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Where NatCDC processed a single File from a PLOG process, NatCDCSP allows the additional functionality to process one or multiple Files from a PLOG in a Single Pass.

What is NatCDCSP

NatCDCSP is our Change Data Capture tool for ADABAS PLOG data and was developed for the datawarehousing/datamart needs of ADABAS users. This stand-alone product accesses the PLOG (ADABAS Protection Log) using the ADABAS utility ADASEL or ADACDC in the mainframe environment and ADAPLP in the UNIX or Windows environment. NatCDCSP is most likely to be used by Administrators either to populate a DWH initiative or for testing/auditing purposes. The ADABAS PLOG is a recording of a “point in time” in the activity of the database. ADABAS shops that operate with the PLOG feature turned on usually do so as a disaster recovery measure. PLOG data is invaluable in any instance where it becomes necessary to rebuild an organizations database. Because all transactions that take place against the database are recorded, the PLOG is also uniquely qualified to populate a datawarehouse. However, if the user does not wish to examine the entire PLOG; options for data retrieval with NatCDCSP include; first and last images, all images, or just the “Delta” images which are the last recorded image for that File. These options can be applied against a single File or multiple Files.

NatCDCSP can also be used in conjunction with NatQuery to provide a complete ADABAS access package with the ability to allow ad hoc queries, datamining, datamarts, single or multi file record auditing, and datawarehousing capabilities

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Is NatCDCSP Middleware?

NatCDCSP is not Middleware because although it does allow for connectivity between disparate data repositories it does so by initially connecting to ADABAS in its native language and then automatically transforms the retrieved information for automated loading into your office tools or even relational databases. NatCDCSP is installed on the users PC and has a near zero presence on the server, needing only to load those objects that it generates for processing onto the ADABAS server platform. These objects are in fact Natural programs themselves with Natural being the language developed specifically to access ADABAS and ADABAS utilities.

How does NatCDCSP access ADABAS?

NatQuery and NatCDCSP both rely on FTP to connect to the server where ADABAS is located. Other workable options are available to the user but will require some manual intervention for moving the files between the server and the workstation. NatQuery and NatCDCSP can be classified as “program generators” in this case these automatically generated programs would all be created in Natural and are therefore “native” to the ADABAS environment. These programs will be introduced to the servers’ Batch environment, as this is the most efficient and affordable control over data extractions.

NatQuery and NatCDCSP were designed to work in tangent with each other to provide a full range of data extraction services to the ADABAS client, however, both tools are also operable as stand alone products. NatCDCSP much like NatQuery will be given Administrative intelligence at the initial set-up regarding the clients’ ADABAS environment. This intelligence allows NatCDCSP to access ADASEL, ADACDC, or ADAPLP depending on the clients’ server platform. An Administrator may also set the default values for pathways between the workstation and the server, these can be changed dynamically by the user should they so chose. Both NatQuery and NatCDCSP embrace all levels of site specific security; ADABAS and Natural, FTP passwords, and PC ID’s and passwords as well, so your data is always secure.

Will NatCDCSP allow selective File auditing?

Yes NatCDCSP can give the user this capability.

A PLOG is a reflection of all transactions against the database for a given period and the request for a single File must be handled by splitting out this file from the entire PLOG.

NatCDCSP can process PLOG’s in several ways; the entire PLOG can be processed, the entire

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PLOG can be processed and concurrently a single File processing can take place, or single File extraction can be requested from the PLOG. With either of the single File processing options, the user can further define the request to be one or more of the Fields from that File.

Will NatCDCSP allow Multiple File auditing?

Yes NatCDCSP can give the user this capability.

NatCDCSP functionality also allows the user to define multiple Files within the PLOG processing as well as defining an individual Field or Fields within these separate Files.

Can NatCDCSP be used as a Datawarehouse tool?

NatCDCSP is uniquely suited to provide Change Data Capture from your ADABAS PLOG. The requested PLOG information can be tailored to extract all Delta transactional records (Logical Last), the First and Last images or All transactions. In the delivery of Delta images from a PLOG, NatCDCSP can be told to bypass the users' workstation and directly supply the warehouse (RDBMS or ADABAS) with the updated records. The use of First and Last images is a great way to quickly audit ADABAS Files, this can have ramifications in testing newly coded programs or providing transactional audit information to third parties. In downloading All transactions, the user will be in position to use NatQuery, if it is installed, to run query programs against the entire PLOG in an "off-line" environment.

Can I build my own datawarehouse or datamart?

Loading PLOG data into MS Excel or Access is a great way to allow users access to critical data without compromising your ADABAS database.

For a more robust warehouse situation the administrator can use NatCDCSP to not only extract specific data from PLOGs but to then repackage it as a DDM and load it back onto the ADABAS database. Making this DDM available to NatQuery users will allow them to query your ADABAS data in a true point in time environment, with this DDM being "refreshed" as needed.

Is NatCDCSP costly to operate?

One of the most expensive processing steps when making PLOG data available is that of decompression. NatCDCSP utilizes Software AG's own internal decompression engine for this purpose. The fundamental architecture of both NatCDCSP and NatQuery is to reuse as much of

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the available technology inherent to a clients ownership of ADABAS and Natural. The use of the Systrans function by NatCDCSP is a prime example of this.

Because NatCDCSP reads directly from a PLOG tape, it has little impact on the server environment. This approach provides the user a true “point in time” of the activity that has taken place on the ADABAS database.

NatCDCSP will automatically generate the processes needed to read PLOG’s. Utilizing the users specific input, NatCDCSP will execute a Natural program without the need for the user to code – anything. This automation saves time and frees the ADABAS programmer up to perform the more “mission critical” tasks required by their organization.

Can NatCDCSP be used to replicate data into an existing ADABAS environment?

Yes, it is optional for NatCDCSP to perform the transformation of the processed PLOG information from EBCDIC to ASCII and by choosing to not do so the Administrator is allowed to reload the data or load it into an alternative ADABAS database.

Another option available to the Administrator is the ability to load into ADABAS any sequential flat file that NatCDCSP is made aware of.

How does NatCDCSP handle variable record lengths?

NatCDCSP, during the processing of a PLOG, will automatically (optionally) transform data from EBCDIC to ASCII as well as change the variable record lengths into fixed length output. This allows further transformations of the data by ETL packages, it also allows for instant downloading into business tools such as Microsoft's Excel and Access, or loading into alternative databases such as DB2, SQL, or Oracle.

What are the requirements for using NatCDCSP?

In order for NatCDCSP to process a PLOG, the first and most obvious need is for the PLOG to exist. The PLOG is an optional function provided by Software AG for the ADABAS database and is turned on/off at the Administrative level.

NatCDCSP also requires that one of the following utilities be installed: ADASEL or ADACDC for the mainframe environment, in the case of ADABAS on a UNIX or Windows platform –

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ADAPLP must be present. NatCDCSP relies on DDM's as they appear in ADABAS so it is mandatory that the DDM's will exactly match to their respective FDT.

In order to facilitate an automated approach to Change Data Capture it is suggested that FTP be available for the transferring of data between the server and the workstation.

To move the core NatCDCSP processing module into the mainframe Natural server environment, the Natural utility NATLOAD is used. This means that this utility must be available, and if Natural Security is installed, the designated NatCDCSP Administrator must have access to this utility.

NatCDCSP will also need product keys, server passwords, and certain Libraries set up. For a complete list of the Pre Install Requirements, please contact you NatWorks representative.

Will NatCDCSP work with ADABAS on a UNIX or Windows platform?

Yes.

Originally, NatCDCSP was developed as a user-friendly ADABAS PLOG Change Data Capture tool for mainframe databases. When ADABAS became available on UNIX and Windows, it became obvious such a tool would be necessary for this platform as well.

The ADABAS database on a UNIX or Windows server has the option to run PLOG back-up tapes. The need to capture transactional data from these PLOG tapes, for the case of disaster recovery, if for nothing else, will be as necessary here, as it is in a mainframe installation. NatWorks has developed NatCDCSP as a tool that will provide this transactional data for ADABAS on the Unix or Windows environment.

Does NatCDCSP provide data in Real Time?

The need for accurate and current data is paramount to the operation of most businesses; NatCDCSP brings data to the user in the most non-invasive and economical fashion possible. NatCDCSP does not provide for data retrieval in Real Time.

In the case of applying Change Data Capture to a datawarehouse, the need really depends on the use of the database. The client will want to carefully asses the needs of their users and the true costs associated both with the CDC processing and the loading / maintenance ramifications on

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the warehouse side. Data that is 4, 6, or even 24 hours old may actually be sufficiently “fresh” to meet the demands of your site.

NatCDCSP provides data via ADABAS PLOG's and PLOG's can be “flipped” at will, it follows that NatCDCSP can provide data as frequently as the client chooses to make these tapes available. In practice, however, this is typically not less than every 3 hours at the minimum. PLOG's are primarily a disaster recovery function, should the database go down it would be impractical to rebuild the database using dozens of tapes. In practice, many ADABAS sites will change their PLOG tapes only two or three times a day.

Is training available for both End-Users and Administrators?

Training is available for both the Administrator and Users of NatQuery and NatCDC/NatCDCSP. For more information regarding training please contact your sales representative or contact NatWorks directly at info@natworks-inc.com

Who is NatWorks affiliated with for Sales and Service?

NatWorks is privileged to be a World Wide Referral Partner with Software AG and you will find us participating in conferences and user group meetings around the world.

Partners who provide ETL product connectivity include; IBM, MD2 in Brazil, and Pervasive Software (formerly Data Junction).

Treehouse Software (TSI) now handles the bulk of Natworks marketing and sales efforts. Through their extensive product line and many affiliates around the world they have been providing ADABAS extraction solutions for over 20 years. Please visit their web site at: <http://www.treehouse.com/index.html> for product information.

NatWorks has a long-standing relationship with Ascential Software (recently purchased by the IBM Group) in providing their clients with a proprietary interface to their ADABAS ETL solution; IBM WebSphere Data Integration Suite™.

To locate your nearest NatWorks representative or to contact NatWorks directly for more information please call our home office at 1-802-485-6112
Or e-mail us at: info@natworks-inc.com.