occur between PE_START_DATE and PE_END_DATE).
PE_NOTES	Text	Not used.
PE_OPEN_ACCESS_DATE	Timestamp	The date the rights over the harvested material expire and the material can be freely distributed.
PE_PERMISSION_GRANTED_DATE	Timestamp	The date the permission was granted (or rejected).
PE_PERMISSION_REQUESTED_DATE	Timestamp	The date the permission was requested.
PE_SPECIAL_REQUIREMENTS	Text	A passage of text describing any special requirements for the use of the harvested material.
PE_START_DATE		The date the permission information stored in this record expires (i.e. this permission only applies to harvests that occur between PE_START_DATE and PE_END_DATE).
PE_STATUS	Number	The current state of the Target Instance. Values correspond to: Pending, Requested, Approved, Rejected.
PE_AUTH_AGENT_ID	Foreign key	The key of the AUTHORISING_AGENT who has authorised this permission record.

PE_SITE_ID	Foreign key	The key of the Harvest Authorisation (i.e. SITE) that this permission applies to.
PE_QUICK_PICK	Boolean	Records whether this permission appears in the "Authorisation" drop-down menu in the Seeds tab in the Target editing interface.
PE_DISPLAY_NAME	Text	Label to use in the "Authorisation" drop-down menu in the Seeds tab in the Target editing interface (if PE_QUICK_PICK is set).
PE_OWNING_AGENCY_ID	Foreign key	The key of the Agency that has been granted authorisation by this permission record.
PE_FILE_REFERENCE	Text	An external reference number relating to this permission record (e.g. the file number of a permission letter).
PERMISSION_URLPATTERN		
The PERMISSION_URLPATTERN table links PERMISSION records to the URL_PATTERN records that apply to them. Each permission will apply to one or more URL Patterns.		
Name	**Type**	**Description**
PU_URLPATTERN_ID	Primary key, Foreign key	The key of the URL Pattern.
PU_PERMISSION_ID	Primary key, Foreign key	The key of the Permission record.
PERMISSION_EXCLUSION		
The PERMISSION_EXCLUSION table contains information about a URL pattern that has been excluded from a PERMISIION.		
Name	**Type**	**Description**
PEX_OID	Primary key	
PEX_REASON	Text	The reason for the exclusion.
PEX_URL	Text	The URL or URL Pattern that has been excluded.
PEX_PERMISSION_OID	Foreign key	The key of the permission that this is an exclusion to.
PEX_INDEX	Number	Internal number for maintaining the order of elements in a list.
SEED_PERMISSION		
SEED_PERMISSION contains information about the associations between Seed URLs and the permission records that apply to them.		
Name	**Type**	**Description**
SP_SEED_ID	Primary key, Foreign key	The key of a Seed URL.
SP_PERMISSION_ID	Primary key, Foreign key	The key of a permission record that is linked to the Seed URL.
URL_PERMISSION_MAPPING		
URL_PERMISSION_MAPPING contains information about the associations between URL_PATTERNS and the permission records they apply to.		

Name	Type	Description
UPM_OID		
UPM_PERMISSION_ID		The key of the permission record.
UPM_URL_PATTERN_ID		The key of a URL Pattern that is linked to this permission record.
UPM_DOMAIN		The most specific part of the domain, used for quick matching of seeds to permissions. For “global” patterns, this will be “*”.

3.2.4. Profiles and profile overrides

PROFILE		
PROFILE contains information describing a single Heritrix profile.		
Name	**Type**	**Description**
P_OID	Primary key	
P_VERSION	Number	Internal version number for optimistic locking.
P_DESC	Text	A textual description of the profile.
P_NAME	Text	The name of the profile.
P_PROFILE_STRING	Text	The profile itself, stored as an XML document.
P_PROFILE_LEVEL	Number	The level of the profile (controls which users may use the profile).
P_STATUS	Number	The current status of the profile.
P_DEFAULT	Boolean	Records whether this profile is the default profile for the Agency.
P_AGENCY_OID	Foreign key	The key of the Agency that this profile belongs to.
PROFILE_OVERRIDES		
PROFILE_OVERRIDES contains information describing the overrides to a profile pertaining to a specific ABSTRACT_TARGET (or its Target Instances)..		
Name	**Type**	**Description**
PO_OID	Primary key	
PO_EXCL_MIME_TYPES	Text	A list of MIME types to exclude from the harvest.
PO_MAX_BYES	Number	The maximum quantity of data to download (in bytes).
PO_MAX_DOCS	Number	The maximum number of documents to download.
PO_MAX_HOPS	Number	The maximum distance to crawl (in Heritrix “hops”).
PO_MAX_PATH_DEPTH	Number	The maximum distance to crawl (in path depth from the website root).
PO_MAX_TIME_SEC	Number	The maximum time to spend on the harvest (in seconds)

PO_ROBOTS_POLICY	Text	Specifies whether the obots.txt file should be consulted or ignored. Either “ignore” or “classic”.
PO_OR_CREDENTIALS	Boolean	Specifies whether the Target has any credentials (i.e. usernames and passwords) stored in the PROFILE_CREDENTIALS and related tables.
PO_OR_EXCL_MIME_TYPES	Boolean	Specifies whether the PO_EXCL_MIME_TYPES override is activated.
PO_OR_EXCLUSION_URI	Boolean	Specifies whether the Target has any URL exclusions stored in the PO_EXCLUSION_URI table.
PO_OR_INCLUSION_URI	Boolean	Specifies whether the Target has any URL inclusions stored in the PO_INCLUSION_URI table
PO_OR_MAX_BYTES	Boolean	Specifies whether the PO_MAX_BYES override is activated.
PO_OR_MAX_DOCS	Boolean	Specifies whether the PO_MAX_DOCS override is activated.
PO_OR_MAX_HOPS	Boolean	Specifies whether the PO_MAX_HOPS override is activated.
PO_OR_MAX_PATH_DEPTH	Boolean	Specifies whether the PO_MAX_PATH_DEPTH override is activated.
PO_OR_MAX_TIME_SEC	Boolean	Specifies whether the PO_MAX_TIME_SEC override is activated.
PO_OR_ROBOTS_POLICY	Boolean	Specifies whether the PO_ROBOTS_POLICY override is activated.
PO_EXCLUSION_URI		
The PO_EXCLUSION_URI table contains information about a URL patterns that have been excluded from a PROFILE_OVERRIDE.		
Name	**Type**	**Description**
PEU_IX	Primary key	
PEU_PROF_OVER_OID	Foreign key	The key of the PROFILE_OVERRIDES that this exclusion applies to.
PEU_FILTER	Text	The URL pattern excluded (a PERL regular expression).
PO_INCLUSION_URI		
The PO_INCLUSION_URI table contains information about a URL patterns that have been un-excluded from a PROFILE_OVERRIDE (i.e. patterns that are exceptions to exclusions in PO_EXCLUSION_URI).		
Name	**Type**	**Description**

PEU_IX	Primary key	
PEU_PROF_OVER_OID	Foreign key	The key of the PROFILE_OVERRIDES that this un-exclusion applies to.
PEU_FILTER	Text	The URL pattern included (a PERL regular expression).
PROFILE_CREDENTIALS		
PROFILE_CREDENTIALS contains shared credential information used by both basic and form credentials.		
Name	**Type**	**Description**
PC_OID	Primary key	
PC_DOMAIN	Text	The Internet domain this credential applies to.
PC_PASSWORD	Text	The password for this credential.
PC_USERNAME	Text	The username for this credential.
PC_PROFILE_OVERIDE_OID	Foreign key	The key of the PROFILE_OVERRIDES that these credentials apply to.
PC_INDEX	Number	Internal number for maintaining the order of elements in a list.
PROFILE_BASIC_CREDENTIALS		
PROFILE_BASIC_CREDENTIALS is an extension of PROFILE_CREDENTIALS that contains credential information in “basic” credential format.		
Name	**Type**	**Description**
PBC_PC_OID	Primary key, Foreign key	The key of the PROFILE_CREDENTIALS that this credential extends.
PBC_REALM	Text	The realm this credential applies to.
PROFILE_FORM_CREDENTIALS		
PROFILE_FORM_CREDENTIALS is an extension of PROFILE_CREDENTIALS that contains credential information in “form” credential format.		
Name	**Type**	**Description**
PRC_PC_OID	Primary key, Foreign key	The key of the PROFILE_CREDENTIALS that this credential extends.
PFC_METHOD	Text	The method for submitting the form.
PFC_LOGIN_URI	Text	The URL of the login form to use this credential againt.
PFC_PASSWORD_FIELD	Text	The name of the password field used in the form.
PFC_USERNAME_FIELD	Text	The name of the username field used in the form.

3.2.5. Audit trail

WCTAUDIT

WCTAUDIT records all auditable events. Each row in the table records a single auditable action, including the user who performed the action, the date and time, the object the action was performed on (i.e. the subject), and any message.		
Name	**Type**	**Description**
AUD_OID	Primary key	
AUD_ACTION	Action	The auditable action performed.
AUD_DATE	Timestamp	The date and time the action was performed.
AUD_FIRSTNAME	Text	The first name of the user who performed the action.
AUD_LASTNAME	Text	The last name of the user who performed the action.
AUD_MESSAGE	Text	Additional text describing the action.
AUD_SUBJECT_TYPE	Text	The type of the object that was acted on.
AUD_USERNAME	Text	The username of the user who performed the action.
AUD_USER_OID	Foreign key	The key of the user who performed the action.
AUD_SUBJECT_OID	Foreign key	The key of the object that was acted on.
AUD_AGENCY_OID	Foreign key	The key of the agency that the user who performed the action belongs to.
WCT_LOGON_DURATION		
WCT_LOGON_DURATION records the time and duration of all user sessions. Each row in the table records a single user session.		
Name	**Type**	**Description**
LOGDUR_OID	Primary key	
LOGDUR_DURATION	Number	The duration of the user session in seconds.
LOGDUR_LOGON_TIME	Timestamp	The date and time the user logged on to the WCT.
LOGDUR_LOGOUT_TIME	Timestamp	The date and time the user logged out of the WCT.
LOGDUR_USERNAME	Text	The username of the user.
LOGDUR_USER_OID	Foreign key	The key of the user.
LOGDUR_USER_REALNAME	Text	The full name of the user.
LOGDUR_SESSION_ID	Text	The Apache Tomcat Session ID.

3.2.6. Agencies, Roles and Users

AGENCY		
AGENCY contains information describing an agency.		
Name	**Type**	**Description**
AGC_OID	Primary key	

AGC_NAME	Text	The name of the agency.
AGC_ADDRESS	Text	The address of the agency.
AGC_LOGO_URL	Text	A URL for the logo of the agency.
AGC_URL	Text	The URL of the Agency
AGC_EMAIL	Text	The agency email address.
AGC_FAX	Text	The agency fax number.
AGC_PHONE	Text	The agency phone number.
WCTROLE		
WCTROLE contains information about a role. Each role is associated with a single agency. The privileges attached to the role are stored in the ROLE_PRIVILEGE table.		
Name	**Type**	**Description**
ROL_OID	Primary key	
ROL_DESCRIPTION	Text	Description of the role.
ROL_NAME	Text	Name of the role.
ROL_AGENCY_OID	Foreign key	The key of the agency that this role belongs to.
ROLE_PRIVILEGE		
ROLE_PRIVILEGE records the privileges, and the scope of privileges, associated with each role. Each role can have any number of privileges associated with it. Privileges are identified by the PRV_CODE, a unique code used by the WCT to represent each privilege. These are codes are hard-coded in the WCT, where they are used to determine whether users can perform particular actions.		
Name	**Type**	**Description**
PRV_OID	Primary key	
PRV_CODE	Text	The code identifying the privilege being set.
PRV_ROLE_OID	Foreign key	The key of the role this privilege is associated with.
PRV_SCOPE	Number	The scope of the privilege as it applies to this role (i.e. whether the privilege applies to all data, agency data, or only the data owned by the user). 0 = All; 100 = Agency; 200 = Owner; 500 = None.
WCTUSER		
WCTUSER contains information describing the WCT users.		
Name	**Type**	**Description**
USR_OID	Primary key	
USR_ACTIVE	Boolean	Specifies whether the user is currently active or disabled.
USR_ADDRESS	Text	The user's physical or postal address.
USR_EMAIL	Text	The user's email address.

USR_EXTERNAL_AUTH	Boolean	Specifies whether the user should be authenticated using an external LDAP service, or using the internal authentication system.
USR_FIRSTNAME	Text	The user's first name.
USR_FORCE_PWD_CHANGE	Boolean	Specifies whether the user should be forced to reset their password next time they log on to the WCT.
USR_LASTNAME	Text	The user's last name.
USR_PASSWORD	Text	The user's (encrypted) password.
USR_PHONE	Text	The user's phone number.
USR_TITLE	Text	The user's title.
USR_USERNAME	Text	The unique username identifying the user.
USR_AGC_OID	Foreign key	The key of the Agency that the user belongs to.
USR_DEACTIVATE_DATE	Timestamp	The date when the user was deactivated.
USR_NOTIFICATIONS_BY_EMAIL	Boolean	True if the user wants to receive notifications by emails as well as to their WCT in-tray.
USR_TASKS_BY_EMAIL	Boolean	True if the user wants to receive tasks by email as well as to their WCT in-tray.
USR_NOTIFIY_ON_GENERAL	Boolean	True if the user wants to receive general notifications.
USR_NOTIFY_ON_WARNINGS	Boolean	True if the user wants to receive notifications for warnings (such as memory warnings from the Harvest Agent).
USER_ROLE		
USER_ROLE contains information linking users and roles. Each row contains a user key and a role key, indicating that the specified user has been assigned the specified role.		
Name	**Type**	**Description**
URO_USR_OID	Foreign key	The key of the user.
URO_ROL_OID	Foreign key	The key of the role.
PERMISSION_TEMPLATE		
PERMISSION_TEMPLATE contains information describing a permission request template.		
Name	**Type**	**Description**
PRT_OID	Primary key	
PRT_AGC_OID	Foreign key	The key of the Agency this template belongs to.
PRT_TEMPLATE_TEXT	Text	The text of the permission letter template.
PRT_TEMPLATE_NAME	Text	The name of the template.
PRT_TEMPLATE_TYPE	Text	The type of template (either "Print Template" or "Email Template").
PRT_TEMPLATE_DESC	Text	The description of the template.

TASK		
TASK contains information describing a WCT task. When a task is created, it is not assigned to a user, but will be displayed (and emailed) to all the users in the same agency who have sufficient rights to perform the task. When one of these users "claims" the task, it will no longer be displayed to the other users. When the user completes the task, it will be removed from their task list and deleted.		
Name	**Type**	**Description**
TSK_OID	Primary key	
TSK_USR_OID	Foreign key	The key of the user who has claimed (or been assigned) the task, if any.
TSK_MESSAGE	Text	The message describing the task.
TSK_SENDER	Text	The email address of the sender of the task.
TSK_SENT_DATE	Timestamp	The date and time the task was created.
TSK_SUBJECT	Text	The subject line of the task, used in the InTray and in email notifications.
TSK_PRIVILEGE	Text	The privilege code that a user must have in order to complete the task. This field identifies which users will see an unassigned task.
TSK_AGC_OID	Foreign key	The key of the agency this task belongs to.
TSK_MSG_TYPE	Text	A type code for the message.
TSK_RESOURCE_OID	Foreign key	The key of the object this task will be performed on.
TSK_RESOURCE_TYPE	Text	The type of object the TSK_RESOURCE_OID identifies.

3.2.7. Other tables

ANNOTATIONS		
The ANNOTATIONS table contains information about annotations. Annotations can be attached to many types of object, including Targets, target Instances, and Permissions.		
Name	**Type**	**Description**
AN_OID	Primary key	
AN_DATE	Timestamp	The date the annotation was created.
AN_NOTE	Text	The text of the annotation.
AN_USER_OID	Foreign key	The foreign key of the user who created the annotation.
AN_OBJ_OID	Foreign key	The foreign key of the object that the annotation is attached to.
AN_OBJ_TYPE	Number	Specifies the type of object that the annotation is attached to.
BANDWIDTH_RESTRICTIONS		
The BANDWIDTH_RESTRICTIONS table records the bandwidth restrictions in place at different intervals.		

Name	Type	Description
BR_OID	Primary key	
BR_BANDWIDTH	Number	The bandwidth level for an interval.
BR_DAY	Text	The day the interval applies to.
BR_END_TIME	Timestamp	The end time of the interval.
BR_START_TIME	Timestamp	The start time of the interval.
DUBLIN_CORE		
The DUBLIN_CORE table records the Dublin Core metadata for a Target.		
Name	**Type**	**Description**
DC_OID	Primary key	
DC_CONTRIBUTOR	Text	Dublin Core metadata value.
DC_COVERAGE	Text	Dublin Core metadata value.
DC_CREATOR	Text	Dublin Core metadata value.
DC_DESCRIPTION	Text	Dublin Core metadata value.
DC_FORMAT	Text	Dublin Core metadata value.
DC_IDENTIFIER	Text	Dublin Core metadata value.
DC_IDENTIFIER_ISBN	Text	Dublin Core metadata value.
DC_IDENTIFIER_ISSN	Text	Dublin Core metadata value.
DC_LANGUAGE	Text	Dublin Core metadata value.
DC_PUBLISHER	Text	Dublin Core metadata value.
DC_RELATION	Text	Dublin Core metadata value.
DC_SOURCE	Text	Dublin Core metadata value.
DC_SUBJECT	Text	Dublin Core metadata value.
DC_TITLE	Text	Dublin Core metadata value.
DC_TYPE	Text	Dublin Core metadata value.
HARVEST_STATUS		
The HARVEST_STATUS table records information about a specific Heritrix Harvest.		
Name	**Type**	**Description**
HS_OID	Primary key	
HS_AVG_KB	Double	Average Kilobytes per second downloaded.
HS_AVG_URI	Double	Average number of URLs per second downloaded.
HS_DATA_AMOUNT	Number	Total data downloaded.
HS_ELAPSED_TIME	Number	Elapsed time of the harvest.
HS_JOB_NAME	Text	The identifier of the harvest job.
HS_STATUS	Text	The status of the harvest.
HS_URLS_DOWN	Number	The number of URLs downloaded.
HS_URLS_FAILED	Number	The number of URLs that filed to download.

HS_ALERTS	Number	The umber of alerts reported by the harvester during the crawl.
NOTIFICATION		
The NOTIFICATION table records information about notifications sent to users.		
Name	**Type**	**Description**
NOT_OID	Primary key	
NOT_MESSAGE	Text	The message text.
NOT_USR_OID	Foreign key	The foreign key of the user who will receive the notification.
NOT_SENDER	Text	The email address of the sender of the notification.
NOT_SENT_DATE	Timestamp	The date the notification was sent.
NOT_SUBJECT	Text	The subject line of the notification.
ID_GENERATOR		
The ID_GENERATOR table is used to generate globally unique identifiers for objects in the database/. See section 3.3 below for details.		
Name	**Type**	**Description**
IG_TYPE	Text	The object type (or types) that this range of Identifier numbers applies to.
IG_VALUE	Number	The range of identifier numbers.

3.3. Generating primary keys

The WCT stores all primary keys as numbers.

The ID_GENERATOR table is used to track the reservation of ID values in a number of different key sets.

The ABSTRACT_TARGET, TARGET, GROUP, SEED and other important tables share a set of keys that are controlled by the ID_GENERATOR.IG_TYPE value of 'General', ensuring that their object IDs will never clash. Other objects have their own ID_GENERATOR to ensure that the ID numbers do not grow too quickly.

If you want to insert new rows into WCT fields, you need to reserve a sequence number. To get a sequence number you need to

1. Ensure that WCT is shutdown.
2. List the sequences available by running:

```
SELECT
  *
FROM
  id_generator;
```

3. Select the sequence for the objects you want to create. If there is not a specific sequence, choose the General sequence.
4. Run the following, substituting the sequence name as appropriate, and note the values returned:

```
SELECT
  ig_value,
  ig_value * 32768 AS MIN_RES_VAL,
  ig_value * 32768 + 32767 AS MAX_RES_VAL
FROM
  id_generator
WHERE
  ig_type LIKE '%General%';
```

5. Now update the table to reserve your sequence numbers, using the same ID Generator Key as above, and the IG_VALUE returned by the above select statement:

```
UPDATE
  id_generator
SET
  ig_value = ig_value+1
WHERE
  ig_type LIKE '%General%' AND ig_value = :IG_VALUE;
```

6. If the update statements reports one record updated, then you have successfully reserved the range between MIN_RES_VAL and MAX_RES_VAL. If the update reports no records updated, then you must repeat the process from step three as someone else may have reserved the numbers you were after.

Once you have all the numbers you need you can restart WCT.

Note that different object types may use different runs of numbers; for example ANNOTATION objects have IG_TYPE Annotation. Also note that the IG_TYPE field contents include some strange whitespace (hence the use of "like' in the SQL code above).

Every time a sequence is reserved, all 32,676 values are reserved, regardless of whether they get used or not.