



CHES

External User Testing Guidelines

General Information

Overview

The External User Testing Environment has been designed to enable users to create and test scenarios that occur in Production.

Test kits are provided with more than one PID to enable users to act as their own counterparty, and therefore complete test scenarios internally. Additionally, an Automatic Turnaround Processor is available for dual entry messages (refer to page 5)

All testing should be undertaken in conjunction with referencing the External Interface Specification (EIS) manual and the ASX Settlement Procedure Guidelines (APG). These manuals are available via www.asxonline.com.

This document is designed to provide details specific to the External User Testing Environment where usage may differ to Production and therefore will not be included in the EIS and APG.

Contact Details

To request support please email chesshelp@asx.com.au or contact Clearing & Settlement Operations on 1800 814 051. Please include the word "TESTING – AIC XXXXX" in your email subject.

Support and System Availability

The system is available from 08.30 to 23.55(Sydney time)

Support is available from 09.00 to 17.00 (Sydney time) business days.

Trade Files must be submitted no later than 15.30 (Sydney time) on processing date.

Corporate Action Event Files / requests must be submitted no later than 11:00 am (Sydney time) the day prior to Ex date. Email subject line to read "Testing AIC = / Ex Date = "

Note, processing of requests will be on a best endeavours basis.

Settlement Process / End of Day (EOD) Process

Settlement process commences at 12.00.

EOD commences at 23.59.

Test Kit Maintenance

A reset will remove the following from your test kit:

- holdings
- subpositions
- outstanding obligations
- corporate actions
- takeover information

To request a reset please email chesshelp@asx.com.au.

Please note that users are requested to only use issuer/security codes and PIDs within their test kit. This will be monitored by system support. This will ensure the test kits can be reset more efficiently and successfully.

Connectivity

Network Details

Refer to allocated test kit document for confirmation of CHESS test UIC and Port number assigned to your test kit. The test kit document will provide one of the following CHESS UIC and Port numbers.

CHESS Test UIC: 00044 Port: 4207

CHESS Test UIC: 00040 Port: 4210

IP Address:

Optus 203.202.049.019

Radianz 206.190.104.215

ASXiVPN 203.006.252.010

Telstra 029.008.001.003

Encryption / Security Keys

Encryption is not required in the External User Testing Environment. Each test kit will allow users to connect with or without encryption. To test with encryption, the below listed security keys should be utilised.

Type 1 Keys

Shipping Key	774E 1195 C539 93F5 CF09 28D1 909F 5F6F	KVC 6D80E2
MKX	B368 05F0 7581 D2E1 3C5A 4DBB 73EF 1268	8CB175
MKY	EB93 9A5B 8E23 7EC5 95E7 8410 E9D1 839F	8D5651

Type 2 Keys

Shipping Key		
part 1	C280 912A 20DA 1375 68B5 0E4A 0485 F8D0	255AF8
part 2	B5CE 80BF E5E3 8080 A7BC 269B 941A A7BF	184929
MKX	B368 05F0 7581 D2E1 3C5A 4DBB 73EF 1268	8CB175
MKY	EB93 9A5B 8E23 7EC5 95E7 8410 E9D1 839F	8D5651

Type 3 Keys

Shipping Key		
part 1	C280 912A 20DA 1375 68B5 0E4A 0485 F8D0	255AF8
part 2	B5CE 80BF E5E3 8080 A7BC 269B 941A A7BF	184929
MKX	39BF 9149 2392 A36B 0DFA EABC 2632 FAB3	
MKY	155B 9098 D000 A1E4 83AB B626 385C 532E	

Test Kit Set Up

Test Kit Detail

Test kit details are supplied in a separate document at the time of test kit creation and include:

- AIC – Access Identification Code
- PIDs – Participant Identification Codes (including Offeror UIC)
- Issuer and Security codes

Default Entrepot HINs

Default Entrepots HINs must be nominated and recorded in a CHESS default table to facilitate settlement. When a test kit is created users can request default entrepot HINs to be created by Clearing & Settlement Operations on their behalf. When this occurs the HINs are automatically recorded in the default table.

Should users choose to create their own entrepot HINs (via 201 messages), or change them, the HINs must be advised to Clearing & Settlement Operations in order to record them in the CHESS default table.

Payment Facilities

All PIDs are allocated a default payment facility at the time of creation. HIN Specific payment facilities can be requested via email to chesshelp@asx.com.au, please include HINs to be associated to Payment Facility.

Message Testing

Message Responses

Messages are responded to the same way as production, i.e. the same applications are used to process responses. For Example, a 201 (New Registration Details) message will be responded to immediately with a 202 (Accepted New Registration Details) message.

In the situations where third parties are required to complete a transaction, additional processors exist to simulate these parties. For example, in Production, an 017 (Issuer Sponsored to CHESS Conversion Request) message would be responded to by the relevant Share Registry. However, in the External User Testing Environment the 017 will be responded to by a registry simulator application. In order to receive desired responses please refer to Appendices A, B, C, D & E..

AMFS Message Responses

Messages are responded to the same way as production, i.e. the same applications are used to process responses.

Participant Testing

In the situations where third parties are required to complete a transaction, additional processors exist to simulate these parties. Refer to automatic processor information below.

Product Issuer Settlement Participant (PISP) Testing

For transactions that are initiated by a Participant, a PISP must request Clearing & Settlement Operations to act as the Participant to facilitate the test. A PISP will be allocated a Participant UIC as part of their test kit and will be required to advise C&S Ops of this UIC, and message requirements.

Automatic Turnaround Processor

The Automatic Turnaround Processor enables users to conduct one-sided testing in relation to dual entry message testing i.e. CHESS will respond on behalf of the counterparty. For example, test PID 1232 sends a 005 message (Demand Dual Entry CHESS to CHESS Transfer Request) to counterparty PID 1239, the automatic turnaround program will match the message and PID 1232 will receive a 006 message.

Each test kit is allocated a PID that is assigned to the Automatic Turnaround Processor. This PID is identified as follows; Market Participants automatic turnaround PID will end with a '9', Non Market Participant automatic turnaround PID will begin with a '9'.

Takeover Processing

Please email Clearing & Settlement Operations to request a takeover code and nominate target security code from your test kit. An offeror HIN will need to be set up by CHESS Admin, please provide your offeror UIC from your test kit, All takeovers will be set up as unconditional unless otherwise requested. Please advise Clearing & Settlement Operations when a status on a takeover should be updated, i.e. changing from unconditional to closed or closed to finalised. Please note that when a takeover status is finalised all subpositions are released.

Please refer to Appendix D for takeover acceptance and removal processing.

If you require the subposition to be removed by the registry (i.e. 431 takeover transfer) please provide Clearing & Settlement Operations with the Offeror HIN, Takeover Code, Units and HIN to be affected.

Offeror Initiated Takeover Acceptance / Removal and Housekeeping of Cancelled Offeror Initiated Takeover Messages

Refer to Appendix D

Housekeeping of Unactioned Transfers & Conversions

Refer to Appendix A

Holding Detail Advice

Refer to Appendix E

Message Testing (Continued)

Warrant Testing

A warrant agent relationship can be established at the time of your test kit creation. If you require the relationship to be included to an existing test kit please advise Clearing & Settlement Operations.

If you require an Effected Holding Adjustment (022) message, but are not a Warrant Issuer, please advise Clearing & Settlement Operations.

Notification of Changes to CHESS Settlement Cut-Off

CHESS Event Notification (542) message provides information to the change of settlement cut-off times. These messages can be arranged upon request by emailing CHESShelp@asx.com.au.

All Participants will receive 542 message in the event of change to settlement cut-off notification request.

Options Cover Creation Advise to Clearing Participant / Options Cover Removal Request (Controlling Participant & Clearing Participant Differ)

Should you require Options Testing (where CM differs) and a third party clearer relationship is not already established within your kit, please nominate the following and advise Clearing & Settlement Operations:

- PID (from your test kit)
- Clearing Member PID

Message Testing (Continued)

Corporate Actions

In Production, corporate action details are communicated via signals. There is no link between signal testing and the External User Testing Environment. Therefore, to ensure that our environment is in line with your corporate action testing and entitlements are created by CHESS the following will need to occur;

All Corporate Action requests should be emailed to chesshelp@asx.com.au no later than 11:00 (Sydney time) the day prior to the Ex date. Email subject to state "Testing AIC & Ex Date". (e.g. Testing AIC 26380 & Ex Date = 20091029)

Corporate Action Event File for Bonus, Dividend, Renounceable and Non Renounceable corporate actions is required to be submitted to Clearing & Settlement Operations.

These files cannot be processed on the Ex date as CUM entitlement balances will not be generated.

- Email chesshelp@asx.com.au requesting a 9 digit corporate action ID, must be unique for each corporate action.
- Select message format for the type of corporate action you are creating (refer to Appendix G) or Reference Point Corporate Actions Message Specification Manual.
- Create a Corporate Action Event file in a text format (i.e. extension must be .txt)
- Use Issuer Codes and/or Issuer Code and Security Code from your test kit
- Email the Corporate Action Event file to chesshelp@asx.com.au

All other corporate action event requests please email chesshelp@asx.com.au details including:

- Security code/s
- Ex date
- Record date
- All other relevant event dates

Should you require Clearing & Settlement Operations to act as the share registry and generate holding adjustments or securities transformations, email chesshelp@asx.com.au details including;

- Security code/s
- HIN/s
- Increase/decrease
- Reason
- Unit Quantity

Below are samples of Corporate Action Event formats for message type "SI" - (i.e. Bonus, Dividend, Non Renounceable and Renounceable). You may use the values given in the examples, or alternatively tailor these to your own requirements based on the Reference Point Corporate Action Message Specification Manual. All ASX Codes are to be within your own test kit.

For access to Reference Point Corporate Actions Message Specification Manual contact ASX Market Access email marketaccess@asx.com.au or 1800 663 053

Message Testing (Continued)

Corporate Action Event File Processing

NON RENOUNCEABLE

```
000001SI01234567890000000000NRAU000000XXX9AYYYYMMDDYYYYMMDDYYYYMMDDYYYYMMDDXXX_ _ _
EAYYYYYMMDD00000000XXXN_ _10000100004100000000000005XXXN_ _ MAYYYYYMMDD00000000
_ _ _ _ _ _ 000010000000000000_ XXXN_ _ AAYYYYYMMDD00000000XXX
```

Edit Values

SI	Message Type
123456789	Corporate Action I.D (must email chesshelp@asx.com.au for number)
NR	Corporate Action Type Code
AU000000XXX9	Parent ISIN
A	Corporate Action Tran Type Code
YYYYMMDD	Ex Date
YYYYMMDD	Record Date
YYYYMMDD	Application Close Date
YYYYMMDD	Despatch Date of New Shares
XXX	Subject Parent Issuer Code
E	Parent Adjustment Type Code
A	Parent Action Code
YYYYMMDD	Parent Adjustment Date
XXX	Object Entitlement Issuer Code
N	Subject Entitlement Issuer Code
M	Entitlement Adjustment Type Code
A	Entitlement Action Code
YYYYMMDD	Entitlement Adjustment Date
XXX	Subject ASX Issuer Code
N	Subject ASX Security Code
A	ASX Adjustment Type Code
A	ASX Action Code
YYYYMMDD	ASX Adjustment Date
XXX	Object ASX Issuer Code

Note: an underscore character represents a space character in CA Event file structure example above)

Message Testing (Continued)

Trade Processing (ITS)

As there is no existing test link between ITS and CHESS, a trade simulator exists in order for users to receive 164 Notified Broker Broker Trade messages.

Trade files must be emailed to chesshelp@asx.com.au prior to 3:30pm (Sydney time) on the day for processing.

To receive 164s please create a trade file in a text format (i.e. extension must be .txt) and email Clearing & Settlement Operations. The following procedures advice how to create a trade file based on signal B files (refer to appendix F).

1. Select TA or TB files as required (refer to appendix F). Use the TA trade format if you require as at date, condition codes or basis of quotation.
2. Enter Issuer Codes from your test kit.
3. Enter Security Code from your test kit if required, if not leave three blank spaces.
4. Enter buying PID and selling PID (minus the leading zeros) from your test kit.
5. Alter sale price, sale volume and sale value as required.
6. Alter the Serial Trade Qualifier. This is made of the Julian date (calendar date). NB the Serial Trade Qualifier starts and ends in a zero. Examples as follows:
 - 3rd January 2005, Julian date is 3, this should be shown in the trade file as 0030.
 - 6th April 2005, Julian date is 96, this should be shown in the trade file as 0960.
 - 18th May 2005, Julian date is 138, this should be shown in the trade file as 0380.
 - 25th August 2005, Julian date is 237, this should be shown in the trade file as 0370.
7. Alter the Trade date. The trade date cannot be a date in the future; it can only be the current day that the trade file is to be processed. The only exception to this rule is with cancellations.
8. Ensure the first 5 digits in the trade serial number increase by one for each trade in the trade file. The sixth digit is a check digit.
9. Alter the settlement/as at date to applicable dates.
10. If buyer/seller order reference is not required leave 20 blank spaces.
11. E-mail the trade file to chesshelp@asx.com.au.

You may lodge as many trades as you require remembering to use PID's and Issuer codes from your test kit. To enter trade cancellations, follow the TG format for Signal B (refer appendix F) or advise Clearing & Settlement Operations the transaction ID of the 164 message to be cancelled.

Below are samples of Signal B trade formats of TA Equity Trade (long form) and TB Equity Trade (Short form). In the examples shown below the sale price is set to \$1.00, sale volume is set to 1 and the sale value is set to \$1.00. You may use the values given in the examples, or alternatively tailor the trades to your own requirements.

For access to Signal B Manual contact ASX Market Access email marketaccess@asx.com.au or 1800 663 053

Message Testing (Continued)

Trade Processing (ITS)

TA EQUITY TRADE (LONG FORM)

000010TA01000010X1A__ _ 011PID1PID2 00100000000000001000000000100QQQQ YYYYMMDD123456__ _
 ----- YYYYMMDDYYYYMMDD

TB EQUITY TRADE (SHORT FORM)

000010TB01000010X1A__ _ 011PID1PID2001000000000000100000000100QQQQ YYYYMMDD123456__ _
 ----- YYYYMMDD

Edit Values

X1A	=	Issuer Code
PID1	=	Broker UIC1
PID2	=	Broker UIC2
QQQQ	=	Serial Trade Qualifier
YYYYMMDD	=	Trade date
123456	=	Trade Serial No.
YYYYMMDD	=	Settlement Date
yyymmdd	=	As at date

Trade Processing (AMO)

As there is no existing test link between AMO systems and CHESS, a "Trade Registration Request" simulator exists to generate the relevant messaging.

In order for users to test receipt of Notified Trades (MT 164) or Cancelled Settlement Instruction (MT 116) messages that have resulted from an AMO Trade Registration Request (i.e. Acceptance or Cancellation), Clearing & Settlement Operations will act as an AMO.

Test requests to receive messaging as outlined below must be emailed to chesshelp@asx.com.au prior to 3:30pm (Sydney time) on the day for processing.

To receive Notified Trade (MT 164) messages (excluding crossings) please provide the following information:

- PID 1*
- PID 2*
- Security codes
- Number of trades (max 50)

To receive Notified Trade (MT 164) message (crossings only) please provide the following information:

- PID 1
- Security codes
- Number of trades (max 10)

NB All provided information must be from users existing test kit.

To receive Cancelled Settlement Instructions (116) messages please provide the following information:

- Transaction ID of Notified Trade (MT 164) message to be cancelled

* PID 1 and PID 2 will be used as Receiving or Delivering PID interchangeably when more than one security is requested.

APPENDIX A

Conversions and Transfers

	Trigger Field Name	Trigger	Input Message	Resulting Message
Issuer Sponsored to CHESS Transfer	Unit Quantity	Odd Units Even Units	015 015	174 - accept 076 - reject
Issuer Sponsored to CHESS Conversion	Unit Quantity	Odd Units Even Units	017 017	172 - accept 076 - reject
Certificated to CHESS Conversion	Unit Quantity	Odd Units Even Units	019 019	172 - accept 076 - reject
Certificated to CHESS Transfer	Unit Quantity	Odd Units Even Units	021 021	174 - accept 076 - reject

RANGE OF EVEN UNIT VALUES REQUIRED TO GENERATE REJECTED MOVEMENT REASON CODES FOR REJECTED REGISTRY TO CHESS MOVEMENT (076)

Unit Range	Rejected Movement Reason	Description
0 – 1000	A	Issuer holding locked
1001 – 2000	B	Certificate invalid
2001 – 3000	C	Unauthorised access
3001 – 4000	D	Certificate declared lost
4001 – 5000	E	Insufficient securities
5001 – 6000	F	Registration details do not match
6001 – 7000	G	Invalid PIN
7001 – 8000	H	Invalid Security holder Reference Number
8001 – 8200	J	Documentation not received
8201 – 8400	K	Registry certificate quantity different to certificate quantity supplied
8401 – 8600	L	Duplicate certificate number supplied by registry - SRN must be supplied
8601 – 8800	M	Insufficient cum entitlement
8801 – 9000	N	Probate not noted
9001 – 9200	O	Invalid foreign guarantee
9201 - 9500	P	Insufficient foreign units
9501 – 10,000,000	R	Documentation incorrectly signed

RANGE OF EVEN UNIT VALUES TO GENERATE CHESS HOUSEKEEPING (694)

Unit Range	Rejected Movement Reason	Description
10,000,001-99,999,999,999	N/A	Housekept by CHESS

APPENDIX B

Options

	Trigger Name	Field	Trigger	Input Message	Resulting Message
Options Cover Creation	Unit Quantity		Odd Units Even Units	027 027	020 - accept 030 - reject

RANGE OF EVEN UNIT VALUES REQUIRED TO GENERATE COLLATERAL REJECTED REASON CODES FOR REDUCED OPTIONS COVER (030)

Unit Range	Collateral rejected reason	Description
0 – 1000	A	As requested by Participant
1001 – 1500	C	Invalid Stock Code
1501 – 2000	D	Invalid sender PID
2001 – 2500	E	Authorisation not in place for this account/HIN/combination/s
2501 – 3000	Z	Other
3001 - 3500	E	Authorisation not in place for this account/HIN/combination/s
3501 – 4000	H	Invalid HIN
4001 – 4500	I	Invalid Account
4501 – 5000	J	The stock is not accepted as cover at the present time
5001 – 5500	K	Invalid Participant
5501 – 6000	L	Invalid Lodgement Number
6001 – 6500	M	Incorrect message type sent by Participant
6501 – 7000	N	Account or lodgement has been locked by ACH
7001 – 7500	O	Original lodgement number cannot be found
7501 – 8500	P	Account not set up for Paperless Processing
8501 – 9000	R	The Stock has reached its Maturity Date
9001 – 9500	S	Message not set to Specific Cover
9501 – 9700	T	Lodgement of Super Fund Stock into a Non Super Fund account not permitted
9701 – 9800	U	Invalid Number of Units
> 9801	Z	Other

APPENDIX B

Options Continued

	Trigger Field Name	Trigger	Input Message	Resulting Message
Options Cover Removal	Unit Quantity	Odd Units Even Units	029 029	030 - accept 078 - reject

WHERE CONTROLLING PARTICIPANT AND CLEARING PARTICIPANT ARE THE SAME

RANGE OF EVEN UNIT VALUES REQUIRED TO GENERATE COLLATERAL REJECTED REASON CODES FOR REJECTED OPTIONS COVER REMOVAL (078)

NB: All odd unit values will generate a Collateral Rejected Reason code of "Z"(030)

Unit Range	Collateral rejected reason	Description
0 – 500	A	As requested by member
501 – 1000	B	Collateral previously withdrawn by member
1001 – 1500	C	Invalid stock code
1501 – 2000	D	Invalid sender PID
2001 – 2500	E	Authorisation is not in place for this account/HIN combination/s
2501 - 3000	Z	Other
3001 – 3500	G	Number of Units for withdrawal is more than the available Number of Units lodged
3501 – 4000	H	Invalid HIN
4001 – 5000	I	Invalid Account
5001 – 5500	K	Invalid Participant
5501 – 6000	L	Invalid Lodgement Number
6001 – 6500	M	Incorrect message type sent by Participant
6501 – 7000	N	Account or lodgement has been locked by ACH
7001 – 8000	O	Original lodgement number can not be found
8001 – 9700	Q	Collateral holding does not exist in this account
9701 – 9800	U	Invalid Number of Units
> 9801	Z	Other

APPENDIX B

Options Continued

WHERE CONTROLLING PARTICIPANT AND CLEARING PARTICIPANT DIFFER

ACH LODGEMENT NUMBER VALUES REQUIRED TO GENERATE COLLATERAL REJECTED REASON CODES FOR REJECTED OPTIONS COVER REMOVAL (078)

ACH Lodgement Number ends with	Collateral rejected reason	Description
1	A	As requested by Member
3	B	Collateral previously withdrawn by member
5	C	Invalid stock code
7	D	Invalid sender PID
9	G	Number of Units for withdrawal is more than the available Number of Units lodged
A	G	Number of Units for withdrawal is more than the available Number of Units lodged
B	H	Invalid HIN
C,D or E	I	Invalid Account
F, J or K	L	Invalid lodgement Number
L or M	O	Original lodgement number cannot be found
N,O,P or Q	Q	Collateral holding does not exist in this account
R or S	U	Invalid Number of Units
T	Z	Other

APPENDIX C

SRN Requests

	Trigger Field Name	Trigger	Input Message	Resulting Message
SRN Enquiry	Post code provided as part of registration details	Post code range < 3001	451	458 - accept
		Post code range > 3000 and < 5001 and range > 5000 including all country codes	451	462 - reject
Holding Balance Enquiry	Security holder Reference Number	SRN is an odd number or ends in A-M	457	470 - accept
		SRN is an even number or ends in N – Z	457	474 - reject

RANGE OF POST CODE VALUES REQUIRED TO GENERATE REGISTRY REJECT REASONS FOR CHESS TO PARTICIPANT SRN REJECT (462)

Post Code Range	Registry Reject Reason	Description
3001 – 5001	C	No Matching Registration Details Found
5001 – ZZZZ (includes Country Code)	D	Duplicate Registration Detail Records Exist

RANGE OF SRN VALUES REQUIRED TO GENERATE REGISTRY REJECT REASONS FOR CHESS TO PARTICIPANT HOLDING BALANCE REJECT (474)

SRN Range (last character of srn)	Registry Reject Reason	Description
2, 4 or N-Q	A	No matching SRN
6, 8 or R-V	B	SRN and Verification Details do not match
0 or W-Z	E	Invalid Status

APPENDIX D

Takeovers

BROKER INITIATED TAKEOVER ACCEPTANCE/REMOVAL

	Trigger Field Name	Trigger	Input Message	Resulting Message
Takeover Acceptance	Unit Quantity	Even Units Odd Units	031 031	038 - reject 032 - accept
Takeover Acceptance Removal	Unit Quantity	Odd Units Even Units	085 085	038 - accept 088 - reject

OFFEROR INITIATED TAKEOVER ACCEPTANCE

	Trigger Field Name	Trigger	Input Message	Resulting Message
Offeror Takeover Acceptance-Participant Validates	Units Available in HIN	0-5,000,000 Odd Units	711 Off	704 Off
			031 P	032 P
Offeror Takeover Acceptance-Participant Rejects	Units Available in HIN.	5,000,001-10,000,000 Odd Units	711 Off	710 Off
			035 P	084 P

RANGE OF VALUES REQUIRED TO GENERATE TAKEOVER ACCEPTANCE REMOVAL

	Trigger Field Name	Trigger	Input Message	Resulting Message
Offeror Initiated TKO Acceptance	Units Available in HIN	10,000,001-99,999,999,999	711 Off	704 Off
Offeror Takeover Acceptance-Participant Validates	Units Available in HIN	10,000,001-99,999,999,999	031P	032 P
Takeover Acceptance Removal by Offeror	Units Available in HIN	10,000,001-99,999,999,999	707 Off	706 Off
				092 P

APPENDIX D

Takeovers Continued

RANGE OF VALUES REQUIRED TO GENERATE TAKEOVER ACCEPTANCE REMOVAL

	Trigger Field Name	Trigger	Input Message	Resulting Message
Offeror Initiated TKO Acceptance	Units Available in HIN	10,000,001-99,999,999,999	711 Off	704 Off
Offeror Takeover Acceptance-Participant Validates	Units Available in HIN	10,000,001-99,999,999,999	031P	032 P
Takeover Acceptance Removal by Offeror	Units Available in HIN	10,000,001-99,999,999,999	707 Off	706 Off
				092 P

RANGE OF VALUES REQUIRED TO GENERATE CANCELLED OFFEROR INITIATED TKO ACCEPTANCE

	Trigger Field Name	Trigger	Input Message	Resulting Message
Takeover Acceptance	Units Available in HIN	10,000,001-99,999,999,999	711 Off	704
Cancelled Offeror Initiated TKO Acceptance.	Units Available in HIN.	10,000,001-99,999,999,999		432 P 432 Off

NB: The 432 (housekeeping) Cancelled Offeror initiated TKO message occurs in the event the Controlling Participant has not responded to an Offeror Initiated Takeover Acceptance with either an acceptance or rejection within the Scheduled Time.

APPENDIX E

Holding Detail Advice

	Trigger Field Name	Trigger	Input Message	Resulting Message
Holding Advice Registry Accepts	Bank Account Number	First 3 Bytes of the BSB	757 (P) 759 (R)	764 (P) 762 (R)
Holding Advice Registry Rejects	Bank Account Number	First 3 Bytes of the BSB	757 (P) 761 (R)	766 (P) 762 (R)

Note: Refer to table below for further information.

- Approved BSB numbers from the Australian Payments and Clearing Association Limited must be used.
- If the Registry wishes to reject details of a Holding Advice message, the entire details will be rejected. A participant must resend the message with all details. E.g. If a Participant submitted Bank Account details on a Holding Advice message and received 'B', 'D' or 'H' as the rejected reason, the participant would be required to resend the Bank Account
- Where a participant has elected to provide a bank account, the relevant optional fields must be completed. For example, if a participant provided a bank account, all bank account details must be provided (i.e. BSB Number, Account Number, Account Name and Account Purpose).

First 3 bytes of BSB	Account Purpose	Account Cancellation	Rejected Holding Advice Reason	Description
<u>Bank Account Details Establishment</u>				
000 – 067	E	space	N/A (accepted)	
068 – 101	E	Space	H	Failed requirements for Bank A/C structure or format
102 – 999	E	Space	B	Issuer does not support electronic direct credit
<u>Cancellation of Bank Account details</u>				
000 – 067	E	Y	N/A (accepted)	
068 – 999	E	Space	D	Cancellation Bank A/C details do not match recorded Bank A/C details.

APPENDIX F

ASX MANAGED FUNDS SERVICE (AMFS)

Applications

	Trigger Field Name	Trigger	Input Message	Resulting Message	Value
Redemption Rejected by PISP	Number Units	Odd	800	803	"R" – Rejected
Redemption on Hold by PISP	Number Units	Even or < 51	800	803	"H" – Transaction Status Hold "FCR" - Reason Code Fund Closed
Redemption Accepted by PISP; Settlement Complete (payment) Redeem Units Complete	Number Units	Even or > 51	800	803 156 733	"A" – Accepted for 15K Next Settlement Cycle Same as units in 800 msg

Redemptions

	Trigger Field Name	Trigger	Input Message	Resulting Message	Value
Redemption Rejected by PISP	Number Units	Odd	800	803	"R" – Rejected
Redemption on Hold by PISP	Number Units	Even or < 51	800	803	"H" – Transaction Status Hold "FCR" - Reason Code Fund Closed
Redemption Accepted by PISP; Settlement Complete (payment) Redeem Units Complete	Number Units	Even or > 51	800	803 156 733	"A" – Accepted for 15K Next Settlement Cycle Same as units in 800 msg

Switch of Funds

	Trigger Field Name	Trigger	Input Message	Resulting Message	Value
Switch Rejected by PISP	Number Units	Odd	806	809	"R" – Rejected
Switch on Hold by PISP	Number Units	Even or < 51	806	809	"H" – Transaction Status Hold "FCR" - Reason Code Fund Closed
Switch Accepted by PISP; Redeem Units Complete	Number Units	Even or > 51	806	809 732 (redeem) 732 (allot)	"A" – Accepted Same as units in 800 msg Same as units in 800 msg

APPENDIX F

ASX MANAGED FUNDS SERVICE (AMFS) Cont.

Participant Cancel Request (Redemption / Switch)

	Trigger Field Name	Trigger	Input Message	Resulting Message	Value
Cancelation Rejected by PISP	Units	Odd	804	811	"R" – Rejected
	Units	Even	804	811	"A" – Accepted

Chess to Issuer Sponsored

	Trigger Field Name	Trigger	Input Message	Resulting Message	Value
Fund to CHESS Transfer Authorisation	Units	Even	718	723	
Fund to CHESS Transfer Rejection	Units	Odd	718	725	Rejected Movement Reason = "H"

Unit Registry Fund Balance Request

	Trigger Field Name	Trigger	Input Message	Resulting Message	Value
Fund Balance Acceptance	SRN	Odd number or end in A-M	837	840	
Fund Balance Rejection	SRN	Even number or ends in N-Z	837	842	

APPENDIX G

TA Equity Trade (Long Form) – 124 Bytes (144 Bytes – Signal 'B')

: Sequence	: Message	: Retransmit	: Exchange	: Time	:
: Number	: Type	: I.D.	: I.D.	:	:

6	2	1	1	6	
---	---	---	---	---	--

: Issuer	: Security	: Security	: Ticker	: Buyer	:
: Code	: Code	: Type	: Permission	: I.D.	:
:	:	:	: Indicator	:	:

3	3	2	1	4	
---	---	---	---	---	--

: Seller	: Sale	: Sale	: Sale	: Serial	:
: I.D.	: Price	: Volume	: Value	: Trade	:
:	:	:	:	: Qualifier	:

4	9	9	12	4	
---	---	---	----	---	--

: Trade	: Trade	: Condition	: As At	: Settlement	:
: Date	: Serial No.	: Codes	: Date	: Date	:

8	6	16	8	8	
---	---	----	---	---	--

: Basis of	: Special	: Buyer Order	: Seller	:
: Quotation	: Market	: Reference	: Order	:
:	: Indicator	: Number	: Reference	:
:	:	:	: Number	:

10	1	10#	10#	
----	---	-----	-----	--

Only available on Signal B. Message type is truncated for public signals.

APPENDIX G

TB Equity Trade (Short Form) – 81 Bytes (109 Bytes – Signal 'B')

: Sequence	: Message	: Retransmit	: Exchange	: Time	:
: Number	: Type	: I.D.	: I.D.	:	:
6	2	1	1	6	
: Issuer	: Security	: Security	: Ticker	: Buyer	:
: Code	: Code	: Type	: Permission	: I.D.	:
:	:	:	: Indicator	:	:
3	3	2	1	4	
: Seller	: Sale	: Sale	: Sale	: Serial	:
: I.D.	: Price	: Volume	: Value	: Trade	:
:	:	:	:	: Qualifier	:
4	9	9	12	4	
: Trade	: Trade	: Buyer Order	: Seller Order	: Settlement	:
: Date	: Serial No.	: Reference No.	: Reference No.	: Date	:
8	6	10#	10#	8#	

Only available on Signal B. Message type is truncated for all other signals.

APPENDIX G

TG Equity Trade Cancellation – 133 Bytes (153 Bytes – Signal 'B')

: Sequence : Number	: Message : Type	: Retransmit : I.D.	: Exchange : I.D.	: Time :	: :
6	2	1	1	6	
: Issuer : Code :	: Security : Code :	: Security : Type :	: Ticker : Permission : Indicator	: Buyer : I.D. :	: : :
3	3	2	1	4	
: Seller : I.D. :	: Sale : Price :	: Sale : Volume :	: Sale : Value :	: Serial : Trade : Qualifier	: : :
4	9	9	12	4	
: Trade : Date	: Trade : Serial No.	: Condition : Codes	: As At : Date	: Settlement : Date	: Basis of : Quotation
8	6	16	8	8	10
: Original : Trade Capture: : Date	: Reversal : Reason : Code	: Special : Market : Indicator	: Buyer Order : Reference : Number	: Seller Order : Reference : Number	: : :
8	1	1	10#	10#	

Only available on Signal B. Message type is truncated for public signals.

APPENDIX H

CA Bonus Corporate Action – 225 bytes

Name	Column*	Size	Comments
Sequence Number	A	6	000001
Message Type	B	2	SI
Retransmit ID	C	1	0
Corporate Action ID	D	9	000010108 (note new ID provided by C&S Ops for each corp action)
Dependent Corporate Action ID	E	9	000000000
Corporate Action Type Code	F	2	BN
Parent ISIN	G	12	AU000000BWC1
Corporate Action Tran Type Code	H	1	A
Ex Date	I	8	20110822
Record Date Parent	J	8	20110826
Despatch Date New Shares	K	8	20110901
Subject Parent Issuer Code	L	3	BWC
Subject Parent Security Code	M	3	3 spaces (shown in example below as underscore)
Parent Adjustment Type Code	N	1	B
Parent Action Code	O	1	A
Parent Adjustment Date	P	8	20110830
Parent Original Adjustment Date	Q	8	00000000
Object Bonus Issuer Code	R	3	BWC
Object Bonus Security Code	S	3	BN and 1 space
Calculation Method	T	1	1
Terms Multiplier	U	5	00001
Terms Divisor	V	5	00002
Fraction Rounding	W	3	100
Entitlement Multiples	X	5	00000
Cash Adjustment	Y	7	0000001
Subject ASX Issuer Code	Z	3	3 spaces (shown in example below as underscore)
Subject ASX Security Code	AA	3	3 spaces (shown in example below as underscore)
ASX Adjustment Type Code	AB	1	1 space (shown in example below as underscore)
ASX Action Code	AC	1	1 space (shown in example below as underscore)

APPENDIX H

CA Bonus Corporate Action – 225 bytes

Name	Column*	Size	Comments
ASX Adjustment Date	AD	8	00000000
ASX Original Adjustment Date	AE	8	00000000
Object ASX Issuer Code	AF	3	N/A
Object ASX Security Code	AG	3	N/A
Shares Issued	AH	12	N/A
Pari Passu Indicator	AI	1	N/A
Comment	AJ	60	N/A

EXAMPLE OF TXT FILE

Based on the signal data above, your Bonus Corporate Action TXT file should look like below **except it should be all on one line.**

```
000001SI00000101080000000000BNAU000000BWC1A201108222011082620110901BWC__
_BA2011080300000000BWCBN_1000010000210000000000001_-----0000000000000000
```

See calendar (below) for dates used in this example to help you work out the new dates for your file. **It's important to note the number of days between dates and not to squash them any closer together otherwise the file will reject.**

Australian
Securities
Exchange
Settlement
Days



August 2011						
S	M	T	W	T	F	S
	No Settlement 1 4 Aug Bank Holiday (NSW)	27 Jul 2 5 Aug	28 Jul 3 8 Aug	29 Jul Et 1 Aug 4 9 Aug	2 Aug 5 10 Aug	6
7	3 Aug 8 11 Aug	4 Aug 9 12 Aug	5 Aug 10 15 Aug	8 Aug 11 16 Aug	9 Aug 12 17 Aug	13
14	10 Aug 15 18 Aug	11 Aug 16 19 Aug	12 Aug 17 22 Aug	15 Aug 18 23 Aug	16 Aug 19 24 Aug	20
21	17 Aug 22 25 Aug	18 Aug 23 26 Aug	19 Aug 24 29 Aug	22 Aug 25 30 Aug	23 Aug 26 31 Aug	27
28	24 Aug 29 1 Sep	25 Aug 30 2 Sep	26 Aug 31 5 Sep			

Australian
Securities
Exchange
Settlement
Days



ASX
AUSTRALIAN SECURITIES EXCHANGE
ABN 98 008 624 691

September 2011						
S	M	T	W	T	F	S
				29 Aug 1	30 Aug 2	3
4	31 Aug 5	1 Sep 6	2 Sep 7	5 Sep 8	6 Sep 9	10
11	7 Sep 12	8 Sep 13	9 Sep 14	12 Sep 15	13 Sep 16	17
18	14 Sep 19	15 Sep 20	16 Sep 21	19 Sep 22	20 Sep 23	24
25	21 Sep 26	22 Sep 27	23 Sep 28	26 Sep 29	27 Sep 30	

APPENDIX H

CA Dividend Payment Corporate Action – 372 bytes

Name	Column*	Size	Comments
Sequence Number	A	6	000001
Message Type	B	2	SI
Retransmit ID	C	1	0
Corporate Action ID	D	9	000010108 (note new ID provided by C&S Ops for each corp action)
Dependent Corporate Action ID	E	9	000000000
Corporate Action Type Code	F	2	DV
Parent ISIN	G	12	AU000000BWD9
Corporate Action Tran Type Code	H	1	A
Ex Date	I	8	20110823
Record Date Parent	J	8	20110829
Dividend Payable Date	K	8	20110901
Subject Parent Issuer Code	L	3	BWD
Subject Parent Security Code	M	3	3 spaces (shown in example below as underscore)
Parent Adjustment Type Code	N	1	D
Parent Action Code	O	1	A
Parent Adjustment Date	P	8	20110831
Parent Original Adjustment Date	Q	8	00000000
Current Dividend Amount	R	10	0000040000
Dividend Sub-Type	S	1	N/A
Special Indicator	T	1	N/A
DRP Indicator	U	1	N/A
BSP Indicator	V	1	N/A
Foreign Source Dividend Amount	W	10	N/A
Dividend Currency	X	3	N/A
Withholding Tax Rate (Non-Residents)	Y	5	N/A
Foreign Tax Credits Per Share	Z	10	N/A
Reserved Field	AA	10	N/A
Tax Deferred Amount	AB	10	N/A
Tax Advantaged Amount	AC	10	N/A
Tax Advantaged Type	AD	1	N/A
Foreign Currency Amount	AE	10	N/A

Franked Amount	AF	8	N/A
----------------	----	---	-----

APPENDIX H

CA Dividend Payment Corporate Action – 372 bytes

Name	Column*	Size	Comments
Franked Percent	AG	5	N/A
Estimated Trust Distribution Amount	AH	10	N/A
Scrip Dividend Amount	AI	8	N/A
Special Dividend Amount	AJ	10	N/A
Comment	AK	60	N/A
Last Election Date	AL	8	N/A
Despatch Date (DRP Shares)	AM	8	N/A
ASX Code New Shares (DRP Shares)	AN	6	N/A
Pari Passu Indicator	AO	1	N/A
DRP Discount Rate	AP	5	N/A
DRP Calculation Period Start Date	AQ	8	N/A
DRP Calculation Period End Date	AR	8	N/A
DRP Maximum Shares	AS	10	N/A
DRP Maximum Amount	AT	12	N/A
DRP Minimum Shares	AU	10	N/A
DRP Minimum Amount	AV	12	N/A
DRP Price	AW	10	N/A

EXAMPLE OF TXT FILE

Based on the signal data above, your Dividend Corporate Action TXT file should look like below **except it should be all on one line.**

```
000001SI0000010108000000000DVAAU000000BWD9A201108232011082920110901BWD
___DA20110831000000000000040000
```

See calendar (below) for dates used in this example to help you work out the new dates for your file. **It's important to note the number of days between dates and not to squash them any closer together otherwise the file will reject.**

Australian Securities Exchange Settlement Days



August 2011						
S	M	T	W	T	F	S
	No Settlement 1 4 Aug Bank Holiday (NSW)	2 27 Jul	3 28 Jul	4 29 Jul Et 1 Aug	5 2 Aug	6
7	8 3 Aug	9 4 Aug	10 5 Aug	11 8 Aug	12 9 Aug	13
14	15 10 Aug	16 11 Aug	17 12 Aug	18 15 Aug	19 16 Aug	20
21	22 17 Aug	23 18 Aug	24 19 Aug	25 22 Aug	26 23 Aug	27
28	29 24 Aug	30 25 Aug	31 26 Aug			

Australian Securities Exchange Settlement Days



September 2011						
S	M	T	W	T	F	S
				1 29 Aug	2 30 Aug	3
4	5 31 Aug	6 1 Sep	7 2 Sep	8 5 Sep	9 6 Sep	10
11	12 7 Sep	13 8 Sep	14 9 Sep	15 12 Sep	16 13 Sep	17
18	19 14 Sep	20 15 Sep	21 16 Sep	22 19 Sep	23 20 Sep	24
25	26 21 Sep	27 22 Sep	28 23 Sep	29 26 Sep	30 27 Sep	

APPENDIX H

CA Non Renounceable Corporate Action – 282 bytes

Name	Column*	Size	Comments
Sequence Number	A	6	
Message Type	B	2	
Retransmit ID	C	1	
Corporate Action ID	D	9	
Dependent Corporate Action ID	E	9	
Corporate Action Type Code	F	2	
Parent ISIN	G	12	
Corporate Action Tran Type Code	H	1	
Ex Date	I	8	
Record Date Parent	J	8	
Application Close Date	K	8	
Despatch Date New Shares	L	8	
Subject Parent Issuer Code	M	3	
Subject Parent Security Code	N	3	
Parent Adjustment Type Code	O	1	
Parent Action Code	P	1	
Parent Adjustment Date	Q	8	
Parent Original Adjustment Date	R	8	
Object Entitlement Issuer Code	S	3	
Object Entitlement Security Code	T	3	
Calculation Method	U	1	
Terms Multiplier	V	5	
Terms Divisor	W	5	
Fraction Rounding	X	3	
Entitlement Multiples	Y	5	
Cash Adjustment	Z	7	
Subject Entitlement Issuer Code	AA	3	
Subject Entitlement Security Type Code	AB	3	
Entitlement Adjustment Type Code	AC	1	
Entitlement Action Code	AD	1	
Entitlement Adjustment Date	AE	8	
Entitlement Original Adjustment Date	AF	8	

continued

APPENDIX H

CA Non Renounceable Corporate Action – 282 bytes

Name	Column*	Size	Comments
Object New Issuer Code	AG	3	
Object New Security Code	AH	3	
Application Capital	AI	9	
Application Premium	AJ	9	
Application Premium Sign	AK	1	
Subject ASX Issuer Code	AL	3	
Subject ASX Security Code	AM	3	
ASX Adjustment Type Code	AN	1	
ASX Action Code	AO	1	
ASX Adjustment Date	AP	8	
ASX Original Adjustment Date	AQ	8	
Object ASX Issuer Code	AR	3	
Object ASX Security Code	AS	3	
Shares Issued	AT	12	
Pari Passu Indicator	AU	1	
Comment	AV	60	

* Column location of the field if the file is opened in a spreadsheet.

APPENDIX H

CA Renounceable Corporate Action – 314 bytes

Name	Column*	Size	Comments
Sequence Number	A	6	000001
Message Type	B	2	SI
Retransmit ID	C	1	0
Corporate Action ID	D	9	000010081 (note new ID provided by C&S Ops for each corp action)
Dependent Corporate Action ID	E	9	000000000
Corporate Action Type Code	F	2	RR
Parent ISIN	G	12	AU000000BWC1
Corporate Action Tran Type Code	H	1	A
Ex Date	I	8	20110721
Record Date Parent	J	8	20110727
Despatch Date Rights	K	8	20110729
Cessation Date Rights	L	8	20110805
Record Date Rights	M	8	20110808
Renunciation Close Date	N	8	20110808
Application Close Date	O	8	20110808
Despatch Date New Shares	P	8	20110812
Subject Parent Issuer Code	Q	3	BWC
Subject Parent Security Code	R	3	3 spaces (shown in below example as underscore)
Parent Adjustment Type Code	S	1	R
Parent Action Code	T	1	A
Parent Adjustment Date	U	8	20110728
Parent Original Adjustment Date	V	8	00000000
Object Rights Issuer Code	W	3	BWC
Object Rights Security Code	X	3	R & 2 spaces (shown in below example as underscore)
Calculation Method	Y	1	1
Terms Multiplier	Z	5	00246
Terms Divisor	AA	5	00100
Fraction Rounding	AB	3	100
Entitlement Multiples	AC	5	00000
Cash Adjustment	AD	7	0000001
Subject Rights Issuer Code	AE	3	BWC

APPENDIX H

CA Renounceable Corporate Action – 314 bytes

Name	Column*	Size	Comments
Subject Rights Security Code	AF	3	000001
Rights Adjustment Type Code	AG	1	R & 2 Spaces (shown in below example as underscore)
Rights Action Code	AH	1	M
Rights Adjustment Date	AI	8	A
Rights Original Adjustment Date	AJ	8	20110809
Object New Issuer Code	AK	3	00000000
Object New Security Code	AL	3	BWC
Application Capital	AM	9	BN & 1 space
Application Premium	AN	9	000000100
Application Premium Sign	AO	1	000000000
Subject ASX Issuer Code	AP	3	1 space
Subject ASX Security Code	AQ	3	BWC
ASX Adjustment Type Code	AR	1	BN & 1 space
ASX Action Code	AS	1	A
ASX Adjustment Date	AT	8	A
ASX Original Adjustment Date	AU	8	20110815
Object ASX Issuer Code	AV	3	00000000
Object ASX Security Code	AW	3	BWC
Shares Issued	AX	12	3 spaces
Pari Passu Indicator	AY	1	N/A
Comment	AZ	60	N/A

EXAMPLE OF TXT FILE

Based on the signal data above, your RR Corp Action TXT file should look like below **except it should be all on one line.**

```
000001SI0000010081000000000RRAU000000BWC1A20110721201107272011072920110805
20110808201108082011080820110812BWC__RA2011072800000000BWCR__100246
0010010000000000001BWCR__MA2011080900000000BWCBN_00000010000000000_
BWCBN_AA2011081500000000BWC__ _
```

See calendar (below) for dates used in this example to help you work out the new dates for your file. **It's important to note the number of days between dates and not to squash them any closer together otherwise the file will reject.**

Australian Securities Exchange Settlement Days



ASX
AUSTRALIAN SECURITIES EXCHANGE
ABN 98 008 624 691

July 2011						
S	M	T	W	T	F	S
31					28 Jun 1 6 Jul	2
3	29 Jun 4 7 Jul	30 Jun 5 8 Jul	1 Jul 6 11 Jul	4 Jul 7 12 Jul	5 Jul 8 13 Jul	9
10	6 Jul 11 14 Jul	7 Jul 12 15 Jul	8 Jul 13 18 Jul	11 Jul 14 19 Jul	12 Jul 15 20 Jul	16
17	13 Jul 18 21 Jul	14 Jul 19 22 Jul	15 Jul 20 25 Jul	18 Jul 21 26 Jul	19 Jul 22 27 Jul	23
24	20 Jul 25 28 Jul	21 Jul 26 29 Jul	22 Jul 27 2 Aug	25 Jul 28 3 Aug	26 Jul 29 4 Aug	30

Australian Securities Exchange Settlement Days



ASX
AUSTRALIAN SECURITIES EXCHANGE
ABN 98 008 624 691

August 2011						
S	M	T	W	T	F	S
	No Settlement 1 4 Aug Bank Holiday (NSW)	27 Jul 2	28 Jul 3	29 Jul Et 1 Aug 4	2 Aug 5	6
7	3 Aug 8 11 Aug	4 Aug 9 12 Aug	5 Aug 10 15 Aug	8 Aug 11 16 Aug	9 Aug 12 17 Aug	13
14	10 Aug 15 18 Aug	11 Aug 16 19 Aug	12 Aug 17 22 Aug	15 Aug 18 23 Aug	16 Aug 19 24 Aug	20
21	17 Aug 22 25 Aug	18 Aug 23 26 Aug	19 Aug 24 29 Aug	22 Aug 25 30 Aug	23 Aug 26 31 Aug	27
28	24 Aug 29 1 Sep	25 Aug 30 2 Sep	26 Aug 31 5 Sep			